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Voluntary Reporting of Greenhouse Gases 2004

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Energy Information Administration
Office of Integrated Analysis and Forecasting
U.S. Department of Energy
Washington, DC 20585

This publication is on the WEB at:
www.eia.doe.gov/oiaf/1605/vrrpt/index.html.

For More Information

Individuals or members of organizations wishing to report reductions in emissions of greenhouse gases under the auspices of the Voluntary Reporting of Greenhouse Gases Program can contact the Energy Information Administration (EIA) at:

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U.S. Department of Energy
Forrestal Building
EI-81, Room 2F-081
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For reporting purposes, EIA has both a long form (EIA-1605) and a short form (EIA-1605EZ) available, as well as an electronic version of the form. They are available upon request or on EIA's web site at *www.eia.doe.gov/oiaf/1605/forms.html*.

The reports submitted to EIA are compiled into a database that can be obtained on CD-ROM by contacting the Voluntary Reporting of Greenhouse Gases Program Communications Center at 1-800-803-5182 or can be downloaded from EIA's web site at *www.eia.doe.gov/oiaf/1605/database.html*.

General or specific technical information concerning the contents of this report may also be obtained by contacting the Voluntary Reporting of Greenhouse Gases Program.

Preface

Title XVI, Section 1605(b) of the Energy Policy Act of 1992 (EPACT) directed the Energy Information Administration (EIA) to establish a mechanism for "the voluntary collection and reporting of information on . . . annual reductions of greenhouse gas emissions and carbon fixation achieved through any measures, including fuel switching, forest management practices, tree planting, use of renewable energy, manufacture or use of vehicles with reduced greenhouse gas emissions, appliance efficiency, methane recovery, cogeneration, chlorofluorocarbon capture and replacement, and power plant heat rate improvement . . . ."

The legislation further instructed EIA to create forms for the reporting of greenhouse gas emissions and reductions, and to establish a database of the information voluntarily reported under this subsection of EPACT. The reporting Forms EIA-1605 and EIA-1605EZ, "Voluntary Reporting of Greenhouse Gases," were first made available to the public in July 1995, providing a vehicle for voluntary reporting on activities that occurred before and during 1994. This publication summarizes data reported for 2004, the eleventh year of data collection for the Voluntary Reporting of Greenhouse Gases Program.

The data reported to the Program are available through several media. All nonconfidential reports received by the Program are compiled into a Public Use Database, available on CD-ROM or by download from the Internet. The software is interactive and modular by design, allowing the user to select, view, or print the reports filed by the voluntary reporters for each year of their participation. The user can also connect to and query the database with Microsoft Access 97 (or later versions) or other software that supports 32-bit open database connectivity (ODBC).

The Public Use Database and the current reporting software are also available at the Program's FTP (File Transfer Protocol) site on the Internet at *http://www.eia.doe.gov/oiaf/1605/database.html*. Interested parties are encouraged to visit the Program's home page at *http://www.eia.doe.gov/oiaf/1605/frntvrgg.html* for more information and background on the Program. Software, additional copies of this report, paper reporting forms, and technical support information can be downloaded from that web site or obtained from the Voluntary Reporting of Greenhouse Gases Communications Center by e-mail at *infoghg@eia.doe.gov*, toll-free at 1-800-803-5182, or locally at 202-586-0688.

This report was prepared under the guidance of John Conti, Director of EIA's Office of Integrated Analysis and Forecasting. Significant contributions to the Program, the current software, and the preparation of this report have been made by Paul McArdle, Stephen Calopedis, Matthew Aberant, Emily Crego, Keith Forbes, Laura Gehlin, Sarah Goldstein, Michael Mondshine, Dick Richards, Rossen Roev, Charles L. Smith, and Peggy Wells.

EIA would like to express special thanks to the voluntary reporters, without whom this program would not be possible.

Contents

Special Topics

Tables

Tables (Continued)

Page

Appendix Tables

Figures

Executive Summary

Introduction

The Voluntary Reporting of Greenhouse Gases Program, required by Section 1605(b) of the Energy Policy Act of 1992, records the results of voluntary measures to reduce, avoid, or sequester greenhouse gas emissions. For the 2004 reporting year, 226 U.S. companies and other organizations reported to the Energy Information Administration (EIA) that they had undertaken 2,154 projects to reduce or sequester greenhouse gases in 2004. The reported greenhouse gas emission reductions for the projects reported included 277 million metric tons carbon dioxide equivalent (million $MTCO_2e$) of direct reductions, 92 million $MTCO_2e$ of indirect reductions, 7 million $MTCO_2e$ of reductions from carbon sequestration, and 14 million $MTCO_2e$ of unspecified reductions (Table ES1). Total U.S. greenhouse gas emissions in 2004 are estimated at 7,122 million $MTCO_2e$.[1]

Direct reductions are emission reductions from sources owned or leased by the reporting entity; indirect reductions are emission reductions from sources not owned or leased by the reporting entity but that occur as a result of the entity's activities; carbon sequestration reductions represent the removal of atmospheric carbon to a carbon sink; and unspecified reductions represent emission reductions reported on Form EIA-1605EZ, which does

Table ES1. Reporting Indicators for the Voluntary Reporting of Greenhouse Gases Program, Data Years 1994-2004

Indicator	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003(R)	2004
Number of Entities Reporting	108	142	150	162	207	207	236	232	234	234	226
Number of Projects Reported	634	960	1,040	1,288	1,549	1,722	2,089	1,897	2,055	2,222	2,154
Number of Entity-Level Reports Received	40	51	56	60	76	83	108	114	119	130	122
Project-Level Reductions Reported (Million Metric Tons Carbon Dioxide Equivalent)											
Direct[a]	63	88	90	95	148	155	211	247	265	270	277
Modified Reference Case[b]	59	76	75	88	127	126	176	209	257	262	277
Basic Reference Case[c]	4	13	15	7	21	29	35	38	8	7	*
Indirect[d]	5	52	53	38	43	57	62	72	80	81	92
Modified Reference Case[b]	5	52	51	36	38	51	57	61	78	75	85
Basic Reference Case[c]	0	1	3	2	5	6	5	11	2	6	6
Sequestration[e]	1	1	9	10	12	10	9	8	7	8	7
Unspecified[f]	4	6	6	9	19	13	12	15	17	16	14

[a]"Direct" emission reductions are reductions in releases of greenhouse gases "on site." For the purpose of completing Form EIA-1605, "on site" is defined as any source owned (wholly or in part) or leased by the reporting entity.

[b]In a "modified reference case," actual emissions (or sequestration) are compared to an estimate of what emissions (or sequestration) would have been in the absence of the project.

[c]In a "basic reference case," actual emissions (or sequestration) are compared with an estimate of historical emissions (or sequestration) in a particular base year or an average of up to 4 years.

[d]"Indirect" emission reductions are reductions in emissions from sources not owned or leased by the reporting entity but that occur, wholly or in part, as a result of the entity's activities (for example, an automobile manufacturer's investment in increased automotive fuel economy can result in decreased emissions from vehicles owned by individuals or managed fleets).

[e]"Sequestration" is the fixation of atmospheric carbon dioxide in a carbon sink through biological or physical processes, such as photosynthesis.

[f]"Unspecified" emission reductions represent quantities reported on the short form (Form EIA-1605EZ) for which the reporting entity did not specify whether the emission reduction or carbon sequestration was direct or indirect.

*Less than 0.5 million $MTCO_2e$. (R) = revised.

Notes: 2003 data have been revised to include reports that were submitted after the filing deadline. It is expected that the 2004 data will also be revised upward in next year's report with the inclusion of late 2004 reports. Totals for direct and indirect reductions may not equal sum of components due to independent rounding.

Source: Energy Information Administration, Forms EIA-1605 and EIA-1605EZ.

[1]Energy Information Administration, *Emissions of Greenhouse Gases in the United States 2004*, DOE/EIA-0573(2004) (Washington, DC, December 2005), web site www.eia.doe.gov/oiaf/1605/ggrpt.

not allow the reporter to specify whether the emission reduction was a direct or indirect reduction.

To calculate reported emission reductions, reporters are allowed to use a "basic" reference case or a "modified" reference case. A reference case is an emissions or sequestration level that is compared against actual emissions in order to estimate emission reductions. A "basic" reference case uses actual historical emissions (or sequestration) in a specific year, or an average of a range of years. In a "modified" reference case, an estimate is made of what emissions or sequestration would have been in the absence of the project.

Generally, as illustrated in Table ES1, most reductions are reported relative to a modified reference case. For 2004, nearly all (99.8 percent) of the of the total 277 million $MTCO_2e$ of reported direct reductions was based on modified reference cases. For reported indirect reductions, 85 million $MTCO_2e$, or 93 percent, of the total 92 million $MTCO_2e$ of reported indirect reductions was based on modified reference cases.

The number of entities (226) reporting to the Voluntary Reporting Program for 2004 is slightly lower than the number that reported for 2003; however, the number of reporters for 2003 has been revised upward to include seven additional entities that filed late reports after the closing of the 2003 database. EIA also expects a similar upward revision in the number of 2004 reporters in next year's report, to reflect late reporters for the 2004 reporting cycle. As of February 2006, EIA had received five additional 2004 reports and one additional 2003 report since the closing of the 2004 database in preparation for this annual report.[2] In addition, Tucson Electric Company submitted a 2004 report by the deadline, which EIA inadvertently failed to process in time for inclusion in this report's database.

Since the inception of the program in 1994, the number of entities reporting to the program has grown by 109 percent, when 108 entities reported. The number of reported projects has grown at a more rapid rate than the number of reporters, because the number of projects reported by repeat reporters has increased. The 2,154 projects reported for 2004 represent an increase of 234 percent over the 645 projects reported in 1994 but a 3-percent decline from the final total of 2,224 projects reported for 2003.

Of the 226 organizations reporting for 2004, 122 provided entity-level reports, including estimates of emissions and/or emission reductions for their entire organizations. In addition, 86 of the reporters for 2004 recorded commitments to take action to reduce emissions in the future.

Of the 122 organizations reporting at the entity level, 116 estimated their 2004 entity-level greenhouse gas emissions. These entities reported direct greenhouse gas emissions of 934 million $MTCO_2e$, equal to about 13 percent of total U.S. greenhouse gas emissions in 2004.[3] They also reported 75 million $MTCO_2e$ of indirect emissions, equal to about 1 percent of total U.S. greenhouse gas emissions in 2004. Of the 122 entity-level reporters, 115 also reported emission reductions, including 208 million $MTCO_2e$ of direct emission reductions, 48 million $MTCO_2e$ of indirect emission reductions, and 7 million $MTCO_2e$ of emission reductions resulting from carbon sequestration projects.

Participants in 24 different industries or services submitted reports for 2004, as compared with the 28 different industries or services reporting for 2003. The number of different industries represented continues to be higher than it was in the first year of the program (1994 data year), when the 108 reports received included participants in 9 different industries or services (Table ES2). In the early years of the program, the majority of reporters came from the electric power sector. In the first reporting year, the 95 submissions from electric power producers represented 88 percent of the 108 reports received (Figure ES1). Since then, the program has seen an influx of new participants from outside the electric power sector, representing a diverse set of other industries. In addition, several mergers and acquisitions involving reporters to the program have accompanied the ongoing restructuring of the electric power industry. Many of these merged entities have submitted single, consolidated reports, thus reducing the number of reports received from electricity producers. As a result, only 42 percent of the organizations reporting to the program for 2004 (94 firms) were from the electric power sector.

Although the number of reporters from other individual industries remains relatively small, in many cases, reports were received from key companies in those other industries: for example, DaimlerChrysler Corporation, General Motors, the Ford Motor Company, Nissan North America, and Toyota North America in the automotive products industry; Noranda and an operating division of Alcan's Primary Products in the metals industry; Sunoco, Inc., ChevronTexaco Corporation, and BP America in the petroleum industry;

[2]The deadline for submitting reports to EIA for inclusion in each annual edition of the Public Use Database is June 1. EIA typically grants reporters extensions to the deadline, usually until early July, before closing the database to new reports to allow analysis of the information for the annual report. EIA includes reports received after the database has been closed in the next annual edition of the Public Use Database and revises the data for that reporting year in the corresponding annual report, to reflect the addition of late reports.

[3]Based on total emissions from Energy Information Administration, *Emissions of Greenhouse Gases in the United States 2004*, DOE/EIA-0573(2004) (Washington, DC, December 2005), web site www.eia.doe.gov/oiaf/1605/ggrpt.

Table ES2. Forms Filed by Standard Industrial Classification, Data Years 1994-2004 (Number of Reports)

SIC Code	Description	Data Year										
		1994	1995	1996	1997	1998	1999	2000	2001	2002	2003(R)	2004
01	Agricultural Production: Crops	—	—	—	—	1	—	—	1	—	—	—
08	Forestry	1	2	1	1	3	3	1	—	1	2	3
12	Coal Mining	1	2	2	1	4	4	4	6	7	4	4
13	Oil and Gas Extraction	—	—	—	—	—	1	1	1	2	2	1
14	Nonmetallic Minerals, Except Fuels	—	—	—	—	1	1	—	—	—	—	—
20	Food and Kindred Products	—	—	—	—	1	2	6	4	4	4	2
22	Textile Mill Products	—	—	—	—	—	1	5	11	12	14	14
23	Apparel and Other Textile Products	—	—	—	—	—	—	1	1	2	2	2
24	Lumber and Wood Products	—	—	—	—	—	—	1	1	—	1	—
25	Furniture and Fixtures	—	—	—	—	—	—	1	1	1	—	—
26	Paper and Allied Products	—	—	—	—	—	1	1	—	—	—	—
27	Printing and Publishing	—	1	—	1	—	1	1	—	—	—	—
28	Chemical and Allied Products	1	3	2	3	8	5	11	9	11	11	12
29	Petroleum Refining and Other Related Industries	—	—	2	3	8	8	7	6	6	5	5
30	Rubber and Miscellaneous Plastic Products	—	—	—	—	—	—	2	2	2	2	2
32	Stone, Clay, Glass, and Concrete Products	—	—	2	4	12	13	7	5	5	5	5
33	Primary Metals Industries	2	2	4	4	5	5	5	11	11	13	13
34	Fabricated Metal Products, Except Machinery and Transportation Equipment	—	2	1	1	4	2	2	1	1	1	1
35	Industrial and Commercial Equipment and Components	—	—	—	—	—	—	1	1	1	2	2
36	Electronic and Other Electrical Equipment	1	1	2	4	4	4	9	9	8	6	5
37	Transportation Equipment	1	1	1	2	3	5	6	7	9	10	10
38	Instruments and Related Products	—	—	—	—	2		1	1	1	1	1
39	Miscellaneous Manufacturing Industries	—	1	1	—	2	2	1	1	1	1	—
40	Railroad Transportation	—	—	—	—	—	—	—	—	—	1	1
48	Communications	—	—	—	—	—	1	—	—	1	1	1
49	Electric, Gas, and Sanitary Services	98	123	125	129	138	135	151	145	138	145	136
57	Furniture and Home Furnishings Stores	—	—	—	—	2	1	1	—	1	1	1
63	Insurance Carriers	—	—	—	—	—	—	—	—	—	1	1
65	Real Estate	—	1	1	1	1	1	1	1	1	—	—
67	Holding and Other Investment Offices	—		1	1	1	1	1	1	2	2	1
72	Personal Services	—	—	—	—	—	—	1	1	1	1	1
80	Health Services	—	—	—	—	1	—	—	—	—	—	—
82	Educational Services	1	2	2	2	—	2	—	—	—	—	—
86	Membership Organizations	—	—	—	1	1	1	1	—	1	—	—
87	Engineering and Management Services	—	—	2	2	2	1	—	1	—	—	—
88	Private Households	2	1	1	1	1	1	1	1	1	1	2
89	Services Not Elsewhere Classified	—	—	—	1	1	3	2	1	1	1	—
91	Executive, Legislative, and General	—	—	—	—	1	2	2	2	1	1	—
97	National Security and International Affairs	—	—	—	—	—	—	1	—	—	—	—
99	Nonclassifiable Establishments	—	—	—	—	—	—	—	—	1	—	—
Total Number of Reporters		**108**	**142**	**150**	**162**	**207**	**207**	**236**	**232**	**234**	**241[a]**	**226**
Number of 2-Digit SIC Codes Represented		**9**	**13**	**16**	**18**	**24**	**27**	**31**	**27**	**29**	**28[a]**	**24**

[a]Includes 7 late reports for the 2003 data year. The 2004 total will also be revised upward in next year's report with the inclusion of additional 2004 reports. As of February 17, 2006, EIA had received 5 late reports for 2004. In addition, Tucson Electric Company submitted a 2004 report by the deadline, which EIA inadvertently failed to process in time for inclusion in this report's database.

(R) = Revised.

Note: The Voluntary Reporting of Greenhouse Gases database was designed in 1994-1995, when the Standard Industrial Classification (SIC) system was still in use. For the 2006 data year reporting cycle (to be conducted in calendar year 2007), EIA plans to modify the database to use the North American Industry Classification System (NAICS), which was introduced in 1997 by the United States, Canada, and Mexico to provide comparability in statistics about business activity across North America.

Source: Energy Information Administration, Forms EIA-1605 and EIA-1605EZ.

Johnson & Johnson and The Dow Chemical Company in the chemicals industry; Rolls Royce in the aerospace industry; Bristol-Myers Squibb Company and Pfizer Pharmaceuticals, LLC, in the pharmaceuticals industry; and Advanced Micro Devices, Inc., and IBM in the electronic equipment industry.

Projects Reported

Electric power sector reporters (including independent power producers) accounted for 1,489 (69 percent) of the projects reported for 2004. Also reporting were alternative energy providers (382 projects), industrial concerns (264 projects), and agriculture and forestry organizations (4 projects). Organizations in other sectors (government, commercial, and residential) submitted reports on 15 projects.

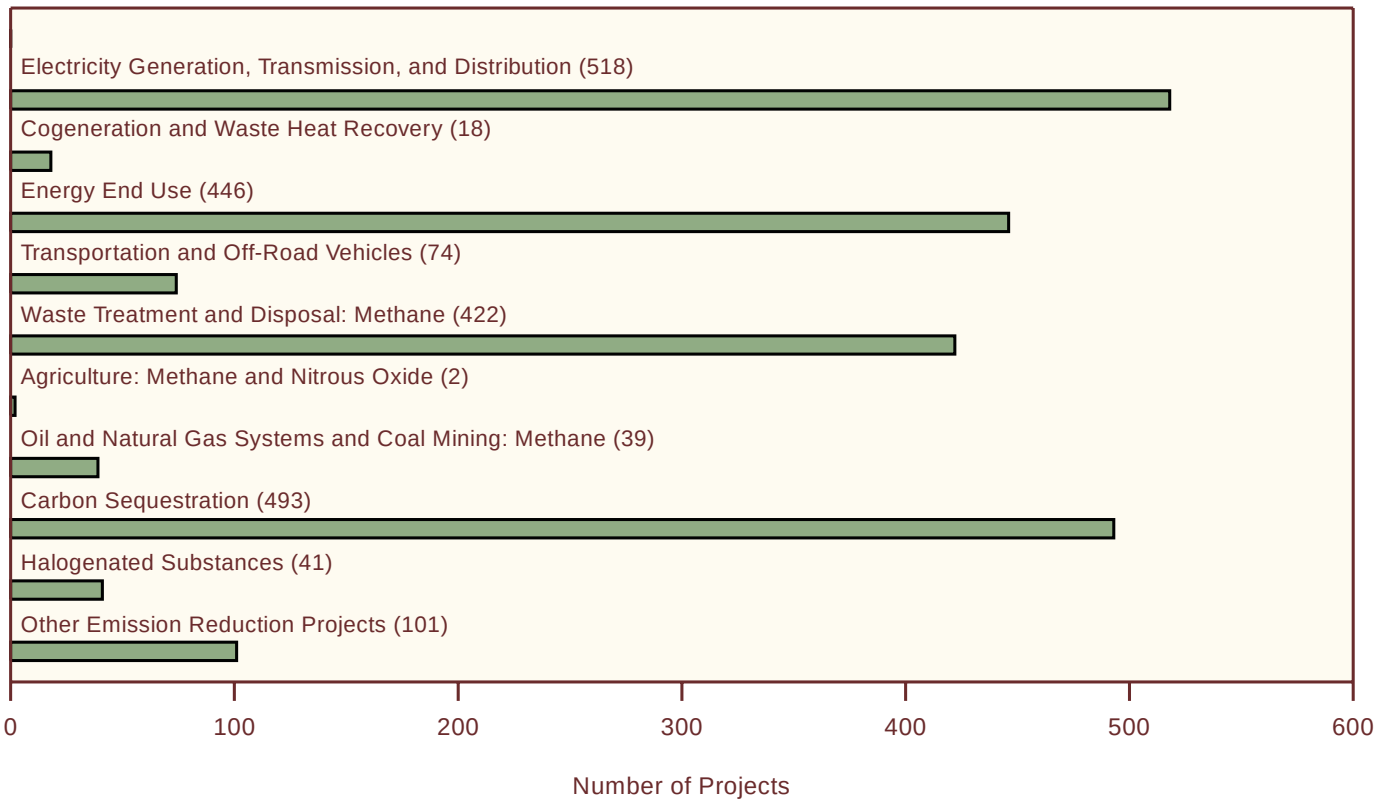
Most of the projects reported for 2004 affected energy supply or use. The electric power sector reported 518 projects that were related to the generation, transmission, or distribution of electricity (Figure ES1). Another 446 were related to energy end use, 74 were transportation projects, and 18 were cogeneration projects. Other projects reduced emissions of methane from waste treatment and disposal facilities (422 projects), from oil and natural gas systems and coal mines (39 projects, many of which included the displacement of fossil fuels through the use of methane as a fuel), and from agricultural activities (2 projects). Other projects (101) included the reuse of fly ash in concrete and materials recycling, which reduce emissions in part by reducing energy consumption. The largest reductions were reported for projects that improved the performance of nuclear power plants. The non-energy-related projects reported fell into two major categories: sequestration of carbon, usually in forests (493 projects); and recycling, reuse, or destruction of halogenated substances, such as hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6) (41 projects).

Reductions Reported

Electric Power

For 2004, 487 electric power and cogeneration projects were reported on Form EIA-1605. Total emission reductions from electric power and cogeneration projects reported on Form EIA-1605 (the long form) included 174 million $MTCO_2e$ from direct sources and 19 million

Figure ES1. Number of Projects Reported to the Voluntary Reporting of Greenhouse Gases Program by Project Type, Data Year 2004



Source: Energy Information Administration, Forms EIA-1605 and EIA-1605EZ.

$MTCO_2e$ from indirect sources. There were 257 projects reported that reduced the carbon content of fuels used to generate electricity, with emission reductions totaling 160 million $MTCO_2e$ from direct sources and 17 million $MTCO_2e$ from indirect sources. Reported emission reductions for the 258 projects that increased energy efficiency in generation, transmission, and distribution included 18 million $MTCO_2e$ from direct sources and 2 million $MTCO_2e$ from indirect sources. Reporters using Form EIA-1605EZ (the short form) submitted information on another 49 electric power and cogeneration projects for 2004, with reported emission reductions from unspecified sources totaling 12 million $MTCO_2e$.[4]

Energy End Use and Transportation

For 2004, 410 energy end use and transportation projects were reported on Form EIA-1605, with total reported emission reductions of 25 million $MTCO_2e$ from direct sources and 14 million $MTCO_2e$ from indirect sources. Nearly all (93 percent) of the reported energy end-use reductions involved stationary-source applications, such as building shell improvements, lighting and lighting control, appliance improvement or replacement, and heating, ventilation and air conditioning (HVAC) improvements. Participants using the long form reported much smaller reductions for 65 transportation projects, including 2.7 million $MTCO_2e$ from direct sources and 0.2 million $MTCO_2e$ from indirect sources. Participants using Form EIA-1605EZ reported another 110 energy end-use and transportation projects for 2004, with total emission reductions of 0.5 million $MTCO_2e$.

Carbon Sequestration

Reporters submitted 478 carbon sequestration[5] projects on Form EIA-1605 for 2004, with total reported sequestration of 7 million $MTCO_2e$. Most of the reported reductions resulted from afforestation, reforestation, urban forestry, forest management, and forest preservation efforts. Another 15 carbon sequestration projects were reported on Form EIA-1605EZ, for which about 85,000 $MTCO_2e$ of sequestered carbon was reported.

Methane and Nitrous Oxide Emissions

Emission reductions for the 443 methane and nitrous oxide abatement projects reported for 2004 on the 2004 EIA-1605 included 55 million $MTCO_2e$ from direct sources and 46 million $MTCO_2e$ from indirect sources. The three most frequently reported sources of methane reductions were municipal waste landfills (392 projects), natural gas systems (27 projects), and coal mines (11 projects). In addition to reducing methane emissions, projects that involved the recovery and use of methane for energy also reduced carbon dioxide emissions by displacing fossil fuels, such as oil and coal, which have higher carbon contents and thus produce more carbon dioxide when burned. Reporters using the short form submitted another 20 methane or nitrous oxide reduction projects for 2004, with reported reductions of methane or nitrous oxide emissions totaling 0.6 million $MTCO_2e$.

Hydrofluorocarbons, Perfluorocarbons, and Sulfur Hexafluoride

A total of 41 projects were submitted on Form EIA-1605 for 2004 reporting reductions in emissions of HFCs, PFCs, and SF_6. Reductions reported for the projects included 7 million $MTCO_2e$ from direct sources and 0.2 million $MTCO_2e$ from indirect sources. The largest reported reductions were direct reductions of perfluoromethane, a type of PFC (3.4 million $MTCO_2e$); SF_6 (2.9 million $MTCO_2e$); and perfluoroethane, another type of PFC (0.7 million $MTCO_2e$). No reductions of HFCs, PFCs, or SF_6 were reported on Form EIA-1605EZ for 2004.

[4]The emission reductions reported on Form EIA-1605EZ are unspecified, because the form does not ask the reporter to distinguish between direct and indirect reductions.

[5]Carbon sequestration is the fixation of atmospheric carbon dioxide in a carbon sink through biological or physical processes.

1. Voluntary Reporting 2004: An Overview

Introduction

The Energy Policy Act of 1992 (EPACT) directed the U.S. Department of Energy (DOE), with the Energy Information Administration (EIA) as the implementing agency, to develop a program to document voluntary actions that reduce emissions of greenhouse gases or remove greenhouse gases from the atmosphere (see box on page 2).[1] DOE's Office of Policy and International Affairs developed the Guidelines to the Voluntary Reporting of Greenhouse Gases Program[2] in consultation with the U.S. Environmental Protection Agency (EPA) and other Federal agencies, as well as through a public comment process. In addition to providing recognition for entities that voluntarily reduce greenhouse gas emissions or sequester carbon, the program serves to identify innovative and effective ways of reducing emissions.

This report presents information on the eleventh reporting cycle of the Voluntary Reporting Program, including reported information on emissions, emission reductions, and carbon sequestration activities through 2004. The report is divided into eight chapters. This chapter provides an overview of participation in the Voluntary Reporting Program, a perspective on the composition of activities reported, and a review of some key initiatives related to the voluntary reporting of greenhouse gas emissions.

Chapters 2 through 6 provide a review of project-level emission reduction initiatives reported to the Program in detail on Form EIA-1605. Chapter 2 examines projects in the electricity sector that reduce carbon dioxide emissions through improving thermal efficiency or switching to lower emitting fossil fuels. Chapter 3 considers improvements in end-use efficiency and fuel switching in the residential, commercial, industrial, and transportation sectors. Activities to improve or expand carbon sinks through such activities as reforestation, afforestation, and forest preservation are the subject of Chapter 4. Emission reduction initiatives associated with methane and halogenated substances are examined in Chapters 5 and 6, respectively.

Chapter 7 reviews emissions reports from participants who provided data on aggregate entity emissions. Chapter 8 summarizes information on emission reductions and carbon sequestration projects reported in brief on the short form (Form EIA-1605EZ). Appendixes A and B provide information on the development and structure of the data collection instrument, a discussion of issues in the interpretation of the data, and tabular summaries of the participating reporters and the information they reported.

The reports submitted to EIA are compiled into a database that can be obtained on CD-ROM by contacting the Voluntary Reporting of Greenhouse Gases Program Communications Center at 1-800-803-5182 or downloading it from EIA's web site at *www.eia.doe.gov/oiaf/1605/databases.html*.

Benefits of the Voluntary Reporting Program

The Voluntary Reporting Program is unique among the many voluntary programs initiated during the early 1990s in its diversity of project types, participation, and approaches. The Voluntary Reporting Program's Public Use Database provides abundant examples of the types of concrete actions that organizations can undertake to reduce greenhouse gas emissions. Some of the most important societal benefits of the Voluntary Reporting Program are:[3]

- The program has served to teach staff at many of the largest corporations in the United States how to estimate greenhouse gas emissions and has educated them on a range of possible measures to limit emissions.

[1]Title XVI of the Energy Policy Act, Public Law 102-486 (October 24, 1992), in Section 1605(a) called for an annual report on national aggregate emissions of greenhouse gases. EIA has issued the report—*Emissions of Greenhouse Gases in the United States*—every year since 1993. Section 1605(b) called for the establishment of a database of annual emissions and reductions of emissions reported on a voluntary basis.

[2]See U.S. Department of Energy, *General Guidelines to the Voluntary Reporting of Greenhouse Gases Program*, and, *Sector-Specific Issues and Reporting Methodologies Supporting the General Guidelines for the Voluntary Reporting of Greenhouse Gases* (Washington, DC, 1994), web site www.eia.doe.gov/oiaf/1605/guidelns.html.

[3]Testimony of Jay Hakes, former EIA Administrator, on March 30, 2000, before the Senate Committee on Energy and Natural Resources on Senate Bills S. 882 and S. 1776 and their potential impacts on EIA's Programs. The full text of the testimony is available on EIA's web site at www.eia.doe.gov/neic/speeches/hrtest3-30-00/testimony3.htm.

- The program has helped to provide concrete evidence for the evaluation of activities reported to the many government voluntary programs launched since 1993.
- Reporters have been able to learn about innovative emission reduction activities from the experiences of their peers.
- The program has created a "test" database of approaches to emission reductions that can be used to evaluate future policy instruments aimed at limiting emissions.
- The program has helped to illuminate many of the poorly appreciated emissions accounting issues that must be addressed in designing any future approaches to emission limitations.

Who Reported?

Reports for the 2004 data year were submitted by 226 participants in 24 different industries or services (defined by the two-digit Standard Industrial Classification code), a decrease from the 28 different industries represented among 2003 reporters. In comparison, 108 participants in 9 different industries or services submitted reports for the 1994 data year, the first year of the program (Table 1).

In the early years of the program, reporting was dominated by the electric power sector. In the first reporting year (data year 1994), the 95 submissions from electric power producers represented 88 percent of the 108 reports received (Figure 1). Since then, the program has seen an influx of new participants from outside the

The Energy Policy Act of 1992, Sections 1605(b) and (c)

(b) Voluntary Reporting.—

(1) ISSUANCE OF GUIDELINES.—Not later than 18 months after the date of the enactment of this Act, the Secretary shall, after opportunity for public comment, issue guidelines for the voluntary collection and reporting of information on sources of greenhouse gases. Such guidelines shall establish procedures for the accurate voluntary reporting of information on—

(A) greenhouse gas emissions—

(i) for the baseline period of 1987 through 1990; and

(ii) for subsequent calendar years on an annual basis;

(B) annual reductions of greenhouse gas emissions and carbon fixation achieved through any measures, including fuel switching, forest management practices, tree planting, use of renewable energy, manufacture or use of vehicles with reduced greenhouse gas emissions, appliance efficiency, methane recovery, cogeneration, chlorofluorocarbon capture and replacement, and power plant heat rate improvement;

(C) reductions in greenhouse gas emissions achieved as a result of—

(i) voluntary reductions;

(ii) plant or facility closings; and

(iii) State or Federal requirements; and

(D) an aggregate calculation of greenhouse gas emissions by each reporting entity.

Such guidelines shall also establish procedures for taking into account the differential radiative activity and atmospheric lifetimes of each greenhouse gas.

(2) REPORTING PROCEDURES.—The Administrator of the Energy Information Administration shall develop forms for voluntary reporting under the guidelines established under paragraph (1), and shall make such forms available to entities wishing to report such information. Persons reporting under this subsection shall certify the accuracy of the information reported.

(3) CONFIDENTIALITY.—Trade secret and commercial or financial information that is privileged or confidential shall be protected as provided in section 552(b)(4) of title 5, United States Code.

(4) ESTABLISHMENT OF DATA BASE.—Not later than 18 months after the date of the enactment of this Act, the Secretary through the Administrator of the Energy Information Administration shall establish a data base comprised of information voluntarily reported under this subsection. Such information may be used by the reporting entity to demonstrate achieved reductions of greenhouse gases.

(c) Consultation.—

In carrying out this section, the Secretary shall consult, as appropriate, with the Administrator of the Environmental Protection Agency.

Table 1. Forms Filed by Standard Industrial Classification, Data Years 1994-2004 (Number of Reports)

SIC Code	Description	Data Year										
		1994	1995	1996	1997	1998	1999	2000	2001	2002	2003(R)	2004
01	Agricultural Production: Crops	—	—	—	—	1	—	—	1	—	—	—
08	Forestry	1	2	1	1	3	3	1	—	1	2	3
12	Coal Mining	1	2	2	1	4	4	4	6	7	4	4
13	Oil and Gas Extraction	—	—	—	—	—	1	1	1	2	2	1
14	Nonmetallic Minerals, Except Fuels	—	—	—	—	1	1	—	—	—	—	—
20	Food and Kindred Products	—	—	—	—	1	2	6	4	4	4	2
22	Textile Mill Products	—	—	—	—	—	1	5	11	12	14	14
23	Apparel and Other Textile Products	—	—	—	—	—	—	1	1	2	2	2
24	Lumber and Wood Products	—	—	—	—	—	—	1	1	—	1	—
25	Furniture and Fixtures	—	—	—	—	—	—	1	1	1	—	—
26	Paper and Allied Products	—	—	—	—	—	1	1	—	—	—	—
27	Printing and Publishing	—	1	—	1	—	1	1	—	—	—	—
28	Chemical and Allied Products	1	3	2	3	8	5	11	9	11	11	12
29	Petroleum Refining and Other Related Industries	—	—	2	3	8	8	7	6	6	5	5
30	Rubber and Miscellaneous Plastic Products	—	—	—	—	—	—	2	2	2	2	2
32	Stone, Clay, Glass, and Concrete Products	—	—	2	4	12	13	7	5	5	5	5
33	Primary Metals Industries	2	2	4	4	5	5	5	11	11	13	13
34	Fabricated Metal Products, Except Machinery and Transportation Equipment	—	2	1	1	4	2	2	1	1	1	1
35	Industrial and Commercial Equipment and Components	—	—	—	—	—	—	1	1	1	2	2
36	Electronic and Other Electrical Equipment	1	1	2	4	4	4	9	9	8	6	5
37	Transportation Equipment	1	1	1	2	3	5	6	7	9	10	10
38	Instruments and Related Products	—	—	—	—	2		1	1	1	1	1
39	Miscellaneous Manufacturing Industries	—	1	1	—	2	2	1	1	1	1	—
40	Railroad Transportation	—	—	—	—	—	—	—	—	—	1	1
48	Communications	—	—	—	—	—	1	—	—	1	1	1
49	Electric, Gas, and Sanitary Services	98	123	125	129	138	135	151	145	138	145	136
57	Furniture and Home Furnishings Stores	—	—	—	—	2	1	1	—	1	1	1
63	Insurance Carriers	—	—	—	—	—	—	—	—	—	1	1
65	Real Estate	—	1	1	1	1	1	1	1	1	—	—
67	Holding and Other Investment Offices	—		1	1	1	1	1	1	2	2	1
72	Personal Services	—	—	—	—	—	—	1	1	1	1	1
80	Health Services	—	—	—	—	1	—	—	—	—	—	—
82	Educational Services	1	2	2	2	—	2	—	—	—	—	—
86	Membership Organizations	—	—	—	1	1	1	1	—	1	—	—
87	Engineering and Management Services	—	—	2	2	2	1	—	1	—	—	—
88	Private Households	2	1	1	1	1	1	1	1	1	1	2
89	Services Not Elsewhere Classified	—	—	—	1	1	3	2	1	1	1	—
91	Executive, Legislative, and General	—	—	—	—	1	2	2	2	1	1	—
97	National Security and International Affairs	—	—	—	—	—	—	1	—	—	—	—
99	Nonclassifiable Establishments	—	—	—	—	—	—	—	—	1	—	—
Total Number of Reporters		**108**	**142**	**150**	**162**	**207**	**207**	**236**	**232**	**234**	**241[a]**	**226**
Number of 2-Digit SIC Codes Represented		**9**	**13**	**16**	**18**	**24**	**27**	**31**	**27**	**29**	**28[a]**	**24**

[a]Includes 7 late reports for the 2003 data year. The 2004 total will also be revised upward in next year's report with the inclusion of additional 2004 reports. As of February 17, 2006, EIA had received 5 late reports for 2004. In addition, Tucson Electric Company submitted a 2004 report by the deadline, which EIA inadvertently failed to process in time for inclusion in this report's database.

(R) = Revised.

Note: The Voluntary Reporting of Greenhouse Gases database was designed in 1994-1995, when the Standard Industrial Classification (SIC) system was still in use. For the 2006 data year reporting cycle (to be conducted in calendar year 2007), EIA plans to modify the database to use the North American Industry Classification System (NAICS), which was introduced in 1997 by the United States, Canada, and Mexico to provide comparability in statistics about business activity across North America.

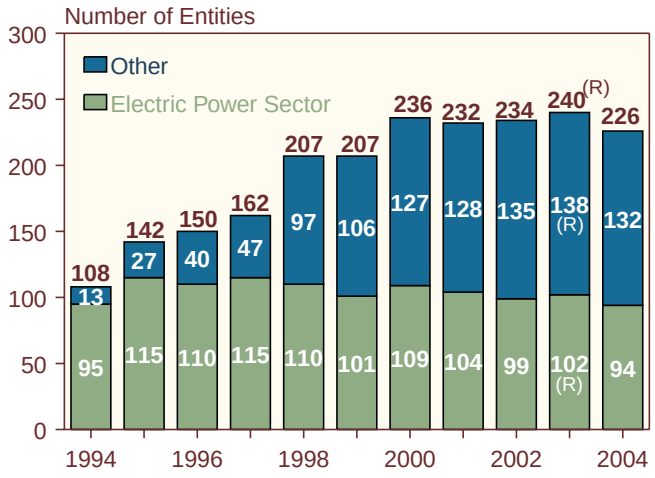
Source: Energy Information Administration, Forms EIA-1605 and EIA-1605EZ.

electric power sector, representing a diverse set of industries. In addition, several mergers and acquisitions involving reporters to the program have reduced the number of reports received from electricity producers. As a result, only 42 percent of the organizations reporting to the program for data year 2004 were from the electric power sector.

Although the number of reporters from other individual industries remained relatively small, in many cases, key companies in those other industries submitted reports, including: General Motors, Ford Motor Company, DaimlerChrysler Corporation, Nissan North America, Inc., and Toyota Motor North America, Inc., in the automotive products industry; Noranda and an operating division of Alcan in the metals industry; BP America, Sunoco, Inc., and ChevronTexaco Corporation in the petroleum industry; Johnson & Johnson and The Dow Chemical Company in the chemicals industry; Rolls Royce in the aerospace industry; Bristol-Myers Squibb Company and Pfizer Pharmaceuticals, LLC, in the pharmaceuticals industry; and Advanced Micro Devices, Inc., and IBM in the electronic equipment industry. A complete listing of all 2004 reporters is provided in Appendix B, Table B1.

Many reporters indicated that their projects were affiliated with one or more government-sponsored voluntary programs. Among the projects reported, the following programs were cited: EPA's Landfill Methane Outreach Program (349 projects); various DOE/EPA ENERGY STAR programs, including ENERGY STAR Buildings, ENERGY STAR Computers, and ENERGY STAR Transformers (113 projects); U.S. Initiative on Joint Implementation (34 projects); EPA's Natural Gas STAR Program (24 projects), EPA's Sulfur Hexafluoride Emissions Reduction Partnership (13 projects); EPA's WasteWise (9 projects); DOE's Compressed Air Challenge (8 projects); and EPA's Coalbed Methane Outreach Program (5 projects). Other voluntary programs cited by the reporters included EPA's Voluntary Aluminum Industrial Partnership and DOE's Motor Challenge and Rebuild America. Not all participants in the various voluntary programs provided information to the Voluntary Reporting Program.

Figure 1. Electric Power Sector and Other Entities Submitting Reports to the Voluntary Reporting of Greenhouse Gases Program, Data Years 1994-2004



(R) = revised.

Notes: Electric power sector includes electric utilities and independent power producers. 2003 data year includes 7 late reports that were not included in the totals presented in last year's annual report and database.

Source: Energy Information Administration, Forms EIA-1605 and EIA-1605EZ.

What Was Reported?

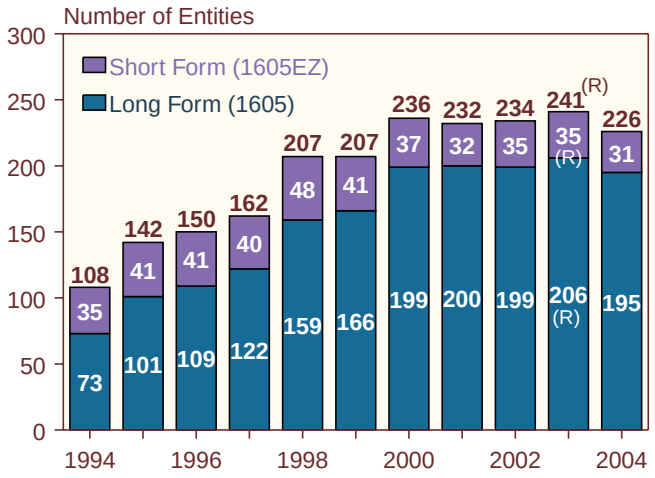
The Voluntary Reporting Program permits three distinct types of reporting:

- Project-level reporting, defined as the reporting of the emission reductions or carbon sequestration achieved as a result of a specific action or group of actions
- Entity-level reporting, defined as the reporting of emissions, emission reductions, and carbon sequestration for an entire organization, usually defined as a corporation
- Commitment reporting, defined as the reporting of pledges to take action to reduce emissions in the future.

Of the 226 reports received for 2004, 195 (86 percent) were submitted on Form EIA-1605 (the long form) (Figure 2). The long form allows reporters to create an in-depth, multi-year, public record of emission reduction efforts for an entire organization and/or at the project level, including information on activities conducted outside the United States and commitments to reduce future greenhouse gas emissions. The remaining reports were submitted on Form EIA-1605EZ (the short form), which allows reporters to provide only brief summaries of greenhouse gas projects for the current reporting year and does not allow the reporting of activities outside the United States or of future emission reduction commitments. The proportion of reporters using the short form has declined from 32 percent in the first year of the program (1994 data year) to 14 percent in the 2004 data reporting cycle. EIA believes that reporters are choosing the long form in order to document their emission reductions more thoroughly. Also, for the same reason, several voluntary programs (such as the Landfill Methane Outreach Program) encourage participants to use the long form.

For the 2004 reporting year, 176 program participants (78 percent of the total) reported project-level reductions, 122 reported entity-level emissions and/or reductions, 72 reported at both the entity and project levels, 104 submitted only project-level reports, and 50 reported only entity-level information. In addition, 86 reporters provided information on their commitments to reduce emissions or to increase sequestration in the future, including one program participant reporting only commitments without reporting on past activities.

Figure 2. Number of Reports Received by Form Type, Data Years 1994-2004



(R) = revised.

Notes: Electric power sector includes electric utilities and independent power producers. 2003 data year includes 7 late reports that were not included in the totals presented in last year's annual report and database.

Source: Energy Information Administration, Forms EIA-1605 and EIA-1605EZ.

Sources of greenhouse gas emissions and emission reductions reported to the Voluntary Reporting Program are characterized as direct, indirect, sequestered, or unspecified. The unspecified category includes all reductions and sequestration reported on the short form, because the short form does not allow a reporting entity to specify whether an emission reduction is direct or indirect. Because of concern about possible double counting of emissions and reductions, particularly between direct and indirect emissions, EIA does not aggregate reported emissions or emission reductions across these four categories.

Project Level

Reporters provided information on a total of 2,154 projects for 2004 (Table 2). Most (1,942 or 90 percent) were reported on the long form. The total number of projects reported declined by 68, or 3 percent, compared with the previous reporting cycle.[4] Most of the 2,154 projects reported for 2004 were also among the 2,222 projects reported for 2003, because they continued to yield emission reductions in 2004. Projects often yield emission reductions over an extended period; for example, an

Table 2. Distribution of Projects by Reduction Objective, Project Type, and Form Type, Data Year 2004

Reduction Objective and Project Type	Number of Projects			Number of Reporters		
	Long Form	Short Form	Total	Long Form	Short Form	Total
Reducing Carbon Dioxide Emissions	**897**	**159**	**1,056**	**86**	**26**	**112**
Electricity Generation, Transmission, and Distribution	469	49	518	65	19	84
Cogeneration and Waste Heat Recovery	18	0	18	11	0	11
Energy End Use	345	101	446	64	17	81
Transportation and Offroad Vehicles	65	9	74	31	5	36
Reducing Methane and Nitrous Oxide Emissions	**443**	**20**	**463**	**66**	**5**	**71**
Waste Treatment and Disposal (Methane)	403	19	422	52	4	56
Agriculture (Methane and Nitrous Oxide)	2	0	2	2	0	2
Oil and Natural Gas Systems and Coal Mining (Methane)	38	1	39	19	1	20
Carbon Sequestration	**478**	**15**	**493**	**54**	**13**	**67**
Halogenated Substances	**40**	**1**	**41**	**28**	**1**	**29**
Other Emission Reduction Projects	**84**	**17**	**101**	**47**	**7**	**54**
Entity-Level Reporting Only (No Projects)	**NA**	**NA**	**NA**	**51**	**NA**	**51**
Commitment Reporting Only (No Projects or Entity-Level Data)	**NA**	**NA**	**NA**	**0**	**NA**	**0**
Total	**1,942**	**212**	**2,154**	**195**	**31**	**226**

NA = not applicable.

Notes: The total number of reporters is smaller than the sum of the number of reporters for each project type, because most reporters provided information on more than one project. Total number of reporters includes confidential reports, which are excluded from the sum of reporters for each project type. Table excludes projects submitted in confidential reports.

Source: Energy Information Administration, Forms EIA-1605 and EIA-1605EZ.

[4]The total number of projects reported for 2003 has increased from 2,188 to 2,222 with the receipt of 7 additional reports after the database used to prepare the annual report and Public Use Database for 2003 was finalized. See note to Table 3.

availability improvement project at a nuclear power plant typically involves the adoption of new maintenance and refueling programs that, once in place, are followed over a multi-year period. Likewise, the reforestation of an area in one year can result in the sequestration of carbon in many subsequent years, even if no additional trees are planted. Reporters continue to report the emission reductions and carbon sequestration achieved by such long-lived projects on a yearly basis.

The principal objective of the majority of projects (1,056 or 49 percent) reported for 2004 was to reduce carbon dioxide emissions (Table 2). Most reduced carbon dioxide either by reducing fossil fuel consumption or by switching to lower emitting sources of energy. Many also achieved small reductions in emissions of other gases. Other cited project objectives included increasing carbon sequestration (493 or 23 percent), reducing methane and nitrous oxide emissions (463 or 21 percent), and reducing emissions of halogenated substances (41 or 2 percent). Projects that also primarily reduced carbon dioxide emissions included the 101 "other" emission reduction projects, most of which involved either the reuse of fly ash as a cement substitute in concrete or the recycling of waste materials.

Most projects involve actions within the United States; however, some are conducted in foreign countries, designed to test various concepts of joint implementation with other nations (Table 3). Of the 90 foreign projects reported for 2004, 52 represented shares in two forestry programs in Belize and Malaysia sponsored by the electric power industry.

Total project-level emission reductions reported included 277.0 million metric tons carbon dioxide equivalent (million $MTCO_2e$) in direct reductions, 91.7 million $MTCO_2e$ in indirect reductions, 7.2 million $MTCO_2e$ in carbon sequestration, and 13.8 million $MTCO_2e$ in unspecified reductions (Table 4). EIA uses global warming potentials (GWPs) from the Third Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) to calculate carbon dioxide equivalents (see box on page 7).

Projects whose reduction objective was to reduce carbon dioxide emissions reported direct reductions of 214.7 million $MTCO_2e$, indirect reductions of 45.6 million $MTCO_2e$, and unspecified reductions of 13.1 million $MTCO_2e$. The vast majority of the reported emission reductions were carbon dioxide reductions.

Reporters submitted information on a variety of efforts to reduce emissions of gases with high GWPs, including 463 projects with the objective of reducing methane and nitrous oxide emissions. The projects focused on waste management systems, animal husbandry operations, oil and gas systems, or coal mines. Reported net direct emission reductions from the 463 projects totaled 55.3 million $MTCO_2e$, representing 20 percent of the total direct reductions reported for 2004. The estimate of net reductions includes 62.3 million $MTCO_2e$ in direct reductions of methane emissions, offset by increases of 7.1 million $MTCO_2e$ in carbon dioxide and nitrous oxide emissions. Indirect reductions reported for projects that reduced methane and nitrous oxide emissions totaled 45.8 million $MTCO_2e$. Unspecified

Table 3. Geographic Scope of Reports Received and Location of Emission Reduction Projects, Data Years 1994-2004

	Reports Received					Projects Reported[b]			
	U.S. Only					U.S. Only			
Year	Long Form	Short Form	Foreign Only	Both U.S. and Foreign	Total[a]	Long Form	Short Form	Foreign Only	Total[a]
1994	65	34	2	4	**108**	500	125	9	**634**
1995	82	40	2	16	**142**	760	164	36	**960**
1996	83	41	1	24	**150**	828	179	33	**1,040**
1997	90	40	1	31	**162**	1,017	201	70	**1,288**
1998	118	47	1	40	**207**	1,212	252	85	**1,549**
1999	125	39	4	37	**207**	1,397	237	87	**1,721**
2000	153	36	1	45	**236**	1,761	229	99	**2,089**
2001	155	32	1	43	**232**	1,596	210	91	**1,897**
2002	156	35	3	39	**234**	1,708	253	94	**2,055**
2003(R) . . .	163	35	2	40	**241**	1,900	226	96	**2,222**
2004	157	31	3	34	**226**	1,852	212	90	**2,154**

[a]Totals are greater than the sum of the components because the latter exclude information from confidential reports.
[b]Excludes projects submitted in confidential reports.
(R) = revised.
Notes: The number of reports received for 2003 was revised to reflect the receipt of 7 reports after the finalization of the Public Use Database for last year's annual report. The number of projects reported for 2003 has also been revised to reflect the projects included in those reports.
Source: Energy Information Administration, Forms EIA-1605 and EIA-1605EZ.

reductions of methane and nitrous oxide reported on the short form totaled 0.6 million $MTCO_2e$.

Almost all of the 493 carbon sequestration projects reported on either the long form or the short form increased the amount of carbon stored in sinks through various forestry measures, including afforestation, reforestation, urban forestry, forest preservation, and modified forest management techniques. These activities accounted for 23 percent of the projects reported for 2004; however, 316 of the reported carbon sequestration projects represented shares in 13 projects conducted by the UtiliTree Carbon Company and the PowerTree Carbon Company, which were reported by 34 participating electric utilities.[5] Carbon sequestration projects reported on the long form for 2004 accounted for 7.2 million $MTCO_2e$ in carbon sequestration.

Projects with the objective of reducing emissions of halogenated substances—including perfluorocarbons (PFCs), sulfur hexafluoride (SF_6), and hydrofluorocarbons (HFCs)—reported direct reductions of 7.0 million $MTCO_2e$ for 2004, which included 4.1 million $MTCO_2e$ of PFC emissions and 2.9 million $MTCO_2e$ of SF_6 emissions, as well as indirect reductions of 0.3 $MTCO_2e$, the vast majority of which was SF_6.

Total direct emission reductions reported for 2004 increased by 2.8 percent over the reductions reported for 2003, to 277 million $MTCO_2e$ (Table 5), and have quadrupled since the first year of the program (data year 1994). Reported direct reductions of carbon dioxide emissions increased by 17.9 million metric tons, while direct reductions of methane emissions decreased by 11.2 million metric tons. Indirect emission reductions

Global Warming Potentials Used To Calculate Carbon Dioxide Equivalent Emissions

Global warming potentials (GWPs) are used to compare the abilities of different greenhouse gases to trap heat in the atmosphere. GWPs are based on the radiative efficiency (heat-absorbing ability) of each gas relative to that of carbon dioxide (CO_2), as well as the decay rate of each gas (the amount removed from the atmosphere over a given number of years) relative to that of CO_2. The GWP provides a construct for converting emissions of various gases into a common measure, which allows climate analysts to aggregate the radiative impacts of various greenhouse gases into a uniform measure denominated in carbon or carbon dioxide equivalents. The table at the right presents the GWPs published in the Third Assessment Report of the Intergovernmental Panel on Climate Change (IPCC).

In analyzing greenhouse gas emissions and emission reductions reported to the Voluntary Reporting of Greenhouse Gases Program, EIA attempts to employ the most current data sources. For that reason, and because the IPCC is generally considered the authoritative source for GWPs, EIA uses the IPCC's most recent GWP values, from the Third Assessment Report, to convert reported greenhouse gas emissions to the carbon dioxide equivalent units used in this report. It is important to point out, however, that countries reporting to the United Nations Framework Convention on Climate Change (UNFCCC), including the United States, have been compiling estimates based on the GWPs from the IPCC's Second Assessment Report. The UNFCCC Guidelines on Reporting and Review, adopted before the publication of the Third Assessment Report, require emission estimates to be based on the GWPs in the IPCC Second Assessment Report. This will probably continue in the short term, until the UNFCCC reporting rules are changed.

100-Year GWP Estimates from the IPCC's Third (2001) Assessment Reports

Gas	2001 IPCC GWP[a]
Methane	23
Nitrous Oxide	296
HFC-23	12,000
HFC-32	550
HFC-125	3,400
HFC-134a	1,300
HFC-143a	4,300
HFC-152a	120
HFC-227ea	3,500
HFC-236fa	9,400
Perfluoromethane (CF_4)	5,700
Perfluoroethane (C_2F_6)	11,900
Perfluoropropane (C_3F_8)	8,600
Sulfur Hexafluoride (SF_6)	22,200

[a]Intergovernmental Panel on Climate Change, *Climate Change 2001: The Scientific Basis. Summary for Policymakers* (Cambridge, UK: Cambridge University Press, 2001).

[5]Twenty-four electric utilities submitted reports on 10 ongoing UtiliTree Carbon Company projects. Twenty-four electric utilities, including 14 UtiliTree participants, submitted reports on 3 new PowerTree Carbon Company projects.

Table 4. Summary of Reported Project-Level Emission Reductions and Carbon Sequestration by Reduction Objective and Gas, Data Year 2004
(Metric Tons Carbon Dioxide Equivalent)

Gas	Reductions by Project Objective				Total Reductions
	Reduce Carbon Dioxide Emissions	Reduce Methane and Nitrous Oxide Emissions	Increase Carbon Sequestration	Reduce Emissions of Halogenated Substances	
Direct					
Carbon Dioxide	211,260,910	-7,040,342[a]	3,982	—	204,224,550
Methane	3,449,468	62,316,144	—	—	65,765,612
Nitrous Oxide	24,156	-23,899[a]	—	—	257
HFCs	—	—	—	—	—
PFCs	3,427	—	—	4,084,257	4,087,684
SF_6	—	—	—	2,944,079	2,944,079
Total Direct	**214,737,961**	**55,251,904**	**3,982**	**7,028,337**	**277,022,183**
Indirect					
Carbon Dioxide	45,462,942	17,027,530	41	—	62,490,513
Methane	87,914	28,680,171	—	—	28,768,086
Nitrous Oxide	57,218	121,374	—	—	178,593
HFCs	—	—	—	10,900	10,900
PFCs	34,948	—	—	—	34,948
SF_6	—	—	—	258,616	258,616
Total Indirect	**45,643,023**	**45,829,075**	**41**	**269,515**	**91,741,655**
Sequestration					
Carbon Dioxide	—	—	7,236,120	—	7,236,120
Methane	—	—	—	—	—
Nitrous Oxide	—	—	—	—	—
HFCs	—	—	—	—	—
PFCs	—	—	—	—	—
SF_6	—	—	—	—	—
Total Sequestration	**—**	**—**	**7,236,120**	**—**	**7,236,120**
Unspecified[b]					
Carbon Dioxide	13,038,063	70,875	84,970	—	13,193,908
Methane	3,421	571,286	—	—	574,707
Nitrous Oxide	19	—	—	—	19
HFCs	—	—	—	—	—
PFCs	2	—	—	—	2
SF_6	22,154	—	—	—	22,154
Total Unspecified	**13,063,659**	**642,160**	**84,970**	**—**	**13,790,789**

[a]Negative reductions represent increases in emissions.

[b]Unspecified emission reductions represent quantities reported on the short form (Form EIA-1605EZ), where reporters are not asked to specify whether the emission reduction or sequestration is direct or indirect.

Notes: CFCs, HCFCs, and methyl chloroform are not included in the totals because of the uncertainty associated with estimates of net global warming potential for these gases. Their direct warming effects (radiative forcing) are offset by indirect cooling effects (destruction of stratospheric ozone, another greenhouse gas). Direct, indirect, and unspecified emission reductions and sequestration have not been totaled to avoid double counting of reductions or sequestration that have been reported by more than one entity. Table excludes projects submitted in confidential reports.

Source: Energy Information Administration, Forms EIA-1605 and EIA-1605EZ.

Table 5. Summary of Reported Project-Level Emission Reductions and Carbon Sequestration by Gas, Data Years 1994-2004

(Metric Tons Carbon Dioxide Equivalent)

Year	Carbon Dioxide	Methane	Nitrous Oxide	HFCs	PFCs	Sulfur Hexafluoride	Total
Direct							
1994	58,413,709	576,808	339,485	-29	3,199,649	83,579	**62,613,201**
1995	85,419,479	194,350	-438,673	-43	2,962,416	186,382	**88,323,910**
1996	77,601,577	9,411,042	-423,599	15,193	3,345,811	-69,985	**89,880,039**
1997	82,269,887	8,705,355	86,294	-42	3,318,600	516,732	**94,896,824**
1998	112,038,605	31,720,732	109,560	-1,738	3,504,380	624,786	**147,996,326**
1999	115,366,719	35,994,030	62,111	-1,738	3,425,480	595,379	**155,441,981**
2000	144,096,233	61,945,794	114,198	—	3,233,612	1,407,347	**210,797,186**
2001	159,129,312	81,569,042	711,633	—	3,606,813	2,475,144	**247,491,944**
2002	178,393,155	80,073,702	-4,713	—	3,562,893	3,043,682	**265,068,719**
2003(R)	186,372,727	76,992,928	14,025	—	3,550,504	2,611,910	**269,542,095**
2004	204,224,550	65,765,612	257	—	4,087,684	2,944,079	**277,022,183**
Indirect							
1994	2,994,405	2,360,734	2,243	—	—	—	**5,357,381**
1995	27,063,660	24,777,246	630,358	—	—	7,653	**52,478,917**
1996	26,207,709	26,612,114	616,075	—	—	—	**53,435,898**
1997	25,848,951	11,630,239	102,639	—	3,631	81	**37,585,541**
1998	27,968,865	15,152,664	105,598	—	6,068	81	**43,233,274**
1999	37,233,635	19,027,769	270,531	—	5,856	81	**56,537,872**
2000	41,276,444	20,641,700	115,689	—	35,459	81	**62,069,372**
2001	48,255,932	23,216,197	154,566	—	34,319	81	**71,661,094**
2002	55,347,688	24,555,786	164,214	47	36,705	81	**80,104,520**
2003(R)	55,758,258	23,091,669	177,423	38,702	237,390	2,184,750	**81,488,191**
2004	62,490,513	28,768,086	178,593	10,900	34,948	258,616	**91,741,655**
Sequestration							
1994	746,545	—	—	—	—	—	**746,545**
1995	1,190,754	—	—	—	—	—	**1,190,754**
1996	8,676,591	—	—	—	—	—	**8,676,591**
1997	9,849,807	—	—	—	—	—	**9,849,807**
1998	12,490,927	—	—	—	—	—	**12,490,927**
1999	9,623,599	—	—	—	—	—	**9,623,599**
2000	9,011,117	—	—	—	—	—	**9,011,117**
2001	7,956,823	—	—	—	—	—	**7,956,823**
2002	7,296,516	—	—	—	—	—	**7,296,516**
2003(R)	7,731,329	—	—	—	—	—	**7,731,329**
2004	7,236,120	—	—	—	—	—	**7,236,120**
Unspecified[a]							
1994	3,721,047	564,022	—	—	—	—	**4,285,069**
1995	4,959,366	1,162,752	—	—	—	—	**6,112,117**
1996	4,436,523	1,232,174	—	—	—	—	**5,668,697**
1997	6,688,175	1,825,383	—	—	123,049	—	**8,636,607**
1998	16,499,427	2,918,818	—	—	—	—	**19,418,245**
1999	9,607,428	3,273,878	—	—	—	4,783	**12,886,089**
2000	9,125,506	3,127,762	—	—	—	20,744	**12,274,012**
2001	10,855,046	3,960,348	—	—	4,046	20,261	**14,839,701**
2002	12,820,322	4,295,112	—	—	130,930	10,201	**17,256,565**
2003(R)	12,531,743	3,835,371	—	—	1,910	28,649	**16,397,672**
2004	13,193,908	574,707	19	—	2	22,154	**13,790,789**

(R) = revised.

[a]Unspecified emission reductions represent quantities reported on the short form (Form EIA-1605EZ), which does not distinguish between direct and indirect emission reductions or sequestration.

Notes: Reductions of CFCs, HCFCs, and methyl chloroform are not included in the totals because of the uncertainty associated with estimates of their net global warming potential. Their direct warming effects (positive radiative forcing) are offset by indirect cooling effects (destruction of stratospheric ozone, another greenhouse gas). Totals may not equal sum of components due to independent rounding. Direct, indirect, and unspecified emission reductions and sequestration have not been totaled, in order to avoid double counting of reductions or sequestration that have may been reported by more than one entity. Negative reductions represent increases in emissions.

Source: Energy Information Administration, Forms EIA-1605 and EIA-1605EZ.

reported for 2004, at 92 million $MTCO_2e$, were 10.3 million $MTCO_2e$ (12.6 percent) higher than those reported for 2003.

Reported sequestration, after peaking at 12.5 million $MTCO_2e$ for 1998, has fallen below 10 million $MTCO_2e$ for the past 6 years. The decline has resulted from a decrease in, or discontinuation of, sequestration reported for several large forest preservation projects. Also, American Forests, which reported sequestration for 164 reforestation projects for 2000, has not reported for subsequent years. Unspecified reductions reported for 2004, which include reductions and sequestration reported on the short form, totaled 13.8 million $MTCO_2e$, a decrease of 15.9 percent from 2003.

Project-Level Reference Cases

Beginning with the 2000 annual report, EIA began dividing project-level data according to the reference case employed in calculating reported project-specific emission reductions. A "reference case" is an emissions or sequestration level against which actual emissions are compared to estimate emission reductions. In a "basic reference case," actual historical emissions (or sequestration) in a specific year, or an average of a range of years, are used as the reference case. In a "modified reference case," an estimate is made of what emissions or sequestration would have been in the absence of the project, and that estimate serves as the reference case.

Of the projects reported for 2004 on Form EIA-1605, 94 percent used modified reference cases (Table 6). A modified reference case is generally preferred for project-level analysis, because this approach attempts to isolate the effect of the action taken by the reporter from other factors that may have affected the reporter's emissions since the action was taken. The use of basic reference cases for 2004 was greatest for projects that reported reducing emissions of halogenated substances (50 percent of those projects), because the techniques for evaluating reductions for the projects are particularly suited to the use of a basic reference case. Emissions are determined using inventory management data, with emissions of a particular substance being equal to the amount purchased during the year to replace quantities emitted. Annual reductions can be calculated by subtracting the emissions in the years after emission abatement measures have been instituted from the emissions in the year before the measures were instituted.

In terms of emission reductions and sequestration reported for 2004, reporters indicated that they used modified reference cases for 269 million $MTCO_2e$ (97 percent of total direct reductions), 85 million $MTCO_2e$ in indirect reductions (93 percent of total indirect reductions), and 7 million $MTCO_2e$ in sequestration (93 percent of total sequestration) (Table 7). The halogenated substance category was the only project category for which entities reported using basic reference

Table 6. Number of Projects Reported on Form EIA-1605 by Reduction Objective, Project Type, and Reference Case Employed, Data Year 2004
(Number of Projects)

Reduction Objective and Project Type	Type of Reference Case				Total Number of Projects
	Modified		Basic		
	Number of Projects	Percent	Number of Projects	Percent	
Reducing Carbon Dioxide Emissions	**837**	**93**	**60**	**7**	**897**
Electricity Generation, Transmission, and Distribution	461	98	8	2	469
Cogeneration and Waste Heat Recovery	17	94	1	6	18
Energy End Use	299	87	46	13	345
Transportation and Offroad Vehicles	60	92	5	8	65
Reducing Methane and Nitrous Oxide Emissions	**436**	**98**	**7**	**2**	**443**
Waste Treatment and Disposal (Methane)	399	99	4	1	403
Agriculture (Methane and Nitrous Oxide)	2	100	0	0	2
Oil and Natural Gas Systems and Coal Mining (Methane)	35	92	3	8	38
Carbon Sequestration	**464**	**97**	**14**	**3**	**478**
Halogenated Substances	**20**	**50**	**20**	**50**	**40**
Other Emission Reduction Projects	**74**	**88**	**9**	**11**	**84**
Total	**1,831**	**94**	**110**	**6**	**1,942**

Notes: Excludes projects reported on the short form (Form EIA-1605EZ), which does not collect information on the reference case employed. Excludes three projects reported on the long form (Form EIA-1605) for which no reference case was specified because reductions were not estimated. Table excludes projects submitted in confidential reports.
Source: Energy Information Administration, Forms EIA-1605.

cases for a significant proportion (91 percent or 6.4 million $MTCO_2e$) of the direct reductions.

Entity Level

Most of the 122 reporters providing entity-level information included data on emissions as well as emission reductions or sequestration. In addition, 7 reporters provided entity-level data on emissions only, and 6 reporters provided entity-level data on emission reductions or sequestration only.

Total entity-level direct emissions reported for 2004 were 934 million $MTCO_2e$, representing a 4-percent increase from the direct emissions reported for 2003 (Table 8). Total entity-level indirect emissions reported for 2004 were 29 percent lower than those reported for 2003, at 75 million $MTCO_2e$. Total direct emission reductions reported at the entity level for 2004 (208 million $MTCO_2e$) were 3 percent lower than those reported for 2003 (215 million $MTCO_2e$). For 2004, 181 million $MTCO_2e$ (87 percent) of the reported direct reductions were estimated using modified reference cases, and 27 million $MTCO_2e$ (13 percent) were estimated with basic reference cases.

Reported entity-level indirect emission reductions for 2004 totaled 48 million $MTCO_2e$, 12 percent higher than the total reported for 2003. Reported indirect reductions of 49 million $MTCO_2e$ calculated with modified reference cases were offset by -1 million $MTCO_2e$ of indirect reductions (i.e., a net increase in emissions) calculated with basic reference cases. Entity-level sequestration reported for 2004 totaled 7 million $MTCO_2e$, unchanged from that reported for 2003.

Commitments

For 2004, 86 entities reported formal commitments to reduce emissions, take specific action to reduce emissions, or provide financial support for activities related to greenhouse gas reductions,[6] nearly one-third (30 percent) of which were electricity generators that participated in DOE's Climate Challenge Program (Figure 3). Reporters continued to include in their 2004 reports commitments related to Climate Challenge and other programs, such as EPA's Climate Wise and Green Lights, which are no longer active and have been subsumed by newer programs. In addition to various ENERGY STAR programs, other voluntary programs represented among the commitments reported for 2004 included the EPA's Climate Leaders Program, the EPA's Voluntary Aluminum Industrial Program, the U.S. Initiative on Joint Implementation, the EPA's Landfill Methane Outreach Program, DOE's Motor Challenge,

Table 7. Reported Emission Reductions and Sequestration for Projects Reported on Form EIA-1605 by Reduction Objective, Project Type, Source, and Reference Case Employed, Data Year 2004
(Million Metric Tons Carbon Dioxide Equivalent)

Reduction Objective and Project Type	Direct Reductions		Indirect Reductions		Sequestration	
	Modified	Basic	Modified	Basic	Modified	Basic
Reducing Carbon Dioxide Emissions	**197.6**	**1.1**	**32.9**	**0.1**	**NA**	**NA**
Electricity Generation, Transmission, and Distribution	171.5	0.5	18.1	*	NA	NA
Cogeneration and Waste Heat Recovery	1.7	*	0.8	—	NA	NA
Energy End Use	21.7	0.6	13.7	0.1	NA	NA
Transportation and Offroad Vehicles	2.7	*	0.2	*	NA	NA
Reducing Methane and Nitrous Oxide Emissions	**54.8**	**0.4**	**44.7**	**1.1**	**NA**	**NA**
Waste Treatment and Disposal (Methane)	42.3	0.4	44.7	1.1	NA	NA
Agriculture (Methane and Nitrous Oxide)	*	—	*	—	NA	NA
Oil and Natural Gas Systems and Coal Mining (Methane)	12.5	*	—	—	NA	NA
Carbon Sequestration	*****	**—**	*****	**—**	**6.8**	**0.5**
Halogenated Substances	**0.7**	**6.4**	**0.2**	*****	**NA**	**NA**
Other Emission Reduction Projects	**16.1**	**—**	**7.4**	**5.2**	**NA**	**NA**
Total	**269.2**	**7.9**	**85.3**	**6.5**	**6.8**	**0.5**

*Less than 0.05 million $MTCO_2e$. — = Not reported. NA = not applicable.
Note: Excludes reductions and sequestration for projects reported on the short form (Form EIA-1605EZ), which does not collect information on the reference case employed. Excludes projects submitted in confidential reports.
Source: Energy Information Administration, Form EIA-1605.

[6]Formal commitments in one or more of the entity-level, project-level, or financial categories accommodated by Form EIA-1605 were reported by 76 companies. Descriptions of future activities were provided by 10 companies in the Additional Information section of Schedule IV.

the EPA's Sulfur Hexafluoride Emissions Reduction Partnership for Electric Power Systems, DOE's Cool Communities Program, and EPA's Natural Gas Star.

There are three forms of future commitment in the Voluntary Reporting Program: entity commitments, financial commitments, and project commitments. Entity and project commitments roughly parallel the entity and project aspects of emissions reporting: an entity commitment is a commitment to reduce the emissions of an entire organization; a project commitment is a commitment to take a particular action that will have the effect of reducing the reporter's emissions through a specific project. A financial commitment is a pledge to spend a particular sum of money on activities related to emission reductions, without a specific promise as to the emissions consequences of the expenditure.

For 2004, 55 firms made 60 specific promises to reduce, avoid, or sequester future emissions at the entity level. Some of those entity-level commitments were to reduce emissions below a specific baseline, others to limit the growth of emissions per unit of output, and others to limit emissions by a specific amount relative to a baseline emissions growth trend. In their reports for 2004, companies reported commitments to reduce entity-level emissions by a total of 81 million $MTCO_2e$, including 13 commitments, representing 61 million $MTCO_2e$ or 76 percent of the emission reductions promised, that were to be fulfilled by 2004. The 13 other entity-level commitments, which promised reductions totaling 19 million $MTCO_2e$, were to be fulfilled by 2005 or later.

Commitments to undertake 107 individual emission reduction projects were reported by 20 companies. Some of the commitments were linked to results from projects already underway; others were for projects not yet begun. Reporters indicated that the projects were expected to reduce future emissions or increase carbon sequestration by 63 million $MTCO_2e$. In addition, 13 firms made 29 financial commitments. Entities promised a total of $19 million and spent $1.1 million of that total in 2004.

Status of Policy Initiatives

In 2004, the Bush Administration continued to develop components of its Global Climate Change Initiative, including enhancement of the Voluntary Reporting of Greenhouse Gases Program (see box on page 14). In addition, States and other organizations continued to develop greenhouse gas registry and trading programs; and the U.S. Congress considered, but did not pass, legislation relevant to greenhouse gas reporting. The developments in 2005 did not affect the reported emissions and emission reductions data for activities in 2004 discussed in this report; however, they may affect the future of the Voluntary Reporting Program, future reporting of reductions or commitments, or both.

Enhanced 1605(b) Voluntary Emissions Reduction Registry

Pursuant to a key objective of the Global Climate Change Initiative, DOE is working to improve and

Table 8. Number of Entities Reporting at the Entity Level, Reported Emissions by Source, Emission Reductions by Source and Type of Reference Case Employed, and Sequestration, Data Years 1994-2004
(Million Metric Tons Carbon Dioxide Equivalent)

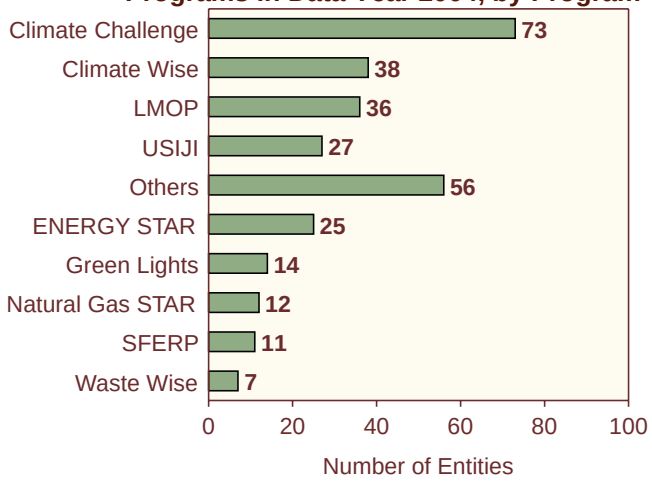
Year	Number of Entities Reporting	Emissions		Emission Reductions by Type of Reference Case						Sequestration
				Direct			Indirect			
		Direct	Indirect	Modified	Basic	Total	Modified	Basic	Total	
1994	39	752.7	494.9	38.2	22.6	**60.8**	1.6	1.2	**2.8**	0.5
1995	50	875.8	499.6	56.0	39.3	**95.3**	46.0	2.7	**48.6**	0.8
1996	55	1,183.1	461.5	65.4	44.6	**110.0**	42.9	5.7	**48.6**	7.9
1997	60	1,006.6	525.8	73.7	20.3	**94.0**	24.8	3.4	**28.2**	7.1
1998	76	1,110.7	473.5	105.8	22.6	**128.4**	28.3	13.2	**41.6**	11.2
1999	83	967.9	481.0	114.7	35.3	**150.0**	30.3	8.4	**38.7**	8.4
2000	109	1,068.2	111.7	123.6	83.0	**206.7**	34.8	-7.8	**27.0**	7.5
2001	113	799.6	111.5	121.4	90.4	**211.9**	38.9	-6.7	**32.2**	7.5
2002	119	889.3	111.2	148.4	83.3	**231.6**	44.2	-8.3	**35.9**	6.9
2003(R) . .	130	899.5	106.4	183.6	31.8	**215.4**	46.0	-3.0	**43.0**	6.9
2004	121	933.9	75.3	180.8	27.5	**208.3**	49.0	-0.8	**48.2**	6.9

(R) = revised.

Notes: 2003 data year includes 7 late reports that were not received in time to be included in last year's annual report and database. Negative reductions represent increases in emissions.

Source: Energy Information Administration, Form EIA-1605.

Figure 3. Number of Entities Reporting Commitments Associated with Voluntary Programs in Data Year 2004, by Program



Notes: LMOP = Landfill Methane Outreach Program, USIJI = United States Initiative on Joint Implementation, SFERP = Sulfur Hexafluoride Emissions Reduction Partnership. Others include Coalbed Methane Outreach Program, Cool Communities Program, Motor Challenge Program, and Voluntary Aluminum Industry Partnership. The sum of entities reporting commitments associated with each program exceeds the total number of entities reporting commitments because several entities reported commitments associated with more than one program.

Source: Energy Information Administration, Form EIA-1605.

expand the 1605(b) Voluntary Reporting of Greenhouse Gases Program. The primary goal of this effort is to enhance the program's credibility and transparency in reporting. In addition, a goal of the enhanced 1605(b) Program is to allow businesses and individuals to record their reductions and ensure that reporters are not penalized under a future climate policy. The objective of improving the registry is to help motivate firms to take cost-effective, voluntary actions to reduce greenhouse gas emissions, which would, in part, aid in the achievement of the Initiative's greenhouse gas intensity goal.

An interagency working group has undertaken several actions to improve the Voluntary Reporting Program, including outreach efforts, solicitation of public comments, and review of the existing program. On July 8, 2002, the Secretary of Energy, joined by the Secretary of Commerce, the Secretary of Agriculture, and the EPA Administrator, submitted recommendations to the White House to guide the process for improving and expanding the Voluntary Reporting Program.

In 2005, DOE continued to collaborate with the Department of Agriculture, the EPA, and other Federal agencies in developing revised Guidelines for the Voluntary Reporting of Greenhouse Gases Program. In March 2005, DOE released interim final General Guidelines and draft Technical Guidelines. The guidelines outline the principles that will govern the revised program and specify the methods and factors reporters must use in measuring and estimating greenhouse gas emissions, emission reductions, and carbon sequestration under the revised Program. DOE also held a public workshop on the subject in Crystal City, Virginia, on April 26-27, 2005. The Department of Agriculture and DOE jointly sponsored a workshop on May 5, 2005, to solicit comments on the forestry- and agriculture-related provisions of the guidelines.

The General Guidelines were issued as an interim final rule to be effective on September 20, 2005; however, on September 19, 2005, DOE announced that the effective date of the guidelines would be delayed until June 1, 2006,[7] to allow time for DOE to finalize the guidelines. When the guidelines are finalized, EIA intends to develop new reporting forms and software. Reporting under the revised guidelines is expected to begin in 2007.

[7] *Federal Register*, Vol. 70, No. 180 (September 19, 2005), p. 54835.

The Global Climate Change Initiative

On February 14, 2002, President George W. Bush announced the Administration's Global Climate Change Initiative, which includes new emission intensity reduction goals, incentives for clean technology development, added support for scientific research, expanded collaboration with foreign governments on climate change, and the development of a framework for the enhancement of the Voluntary Reporting of Greenhouse Gases Program.

A primary goal of the Global Climate Change Initiative is to slow the growth rate of greenhouse gas emissions while sustaining economic growth, using market mechanisms and energy technology development. In the proposal, the President established a national goal of reducing the greenhouse gas intensity of the U.S. economy by 18 percent between 2002 and 2012. Emissions intensity is a measure of the ratio of greenhouse gas emissions to economic output (gross domestic product). To achieve the goal, the Initiative focuses on fossil fuel energy conservation, methane recovery, and carbon sequestration in the short term and development of advanced energy technologies in the longer term.

Key domestic and international elements of the Global Climate Change Initiative include:

- Domestic climate change initiatives:
  - Enhancement of the 1605(b) Voluntary Reporting of Greenhouse Gases Program
  - Significantly expanded funding for basic scientific research and advanced technology development
  - Tax incentives, such as credits for renewable energy, cogeneration, and new technology
  - Challenges for business to undertake voluntary initiatives and commit to greenhouse gas intensity goals, such as through recent agreements with the semiconductor and aluminum industries
  - Transportation programs, including technology research and development and fuel economy standards
  - Carbon sequestration programs, which include increased funding for U.S. Department of Agriculture conservation programs under the Farm Bill to enhance the natural storage of carbon, promote the development of targeted incentives for forestry and agriculture projects to increase carbon sequestration, and establish accounting rules and guidelines for crediting sequestration projects
- International climate change initiatives:
  - Investments in climate observation systems in developing countries
  - Funding for "debt-for-nature" forest conservation programs
  - Use of economic incentives to encourage developing countries to participate in climate change initiatives
  - Expanding technology transfer and capacity building in the developing world
  - Joint research with Japan, Italy, and Central America.

The Global Climate Change Initiative includes a future progress check: the U.S. Government, in 2012, will evaluate whether its greenhouse gas emissions reduction progress is sufficient and whether scientific understanding at that time will justify further action. If further action is deemed necessary, the Initiative proposes to accelerate technology development and deployment using additional market-based mechanisms, voluntary measures, and incentive programs.

2. Reducing Emissions from Electric Power

Electric Power Industry

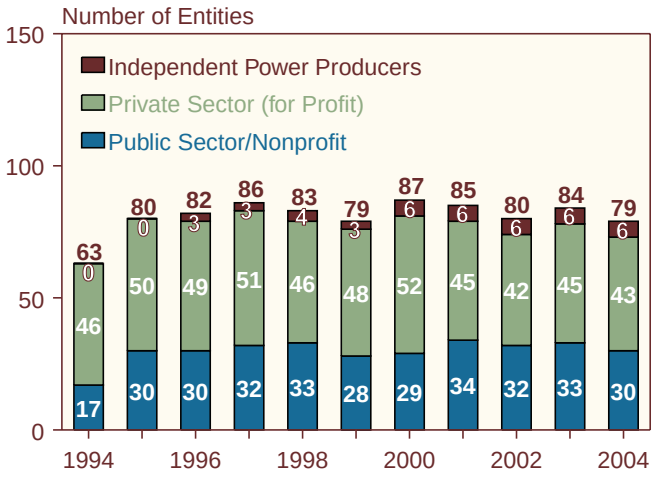
The electric power industry emitted 2,298.6 million metric tons of carbon dioxide (million $MTCO_2$) in 2004, 38 percent of total U.S. carbon dioxide emissions and 32 percent of total U.S. greenhouse gas emissions.[8] Carbon dioxide emissions result from the combustion of fossil fuels—coal, oil and natural gas—during electricity generation. Since 1990 carbon dioxide emissions from the electric power industry have increased by 496.3 million metric tons or 27 percent, a trend that reflects rises in U.S. population, economic growth, and corresponding increases in fossil energy consumption in the electric power sector. Over the 1990-2004 period, U.S. population has increased by 18 percent (from 248.7 million[9] to 293.7 million[10]), and gross domestic product has grown by about 51 percent.[11] At the same time, however, the emissions intensity of electricity generation has fallen by 2.1 percent, from 0.593 $MTCO_2$ per megawatthour generated in 1990 to 0.580 $MTCO_2$ per megawatthour in 2004, reflecting increased use of natural gas and nuclear power for electricity generation.[12]

Projects Reported

For the 2004 reporting year, 79 electric power providers reported to the Voluntary Reporting Program on the long form (Form EIA-1605), including 43 private-sector organizations, 30 public-sector or nonprofit organizations (electric cooperatives, municipal utilities, and other public-sector entities), and 6 independent power producers (Figure 4). The number of electric power industry reporters for 2004 was lower than the peak of 87 for 2000 but 25 percent higher than the 63 electric power reporters who filed the long form for 1994, the first reporting year of the program. The decrease since 2000 has resulted in part from merger activity in the U.S. electric power industry, which has reduced the number of potential reporters in the electric power sector.[13] The decrease in electric power reporters, combined with an increase in participants from other sectors, has caused electric power providers to fall from a high of 86 percent of reporters on Form EIA-1605 for 1994 to 41 percent for 2004.

Electric power providers accounted for 45 percent of the 176 project-level reporters and filed a total of 487 electric power projects for 2004 (Figure 5). The number of 2004 electric power projects reported is 297 more than the 190 projects reported for 1994 but 3 fewer than the 490 projects reported for 2003. Electric power projects were the most numerous project type reported to the Voluntary

Figure 4. Number of Electric Power Providers Reporting on Form EIA-1605, by Entity Type, Data Years 1994-2004



Source: Energy Information Administration, Form EIA-1605.

[8]Energy Information Administration, *Emissions of Greenhouse Gases in the United States 2004*, DOE/EIA-0573(2005) (Washington, DC, December 2005), web site www.eia.doe.gov/oiaf/1605/ggrpt.

[9]U.S. Census Bureau, *1990 Census of Population: General Population Characteristics, United States*, 1990 CP-1-1 (Washington, DC, October 1992), web site www.census.gov/prod/cen1990/cp1/cp-1-1.pdf.

[10]U.S. Census Bureau, "Annual Population Estimates 2000 to 2005," web site www.census.gov/popest/states/NST-ann-est.html.

[11]U.S. Department of Commerce, Bureau of Economic Analysis, "Gross Domestic Product (GDP)," web site www.bea.gov/bea/dn/home/gdp.htm.

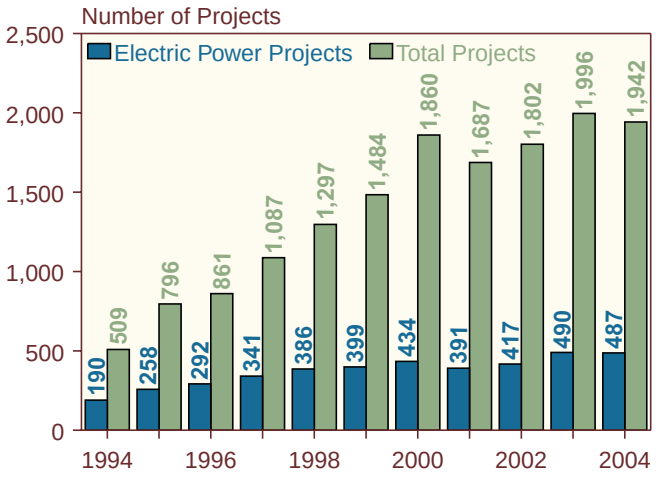
[12]Intensity calculation based on primary electricity generation data (excluding hydroelectric pumped storage) from Energy Information Administration, *Annual Energy Review 2004*, DOE/EIA-0384(2004) (Washington, DC, August 2005), web site www.eia.doe.gov/emeu/aer/elect.html. Carbon dioxide emissions estimates from Energy Information Administration, *Emissions of Greenhouse Gases in the United States 2004*, DOE/EIA-0573(2005) (Washington, DC, December 2005), Table 11, web site www.eia.doe.gov/oiaf/1605/ggrpt.

[13]There were 141 operating electric utilities in the United States in 2000, compared with 172 in 1992. See Energy Information Administration, *The Changing Structure of the Electric Power Industry 2000: An Update*, DOE/EIA-0562(00) (Washington, DC, October 2000), web site www.eia.doe.gov/cneaf/electricity/chg_stru_update/update2000.html.

Reporting Program, accounting for 23 percent of all projects reported for 2004.

Electric power projects are reported in two categories: (1) carbon content reduction; and (2) increasing energy efficiency in generation, transmission, and distribution. Carbon content reduction projects include availability improvements, fuel switching, and increases in lower emitting capacity. Increased efficiency projects include such activities as heat rate improvements, cogeneration and waste heat recovery, high-efficiency transformers, and reductions in line losses associated with electricity transmission and distribution. The projects reported for 2004 included 257 carbon content reduction projects and 258 increased efficiency projects.[14]

Figure 5. Electric Power Projects and Total Projects Reported on Form EIA-1605, Data Years 1994-2004



Source: Energy Information Administration, Form EIA-1605.

Reductions Reported

For data year 2004, 487 electric power projects included reported reductions of 173.7 million $MTCO_2e$ from direct sources and 19.0 million $MTCO_2e$ from indirect sources. The 257 carbon content reduction projects reported reductions of 159.8 million $MTCO_2e$ from direct sources and 17.2 million $MTCO_2e$ from indirect sources. The 258 increased efficiency projects reported emission reductions of 18.1 million $MTCO_2e$ from direct sources and 1.8 million $MTCO_2e$ from indirect sources (Table 9).

Many of the largest projects reported are electric power projects. In 2004, 28 electric power projects reported direct reductions of 1 million $MTCO_2e$ or more, representing 60 percent of all the projects that reported direct emission reductions exceeding 1 million $MTCO_2e$. Of the 28 electric power projects with direct emission reductions exceeding 1 million $MTCO_2e$, 22 (79 percent) involved nuclear power.

Table 9. Number of Electric Power Projects and Emission Reductions Reported on Form EIA-1605 by Project Type and Reduction Type, Data Year 2004

Reduction Objective and Project Type	Number of Projects Reported	Emission Reductions Reported (Metric Tons Carbon Dioxide Equivalent)	
		Direct	Indirect
Reducing Carbon Content	**257**	**159,816,119**	**17,206,232**
Availability Improvements	45	86,586,306	7,189,291
Fuel Switching	51	11,828,546	165,240
Increases in Lower Emitting Capacity	100	62,764,151	9,867,181
Other Carbon Reductions	75	32,685,402	1,533,471
Increasing Energy Efficiency	**258**	**18,064,061**	**1,794,084**
Generation	*196*	*13,888,495*	*1,512,610*
Efficiency Improvements	178	12,148,271	676,492
Cogeneration and Waste Heat Recovery	18	1,740,225	836,119
Transmission and Distribution	*62*	*4,175,566*	*281,474*
High-Efficiency Transformers	30	1,843,580	262,155
Reconductoring	27	1,807,422	224,376
Distribution Voltage Upgrades	28	2,640,791	185,420
Other Transmission and Distribution	13	1,746,381	65,062
Total Electric Power Projects	**487**	**173,688,372**	**18,976,629**

Note: Project totals may not equal sum of components because some projects may be counted in more than one category.
Source: Energy Information Administration, Form EIA-1605.

[14]More than one project type may be assigned to a single project; therefore, the sums of projects and reductions by project type category may exceed the total numbers of projects and the total reductions reported.

Reducing the Carbon Content of Energy Sources

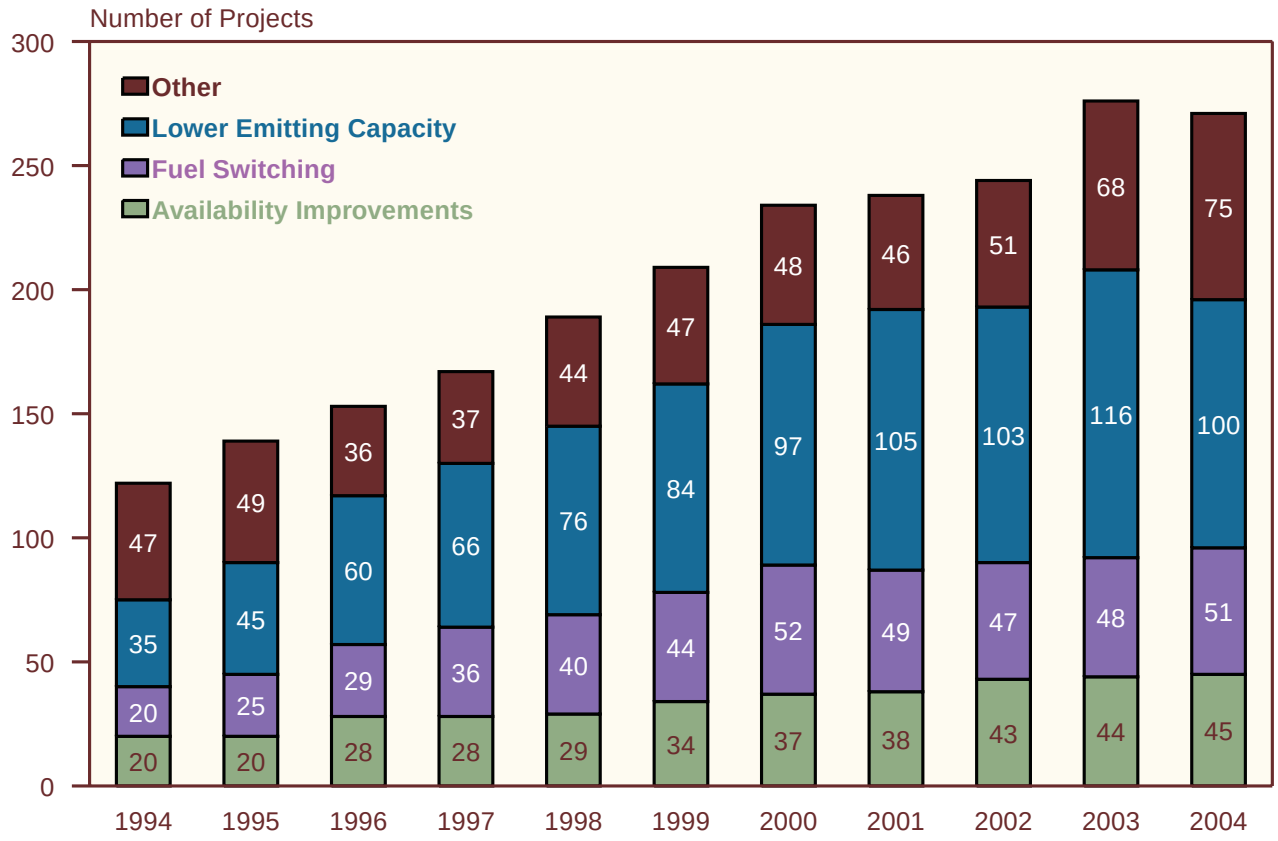
Projects involving fuel switching, availability improvements, and capacity increases at low- or zero-emitting power plants as well as other, similar activities typically reduce the amount of carbon dioxide emitted per unit of electricity generated. For 2004, 257 such projects were reported, slightly fewer than were reported for 2003 (Figure 6). The emission reductions reported for these projects for 2004 totaled 159.8 million $MTCO_2e$ from direct sources and 17.2 million $MTCO_2e$ from indirect sources. Some carbon content reduction projects are in fact "hybrids," combining efficiency improvements with measures such as availability improvements or increases in lower emitting capacity (see box on page 18).

Availability Improvements

There were 45 availability improvement projects reported for data year 2004—1 more than the 44 reported for 2003 and 25 more than the 20 reported for 1994. Availability improvement projects for 2004 included reported reductions of 86.6 million $MTCO_2e$ from direct sources and 7.2 million $MTCO_2e$ from indirect sources. Of the 45 availability improvement projects, 34 involved nuclear power plants. As in previous reporting years, availability improvement projects, especially those undertaken at nuclear facilities, produced some of the largest reported reductions in carbon dioxide emissions. Advances in operating, maintenance, and refueling procedures have increased availability at some nuclear plants, displacing fossil-fuel-based power generation.

Because nuclear power plants are invariably large baseload facilities, even a fairly small improvement in plant availability can lead to a sizable reduction in carbon dioxide emissions by displacing fossil-fueled generation. For example, according to Southern Company, the operational performance and efficiency improvements at its Vogtle plant are intended to reduce costs safely and increase capacity factors by reducing the number of forced outages and the duration of planned outages. Upgrades of steam generator instrumentation at Vogtle and other Southern Company nuclear plants have minimized incidents in which a unit is automatically taken out of service. The results have been dramatic at the Vogtle plant, where megawatthours generated have

Figure 6. Electric Power Projects Reported on Form EIA-1605 Reducing the Carbon Content of Energy Sources, by Project Type, Data Years 1994-2004



Note: The sum of projects in many project categories exceeds the total number of projects reported, because more than one project type may be assigned to a single project.

Source: Energy Information Administration, Form EIA-1605.

increased and outage durations have decreased since the 1990 baseline year of the project.

Several major performance records have been set in the nuclear industry in recent years, and major progress has been made in reducing the length of scheduled refueling outages. Factors that have contributed to the decrease in outage durations include: (1) online maintenance, with some activities that previously were performed during refueling outages now being performed while the unit is online, if it can be done safely; (2) optimum scheduling; and (3) use of robotic inspection equipment for steam generator and reactor inspection activities. Since 1991, total annual generation at the Vogtle plant has risen by approximately 16 percent. For 2004, Southern Company reported that 1,786,103 megawatthours of generation that would have come from fossil fuels was instead generated from nuclear power because of the project, reducing the company's emissions by 1.7 million $MTCO_2e$. Southern Company reports that it has performed similar availability improvements at other nuclear power plants, with similar results.

Fuel Switching

A total of 51 fuel-switching projects were reported for 2004, 3 more than the 48 reported for 2003 and 31 more than the 20 reported for 1994. Switching from coal or oil to natural gas lowers carbon dioxide emissions because of the relatively lower carbon content of natural gas. For example, switching from bituminous coal to natural gas reduces carbon dioxide emissions per unit of energy consumed by approximately 43 percent. Other reported actions, such as switching from oil to natural gas, also reduce greenhouse gas emissions, but to a lesser extent. The fuel-switching projects reported for 2004 accounted for reported emission reductions of 11.8 million $MTCO_2e$ from direct sources and 0.2 million $MTCO_2e$ from indirect sources.

Increases in Lower Carbon Emitting Capacity

Projects involving the construction of new, low-emitting power plants or increases in the capacity of existing low-emitting plants were among the most numerous electricity supply projects reported. For 2004, 100 such projects were reported, 16 fewer than the 116 reported for 2003. Most of the projects reported for 2004 involved increases in low- or zero-emitting capacity, including nuclear (23 projects), hydropower (17 projects), photovoltaic (18 projects), natural gas (11 projects), and wind capacity (26 projects). Emission reductions reported for increases in low-emitting capacity projects in 2004 totaled 62.8 million $MTCO_2e$ from direct sources and 9.9 million $MTCO_2e$ from indirect sources.

For 2004, Exelon Corporation reported on its Chicago Solar Partnership project, implemented with the City of Chicago, the Illinois Department of Commerce and Economic Opportunity, the International Brotherhood of Electrical Workers, Chicago Public Schools, and Spire Solar Chicago. The partnership aims to develop solar

Electricity Supply Carbon Reduction Projects: Definitions and Terminology

The combustion of fossil fuels to produce heat for electricity generation causes greenhouse gas emissions. In addition to substantial releases of carbon dioxide, fossil fuel combustion also emits other effluents, including small quantities of methane and nitrous oxide. Carbon content reduction projects typically reduce greenhouse gas emissions by replacing fuels with relatively high carbon dioxide emissions (such as coal) with fuels that have lower carbon dioxide emissions (such as natural gas) or no net carbon dioxide emissions (such as nuclear power or renewables).

Availability Improvements. By reducing the frequency and length of planned and unplanned power plant outages, availability improvement projects can result in increased use of a power plant. Emissions reductions occur when increasing generation from a lower carbon emitting plant displaces generation from a higher carbon emitting plant. Power plant utilization is measured by the plant's *capacity factor*, defined as the ratio of the average load on the plant over a given period to its total capacity. For example, if a 200-megawatt plant operates (on average) at 75 percent of its rated capacity (i.e., at a load of 150 megawatts) over a period of a year, the plant's capacity factor is 75 percent for that year. Hence, there is a net reduction in carbon dioxide emissions when there is an improvement in the capacity factor of a lower than average carbon emitting plant that results in a reduction in generation from a higher than average carbon emitting plant.

Fuel Switching. The amount of carbon contained in fossil fuels and released in the form of carbon dioxide during combustion varies, depending on the type of fuel. Thus, switching from a higher carbon content fuel (such as coal) to a lower carbon content fuel (such as natural gas) results in reduced carbon dioxide emissions.

Increases in Generating Capacity With Low or No Net Carbon Dioxide Emissions. By increasing the capacity of an existing generating unit that produces relatively low emissions or no net emissions (e.g., a hydroelectric plant), or by constructing a new unit with low or no net carbon dioxide emissions (e.g., a wind turbine), a power supplier can reduce or avoid reliance on higher emitting plants, thus reducing net greenhouse gas emissions from all plants.

resources and increase solar-powered electricity generation in Chicago. The project implemented six new photovoltaic installations in 2004, which, together with other installations around the city since 2001, resulted in a total capacity of 782 kilowatts and 599,219 kilowatthours of generation annually. For 2004, Exelon reported on 40 percent of the project, with 445 $MTCO_2e$ of reported emission reductions.

Other Carbon Reduction Projects

A total of 75 "other carbon reduction" projects were reported for 2004, 7 more than reported for 2003 and 28 more than reported for 1994. The category of "other" projects includes projects that decrease higher emitting capacity, make dispatching changes only, or increase power purchases from low- or zero- emitting capacity. In 2004, 46 projects used low- or zero- emitting power purchases to reduce emissions. This category was added to the Voluntary Reporting Program for the 1999 data year to classify electric power producer/supplier purchases of power from low- or zero-emitting generation sources for resale, replacing generation or purchases of power from more carbon-intensive generation sources. Another 4 projects reported for 2004 involved decreases in high-emitting capacity, and 2 involved changes in the dispatching of power plants. For 2004, reported emission reductions from "other carbon reduction" projects totaled 32.7 million $MTCO_2e$ from direct sources and 1.5 million $MTCO_2e$ from indirect sources.

As part of its commitment to the Denver Metropolitan Emission Reduction Program (MERP), Xcel Energy voluntarily retired units 1 and 2 of its Arapahoe plant at the end of December 2002. For 2004, Xcel reported a reduction of 0.3 million $MTCO_2e$ from the removal of these two high-emitting generation units.

Changes in dispatch order can reduce carbon dioxide emissions if lower emitting plants are used more frequently. In 2004, Southern California Edison Company purchased electricity produced by small hydroelectric plants under the Public Utility Regulatory Policies Act of 1978 (PURPA) and reporting emission reductions of 1,700 $MTCO_2e$. Cinergy achieved emission reductions through the economic dispatch of its generating facilities. Before the merger of the Cincinnati Gas & Electric Company and PSI Energy, the generating facilities of the two companies were dispatched according to their respective demand loads. After the merger, the units were operated and dispatched in coordination. Cinergy estimated that the new method of operational and economic dispatch has provided a 1-percent efficiency gain in the operation of the system, because newer, more efficient units are dispatched first to meet customer demand for electricity. For 2004, Cinergy reported a decrease of 282,067 short tons in consumption of bituminous coal, with direct emission reductions of 0.6 million $MTCO_2e$.

In its 2004 report, Alliant Energy reported on three low- or zero-emitting power purchase projects. Two involved the purchase of hydroelectric power and the third involved electricity produced from biomass. Alliant purchased a total of 117,188 megawatthours of hydroelectricity and transmitted it to Iowa and Wisconsin. Alliant also purchased 15,197 megawatthours of power produced from biomass by BFC Gas & Electric, which converts industrial, agricultural, and construction waste into a low-Btu biogas. For 2004, Alliant reported 0.1 million $MTCO_2e$ of total direct reductions for these three projects.

Increasing Energy Efficiency in Electricity Production and Distribution

Projects involving improvements in the efficiency of electricity generation, transmission, and distribution reported for 2004 produced much smaller emission reductions on average than projects reducing carbon content. Efficiency improvement tends to be an ongoing effort by electricity suppliers, yielding a continuous stream of small, incremental improvements rather than one-time dramatic increases in efficiency. For example, heat rate improvement projects often are undertaken in response to normal plant deterioration. As power plants age, efficiency tends to erode gradually. Operators seek to maintain heat rates by replacing or refurbishing old, worn-out equipment. Similarly, new energy-efficient transformers are often installed gradually over a period of years, as old transformers fail.

For 2004, 258 "increasing energy efficiency" projects were reported, including some hybrid projects that combined efficiency improvements with measures such as availability improvements. The efficiency projects reported resulted in average direct emission reductions of 70,016 $MTCO_2e$ and indirect emission reducitons of 6,954 $MTCO_2e$, as compared with average direct emissions reductions of 589,727 $MTCO_2e$ and indirect emissions of 63,492 $MTCO_2e$ reported for carbon content reduction projects. The efficiency improvement projects fall into two main categories: (1) generation, involving efficiency improvements in the conversion of fossil fuels and other energy sources into electricity; and (2) transmission and distribution, involving reduced losses in the delivery of electricity from the power plant to the end user (see box on page 20).

Generation Projects

Efficiency Improvements. Improvements in generation efficiency were the most numerous type of efficiency project reported for 2004, with participants reporting 178 such projects. Heat rate improvements at coal-fired power plants are a commonly reported means of increasing efficiency and reducing carbon dioxide

emissions. There are numerous opportunities for improving efficiency at existing power plants, but the efficiency gains, and hence reductions in fuel consumption and emissions, are limited by technology and tend to be marginal. For 2004, emission reductions reported for generation efficiency improvement projects totaled

Efficiency Projects: Definitions and Terminology

Generation Projects

It is neither theoretically nor practically possible to convert all the thermal or other energy produced in, or consumed by, a power plant into electrical energy or useful heat. In fact, much of the energy is lost rather than converted. Typically, U.S. steam-electric generating plants operate at efficiencies of about 33 percent, meaning that two-thirds of the thermal energy produced is lost. Some more advanced power plants have higher efficiencies, but even new combined-cycle plants (in which the waste heat from a gas turbine is recovered to produce steam to drive a turbine) typically have efficiencies of only 50 to 60 percent. Generation projects seek to improve power plant efficiencies either by reducing the amount of energy lost during the conversion process or by recovering the lost energy for subsequent application.

Efficiency Improvements. By increasing the efficiency of the generation process, efficiency improvement projects at fossil-fuel-fired power plants reduce the plants' *heat rate*, defined as the amount of fossil energy (measured in Btu) needed to produce each kilowatthour of electricity. The result is a reduction in the amount of fuel that must be burned to meet generation requirements, and hence a reduction in carbon dioxide (and other greenhouse gas) emissions. Efficiency improvements at nonfossil (e.g., hydroelectric) power plants can also reduce greenhouse gas emissions. Emission reductions occur if the efficiency improvement leads to an increase in the amount of electricity generated by the affected plant, with a consequent reduction in the amount of electricity that must be generated by other (fossil fuel) plants to meet demand.

Cogeneration. Only a portion of the heat generated during the combustion of fossil fuels can be converted into electrical energy; the remainder is generally lost. Cogeneration involves the recovery of thermal energy for use in subsequent applications. Cogeneration facilities typically employ either topping or bottoming cycles. In a *topping cycle*, thermal energy is first used to produce electricity and then recovered for subsequent applications. Topping cycles are widely used in industry as well as at electric power plants that sell electricity and steam to customers. In a *bottoming cycle*, the thermal energy is first used to provide process heat, from which waste heat is subsequently recovered to generate electricity. Bottoming cycle applications are less common, usually associated with high-temperature industrial processes. Because cogeneration involves the recovery and use of thermal energy that would otherwise be wasted, it reduces the amount of fossil fuel that must be burned to meet electrical and thermal energy requirements, hence reducing greenhouse gas emissions.

Transmission and Distribution Projects

The purpose of the electricity transmission and distribution system is to deliver electrical energy from the power plant to the end user. Resistance to the flow of electrical current in cables, transformers, and other components of the transmission and distribution system causes a portion of the energy (typically about 7 percent) to be lost in the form of heat. Improving the efficiency of the various system components can decrease such line losses, reducing the amount of generation required to meet end-use demand and, thus, power plant fossil fuel consumption and greenhouse gas emissions.

High-Efficiency Transformers. Transformers, used to change the voltage between different segments of the transmission and distribution system, are a source of system losses. Transformer losses occur as a result of impedance to the flow of current in the transformer windings and because of hysteresis and eddy currents in the steel core of the transformer. When existing transformers are replaced with high-efficiency transformers (including improved silicon steel transformers and amorphous core transformers), losses are reduced.

Reconductoring. Like transformers, conductors (including feeders and transmission lines) are a source of transmission and distribution system losses. In general, the smaller the diameter of the conductor, the greater its resistance to the flow of electric current and the greater the consequent line losses due to heating. Reconductoring involves the replacement of existing conductors with larger diameter conductors or reduced resistance materials (i.e., superconductive materials), which not only reduces line losses but also allows for an increase in transmission capacity.

Distribution Voltage Upgrades. Line losses are dependent, in part, on the voltage at which the various segments of the transmission and distribution system operate. Upgrading the voltage of any segment can reduce line losses.

12.1 million $MTCO_2e$ from direct sources and 0.7 million $MTCO_2e$ from indirect sources.

For 2004, Entergy Services Inc. reported six new efficiency improvement projects. The projects included equipment replacement or control system improvements at five different facilities. The equipment replacements included replacing the inner shells and rotors of high-pressure turbines, neural network installations, retubing a condenser, upgrading flue gas control, installing a lower capacity boiler feedwater pump, and installing new boiler and feedwater controls. Each improvement was reported as a separate project, for a total of six efficiency improvements in all. The projects produced a combined total reported reduction of 0.1 million $MTCO_2e$ in 2004.

Portland General Electric Company reported a project for 2004 that increased the efficiency of the steam system at its Boardman plant in eastern Oregon. The company replaced the high- and intermediate-pressure sections of the steam turbine to increase its efficiency and added piping to meet the requirements of the new steam turbine sections. Portland General Electric Company reported that these efficiency improvements allowed 500,765 megawatthours of electricity to be generated without burning more fuel, yielding 0.3 million $MTCO_2e$ in indirect emissions reductions.

Cogeneration and Waste Heat Recovery. A total of 18 cogeneration and waste heat recovery projects were reported for 2004, 3 fewer than were reported for 2003. The average emission reductions reported for cogeneration and waste heat recovery projects for 2004 were larger than those reported for projects involving distribution voltage upgrades, efficiency improvements, reconductoring, and high-efficiency transformers. For 2004, the total emission reductions reported for cogeneration and waste heat recovery projects were 1.7 million $MTCO_2e$ from direct sources and 0.8 $MTCO_2e$ from indirect sources.

The Southern Company reported on a project for a new cogeneration facility that its subsidiary, the Alabama Power Company, began operating in 2000 in Theodore, Alabama. The facility uses only natural gas to produce electricity for INEOS Phenol and process steam for Degussa, AG. The cogeneration facility consists of a 170-megawatt combustion turbine with a supplementally fired (duct burner) heat recovery steam generator, a 40-megawatt steam turbine, and two package boilers. The package boilers did not replace any existing boilers. Degussa produces its own steam and supplements it with steam from the Theodore cogeneration facility. For 2004, a total direct reduction of 0.7 $MTCO_2e$ was reported. In addition, a small indirect reduction probably was also achieved, because the steam supplied to Degussa was produced with newer and more efficient boilers than the older Degussa boilers; however, details about the Degussa boilers were not reported.

Another example of a cogeneration project is a turbine-generator owned by Minnesota Power (MP) that is located at the SAPPI Ltd paper mill in Cloquet, Minnesota. The MP unit, with 23 megawatts net capacity, was placed in a process steam line where steam previously had been throttled to lower pressure for process use. Consequently, the turbine-generator produces electricity with an overall process efficiency of 83 percent, using steam produced from boilers fueled with 50 percent natural gas and 50 percent wood waste (biomass) from mill processes. MP estimates that the cogeneration application heat rate is 4,112 Btu per net kilowatthour of electricity generation. Through 2002, MP assumed that its generator displaced generation otherwise produced from conventional subbituminous coal. Starting in 2003, MP assumed that the unit displaced generation that would have come from the Mid-Continent Area Power Pool (MAPP). For 2004, MP reported a direct emission reduction of 0.1 million $MTCO_2e$.

For 2004, Blue Source LLC started reporting a gas turbine cogeneration project at a pulp and paper mill in Bucksport, Maine. The project produces electricity for the mill and surrounding area. The gas turbine cogeneration unit was constructed at the mill in Bucksport during 2000 and commissioned in 2001. It consumes natural gas and a small amount of diesel fuel. Natural gas turbines are one of the cleanest means of generating electricity using fossil fuels because of their relatively high efficiency and reliance on natural gas as the primary fuel. The associated greenhouse gas emission factors for steam and electricity production are significantly lower than the mill's coal-fired power boiler cogeneration unit. All steam produced from the natural gas turbine cogeneration unit is consumed on site by the mill. The mill uses approximately 25 percent of the electricity generated by the cogeneration unit, and the remaining 75 percent is sent to the grid. For 2004, Blue Source reported emission reductions of 0.2 million $MTCO_2e$.

Transmission and Distribution Projects

Transmission and distribution projects, although not as numerous as generation projects, were nonetheless reported in significant numbers. For 2004, 62 transmission and distribution projects were reported, 3 fewer than were reported for 2003. Unlike generation projects, which typically have distinct inception and completion dates, efforts such as upgrading conductors and replacing transformers are ongoing activities by electric power producers. Consequently, most of the transmission and distribution efficiency improvements reported for 2004 were reported as continuations of long-standing projects rather than as new projects.

The national average energy loss from transmission and distribution is about 7 percent of generation. There are numerous opportunities for improving the efficiency of delivering electricity, but the efficiency gains are generally smaller than those from generation projects.

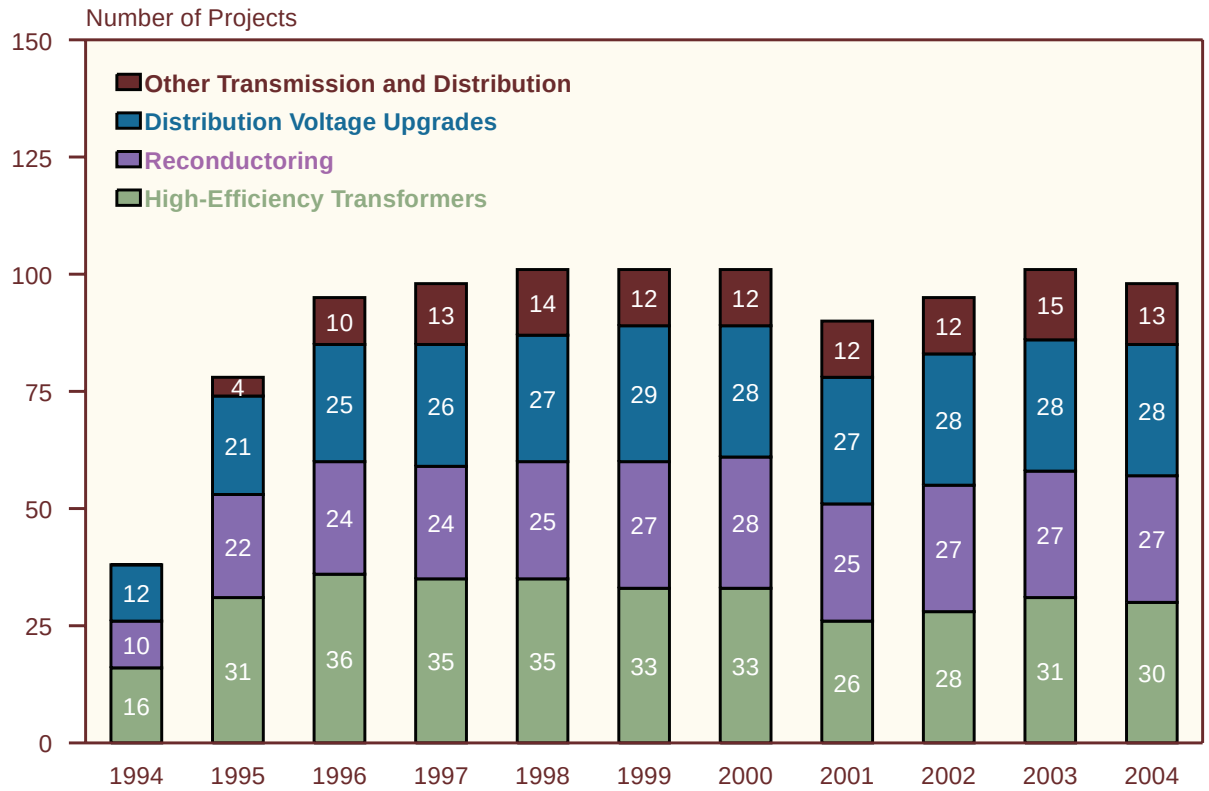
For 2004, the most frequently reported types of transmission and distribution projects (Figure 7) were installing high-efficiency transformers (including improved silicon steel and amorphous core transformers); reconductoring (replacing existing conductors with large-diameter conductors to reduce line losses); and upgrading distribution voltage (increasing the voltage at which the various segments of the system operate to reduce line losses). Other transmission and distribution projects include those that involve more than one type of activity, as well as such activities as transmission line improvements and capacitor installations. For 2004, 30 high-efficiency transformer projects were reported, 1 fewer than reported for 2003 and 14 more than reported for 1994. Many of the reported projects were "hybrids," combining high-efficiency transformer installation with one or more other transmission and distribution activities (e.g., reconductoring).

For 2004, as for 2003, program participants reported 27 projects involving reconductoring and 28 projects involving distribution voltage upgrades (both often in combination with other activities). The reporters classified 13 projects as "general" or "other" transmission and distribution, 2 fewer than reported for 2003. For 2004, the total emission reductions reported for transmission and distribution projects were 4.2 million $MTCO_2e$ from direct sources and 0.3 million $MTCO_2e$ from indirect sources.

Xcel Energy reported a new high-efficiency transformer project for 2004. Effective November 1, 2003, Public Service Company of Colorado, a subsidiary of Xcel Energy, reduced transformer losses by 3.5 megawatts when a new transformer configuration was implemented at the Denver Zuni Terminal Substation. Xcel reported that the new configuration saved 30,664 megawatthours of energy in 2004, with total associated reductions in emissions of carbon dioxide, methane, and nitrous oxide of 26,900 $MTCO_2e$.

American Electric Power, Inc. reported a continuing project that fits into both the reconductoring and distribution voltage upgrade categories. Typical operation

Figure 7. Reported Transmission and Distribution Projects Reported on Form EIA-1605 by Type, Data Years 1994-2004



Note: The sum of projects in a project category may exceed the total number of projects reported, because more than one project type may be assigned to a single project.
Source: Energy Information Administration, Form EIA-1605.

of the American Electric Power distribution system requires that improvements be made on a continuous basis for the purpose of rehabilitation and reinforcement to distribute power efficiently and reliably to customers. Improvements to the distribution system to increase peak capacity and reduce line losses include: voltage conversion of stations and circuits, circuit voltage conversions, primary line reconductoring, load transfers between phases to balance circuit loading, primary line additions and multiphasing, installation of more efficient distribution system devices, and installation of shunt capacitors on distribution circuits. For 2004, American Electric Power reported a reduction in electricity demand of 1,285,205 megawatthours and emission reductions of 1.0 million $MTCO_2e$.

3. Reducing Emissions from Energy End Use

Introduction

Greenhouse gas emissions from energy end use include emissions from both stationary and mobile sources.[15] In 2004, the industrial, commercial, and residential sectors combined to emit 3,966 million $MTCO_2$, or 67 percent of total U.S. carbon dioxide emissions—nearly all from stationary sources (Figure 8). Emissions from stationary sources are produced both directly by the combustion of fossil fuels (e.g., natural gas consumption for home heating) and indirectly from the consumption of electricity (e.g., for commercial lighting). In 2004, the transportation sector accounted for 1,934 million $MTCO_2$, nearly all from mobile sources, and represented approximately 32 percent of U.S. carbon dioxide emissions.

Reducing Emissions from Stationary Sources

Emissions from stationary sources in 2004 included 2,320 million $MTCO_2$ from the generation of electricity that was ultimately consumed in the industrial, commercial, and residential sectors. Industry was responsible for the largest share of total stationary-source emissions (43 percent), followed by the residential sector (31 percent) and the commercial sector (26 percent).

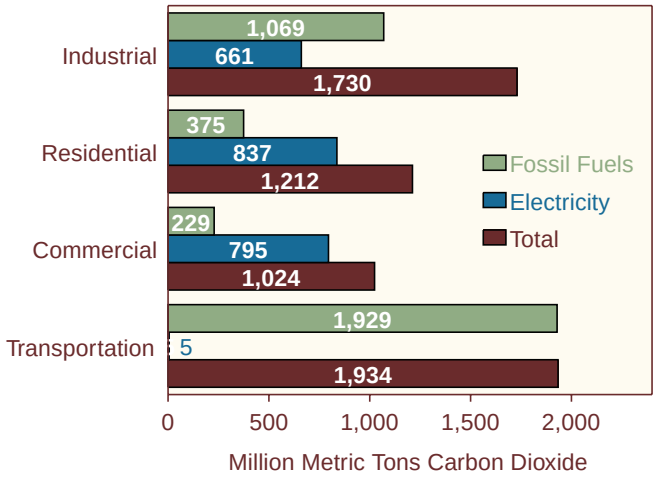
Between 1990 and 2004, carbon dioxide emissions associated with industrial, commercial, and residential energy use increased by 16.3 percent. Of stationary sources, the commercial sector had the fastest-growing emissions, registering a 32.1-percent increase in emissions between 1990 and 2004. Emissions from the residential sector increased by 27.9 percent over the same period, and industrial sector emissions increased by 2.5 percent.[16]

Projects Reported

Reported emission reduction projects affecting stationary sources include fuel switching (e.g., from fuel oil to natural gas); light bulb replacement (e.g., substituting compact fluorescent bulbs for incandescents); heating, ventilation, and air conditioning (HVAC) system upgrades (e.g., maintenance or replacement with more efficient units); appliance replacement (e.g., retiring old appliances for ENERGY STAR[17] products); motor and motor drive upgrades; and industrial power system improvements. For 2004, 64 entities reported 345 energy end-use projects on Form EIA-1605 (Table 10). These 345 projects accounted for 18 percent of all the projects reported on the long form.

For the 2004 reporting year, the number of entities reporting energy end-use projects, the number of energy end-use projects reported, and the total reported direct emission reductions resulting from energy end-use projects all were lower than for the 2003 reporting year (Table 10). The general decline was the result of a slight decrease in overall reporter participation this year. While reported direct reductions decreased from 25.3 million $MTCO_2e$ for 2003 to 22.3 million $MTCO_2e$ for 2004, reported indirect reductions increased from 10.0 million $MTCO_2e$ to 13.8 million $MTCO_2e$. The increase

Figure 8. Sources of U.S. Carbon Dioxide Emissions by Sector, 2004



Note: The industrial sector includes agriculture; the residential and commercial sectors exclude transportation.

Source: Energy Information Administration, *Emissions of Greenhouse Gases in the United States 2004*, DOE/EIA-0573(2004) (Washington, DC, December 2005).

[15]Stationary sources include emission sources at fixed locations, such as power plants, factories, refineries, mines, and heating plants or waste conversion facilities, among others. Mobile sources include transportation sector emissions from non-fixed locations, such as motor vehicles, aircraft, trains, and ships, among others.

[16]Energy Information Administration, *Emissions of Greenhouse Gases in the United States 2004*, DOE/EIA-0573(2004) (Washington, DC, December 2005), web site www.eia.doe.gov/oiaf/1605/ggrpt.

[17]ENERGY STAR is a joint program of the U.S. Department of Energy and the U.S. Environmental Protection Agency helping businesses and individuals protect the environment through increased energy efficiency. See web site www.energystar.gov.

in reported indirect reductions resulted from revisions to previous data years and an influx of new projects reporting indirect reductions (71 percent of new reported projects for 2004). Overall, the reported total of indirect and direct reductions from energy end-use projects has increased significantly since 1994—indirect reductions by 947 percent and direct reductions by 145 percent—although the number of energy end-use reporters has increased by only 13 entities.

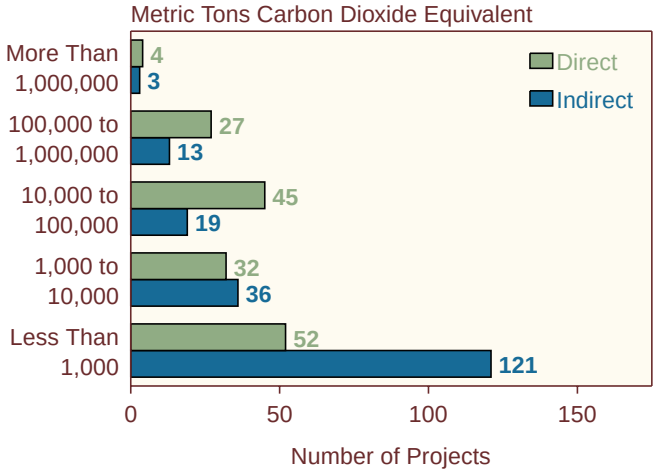
Among the 64 entities that reported energy end-use projects for 2004 on Form EIA-1605, 45 (70 percent) were electric power producers. Companies in the industrial sector included 6 automobile and transportation equipment manufacturers, 4 pharmaceutical and health care product companies, 3 cement companies, 2 electronic companies, and 1 oil company.

Emission reductions reported for individual energy end-use projects ranged from less than 1 $MTCO_2e$ to almost 4.8 million $MTCO_2e$, in part because some reporters included information on each individual end-use initiative separately, whereas others aggregated information on a range of activities into a single project. For example, an electric power distributor may report on a demand-side management (DSM) project that achieves direct emission reductions through multiple supplemental approaches, such as encouraging residential, commercial, and industrial customers to change light bulbs, temporally shift electric loads, implement urban forestry projects, and upgrade appliances, building shells, and heating, ventilation and air-conditioning (HVAC) systems.

Among projects for which direct emission reductions were reported for 2004, 81 percent had reductions of less than 100,000 $MTCO_2e$ (Figure 9). Similarly, among projects reporting indirect reductions, 92 percent had reductions of less than 100,000 $MTCO_2e$. Only eight of the energy end-use projects reported for 2004 had emission reductions greater than 1.0 million $MTCO_2e$ each.

In terms of emission reductions achieved in 2004, 5 of the 7 largest projects reported were aggregated electric company DSM programs. DSM projects may focus on one or more load shape objectives (see box on page 28).

Figure 9. Energy End-Use Projects Reported on Form EIA-1605 by Size and Type of Emission Reduction, Data Year 2004



Source: Energy Information Administration, Form EIA-1605.

Table 10. Number of Energy End-Use Reporters, Projects, and Emission Reductions Reported on Form EIA-1605, Data Years 1994-2004

Data Year	Number of Reporters	Number of Projects Reported	Emission Reductions Reported (Metric Tons Carbon Dioxide Equivalent)	
			Direct	Indirect
1994	51	160	9,103,753	1,318,092
1995	63	221	12,450,879	1,591,590
1996	62	214	15,288,497	1,538,196
1997	67	249	16,685,010	3,798,030
1998	79	308	18,282,751	5,026,424
1999	80	330	16,047,912	6,786,832
2000	77	382	19,663,333	8,155,193
2001	68	338	19,550,862	7,668,988
2002	65	339	24,707,214	9,061,773
2003[R]	68	390	25,291,434	9,955,603
2004	64	345	22,295,753	13,806,106

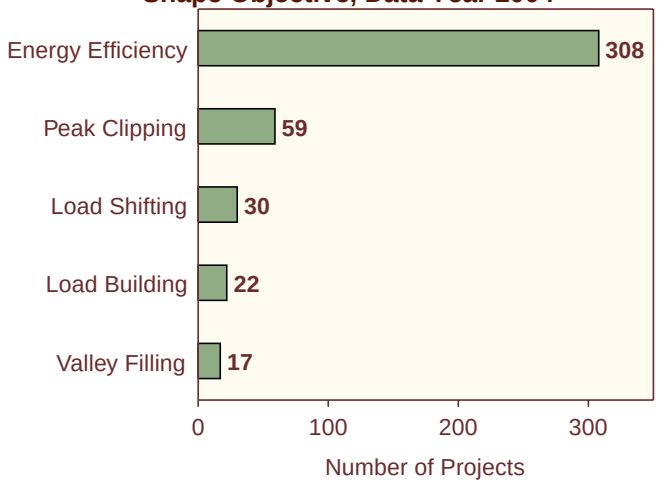
[R] Revised data.

Notes: More than one project type may be assigned to a single project; therefore, the sums of the projects and reductions in each project type category may exceed the total numbers of projects and reductions in the totals and subtotals. Table excludes data from confidential reports.

Source: Energy Information Administration, Form EIA-1605.

Although the most common load shape objective of reported DSM projects for 2004 was increased energy efficiency (308 projects), electric utilities also attempted to balance their load profiles with various other load shape objectives, including peak clipping, load shifting, valley filling, and load building (Figure 10).

Figure 10. Demand-Side Management Projects Reported on Form EIA-1605 by Load Shape Objective, Data Year 2004



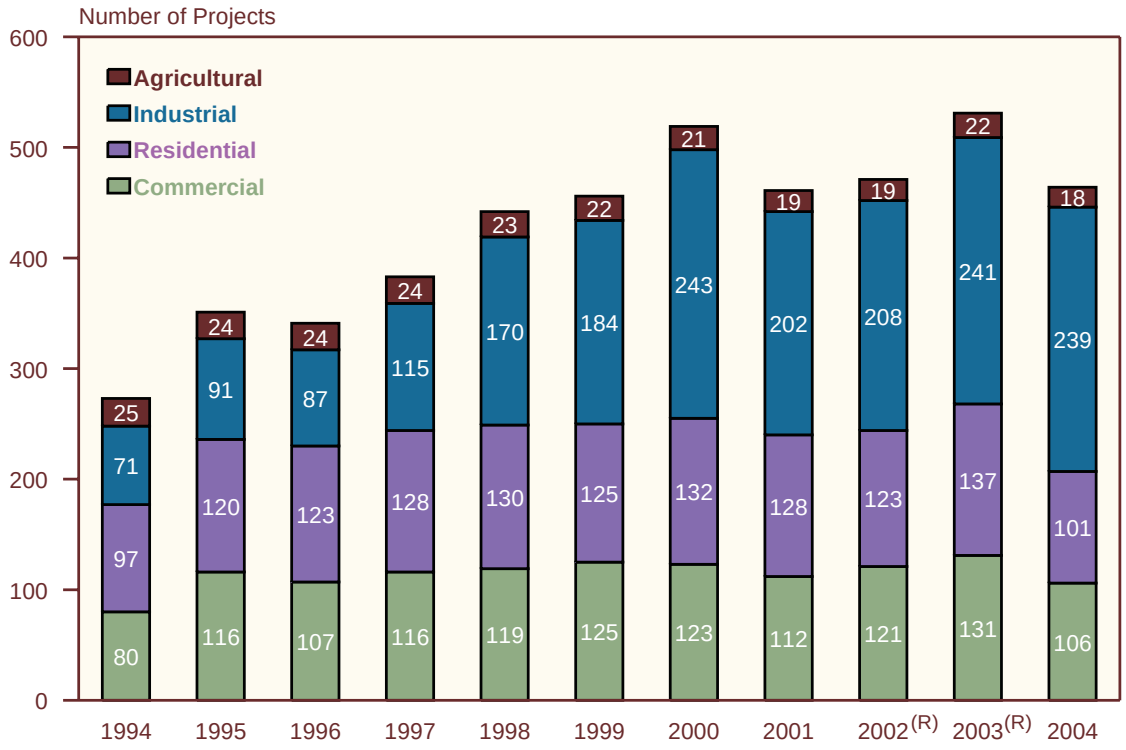
Notes: Some projects may be counted in more than one category. Figure excludes data from confidential reports.
Source: Energy Information Administration, Form EIA-1605.

Energy end-use projects can be carried out anywhere energy is consumed. Reporters indicate whether their energy end-use projects affect emissions in the industrial, commercial, residential, or agricultural sector. For 2004, 239 projects were reported to have reduced emissions in the industrial sector, 106 in the commercial sector, 101 in the residential sector, and 18 in the agricultural sector (Figure 11). Reporting of end-use projects in the industrial sector increased slightly but in every other sector decreased between 2003 and 2004. It should be noted that many projects—particularly, electric company DSM programs—affect more than one end-use sector and are included in each applicable sector for the purposes of counting types of projects reported.

Project Types

Of the 12 new reporters for 2004, 2 reported energy end-use projects. In addition, many repeat reporters included new energy end-use projects along with their ongoing projects. The most frequently reported type of energy end-use project for 2004 was equipment and appliance replacement/improvements (146 projects), followed by lighting and lighting controls (132 projects) and HVAC (108 projects) (Table 11). Because of the varied levels of data aggregation in reports by different entities, it is not possible to calculate average emission reductions by project type or to draw conclusions about the most effective energy end-use project types in terms of total emission reductions achieved.

Figure 11. Energy End-Use Projects Reported on Form EIA-1605 by Sector, Data Years 1994-2004



Notes: Some projects target more than one sector and may be counted in multiple categories. Figure excludes data from confidential reports.
Source: Energy Information Administration, Form EIA-1605.

Equipment and Appliances

Replacements of equipment and appliances with more energy-efficient units (e.g., ENERGY STAR products) to reduce greenhouse gas emissions are frequently reported energy end-use projects. For 2004, Michael Paul Taylor, a new household reporter, submitted reports for two new equipment and appliance projects. In his Personal Home Electricity Reduction Program, Mr. Taylor used compact fluorescent light bulbs, reductions in phantom loads, and reductions in fuel consumption to reduce his overall electrical consumption from that of the previous owner. Mr. Taylor began the project in 2000 but reported it for the first time for 2004. Overall, the household measures he created resulted in energy savings of 2,455 kilowatthours in 2004, for a total emission reduction of 2.0 $MTCO_2e$. Mr. Taylor also

Table 11. Number of Projects and Emission Reductions Reported on Form EIA-1605 for Energy End-Use Projects by Project Type, Data Year 2004

Project Type	Number of Projects Reported	Number of Projects Reporting Emission Reductions			Emission Reductions Reported (Million Metric Tons Carbon Dioxide Equivalent)	
		Direct	Indirect	Both Direct and Indirect	Direct	Indirect
Equipment/Appliances	146	69	99	22	26.4	23.6
Lighting/Lighting Controls	132	63	80	11	33.9	23.0
HVAC	108	58	62	12	32.5	18.7
Load Control	57	33	34	10	22.2	13.3
Building Shell	49	30	36	17	23.9	19.0
Motor/Motor Drive	48	28	29	9	21.6	15.6
Fuel Switching	34	25	14	5	16.5	3.3
Other[a]	33	21	18	6	4.7	0.9
Energy Effects of Urban Forestry	7	7	1	1	11.1	*
Industrial Power Systems	4	3	1	0	1.2	*
Total	**345**	**171**	**220**	**46**	**22.3**	**13.8**

[a]Includes all projects that cannot meaningfully be included in any of the specific project type categories.

*Less than 0.05 million metric tons.

Note: Project totals and emission reductions do not equal sum of components, because some projects are counted in more than one category.

Source: Energy Information Administration, Form EIA-1605.

Load Shape Effects: Definitions and Terminology

Energy Efficiency. Projects that improve the energy efficiency of specific end-use devices and systems. Such projects usually reduce overall energy consumption, often without regard for the timing of project-induced savings. Generally, energy savings are achieved through the substitution of technically more efficient measures (i.e., equipment, systems, or operating procedures) to produce the same level of end-use service (e.g., lighting or warmth) with less energy use.

Load Building. Projects that increase energy consumption, generally without regard to the timing of the increase. Promotion of residential electric space heating systems and promotion of new industrial electrotechnologies are examples of electricity load-building projects.

Load Shifting. Projects that move energy consumption from one time to another (usually during a single day). For example, water-heater timers typically turn off the units during the daytime (when an electric company experiences peak demands) and allow the units to operate at night (during the company's off-peak period).

Peak Clipping. Projects that reduce energy demand at certain critical times, typically when the electric system experiences peaks. These projects generally have only small effects on overall energy use but focus sharply on reducing energy use at critical times. Load-shifting and peak-clipping differ because the former shifts much of the energy use from one time to another, whereas the latter eliminates a load without shifting it to another time period.

Valley Filling. Projects that increase off-peak energy consumption (without necessarily reducing on-peak demands). Replacement of an oil-fired furnace with an electric heat pump is an example of valley filling. Such projects can aim to fill daily or seasonal valleys.

developed a Personal Home Natural Gas Use Reduction Program, using a programmable thermostat, plastic window cling, and weatherization techniques, that resulted in energy savings of 25.9 million Btu of natural gas, for a total emission reduction of 1.4 $MTCO_2e$.

The Los Angeles Department of Water and Power (LADWP) added a new equipment and appliance program in 2004, called "Refrigerator Turn-In and Recycle" (RETIRE). RETIRE provides incentives of up to $192 per year to LADWP customers to turn in older spare refrigerators or freezers. There is no cost to the customer for pickup or recycling of the spare units, and LADWP provides an additional incentive of a free 6-pack of 23-watt compact fluorescent bulbs. For 2004, LADWP reported that the program effectively removed 2,288 refrigerators for recycling, resulting in overall energy savings of 4,118 megawatthours and total emission reductions of 3,079 $MTCO_2e$.

Lighting and Lighting Controls

Lighting and lighting control projects, such as installing compact fluorescent bulbs and occupancy sensor lighting controls, have consistently been popular projects in the Voluntary Reporting Program. The Estee Lauder Companies reported two new lighting projects for 2004. In a lighting upgrade project, Estee Lauder replaced 445 existing metal halide lights with more energy-efficient T5/HO industrial hi-bay lights. This project allowed the Estee Lauder Companies to save 228,500 kilowatthours of electricity in 2004 and to reduce indirect emissions by 121 $MTCO_2e$. Estee Lauder anticipates future energy savings of 914,000 kilowatthours over the life of the project. In a second new project, the Estee Lauder Companies added occupancy sensors to T8 Octron fluorescent lights already in place. Despite the relatively small size of this project, Estee Lauder was able to save an additional 750 kilowatthours and to reduce indirect emissions by 0.2 $MTCO_2e$.

Heating, Ventilation, and Air Conditioning (HVAC)

HVAC projects involve the reduced use or upgrade of HVAC systems in homes, businesses, offices, or industrial plants. Although there were no new reporters in the HVAC category, a number of new projects were reported for 2004. The majority of the new projects were not limited to HVAC activities but had HVAC components included in larger DSM efforts.

Sikorsky Aircraft Corporation reported a chiller replacement project, started in September 2004, as both an equipment and appliance improvement and HVAC project. The project replaced two chillers that the company had built and installed in 1983 with more energy-efficient chillers. The older chillers had a power requirement of 0.8 kilowatt per ton; the newer models have a power requirement of 0.5742 kilowatt per ton. As a result, Sikorsky saved 92,200 kilowatthours of electricity and reduced its emissions by 39.4 $MTCO_2e$ over 4 months in 2004. In a similar project, Allergan, Inc. installed a more energy-efficient chiller to upgrade its Botox Core Three unit, resulting in energy savings of 86,574 kilowatthours and a reported emission reduction of 66.7 $MTCO_2e$ in 2004.

Building Shell

Building shell projects improve the energy efficiency of buildings through improved insulation and the prevention of air leaks in ceilings, walls, floors, windows, or doors. A large share of the projects reported in the building shell category for 2004 involved DSM programs implemented by electric power providers. The projects reported in the building shell category tend be components of larger end-use projects. Despite the lack of new building shell projects in 2004, ongoing projects continued to report reduced energy consumption and emissions in 2004.

The Energy Smart Services project of Seattle City Light, operational since October 2001, continues to promote energy savings and greenhouse gas reductions. Between 2003 and 2004, the initiative nearly doubled Seattle City's energy savings and its emission reductions. Energy savings for the project as a whole increased by 88 percent, from 41,792 megawatthours in 2003 to 78,546 megawatthours in 2004. Emission reductions also increased by 88 percent, from 16,393 $MTCO_2e$ in 2003 to 30,810 $MTCO_2e$ in 2004. The project, which replaced the Energy Savings Plan and Energy Smart Design programs, contains several different components offering commercial and industrial customers incentives and services to reduce the use of electricity, water, and other resources. Several options of the overall plan contain building shell components, including the Energy Analysis Assistance option, which provides customers with an in-depth consultant analysis of proposed electrical efficiency measures for new and remodeled commercial buildings. Seattle City Light pays 100 percent of the cost for new construction applications. The Building Commissioning option of the project funds commissioning plans for newly constructed buildings.

Load Controls

Load controls are energy management techniques for minimizing—either overall or at specific times of the day—end-use demand for electricity. Power companies themselves can use load management options and, through DSM programs, encourage their customers to apply load controls. Independently, power consumers can employ load controls to reduce their energy consumption, shift their demand to non-peak hours, reduce their consumption during peak hours, and reduce energy costs. Load control options include energy efficiency projects, load building, load shifting, peak clipping, and valley filling (see box on page 28).

Bristol-Myers Squibb Company reported on its Compressed Air System Renovation & Leak Survey/Repair program for the first time in 2004. The program, begun in June 1995, is designed to optimize the efficiency of the company's compressed air system. Compressed air is vital for plant operations to comply with stringent quality controls for the production of food and pharmaceutical goods. Before the project was undertaken, the plant's compressed air system consisted of three 300-horsepower lubricant-free rotary screw compressors that produced up to 3,000 standard cubic feet of compressed air per minute during periods of high demand, at discharge pressures between 95 and 105 pounds per square inch. As the plant's production evolved over time, the compressed air system was having difficulty meeting the minimum pressure requirements. Compressed air leaks were identified and repaired in 1994 and 1995, resulting in a more efficient system. The project has reportedly saved roughly 2,000 megawatthours of electricity in every year since it began, with reported emission reductions of 1,896 $MTCO_2e$ in 2004.

Motor and Motor Drive

High- or ultra-high-efficiency motors and variable-speed or variable-frequency motor drives are more energy efficient than regular motors and motor drives. In addition, controls can be used to reduce electricity consumption by adjusting motor speeds or turning off motors when appropriate. Motor and motor drive projects generally are reported in the commercial and industrial categories, and often they are components of DSM programs. There were no new reporters or projects reported in the motor and motor drive category for 2004.

Fuel Switching

Switching from high-carbon to low-carbon fuels reduces carbon dioxide emissions generated during combustion. In January 2004, Lehigh Cement Company (formerly, Lehigh Portland Cement Company) began four new projects aimed at reducing emissions by using either high-carbon coal ash waste or obsolete crop seeds as a supplemental fuel in kilns at its plants in Leeds, Alabama; Mason City, Iowa; and Union Bridge, Maryland.[18] Ordinarily, the kilns use natural gas, bituminous coal, or petroleum for fuel.

At Lehigh's Alabama plant, which typically consumes both natural gas and bituminous coal, consumption of ash waste increased to 74,799 million Btu in 2004, displacing other fossil fuels. In particular, its bituminous coal consumption was reduced by 452,152 million Btu. Overall, the project reduced CO_2 emissions by 36,037 metric tons in 2004. Lehigh also substituted ash waste and seeds for bituminous coal and petroleum coke. At the Iowa plant, bituminous coal consumption was reduced by 199,475 million Btu and petroleum coke consumption by 173,938 million Btu, resulting in direct emission reductions of 25,666 $MTCO_2e$ for seed burning and 25,277 $MTCO_2e$ for ash waste burning. The Maryland plant had by far the largest emission reduction reported for 2004, increasing ash waste consumption by 388,196 million Btu and distillate fuel consumption by 93,531 million Btu while reducing bituminous coal consumption by 2,793,583 million Btu. The result was reported as a direct emission reduction of 220,537 $MTCO_2e$.

Energy Effects of Urban Forestry

Urban forestry is the planting and maintenance of individual trees within a city or community. The energy effects of urban forestry projects include reductions in the space heating and/or cooling requirements of buildings as a result of planting trees to provide shade or windbreaks. In addition to reducing emissions by lowering fuel consumption, urban forestry projects can also sequester carbon, as discussed in Chapter 4.

There were no new urban forestry projects reported for 2004. LADWP continued to report an ongoing project, "Cool Schools Urban Forestry," to plant trees on campuses of the Los Angeles Unified School District throughout the city. The project serves several purposes in addition to reducing carbon dioxide emissions, including environmental and scientific instruction for the district's students. In the first 2 years of the program, 1998 and 1999, LADWP planted 3,278 trees at schools throughout the district and since then has planted 742 trees in 2000, 591 in 2001, 1,735 in 2002, 1,179 in 2003, and 123 in 2004. The trees generally are 2 years old and 10 feet tall when planted, and they are replaced immediately if they die. The goal of the program is to plant 8,000 trees at more than 80 schools. For 2004, the project was reported to have resulted in electricity savings of 619,488 kilowatthours (about 8 times the 75,978 kilowatthours savings reported for 1998, the first year of the program) and carbon dioxide emission reductions of 463 $MTCO_2e$.

Industrial Power Systems

Industrial power system projects are designed to reduce emissions from industrial power systems through efficiency improvements such as boiler system upgrades and replacements and turbine optimization. One new

[18]Emission reductions are based on the use of coal ash waste (186 pounds CO_2 per million Btu) to displace bituminous coal (205.3 pounds CO_2 per million Btu) and petroleum coke (225.13 pounds CO_2 per million Btu). The emission coefficient for coal ash waste is based on an Excel spreadsheet calculation tool, "CO2 Emissions Inventory Protocol, Version 2.0," developed for the World Business Council for Sustainable Development, Cement Sustainability Initiative and available at web site www.wbcsdcement.org/pdf/tf1/co2_protocol.xls. Crop seeds, considered biogenic and with an emission factor of 0.0 pounds CO_2 per million Btu, are mostly obsolete corn seeds past their shelf life.

industrial power system project was reported for 2004, the Estee Lauder Companies' Aveda cooling tower variable-speed drives project. Initiated in January 2004, the project was designed to ensure that cooling towers at the Aveda facility can run at optimum efficiency for the cooling load. Variable-speed drives were installed on the units, saving 394,333 kilowatthours of electricity in 2004, with reported indirect emission reductions of 272 $MTCO_2e$.

Other

The "other" project category captures the effects of energy-end use projects that cannot be meaningfully included in another category. Exelon Corporation began its Energy Delivery Internal Energy Efficiency Initiative in January 2003 but did not report it until the 2004 data year. In this project, the corporation charged the Exelon Environmental Strategy Energy Efficiency Team with the goal of improving the energy efficiency of Exelon Energy Delivery facilities by 3 percent per year for the 5-year period 2003-2007, relative to 2002. The team is also responsible for developing recommendations for expanding the project in other Exelon facilities.

During 2003 and 2004, the Exelon project focused on three core activities: developing a communication and education campaign to influence tenant behaviors, installing energy-efficient lighting retrofits at a few facilities, and reprogramming existing control systems to match heating and cooling to hours of occupancy. Through these efforts, the team developed measures within the communications strategy, including: publishing internal articles about the initiative, sending a brochure to employees through company mail, providing stickers to remind employees to turn off monitors and wall switches, displaying posters to remind employees and contractors about the initiative, working with the real estate and facilities departments to involve cleaning and security personnel, and sending internal e-mail reminders and "desk-drops" to remind employees about the initiative. Overall, the initiative helped to reduce electricity consumption by 2,289 megawatthours in 2003 and 6,948 megawatthours in 2004, resulting in emission reductions of 232 $MTCO_2e$ in 2003 and 585 $MTCO_2e$ in 2004. Exelon intends to initiate similar projects in other business units, such as Exelon Power and Exelon Nuclear, in the future.

Reducing Emissions from Transportation

The transportation sector is the largest contributing end-use sector to total U.S. energy-related carbon dioxide emissions, accounting for 32 percent of emissions in 2004. Direct use of petroleum fuels in mobile source applications accounts for 98 percent of transportation sector carbon dioxide emissions, and most of the remaining 2 percent results from the consumption of natural gas. Indirect emissions resulting from the use of purchased electricity account for about 0.3 percent of transportation sector emissions.

Carbon dioxide emissions from the transportation sector increased by 23 percent between 1990 and 2004, from 1,570 million metric tons to 1,934 million metric tons.[19] The increase was caused by both rising average miles driven per vehicle and the number of vehicles on the road. The average number of miles driven per vehicle increased by 10 percent between 1990 and 2003,[20] and the number of vehicles on the road increased by 23 percent between 1990 and 2003.[21] Emissions growth was moderated somewhat by an increase in average U.S. vehicle fleet fuel efficiency from 16.4 miles per gallon to 17.0 miles per gallon between 1990 and 2003.[22]

For 2004, 34 entities reported 65 transportation projects on Form EIA-1605. All but 5 of the reporters were electric power sector companies. The other reporters were AT&T (telecommunications), BNSF Railway[23] (transportation), Blue Source, LLC (emissions offset brokerage), Arizona Portland Cement, and Michael Paul Taylor (private household). Of the 65 transportation projects reported on Form EIA-1605 for 2004, 60 have been reported in previous years. A new reporter, Pepco Holdings Inc., reported 5 projects for 2004 that had previously been included in separate reports submitted for 2003 by subsidiaries of Pepco Holdings Inc. (Conectiv Atlantic Generation and Conectiv Delmarva Generation). A total of 5 new projects were reported for 2004, including 3 that had been reported in a different form for 2003:

- Exelon Corporation submitted a consolidated project report on alternative-fuel vehicle activities for 2004 by two operating companies (Commonwealth Edison and PECO). Exelon's 2004 report also retained

[19] Energy Information Administration, *Emissions of Greenhouse Gases in the United States 2004,* DOE/EIA-0573(2004) (Washington, DC, December 2005), web site www.eia.doe.gov/oiaf/1605/ggrpt.

[20] Energy Information Administration, *Annual Energy Review 2004*, DOE/EIA-0384(2004) (Washington, DC, August 2005), p. 57, web site www.eia.doe.gov/aer.

[21] U.S. Department of Transportation, Bureau of Transportation Statistics, *National Transportation Statistics 2005* (Washington, DC, June 2005), Table 1-11, web site www.bts.gov/publications/national_transportation_statistics/2005/html/table_01_11.html.

[22] Energy Information Administration, *Annual Energy Review 2003,* DOE/EIA-0384(2003) (Washington, DC, September 2004), p. 57, web site www.eia.doe.gov/aer.

[23] BNSF Railway reported for 2003 as the Burlington Northern and Santa Fe Railway Co.

the separate project reports for alternative-fuel vehicle activities conducted by the two operating companies before 2004.

- Pepco Holdings Inc. included information on its pilot study of using gasoline-electric hybrid vehicles to replace its fleet vehicles.
- PG&E Corporation included two new project reports covering 2000 through 2004: compressed natural gas (CNG) vehicle usage by its own fleet and, separately, by its customers. Previously, PG&E had included all its CNG vehicle activities in a single project report. PG&E's 2004 report retained the project including both fleet and customer CNG activities but limited its coverage to the 1994-1999 period.
- Michael Paul Taylor, a new reporter, provided information on how he reduced his transportation-related emissions by increasing his reliance on busing, biking, walking, and carpooling to meet his transportation needs.

Of the 65 transportation projects reported for 2004, 37 were affiliated with DOE's Climate Challenge program. A single project indicated an affiliation with the Climate Wise program, which was originally a joint DOE/EPA program but has since been merged into EPA's ENERGY STAR program.

Tables 12 and 13 show historical trends in the reporting of transportation projects to the Voluntary Reporting Program. The large increase in direct emission reductions beginning in 2003 results from two vehicle efficiency projects reported for the first time last year by BNSF Railway, which reported improving locomotive efficiency, and Blue Source, LLC, which reported an intermodal transportation initiative involving integration of road and rail networks. The projects reported for 2004 fall into three broad categories:

- Alternative fuel use, 34 projects
- Travel reduction, 23 projects
- Vehicle efficiency improvements, 8 projects.

The primary effect of the transportation projects reported was to reduce emissions of carbon dioxide. Reductions in emissions of nitrous oxide or methane were also reported for 7 projects. For 14 of the 65 projects reported, either reductions did not occur in 2004 or they were not estimated.[24]

Direct reductions totaling 2.7 million $MTCO_2e$ were reported for 34 transportation projects in 2004 (Table 12), representing an 8.7-percent increase over the amount reported for 2003. The two largest transportation projects accounted for nearly all of the increase in reported emission reductions. BNSF Railway reported a reduction of 1.1 million $MTCO_2e$ for its locomotive efficiency initiative in 2004, an increase of 144,000 $MTCO_2e$ from 2003. Blue Source, LLC reported a reduction of 1.4 million $MTCO_2e$ for its intermodal transportation project in 2004, 99,000 $MTCO_2e$ greater than the reduction reported for 2003.

Participants also reported indirect emission reductions in 2004 totaling 192,000 $MTCO_2e$ for 24 transportation projects. The sources of the reduced emissions included "fuel cycle" emissions associated with production, refining, transportation, and distribution of fossil fuels; customer-owned conventional vehicles replaced by CNG vehicles refueled by natural gas distribution companies; employee vehicles affected by reporter-sponsored travel reduction programs, such as carpooling; and railroad-owned locomotives hauling coal in lightweight aluminum rail cars owned by electric utilities. The indirect reductions reported for 2004 were 42 percent greater than those reported for 2003.

Two projects reported by Ameren Corporation (formerly UE, CIPS, and CILCO) and PG&E Corporation were primarily responsible for the increase in indirect emission reductions. Ameren's use of lightweight, aluminum rail cars to ship subbituminous coal to its power plants resulted in a reported reduction of 47,000 $MTCO_2e$, an increase of 25,000 $MTCO_2e$ over the reduction reported for 2003. PG&E included a new project in its submission involving the refueling of its customers' CNG vehicles, which reportedly reduced emissions by 31,000 $MTCO_2e$ in 2004.

Using Alternative Fuels

Although 53 percent of the transportation projects reported for 2004 involved alternative-fuel vehicles, they accounted for less than 1 percent of the direct reductions but 17 percent of the indirect reductions reported for transportation projects. In general, the reported reductions for alternative-fuel vehicle projects were small, with reductions in excess of 1,000 $MTCO_2e$ being reported for only 4 of the 34 projects.

Alternative-fuel vehicle projects reported to the Voluntary Reporting Program have involved a variety of fuels, including natural gas, electricity, propane, B20 (a blend of 20 percent biodiesel and 80 percent diesel), E85 (a blend of 85 percent ethanol and 15 percent gasoline), and M85 (a blend of 85 percent methanol and 15 percent gasoline). Electricity was the alternative fuel included in

[24]In some cases, reductions for the project may have been reported for years before 2004. In other cases, the reductions were not estimated due to the lack of data or other difficulties in quantifying the effects of the project. Entities may elect to report projects without reporting reductions to make a public record of the fact that they have conducted an activity in fulfillment of a commitment made under a voluntary program such as Climate Challenge.

11 project reports; however, only 6 of them included reductions for 2004.

Direct emission reductions reported to have resulted from the use of electric vehicles totaled 772 $MTCO_2e$ for 2004, down from the 1,081 $MTCO_2e$ reported for 2003. Southern California Edison's electric vehicles reportedly logged 1.3 million miles in 2004, down from 1.8 million miles in 2003. LADWP reported operating 261 electric vehicles in 2004, up from 204 in 2001 and 18 in 1996. Southern Company reported operating a fleet of 63 electric vehicles in 2004, including cars, trucks, neighborhood electric vehicles, and buses; however, the current size of Southern Company's electric fleet is less than one-quarter of the 484 vehicles it operated at its peak in 2000.

Information on the operation of natural-gas-fueled vehicles was included in reports on 17 projects, 9 of which were reportedly active in 2004. Two utilities reported operating fleets of more than 100 CNG or dual-fuel CNG-gasoline vehicles[25] in 2004: We Energies (328 vehicles) and NiSource (372 vehicles). We Energies reported a direct emission reduction of 310 $MTCO_2e$ from its own

Table 12. Number of Projects and Emission Reductions Reported on Form EIA-1605 for Transportation Projects by Project and Reduction Type, Data Years 1994-2004

	Number of Projects				Emission Reductions (Metric Tons Carbon Dioxide Equivalent)	
Year	Vehicle Efficiency	Travel Reduction	Alternative Fuels	Total	Direct	Indirect
1994	3	6	18	**26**	4,203	6,346
1995	6	14	21	**40**	22,660	54,061
1996	7	15	26	**47**	28,813	54,043
1997	8	21	27	**55**	32,283	95,782
1998	9	23	28	**58**	25,085	89,174
1999	10	25	30	**62**	43,499	282,257
2000	9	25	32	**64**	22,611	134,519
2001	5	21	28	**53**	44,996	88,023
2002	5	26	30	**60**	41,916	161,156
2003	9	26	31	**66**	2,459,475	134,867
2004	8	23	34	**65**	2,673,820	191,681

Notes: Project totals do not equal sum of components, because some projects are counted in more than one category. Table excludes data from confidential reports.
Source: Energy Information Administration, Form EIA-1605.

Table 13. Emission Reductions Reported on Form EIA-1605 for Transportation Projects by Project and Reduction Type, Data Years 1994-2004
(Metric Tons Carbon Dioxide Equivalent)

	Vehicle Efficiency		Travel Reduction		Alternative Fuels	
Year	Direct	Indirect	Direct	Indirect	Direct	Indirect
1994	1,244	5,651	1,170	—	1,956	695
1995	18,148	36,137	2,179	16,461	2,463	1,495
1996	18,647	38,602	5,427	13,903	4,847	1,546
1997	20,979	48,213	8,762	45,227	2,582	2,352
1998	18,436	70,527	3,110	15,923	3,632	2,746
1999	14,671	174,553	6,077	106,841	22,866	2,148
2000	53	66,324	8,549	67,404	14,021	2,306
2001	-1,109	51,905	13,052	34,050	33,053	2,068
2002	15	48,160	10,920	108,912	31,030	4,085
2003	2,387,335	49,543	38,951	83,156	32,810	2,168
2004	2,629,658	75,339	36,354	83,384	7,808	32,958

Notes: Table excludes data from confidential reports.
Source: Energy Information Administration, Form EIA-1605.

fleet and an indirect reduction of 756 $MTCO_2e$ from customer fleets using the 15 public refueling stations that We Energies operates. NiSource reported a direct emission reduction of 63 $MTCO_2e$ for its natural-gas-fueled vehicle fleet, which includes forklifts and light-duty vehicles and trucks converted to CNG, as well as heavy-duty trucks using liquefied natural gas (LNG).

Projects involving fuels other than natural gas and electricity were included in 8 reports, 5 of which included activity in 2004.[26] All the active projects involved the use of biodiesel, usually as B20. Biodiesel use was reported by Cinergy Corp., Consolidated Edison Company of New York, Pepco Holdings Inc., Public Service Enterprise Group, and Exelon Corporation.

Reducing Vehicle Travel

Travel reduction, which includes such activities as carpooling and vanpooling, mass transit, telecommuting, and service efficiency improvements, was reported for 23 projects for 2004—accounting for 1 percent of the direct reductions and 44 percent of the indirect reductions reported for transportation projects in 2004. The 36,354 $MTCO_2e$ of direct reductions and 83,384 $MTCO_2e$ reported for 2004 were similar to the amounts reported for 2003 (38,951 and 83,156 $MTCO_2e$, respectively).

Of the 23 projects reported in the travel reduction category, 11 involved carpooling or vanpooling, 8 increased mass transit ridership, 3 reduced employee vehicle use through telecommuting, 2 increased service efficiency for freight or service vehicles, and 10 involved other actions, such as work week compression, videoconferencing, use of bicycles for electric or gas meter reading, promotion of employee commuting by bicycle or walking, and automation of electric or gas meter reading in areas of low population density.[27]

AT&T reported the largest travel reduction project, a telecommuting program that reportedly reduced indirect emissions by 62,596 $MTCO_2e$ in 2004. Reductions of more than 5,000 $MTCO_2e$ in 2004 were also reported for the following travel reduction projects:

- The Blue Source, LLC, empty miles reduction program, which reduces the miles highway freight haulers travel without loads, reduced direct emissions by a reported 20,601 $MTCO_2e$.
- LADWP reported on its employee carpooling and vanpooling program (7,055 $MTCO_2e$ indirect emission reductions).
- Southern Company reported on its carpooling and mass transit programs (6,060 $MTCO_2e$ indirect emission reductions).
- TXU reported efforts to reduce fleet and employee vehicle use (7,170 $MTCO_2e$ direct emission reductions and 4,119 $MTCO_2e$ indirect emission reductions).
- AT&T reported on its fleet cost reduction program (8,231 $MTCO_2e$ direct emission reductions).

Improving Vehicle Efficiency

Seven entities submitted reports on eight vehicle efficiency projects, six of which resulted in reported emission reductions for 2004. Four entities reported direct emission reductions for 2004 resulting from vehicle efficiency initiatives, including BNSF Railway's locomotive efficiency project and Blue Source, LLC's intermodal transportation project.

BNSF Railway reported a direct emission reduction of 1.1 million $MTCO_2e$ for 2004, achieved by increasing locomotive efficiency through actions such as replacing older locomotives with more fuel-efficient units, using newer roller bearing technology on rail cars, positioning trailers on intermodal trains to reduce drag, adjusting train speeds to meet customer time frames while increasing fuel efficiency, adding idle control technology to switch locomotives, reducing terminal yard transit times, and using friction reducers on the wheel-to-rail interface. Blue Source reported reducing 2004 emissions by 1.4 million $MTCO_2e$ through an intermodal transportation initiative, which integrates road and rail freight hauling networks to increase overall fuel efficiency. Blue Source also reported on an effort to reduce truck idle time, which reduced 2004 direct emissions by a reported 28,541 $MTCO_2e$.

Two electric utilities reported indirect emission reductions from projects involving the use of lightweight aluminum railroad cars to transport coal. These projects resulted in indirect emission reductions because the locomotives using less fuel were owned by the railroads. Ameren Corporation reported reducing emissions by 46,635 $MTCO_2e$ for 2004, and Kansas City Power & Light Company reported reducing emissions by 28,704 $MTCO_2e$ for 2004.

[26]Three other reporters continued to submit information on projects that involved consumption of propane, E85, and M85 in previous years; however, these fuels were not used in 2004.

[27]The total number of travel reduction projects is less than the sum of the projects in each subcategory, because some projects include activities in more than one subcategory.

4. Carbon Sequestration

Background

Carbon sequestration plays an important role in the global carbon cycle. Green plants absorb carbon dioxide from the air, separating the carbon atom from the oxygen atoms, returning oxygen to the atmosphere, and incorporating the carbon into biomass in the form of roots, stems, and foliage. The carbon is thus sequestered in the biomass of vegetation.

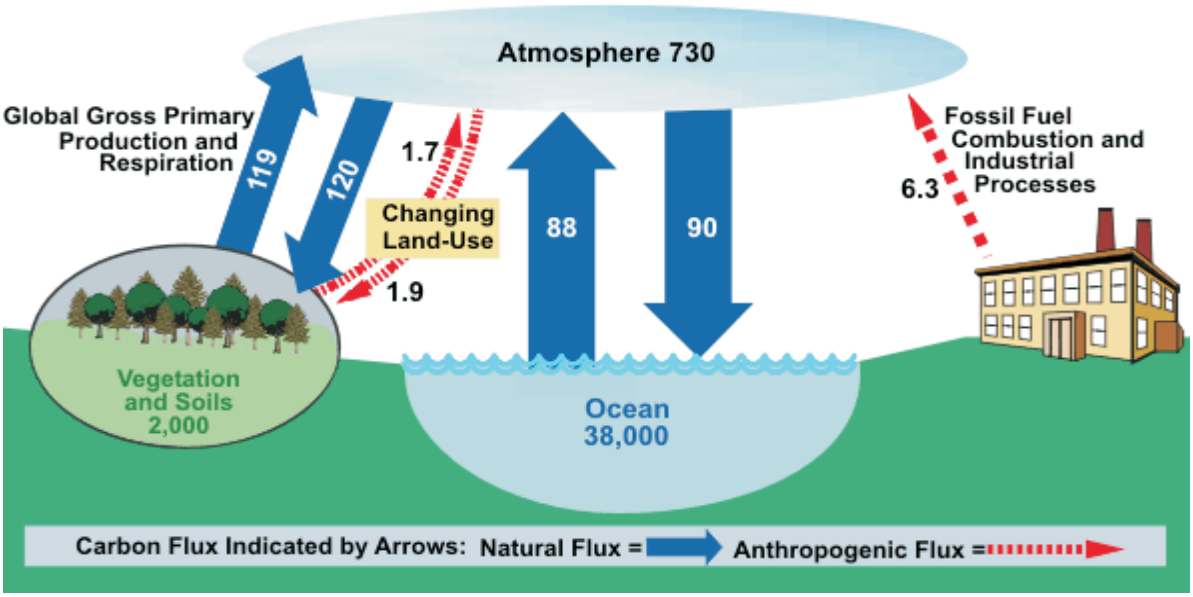
Globally, a very large amount of carbon dioxide—on the order of 120 billion metric tons of carbon—is absorbed annually during photosynthesis.[28] At the same time, vegetative respiration, combustion of wood as fuel, degradation of manufactured wood products, consumption of biomass for food by animals, and the natural decay of expired vegetation all release carbon to the atmosphere.

The net numerical difference, or flux, between carbon absorption during photosynthesis and release can be viewed as a measure of the relative contribution of terrestrial biomass to the carbon cycle.[29] For the period from 1989 to 1998, average annual net terrestrial uptake has been estimated at between 0.4 and 4.8 billion metric tons.[30] Figure 12 illustrates the global carbon cycle.

Forests can play an important role in offsetting human-produced carbon dioxide emissions. On average, trees are approximately 50 percent carbon by weight (oven-dry basis, excluding water).[31] The amount of carbon a plant can sequester depends on a number of variables, including species, health of vegetation, and age, but can be quite large.

Carbon sequestration on a national scale is substantial. The EPA, relying heavily on the work of the U.S.

Figure 12. The Global Carbon Cycle



Source: Intergovernmental Panel on Climate Change, *Climate Change 2001: The Scientific Basis* (Cambridge, UK: Cambridge University Press, 2001).

[28] Intergovernmental Panel on Climate Change, *Climate Change 2001: The Scientific Basis* (Cambridge, UK: Cambridge University Press, 2001), p. 191.

[29] The "carbon cycle" includes all carbon pools and exchanges of carbon from one pool to another by various chemical, physical, geological, and biological processes. The four carbon pools, which are regions of the Earth within which carbon behaves in a systematic manner, are the atmosphere, terrestrial biosphere (usually including biomass, soils and freshwater systems), oceans, and sediments (including fossil fuels).

[30] Intergovernmental Panel on Climate Change, *Climate Change 2001: The Scientific Basis* (Cambridge, UK: Cambridge University Press, 2001), p. 208. The two values express the statistical uncertainty of the net terrestrial uptake as being 0.7 ± 0.6 (at 67-percent confidence intervals) billion metric tons carbon per year. The carbon is expressed as carbon dioxide.

[31] R.A. Birdsey, *Carbon Storage and Accumulation in United States Forest Ecosystems* (Washington, DC: USDA Forest Service, 1992), p. 12.

Department of Agriculture's U.S. Forest Service, estimates annual U.S. carbon sequestration (generally defined according to the guidelines of the Intergovernmental Panel on Climate Change) at 828 million $MTCO_2e$ in 2003,[32] which offsets approximately 12 percent of annual U.S. anthropogenic emissions of greenhouse gases.[33]

Projects Reported

For the 2004 reporting year, 54 entities reported projects on Form EIA-1605 involving forestry or natural resources that sequestered carbon or reduced emissions (Table 14). The reporters included 50 electric, gas, or sanitary service companies, 2 forestry companies, 1 petroleum refining or related industry, and 1 company specializing in the manufacture of stone, clay, glass, and concrete products. A total of 478 carbon sequestration projects were reported for 2004, an increase of 7 percent from 2003.

Carbon sequestration projects were the most numerous type reported on the long form, representing 25 percent of the projects reported for 2004 and outnumbering both electricity generation (469) and methane reduction (443) projects. The reported carbon sequestration projects were dispersed over a wide geographic area, including 39 States and 9 foreign countries. A total of 419 domestic and 59 international forestry projects were reported. Among the foreign projects, 52 represent individual equity shares in 2 projects: a forest preservation project, the Rio Bravo Carbon Sequestration Pilot Project, in Belize (28 project reports); and a modified forest management project in Malaysia (24 project reports).

Carbon sequestration reported on Form EIA-1605 for 2004, at 7.2 million $MTCO_2e$, was slightly lower than that reported for 2003 (Table 14). Of the 478 sequestration projects reported for 2004, most (395 or 83 percent) involved some kind of tree planting, which included afforestation, reforestation, urban forestry, and woody biomass production or agroforestry (Table 15).[34] These projects accounted for 17 percent (1.2 million $MTCO_2e$) of the sequestration and related direct emission reductions reported for 2004. Although only 33 forest preservation projects were reported, they accounted for 82 percent (5.9 million $MTCO_2e$) of the sequestration reported for 2004 (Table 16). Of the total sequestration for 2004, 87 percent was reported on behalf of foreign projects, including some very large forest preservation initiatives.

Urban forestry projects, involving the planting of trees in urban and suburban areas, accounted for 7 percent (32 projects) of the sequestration projects reported for 2004.

Table 14. Number of Projects, Carbon Sequestered, and Net Reductions Reported on Form EIA-1605 for Sequestration Projects, Data Years 1994-2004

Data Year	Number of Reporters	Number of Projects	Sequestration (Metric Tons Carbon Dioxide Equivalent)	Net Emission Reductions (Metric Tons Carbon Dioxide Equivalent)	
				Direct	Indirect
1994	23	58	746,545	189	23,127
1995	44	175	1,190,754	378	48,730
1996	51	175	8,676,591	1,291	32,215
1997	56	279	9,849,807	6,160	—
1998	57	321	12,490,927	716	—
1999	53	401	9,623,599	3,406	—
2000	53	468	9,011,117	1,041	—
2001	51	369	7,956,823	1,114	—
2002	51	413	7,296,516	1,875	—
2003 (R)	53	448	7,731,329	1,932	—
2004	54	478	7,236,120	3,982	41

(R) Revised data.
Note: Excludes projects reported on Form EIA-1605EZ.
Source: Energy Information Administration, Form EIA-1605.

[32] U.S. Environmental Protection Agency, *Inventory of U.S. Greenhouse Gas Emissions and Sinks 1990-2003*, EPA-430-R-05-003 (Washington, DC, April 2005), p. 230, web site http://yosemite.epa.gov/OAR/globalwarming.nsf/content/ResourceCenterPublicationsGHGEmissionsUSEmissionsInventory2005.html.

[33] U.S. anthropogenic greenhouse gases emissions were 6983.2 $MMTCO_2e$ in 2003. Energy Information Administration, *Emissions of Greenhouse Gases in the United States 2004*, DOE/EIA-0573(2004) (Washington, DC, December 2005), p. x, web site www.eia.doe.gov/oiaf/1605/ggrpt.

[34] Afforestation is the planting of new forests on lands that have not been recently forested. Reforestation is the replanting of forests on lands that have recently been harvested or otherwise cleared of trees. Urban forestry is the planting of trees individually or in small groups in urban or suburban settings. Agroforestry is the cultivation of trees in plantations for fuel or fiber.

Urban forestry projects typically are much smaller than forestry projects undertaken in rural or wilderness areas. The average carbon dioxide sequestration reported per urban forestry project for 2004 was just 600 $MTCO_2e$. In contrast, tree planting projects in rural or wilderness areas accounted for 16 of the 34 projects that sequestered more than 10,000 $MTCO_2e$ each in 2004 (Figure 13). For the 478 projects for which data were reported, average sequestration in 2004 was 15,100 $MTCO_2e$ per project.

Project developers implemented almost all (441 or 92 percent) of the reported sequestration projects in part to fulfill commitments made under DOE's Climate

Table 15. Number of Sequestration Projects Reported on Form EIA-1605 by Project Type, Data Years 1994-2004

Data Year	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003(R)	2004
Forest Preservation	2	22	29	38	43	38	42	37	38	39	33
Tree Planting											
Afforestation and Reforestation	36	113	111	175	205	288	344	251	289	321	363
Urban Forestry	8	17	21	23	28	28	31	33	33	35	32
Woody Biomass Production and Other Agroforestry	8	14	2	3	3	3	3	3	3	2	2
Unspecified	—	2	1	—	1	—	—	—	—	—	—
Subtotal	44	131	133	199	235	318	376	285	323	356	395
Modified Forest Management	12	20	10	33	41	42	44	41	47	48	45
Conservation Tillage	1	1	1	2	2	2	2	2	1	1	1
Other Projects	3	4	5	10	4	5	5	5	5	5	5
Total	**58**	**175**	**175**	**279**	**321**	**401**	**468**	**369**	**413**	**448**	**478**

(R) Revised data.

Notes: Excludes projects reported on Form EIA-1605EZ. Project totals do not equal sum of components, because some projects are counted in more than one category. In previous reports, "Unspecified" tree planting projects were included in the "Other Projects" category.

Source: Energy Information Administration, Form EIA-1605.

Table 16. Carbon Sequestration Reported on Form EIA-1605 by Project Type, Data Years 1994-2004
(Thousand Metric Tons Carbon Dioxide Equivalent)

Data Year	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003(R)	2004
Forest Preservation	73.0	615.8	6,546.5	7,545.5	10,073.4	8,523.4	7,879.6	6,804.3	6,055.9	6,469.6	5,917.0
Tree Planting											
Afforestation and Reforestation	726.8	620.4	237.3	322.4	449.0	590.6	628.0	637.9	676.1	711.9	768.4
Urban Forestry	0.2	1.1	1.3	1.9	5.3	5.8	10.5	11.2	14.4	17.7	20.3
Woody Biomass Production and Other Agroforestry	356.6	213.9	1,964.6	1,962.3	1,962.3	503.2	392.5	425.7	428.0	425.4	425.4
Unspecified	—	7.0	*	—	0.1	—	—	—	—	—	—
Subtotal	727.0	627.7	2,188.1	2,263.6	2,393.6	1,077.3	1,006.4	1,056.4	1,097.6	1,136.1	1,194.9
Modified Forest Management	363.9	366.2	93.6	148.3	167.9	164.6	74.0	51.9	98.9	81.5	80.0
Conservation Tillage	4.3	4.3	3.3	8.5	8.5	8.5	11.9	4.4	4.4	4.4	4.4
Other Projects	2.8	3.1	4.1	44.9	58.9	59.1	59.1	59.8	59.7	59.8	59.8
Total	**746.5**	**1,190.8**	**8,676.6**	**9,849.8**	**12,490.9**	**9,623.6**	**9,011.1**	**7,956.8**	**7,296.5**	**7,731.3**	**7,236.1**

(R) Revised data.

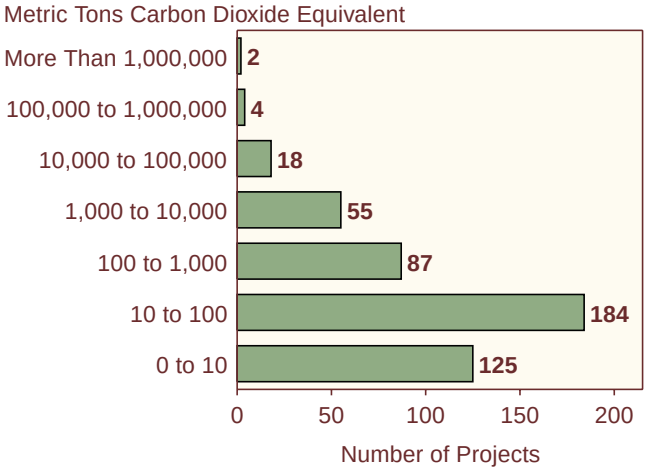
*Less than 50 metric tons.

Notes: Excludes projects reported on Form EIA-1605EZ. Project totals do not equal sum of components, because some projects are counted in more than one category. In last year's report, "Unspecified" tree planting projects were included in the "Other Projects" category.

Source: Energy Information Administration, Form EIA-1605.

Challenge program.[35] Of the 39 investors in the UtiliTree Carbon Company,[36] 24 submitted individual reports on the 10 projects that were operational in 2004. Similarly, 24 investors in the PowerTree Carbon Company, the successor to UtiliTree, submitted individual reports on 3 new projects.[37] In addition, 31 sequestration projects reported on Form EIA-1605 for 2004 were originally part of the U.S. Initiative on Joint Implementation (USIJI). Established under the Climate Change Action Plan (CCAP),[38] the USIJI was a pilot program that sought to encourage foreign-based emission reduction and carbon sequestration projects conducted by U.S. and non-U.S. partners. The USIJI program terminated its activity in 2000. The projects reported include individual partner shares in two USIJI-approved forestry projects: the Rio Bravo Carbon Sequestration Pilot Project (Belize) and the Noel Kempff Mercado Climate Change Action Project (Bolivia). The third USIJI project reported is a Russian afforestation project (RUSAFOR-SAP) reported by Sustainable Development Technology Corporation. The same project was previously reported by Oregon State University (State of Oregon).

Figure 13. Carbon Sequestration Projects Reported on Form EIA-1605 by Amount of Carbon Sequestered, Data Year 2004



Source: Energy Information Administration, Form EIA-1605.

Forest Preservation

Forest preservation projects sequester carbon by avoiding the harvesting of timber or clearing of land and, thus, preventing the release of stored carbon. In 2004, 27 reporters submitted 33 forest preservation projects; however, the vast majority (28) of the projects were individual electricity generator shares—held directly or through the UtiliTree Carbon Company—in the Rio Bravo Carbon Sequestration Pilot Project in Belize. Also, 2 reporters provided information on their shares in the Noel Kempff Mercado Climate Action Project in Bolivia. No new forest preservation projects were reported for 2004.

AES Hawaii and AES Shady Point, subsidiaries of the AES Corporation, reported on the two largest forest preservation projects. AES Hawaii reported the Mbaracayu Conservation project in Paraguay, and AES Shady Point reported the OXFAM America Amazon project in Bolivia. Together, the two projects sequestered a reported 5.7 million $MTCO_2e$ in 2004, representing 96 percent of the total sequestration reported for forest preservation projects (5.9 million $MTCO_2e$).

The intent of the Mbaracayu Conservation project is to offset carbon dioxide emissions from the AES Hawaii plant, a 180-megawatt circulating fluidized-bed coal-fired cogeneration plant on the island of Oahu. The project sequesters carbon by planting fruit trees and cash-producing indigenous trees in the 143,000-acre Mbaracayu forest tract, which, according to AES, would have otherwise been sold to a timber company.

AES Shady Point describes the OXFAM America Amazon Project as an innovative effort to protect the tropical forest in the Amazon regions of Peru, Ecuador, and Bolivia. The project, which AES conducts in cooperation with national indigenous groups, OXFAM America, and the World Resources Institute (WRI), is intended to offset carbon dioxide emissions from the AES Shady Point plant in Oklahoma. The project will support efforts by indigenous groups to gain control over their lands, develop sustainable resource extraction plans for the forest, and help avoid tropical deforestation. WRI

[35]The Climate Challenge program, established in 1994, focused on commitments by electricity generators to reduce, avoid, or sequester greenhouse gases by the year 2000. Because its focus was on the year 2000, the Climate Challenge program is no longer active. Power Partners[SM], which has replaced the Climate Challenge Program, is the electric power industry's vehicle for participating in President Bush's Climate VISION initiative.

[36]The UtiliTree Carbon Company, a consortium of 39 North American electric utility companies investing in forestry projects that sequester carbon, was established under the Climate Challenge Program. The Edison Electric Institute's (EEI's) Forest Carbon Management Program administers the Climate Challenge Program, and has identified and sponsored 10 ongoing domestic and international forestry projects.

[37]PowerTree Carbon Company is a consortium of 25 North American electric utility and other energy companies investing in forestry projects that sequester carbon. Like UtiliTree, it is administered by the Edison Electric Institute (EEI) and coordinates electric power industry sponsorship of forestry projects through Power Partners[SM] for Climate VISION. Fourteen reporters are members of both UtiliTree and PowerTree.

[38]President William J. Clinton and Vice President Albert Gore, Jr., *The Climate Change Action Plan* (Washington, DC, October 1993), Appendix II, web site www.gcrio.org/USCCAP/toc.html.

estimates that over 10 years the project would prevent the deforestation of 1.2 million hectares and avoid emissions of at least 233 million $MTCO_2e$.

American Electric Power and BP America individually reported their shares in the Noel Kempff Mercado Climate Action Project in Bolivia, which the USIJI accepted in November 1996. The project, which involves the preservation of 634,286 hectares of land on the southern and western boundary of the Noel Kempff Mercado National Park by incorporating it into the park, includes the following components: (1) reduction of carbon dioxide emissions through the cessation of logging activities and protection of forest land from conversion to agricultural use; (2) protection, regeneration, and preservation; and (3) leakage prevention.[39] Sequestration reported for the project for 2004 totaled 180,000 $MTCO_2e$.

The Rio Bravo Carbon Sequestration Pilot Project, a forest preservation project in Belize, was begun in 1995. Wisconsin Electric, Detroit Edison, Cinergy, PacifiCorp, and UtiliTree Carbon Company (which provided financial support), The Nature Conservancy, and Programme for Belize (a Belizean nongovernmental organization) are undertaking the project as a partnership. A 14,400-acre parcel of forest threatened by agricultural conversion was secured, linking two forested Rio Bravo properties. The project implemented a sustainable forestry management program on the entire Rio Bravo Conservation and Management Area, with a goal of increasing carbon sequestration through improved forest and timber management.

The entire Rio Bravo Carbon Sequestration Pilot Project sequestered an estimated 20,000 $MTCO_2e$ in 2004, of which 24 project participants reported 14,000 $MTCO_2e$ to the Voluntary Reporting Program.[40] Project partners determined the reported carbon sequestration by defining a reference case that assumes a profile of conversion from forested land to agriculture that would have occurred from 1995 through 1999 in the absence of the land preservation project. According to the UtiliTree Carbon Company, the project has sequestered an estimated 4.4 million $MTCO_2e$ to date, with most (91 percent) being sequestered during the 5-year preservation phase of the project. The smaller annual sequestration totals reported for years after 2000 represent the accumulation of carbon in the forest that has occurred since the preservation phase.

We Energies reported its independent sponsorship of an expansion to the Rio Bravo Conservation and Management Area, adding 20,630 acres to the preserve. We Energies reported that its preservation initiative sequestered an estimated 30,000 $MTCO_2e$ in 2004.

For 2004, Alliant Energy reported the only domestic forest preservation project, which sequestered 1,600 $MTCO_2e$. The project involves the management of more than 10,000 acres along the Wisconsin River Valley and ensures that buffer lands around its power plants in the Wisconsin River Valley will remain forested. Included in the land management plan are access restrictions that ensure the preservation of osprey and eagle habitats in the forest.

Tree Planting

Afforestation and Reforestation

Of the sequestration projects reported for 2004, 363 (76 percent) involved either afforestation or reforestation. The carbon sequestration and emission reductions reported for these projects totaled 0.8 million $MTCO_2e$, representing 11 percent of the total sequestration reported for 2004. All the afforestation and reforestation projects reported for 2004 were domestic.

American Electric Power, Inc. (AEP), a large investor-owned utility, accounted for the largest number of afforestation and reforestation projects, submitting 66 (18 percent) of the projects in this category for 2004. The AEP projects, all of which were afforestation projects, sequestered a reported 114,000 $MTCO_2e$ in 2004. AEP reported 6 new domestic afforestation projects initiated in 2004 (including 3 PowerTree projects), which sequestered a reported 1,000 $MTCO_2e$ during the year.

A total of 8 afforestation projects, including the Western Oregon Carbon Sequestration Project and 7 bottomland hardwood restoration initiatives in Louisiana, Arkansas, and Mississippi, were reported by 24 members of UtiliTree Carbon Company. The 7 restoration projects, which involve the conversion of marginal agricultural land to forest, are Mississippi River Valley Bottomland Hardwood Restoration, Upper Ouachita River Valley Bottomland Hardwood Restoration, Overflow Bottomland Hardwood Forest Restoration Project, St. Catherine-NFWF, Bayou Cocodrie Bottomland Hardwood Forest Restoration, St. Catherine-ESI, and St. Francis River Carbon Offset Project.

Urban Forestry

A total of 19 reporters, 18 of which were electric utilities, reported 32 urban forestry projects for 2004. For the 32 projects, reported sequestration totaled 20,000 $MTCO_2e$ (Table 16). Urban forestry projects are unique in that,

[39] "Leakage" refers to the migration of logging and land-clearing activities that would have occurred in the preserve to areas outside the preserve, which would offset the sequestration achievements of the project.

[40] Fifteen UtiliTree participants did not submit reports to the Voluntary Reporting Program for data year 2004, including one Canadian utility that is ineligible to report.

under some circumstances, they can reduce energy consumption as well as sequester carbon. Shade trees planted near buildings reduce summer air conditioning requirements; in addition, trees can act as windbreaks, reducing heating needs in the winter. Although the emission reductions associated with energy effects of urban forestry can be several times the sequestration benefits on a carbon dioxide equivalent basis, they are difficult to estimate. Chapter 3 discusses energy-related emission reductions attributed to the urban forestry projects submitted for 2004.

One new urban forestry project was reported for 2004. Exelon Corporation reported its average annual planting of 150 trees since 2002, including maple, dogwood, cherry, crabapple, and lilac. Exelon reported that this project sequestered 1.6 $MTCO_2e$ in 2004.

Woody Biomass Production and Agroforestry

Woody biomass production is the cultivation of trees in intensively managed plantations to produce fuel or fiber. Agroforestry involves mixing trees with annual crops to provide wind shelter, stabilize soil, sequester carbon, and produce fuel wood and fruit crops.

One of the two agroforestry projects reported for 2004 was Minnesota Power's Short Rotation Woody Crop Establishment project. For this project, Minnesota Power established contracts to plant hybrid poplars with landowners enrolled in the Conservation Reserve Program. Following pre-planting site preparation, which began in 1994, Minnesota Power planted 2,800 acres in phases over 1995, 1996, and 1997. The project area was reduced to 2,550 acres in 2003 after consideration of adverse conditions, such as seasonal flooding of low spots, insect damage, and poor growth rates. The project sequestered a reported total of 15,400 $MTCO_2e$ in 2004.

AES Thames reported the only other agroforestry initiative, which involved a fruit, pulp, and fuelwood tree plantation in Guatemala. For 2004, AES Thames reported that the project sequestered 410,000 $MTCO_2e$.

Modified Forest Management

Modified forest management involves modifying the management regimes of existing forests to increase their carbon capture rates. Of the 45 modified forest management projects reported for 2004, 24 were associated with member shares in a reduced-impact logging initiative in Malaysia, sponsored by the UtiliTree Carbon Company, which introduced reduced-impact logging practices to 2,422 acres of forest beginning in 1997. The participating utilities reported total sequestration of 7,000 $MTCO_2e$ in 2004.

American Electric Power reported two new modified forest management projects for 2004. The utility implemented the projects in predominantly upland central hardwood stands ranging from 10 to 70 years in age. The stands were selectively harvested to remove overmature, mature, cull, and diseased trees, as well as other stems as necessary to improve growing relationships and maximize growth rates. The two efforts have sequestered a reported 1,000 $MTCO_2e$ to date.

Sequestration exceeding 10,000 $MTCO_2e$ in 2004 was reported for the following three previously reported modified forest management projects:

- Southern California Edison Co. reported sequestration of 24,000 $MTCO_2e$ by its Net Growth of Timber at Shaver Lake project.
- Alliant Energy's afforestation project also had a modified forest management component. The entire project sequestered a reported 20,000 $MTCO_2e$ in 2004; however, Alliant Energy did not report the sequestration quantity attributable to modified forest management alone.
- American Electric Power's Guaraquecaba Climate Action Project, located in Brazil, sequestered a reported 11,000 $MTCO_2e$ in 2004.

On a smaller scale, DTE Energy/Detroit Edison conducted selective harvesting operations in previously unmanaged wood lots in southeastern Michigan and reported increasing sequestration by 1,400 $MTCO_2e$ in 2004.

Conservation Tillage and Other Sequestration Projects

Not all the carbon sequestration projects reported for 2004 involved conventional forestry. Other projects reported involved conservation tillage,[41] reuse of utility poles, and restoration of terrestrial, wetland, and marine habitats. Six such projects were reported for 2004.

Exelon (formerly Commonwealth Edison and PECO) reported on its Illinois Prairie Grass Plantings project, which involves the planting of native prairie grasses on various properties in the utility's Illinois operations. In contrast to conventional turf grass, the deep root system of native Illinois prairie grasses affords environmental benefits that include reducing soil erosion and downstream flooding and eliminating the need for irrigation, fertilizers, pesticides, and herbicides. In addition, the deeper root systems sequester more carbon dioxide. For this project, Exelon reported sequestering 700 $MTCO_2e$ in 2004. In another project, Exelon reused structurally sound wood utility poles to avoid the harvesting of trees

[41] Conservation tillage includes practices (such as reduced till or no till) that, compared to conventional tillage methods, increase carbon storage on cropland.

for the manufacture of new utility poles. The utility pole reuse project was reported to have sequestered 600 $MTCO_2e$ in 2004.

Alliant Energy reported on a conservation tillage project in south central Wisconsin that involved the conversion of 956 acres of former corn and soybean row cropland to a variety of other uses, including tall grass prairie, wetlands, conservation tillage, and oak savanna. This project reportedly sequestered 4,300 $MTCO_2e$ in 2004.

Alliant Energy also reported on a habitat restoration project in Wisconsin, which sequestered 3,500 $MTCO_2e$ in 2004.

Other carbon sequestration projects include the reclamation of 5,500 acres of wetlands in Texas and Louisiana by Entergy Services, Inc., and the reclamation of six acres of wetlands by Pepco Holdings Inc. The two projects sequestered a reported 54,900 and 14 $MTCO_2e$ in 2004, respectively.

5. Reducing Methane Emissions

Introduction

U.S. anthropogenic methane emissions totaled an estimated 643.2 million $MTCO_2e$ (28.0 million metric tons methane) in 2004, representing 9.0 percent of total U.S. greenhouse gas emissions. Methane emissions in 2004 were 0.8 percent above 2003 levels,[42] primarily as a result of an increase in methane emissions from landfills and coal mines and, secondarily, increases emissions associated with animal waste and rice cultivation.

U.S. emissions of methane in 2004 were 11 percent below their 1990 level of 722.6 million $MTCO_2e$. In addition to a reduction of 74.4 million $MTCO_2e$ in methane emissions from landfills since 1990, there has also been a decrease of 29.5 million $MTCO_2e$ in methane emissions from coal mines as a result of a 150-percent increase in methane recovery from coal mines and a shift in production away from gassy mines.

Overview of Projects Reported

For the 2004 data year, participants in the Voluntary Reporting Program reported 443 projects with methane reductions as the principal outcome (Table 17), yielding direct emission reductions of 65.8 million $MTCO_2e$ and indirect emission reductions of 28.8 million $MTCO_2e$ (Table 18). Landfill gas recovery projects accounted for most of the reductions, including 48.8 million $MTCO_2e$ of direct reductions and 18.6 million $MTCO_2e$ of indirect reductions, reflecting the large proportion (88 percent) of reported methane emission reduction projects that focused on landfill gas recovery. The number of reported projects with methane reductions as the principal outcome peaked in 2003 at 471 (with landfill gas recovery projects also peaking at 411), although reported direct emissions reductions reported peaked in 2001.

For 2004, 73 organizations reported on projects with the primary aim of reducing methane emissions—7 fewer than those that reported such projects for 2003. There was a corresponding decline in the total number of projects reported, from 471 to 443, and in the number of direct reduction projects reported (Table 17). After peaking at 81.6 million $MTCO_2e$ in 2001, direct reductions from projects that reduced methane emissions have declined in each subsequent year, to 65.8 million $MTCO_2e$ in 2004. In contrast, indirect reductions reported for 2004 were the highest since 1994, the first year of the program, at 28.8 million $MTCO_2e$ (Table 18).

More than one-half of the total direct reduction in methane emissions reported on Form EIA-1605 for 2004 (36.1 million $MTCO_2e$) was reported by Waste Management Incorporated. Waste Management reported more projects for 2004 (229) than it did for 2003 (218) and more direct emission reductions (36.1 million $MTCO_2e$ for 2004, compared with 33.0 million $MTCO_2e$ for 2003. With 51,000 employees and 286 active landfills, the company is the largest waste management services provider in North America. Its report for 2004 covered 196 open and closed landfills, including 57 gas-to-electricity projects that provided more than 260 megawatts of energy and 33 projects that sold landfill gas as fuel to industrial end users in 2004.

The largest contributors of reported indirect reductions were the Integrated Waste Services Association (IWSA) at 9.4 million $MTCO_2e$ and DTE Energy at 5.7 million $MTCO_2e$. The IWSA includes 50 members that own or operate 65 waste-to-energy plants, which combust a total of 76,000 metric tons of trash daily. IWSA reported avoiding methane emissions from waste that would otherwise have been placed in landfills and decomposed anaerobically, producing methane. DTE Energy reported landfill gas recovery efforts at 18 landfills, where it purchases the electricity generated and bundles the reported reductions into four project reports.

Although the number of reported projects that reduced methane emissions from energy production and consumption (i.e., coal mines and natural gas production, transmission, and distribution) was much smaller than the number that reduced methane emissions from waste management and disposal (mainly landfills), they had a disproportionate effect on methane emissions reductions, because the typical size of reductions reported for energy production and consumption projects is larger than that for waste management and disposal projects. The average direct emission reduction from landfill gas recovery projects (the primary waste management and disposal category) is 123,000 $MTCO_2e$, as compared with an average of 223,000 $MTCO_2e$ for natural gas system projects and 573,000 $MTCO_2e$ for coal mine projects.

[42]Energy Information Administration, *Emissions of Greenhouse Gases in the United States 2004*, DOE/EIA-0573(2004) (Washington, DC, December 2005), web site www.eia.doe.gov/oiaf/1605/ggrpt.

The average of emission reductions reported for coal mine projects was increased by a gobwell degasification project reported by Jim Walter Resources, which recovered 2.9 million $MTCO_2e$ of methane from the Warrior Basin, and a project reported by CDX Gas, which recovered 1.2 million $MTCO_2e$ of methane from the Pinnacle Mine owned by U.S. Steel Mining Company. The largest reductions from natural gas system projects were reported by BP America, which reported a reduction of 1.8 million $MTCO_2e$ resulting from equipment upgrades at natural gas production and processing sites, and NiSource/NIPSCO, which reported a reduction of 1.7 million $MTCO_2e$ resulting from its implementation of Natural Gas STAR[43] Best Management Practices at the Columbia Gas Transmission Company.

Only two projects reported for 2004 reduced methane emissions in the agricultural sector. Both used methane generated from the anaerobic digestion of animal waste to produce electricity. Total direct emission reductions from the two projects were 112.5 $MTCO_2e$, and total indirect reductions were 662.2 $MTCO_2e$.

Reducing Methane Emissions from Waste Treatment and Disposal

Reducing emissions from waste treatment and disposal sites was the most frequently reported method for lowering methane emissions in 2004. The 403 waste treatment and disposal projects reported for 2004 accounted for 49.8 million $MTCO_2e$ of direct methane emission reductions and 28.7 million $MTCO_2e$ of indirect methane reductions (Table 19). Waste treatment and disposal projects produced 76 percent of the direct methane emission reductions and 99 percent of the indirect methane emission reductions reported for 2004. The principal method reported for reducing methane emissions from waste treatment and disposal was landfill gas recovery (392 of the 403 projects reported). Another 6 projects reduced emissions through the combustion of waste, yielding more than one-third of all indirect methane reductions reported, and the remaining 5 projects

Table 17. Projects Reported on Form EIA-1605 with Methane Reductions as the Principal Outcome by Project Type, Data Years 1994-2004
(Number of Projects)

Project Type	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003(R)	2004
Waste Management and Disposal	**17**	**23**	**44**	**53**	**90**	**153**	**350**	**391**	**404**	**426**	**403**
Landfill Gas Recovery	14	19	40	48	80	138	336	380	390	411	392
Wastewater Treatment	2	2	2	3	6	8	8	4	7	8	5
Waste Combustion	1	2	2	2	4	7	6	7	7	7	6
Agriculture	**3**	**3**	**3**	**3**	**4**	**4**	**5**	**3**	**3**	**4**	**2**
Cropland	1	1	1	1	1	1	1	1	1	0	0
Livestock	2	2	2	2	3	3	4	2	2	4	2
Energy Production and Consumption	**8**	**11**	**13**	**15**	**28**	**28**	**28**	**35**	**39**	**41**	**38**
Coal Mining	2	3	4	5	17	15	14	16	18	13	11
Natural Gas Production, Transmission, and Distribution	6	8	9	10	11	13	14	19	21	28	27
Total	**28**	**37**	**60**	**71**	**122**	**185**	**383**	**429**	**446**	**471**	**443**

(R) = revised.
Note: Project totals do not equal sum of components, because some projects are counted in more than one category.
Source: Energy Information Administration, Form EIA-1605.

Table 18. Total Methane Emission Reductions Reported on Form EIA-1605, All Project Types, Data Years 1994-2004
(Million Metric Tons Carbon Dioxide Equivalent)

Type of Reduction	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003(R)	2004
Direct	0.6	0.2	9.4	8.7	31.7	36.0	61.9	81.6	80.1	77.0	65.8
Indirect	2.4	24.8	26.6	11.6	15.2	19.0	20.6	23.2	24.6	23.1	28.8

(R) = revised.
Source: Energy Information Administration, Form EIA-1605.

[43]Natural Gas STAR is an EPA program designed to promote the implementation of cost-effective technologies and practices to reduce emissions of methane. See web site www.epa.gov/gasstar/.

lowered emissions by capturing methane from wastewater treatment facilities.

Landfill Gas Recovery

As waste decomposes in a landfill, it produces a biogas that is approximately 50 percent carbon dioxide and 50 percent methane. As a result, landfill gas is a potentially valuable source of energy, with a heat content of about 500 Btu per cubic foot, or about one-half the heat content of commercially marketed natural gas. Because of its relatively low Btu content and the presence of several impurities, the typical method for using landfill gas is to burn it for electric power generation rather than upgrading it for sale to a pipeline. The electricity generated is then used on-site or sold to the grid. The process lowers methane emissions and reduces consumption of other fuels for electricity generation. When the electricity generated displaces oil- or coal-fired generation, carbon dioxide emissions are also reduced. More recently, higher natural gas prices have resulted in an increasing number of projects that involve piping landfill gas for direct use in medium-Btu boilers, which also displaces fossil fuels.

For the 392 landfill gas recovery projects reported for 2004, direct methane emission reductions totaled 48.8 million $MTCO_2e$ and indirect reductions totaled 18.6 million $MTCO_2e$. Of the projects reported, 168 recovered landfill methane for energy, 184 simply flared the gas, and 31 included both recovery for energy and flaring.

Waste Combustion

When waste is diverted from a landfill through waste combustion, methane emissions that would have resulted when the waste decomposed at a landfill are avoided. Six waste combustion projects were reported for 2004. Most of the methane emission reductions reported for waste combustion are indirect, because they typically occur at a landfill where diverted waste would have decomposed to produce methane, rather than at the site of the waste diversion activities. Total indirect reductions for the six projects were 9.9 million $MTCO_2e$ (Table 19). The majority of the reductions were reported by IWSA as part of the waste-to-energy project described above. Other methods of reducing methane emissions from waste include recycling and source reduction (see box on page 46).

Wastewater Treatment

When wastewater is treated under anaerobic conditions, the decomposition of its organic portion yields methane. Like methane generated from waste at landfills, the methane generated from wastewater treatment can be captured and either flared or used as an energy resource. Because captured methane has value as an energy resource, operators may use an anaerobic digester to treat the wastewater and maximize methane generation. Five projects to capture methane generated from wastewater treatment were reported for 2004, with total reported direct reductions of 0.9 million $MTCO_2e$ and indirect reductions of 0.2 million $MTCO_2e$. Direct reductions of 0.6 million $MTCO_2e$ were reported for a Los Angeles County Sanitation District project, and Blue Source reported direct reductions of 0.4 million $MTCO_2e$. Indirect reductions were reported for two projects sponsored by FirstEnergy.

Reducing Emissions from Energy Production and Consumption

Coal Mines

As natural chemical and physical processes form coal from organic material, they also create methane. The

Table 19. Methane Emission Reductions from Waste Treatment and Disposal Projects Reported on Form EIA-1605, Data Years 1994-2004
(Million Metric Tons Carbon Dioxide Equivalent)

Reduction and Project Type	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003(R)	2004
Direct Reductions	*	*	3.0	3.1	11.1	22.2	49.9	48.7	57.8	56.1	49.8
Landfill Gas Recovery	*	*	3.0	3.1	10.4	21.5	49.1	47.8	57.0	54.7	48.8
Wastewater Treatment	—	—	—	*	0.8	0.8	0.9	0.9	0.9	1.4	0.9
Waste Combustion	—	—	—	—	*	*	*	*	*	*	*
Indirect Reductions	2.3	24.4	26.3	10.3	14.8	18.8	20.3	23.1	23.1	22.8	28.7
Landfill Gas Recovery	2.3	2.6	5.8	6.9	10.8	10.9	14.1	16.1	14.3	13.0	18.6
Wastewater Treatment	—	*	*	*	0.1	0.2	0.3	0.3	0.3	0.2	0.2
Waste Combustion	*	21.9	20.5	3.5	3.9	7.6	6.0	6.7	8.5	9.6	9.9

*Less than 50,000 $MTCO_2e$. — = none reported.
(R) = revised.
Source: Energy Information Administration, Form EIA-1605.

Materials Management Projects

"Materials management" is a crosscutting category that can encompass a variety of greenhouse gas and emission sources, and may include any of the following activities:

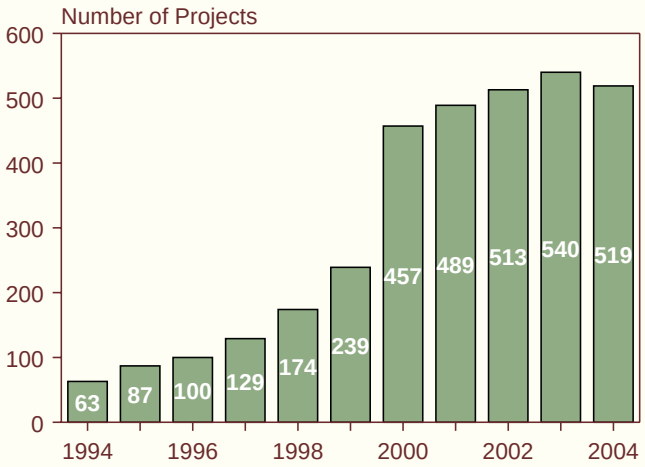
- Use of biomass and waste fuels such as wood and municipal waste, which reduces carbon dioxide emissions by displacing fossil fuels
- Avoidance of methane emissions from the decay of waste materials in landfills, wastewater treatment plants, and other waste management systems through activities such as recovery of methane from landfills or from anaerobic digesters treating municipal sewage, agricultural wastes, or animal manure, and diversion of municipal solid waste from landfills to waste-to-energy systems
- Recycling of halogenated substances, such as sulfur hexafluoride, hydrofluorocarbons, chlorofluorocarbons, and hydrochlorofluorocarbons
- Recycling and source reduction of solid waste, which reduce methane emissions from municipal landfills and reduce emissions of carbon dioxide and other gases associated with the production of virgin materials displaced by the materials recycled
- Reuse of coal ash as a substitute for Portland cement in concrete, which reduces carbon dioxide emissions from the manufacture of the cement.

Reporting of materials management activities on Form EIA-1605 increased more than sevenfold from 1994 to 2004. A total of 519 projects were reported for 2004 (see figure).

Landfill gas recovery accounted for most (76 percent) of the 519 materials management projects reported for 2004. In addition to 12 other methane emission avoidance projects reported, other materials management projects included coal ash reuse (33), recycling and source reduction of solid waste (28), recycling of halogenated substances (16), and biomass burning (38).

The emission reductions reported for materials management projects are shown in the table below. For 2004, reported net reductions in direct emissions were 47.1 million $MTCO_2e$, representing 17 percent of the total direct reductions reported. Reported indirect reductions were 59.0 million $MTCO_2e$, representing 64 percent of the total indirect reductions reported.

Materials Management Projects Reported on Form EIA-1605, Data Years 1994-2004



Source: Energy Information Administration, Form EIA-1605. Note: Data revised for all years (1994-2004).

Reported Emission Reductions from Materials Management Projects by Project Type and Type of Reduction, Data Year 2004
(Metric Tons Carbon Dioxide Equivalent)

Project Type	Number of Projects	Direct Reductions	Indirect Reductions
Biomass and Waste Burning	38	2,584,934	1,662,025
Methane Emission Avoidance			
Landfill Gas Recovery	392	49,166,872	19,748,393
Landfill Avoidance	6	-7,439,069	25,816,225
Wastewater Treatment	5	961,184	263,794
Agricultural Waste	1	113	662
Total	*404*	*42,689,100*	*45,829,074*
Halogenated Substances	16	1,761,239	248,389
Recycling and Source Reduction of Solid Waste	28	80,818	5,928,122
Coal Ash Reuse	33	0	5,292,048
Total	**519**	**47,116,091**	**58,959,658**

Source: Energy Information Administration, Form EIA-1605.

methane is stored in the pores (open spaces) of the coal itself and in cracks and fractures in the coalbed. When coal is mined the pressure surrounding the stored methane is decreased, and much of the gas is released into the operating coal mine. Because methane in concentrations of 5 to 15 percent is explosive, mine operators use large fans to provide a steady airflow across the mine face and ventilate the mine shaft. In some very gassy mines, degasification wells are also used to remove methane before or after mining so that it does not enter the mine. Because methane is a valuable energy source, most of the mines with degasification systems now inject the methane into gas pipelines or use it to generate electricity or heat. For 2004, 11 projects to reduce methane emissions from coal mines were reported, with total direct emission reductions of 6.3 million $MTCO_2e$ (Table 20).

Natural Systems

Methane is the principal constituent of natural gas (about 95 percent of the mixture). Methane emissions from natural gas production, processing, transmission, and distribution are generally process related, with normal operations, routine maintenance, and system upsets being the primary contributors. Because emissions are largely a function of operation and maintenance procedures and equipment conditions, they vary from facility to facility. Replacing leaky system components, improving operations and maintenance, and limiting routine venting procedures can reduce methane emissions. The 27 natural gas system projects reported for 2004 resulted in direct methane emission reductions of 6.2 million $MTCO_2e$, or about 9.4 percent of all reported direct methane emission reductions.

Federal Voluntary Programs To Reduce Methane Emissions

The U.S. Government sponsors a number of voluntary programs specifically targeted to reduce methane emissions. Most frequently cited by reporters to the Voluntary Reporting Program are three EPA programs: the Landfill Methane Outreach Program (LMOP), Coalbed Methane Outreach Program (CMOP), and Natural Gas STAR Program. The number of reported methane reduction projects associated with Federal voluntary programs has increased 13-fold since 1994, with a particularly large increase in the number of projects associated with the LMOP. Of the 403 waste treatment and disposal projects reported for 2004, 335 (83 percent) were associated with the LMOP (Table 21).

Table 20. Methane Emission Reductions from Natural Gas Systems and Coal Mining Projects Reported on Form EIA-1605, Data Years 1994-2004
(Million Metric Tons Carbon Dioxide Equivalent)

Reduction and Project Type	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Direct Reductions	**0.5**	**0.2**	**6.4**	**5.6**	**20.6**	**13.7**	**11.9**	**15.1**	**18.3**	**20.6**	**12.5**
Coal Mining	0.3	0.1	6.2	5.3	20.4	13.4	11.6	12.4	13.0	9.4	6.3
Natural Gas Systems	0.1	0.1	0.2	0.2	0.2	0.3	0.3	2.8	5.3	11.2	6.2
Indirect Reductions	**—**	**0.1**	**0.1**	**0.1**	**0.2**	**0.2**	**0.2**	*****	*****	*****	**—**
Coal Mining	—	*	0.0	0.1	0.0	0.0	0.0	*	*	*	—
Natural Gas Systems	—	0.1	0.1	0.1	0.1	0.1	0.1	—	—	*	—

Source: Energy Information Administration, Form EIA-1605.

Table 21. Number of Reported Methane Reduction Projects Associated with Other Federal Voluntary Programs, Data Years 1994-2004

Voluntary Program	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003(R)	2004
Climate Challenge	22	27	32	36	34	39	42	34	34	37	35
Landfill Methane Outreach Program	6	8	29	32	90	116	309	359	354	365	335
Coalbed Methane Outreach Program	1	1	2	2	10	11	6	9	9	6	5
Natural Gas STAR	7	9	11	6	5	7	7	14	17	23	23
Other	0	6	2	2	1	3	4	5	5	5	2
Total	**30**	**42**	**70**	**67**	**133**	**166**	**359**	**413**	**411**	**427**	**404**

(R) = revised.
Note: Totals may not equal sum of components, because some projects are associated with more than one voluntary program.
Source: Energy Information Administration, Form EIA-1605.

6. HFCs, PFCs, and Sulfur Hexafluoride

U.S. Emissions of HFCs, PFCs, and Sulfur Hexafluoride

In addition to the three principal greenhouse gases (carbon dioxide, methane, and nitrous oxide), three types of engineered gases—hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6)—are also considered greenhouse gases under the United Nations Framework Convention on Climate Change (UNFCCC). HFCs are used as solvents, household and commercial refrigerants, firefighting agents, propellants for pharmaceutical and industrial aerosols, foam-blowing agents, in blends for air conditioning refrigerants, and in many other applications. PFCs are emitted as a byproduct of aluminum smelting and are used and emitted in semiconductor manufacture. The primary uses and emission sources of SF_6 are electrical transmission and distribution equipment and magnesium production.

U.S. emissions of HFCs, PFCs, and SF_6 in 2004 were estimated to be 155.9 million $MTCO_2e$, up by 9.6 percent from 142.4 million $MTCO_2e$ in 2003. Collectively, they accounted for 2.2 percent of total U.S. greenhouse gas emissions in 2004.[44] Annual emissions of these gases have increased by 77 percent since 1990, primarily due to increases in emissions of HFCs, which are used as replacements for chlorofluorocarbons (CFCs) in a number of refrigerant applications, including automobile air conditioners (Figure 14). CFCs are being phased out under the Montreal Protocol,[45] because they damage the Earth's stratospheric ozone layer, which absorbs harmful ultraviolet radiation from the sun. U.S. emissions of PFCs and SF_6 have fallen by a combined total of 56 percent since 1990.

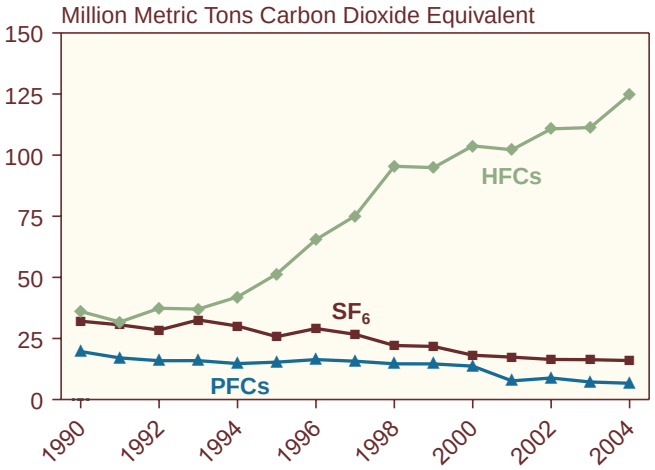
Projects Reported

For 2004, 33 entities reported on 59 projects that reduced emissions of HFCs, PFCs, and SF_6—5 more reporters but 7 fewer projects than were reported for 2003 (Table 22). Emissions avoidance and recycling of halogenated substances were two of the most frequently reported project types (21 and 16 projects reported, respectively), followed by substitution of other chemicals (7 projects reported) and the destruction of halogenated substances (1 project reported). Reductions in PFC emissions were also reported for 19 post-consumer waste-recycling projects in which aluminum was one of the materials collected and recycled.

The 33 entities reporting projects to reduce emissions of HFCs, PFCs, and SF_6 for 2004 included: 26 electric utilities; 2 aluminum smelters (Alcan Primary Products Corporation's Sebree Works and Noranda Aluminum, Inc.); a transportation equipment company (General Motors); a company from the electronic equipment industry (Lucent Technologies, Inc.); a refrigerant reclamation company (Polar Refrigerant Technology); an SF_6 recycling company (Xenon Specialty Gas); and a government organization (Burlington County Board of Chosen Freeholders).

Of the 33 entities that reported projects in this category, 16 were past participants in DOE's Climate Challenge Program and Rebuild America. Other voluntary

Figure 14. Estimated U.S. Emissions of Major HFCs and PFCs and Sulfur Hexafluoride, 1990-2004



Source: Energy Information Administration, *Emissions of Greenhouse Gases in the United States 2004*, DOE/EIA-0573(2004) (Washington, DC, December 2005).

[44]Energy Information Administration, *Emissions of Greenhouse Gases in the United States 2004*, DOE/EIA-0573(2004) (Washington, DC, December 2005), web site www.eia.doe.gov/oiaf/1605/ggrpt.

[45]The Montreal Protocol on Substances that Deplete the Ozone Layer is an international agreement, signed by most of the industrialized nations, to substantially reduce the use of CFCs. Signed in January 1989, the original document called for a 50-percent reduction in CFC use by 1992 relative to 1986 levels. The subsequent London Agreement called for a complete elimination of CFC use by 2000. The Copenhagen Agreement later accelerated that schedule, calling for a complete phaseout by January 1, 1996.

programs with which the projects reported in this category were affiliated include the EPA's Voluntary Aluminum Industrial Partnership, Waste Wise Program, and Sulfur Hexafluoride Emissions Reduction Partnership for Electric Power Systems.

Emission Reductions by Gas

For 2004, direct reductions of PFC and SF_6 emissions totaling 7.0 million $MTCO_2e$ were reported by 18 entities for 24 projects (Table 23). The direct reductions included 4.1 million $MTCO_2e$ of PFC emissions and 2.9 million $MTCO_2e$ of SF_6 emissions. Indirect reductions totaled 0.3 million $MTCO_2e$, consisting primarily of SF_6 (258,600 $MTCO_2e$) and smaller amounts of PFC and HFC emissions (45,800 $MTCO_2e$ combined).

Hydrofluorocarbons

HFCs are used primarily as replacements for ozone-depleting substances such as CFCs and hydrochlorofluorocarbons (HCFCs). U.S. emissions of HFCs were estimated at 125 million $MTCO_2e$ in 2004, a 246-percent increase over 1990 levels.[46] HFCs are used to replace CFCs as blowing agents, in automobile air conditioners and refrigerators, and in other manufacturing applications, where emissions result from system leaks. In the semiconductor industry, HFCs are also used in plasma etching and chemical vapor deposition processes.

Table 22. Number of Hydrofluorocarbon, Perfluorocarbon, and Sulfur Hexafluoride Emission Reduction Projects Reported on Form EIA-1605 by Type of Project, Data Years 1994-2004

Project Type	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
General	0	1	0	1	0	0	0	0	0	0	0
Reclamation: Recycling	7	10	10	14	15	15	18	16	18	18	16
Reclamation: Destruction	0	0	1	1	0	1	1	1	1	1	1
Substitution	1	5	7	7	8	9	9	6	6	7	7
Emissions Avoidance	3	6	8	13	17	16	23	23	24	24	21
Use of Improved Appliances	0	1	1	1	1	1	1	0	0	0	0
Other Projects/Activities	1	1	0	0	0	0	0	0	0	0	0
PFC Reductions from Materials Recycling	0	0	0	4	7	10	20	19	21	23	19
Total Number of Projects	**13**	**21**	**22**	**33**	**42**	**46**	**63**	**58**	**63**	**66**	**59**

Note: Project totals may not equal sum of components because some projects may be counted in more than one category.
Source: Energy Information Administration, Form EIA-1605.

Table 23. Reductions of Hydrofluorocarbon, Perfluorocarbon, and Sulfur Hexafluoride Emissions Reported on Form EIA-1605, Data Years 1994-2004
(Thousand Metric Tons Carbon Dioxide Equivalent)

Gas and Reduction Type	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
HFCs											
Direct	*	*	15.2	*	-1.7	-1.7	—	—	—	—	—
Indirect	—	—	—	—	—	—	—	—	**	38.7	10.9
PFCs											
Direct	3,199.6	2,962.4	3,345.8	3,318.6	3,504.4	3,425.5	3,233.6	3,606.8	3,562.9	3,550.5	4,087.7
Indirect	—	—	—	3.6	6.1	5.9	35.5	34.3	36.7	237.4	34.9
SF_6											
Direct	83.6	186.4	-70.0	516.7	624.8	595.4	1,407.3	2,475.1	3,043.7	2,611.9	2,944.1
Indirect	—	7.7	—	**	**	**	**	**	0.1	2,184.7	258.6
Total											
Direct	**3,283.2**	**3,148.8**	**3,291.0**	**3,835.3**	**4,127.4**	**4,019.1**	**4,641.0**	**6,082.0**	**6,606.6**	**6,162.4**	**7,031.8**
Indirect	**—**	**7.7**	**—**	**3.6**	**6.1**	**5.9**	**35.5**	**34.3**	**36.8**	**2,460.8**	**304.5**

*Less than 0 but greater than -50 $MTCO_2e$.
**Greater than 0 but less than 50 $MTCO_2e$.
— = none reported.
Source: Energy Information Administration, Form EIA-1605.

[46]Energy Information Administration, *Emissions of Greenhouse Gases in the United States 2004*, DOE/EIA-0573(2004) (Washington, DC, December 2005), web site www.eia.doe.gov/oiaf/1605/ggrpt.

HFC-23 is a byproduct of HCFC-22 manufacturing. The Tennessee Valley Authority reported on a project that included direct reductions of HFC-134a, but no reduction data have been available since 1998. Two entities reported indirect reductions of HFCs emissions totaling 11,000 $MTCO_2e$ for 2004.

Perfluorocarbons

U.S. emissions of PFCs were 6.7 million $MTCO_2e$ in 2004.[47] The principal source of PFC emissions is aluminum smelting. PFCs are produced during aluminum production when the alumina content of the electrolytic bath falls below critical levels required by the electrolytic effect. The resulting electrical upset in the reduction cell is manifested as a rapid voltage increase. The gases formed accumulate at the anode of the reduction cell (hence the name "anode effect"). PFCs are also used in some semiconductor manufacturing processes and, consequently, may be emitted from semiconductor fabrication plants.

For 2004, five companies (Alcan Primary Products Corporation, American Electric Power, City Public Service, Los Angeles Department of Water and Light, and Noranda Aluminum, Inc.) reported reductions in direct emissions of PFCs totaling 4.1 million $MTCO_2e$, which accounted for 58 percent of total reported project-level direct reductions in emissions of PFCs, HFCs, and SF_6 in 2004. Alcan and Noranda together accounted for more than 99 percent of total reported direct reductions of PFC emissions.

Noranda reported that it had reduced PFC emissions from aluminum production in 2004 by controlling the amount of alumina in solution in order to avoid anode effects and by monitoring the process more closely to stop or correct anode effects. According to Noranda's report, direct emissions of perfluoromethane were reduced by 3.0 million $MTCO_2e$, and direct emissions of perfluoroethane were reduced by 618,800 $MTCO_2e$. Alcan also reported direct reductions of perfluoromethane emissions (424,000 $MTCO_2e$) and perfluoroethane (89,000 $MTCO_2e$). Both Noranda and Alcan were participants in the Voluntary Aluminum Industrial Partnership, which seeks to reduce emissions of PFCs, carbon tetrachloride, and SF_6 during primary aluminum processing.

City Public Service (San Antonio, Texas) and Los Angeles Department of Water and Power reported recycling materials, including aluminum and other metals (see box in Chapter 5, page 46), that resulted in direct reductions of PFC emissions totaling 1,900 and 1,500 $MTCO_2e$, respectively, during 2004. In addition, 16 other entities reported on 28 aluminum recycling projects for 2004, which collectively reduced indirect emissions of PFCs by 34,900 $MTCO_2e$.

Sulfur Hexafluoride

U.S. emissions of SF_6 in 2004 totaled 16.0 million $MTCO_2e$.[48] SF_6 is used as an insulator for circuit breakers, switch gear, and other electrical equipment and as a cover gas in magnesium smelting. It is also emitted during the aluminum smelting process. It has a very high global warming potential—22,200 times the warming effect of carbon dioxide per ton emitted (see box in Chapter 1, page 7).[49]

For 2004, 15 companies reported direct reductions of SF_6 emissions (2.9 million $MTCO_2e$), accounting for 42 percent of the total reported project-level direct reductions in emissions of PFCs, HFCs, and SF_6 (Table 23). Consolidated Edison of New York, Inc. reported the largest single reduction (1.7 million $MTCO_2e$), followed by the Southern Company (0.5 million $MTCO_2e$), TXU (371,900 $MTCO_2e$), and Southern California Edison Company (256,500 $MTCO_2e$). Combined, these four reported project-level SF_6 emission reductions accounted for 97 percent of total reported project-level direct reductions of SF_6 emissions for 2004 and 41 percent of all reported project-level direct emission reductions for HFCs, PFCs, and SF_6 (Table 24).

In addition, three entities reported indirect reductions of SF_6 emissions for 2004: Constellation Energy (81 $MTCO_2e$), Lower Colorado River Authority (21,100 $MTCO_2e$), and Xenon Specialty Gas (237,400 $MTCO_2e$). The reductions were accomplished, respectively, by replacing SF_6 with helium in test procedures, by identifying high-voltage circuit breakers with excessive leakage for removal and replacement, and by reclaiming and recycling gas recovered by electric utility customers.

[47]Energy Information Administration, *Emissions of Greenhouse Gases in the United States 2004*, DOE/EIA-0573(2004) (Washington, DC, December 2005), web site www.eia.doe.gov/oiaf/1605/ggrpt.
[48]Energy Information Administration, *Emissions of Greenhouse Gases in the United States 2004*, DOE/EIA-0573(2004) (Washington, DC, December 2005), web site www.eia.doe.gov/oiaf/1605/ggrpt.
[49]Energy Information Administration, *Emissions of Greenhouse Gases in the United States 2004*, DOE/EIA-0573(2004) (Washington, DC, December 2005), web site www.eia.doe.gov/oiaf/1605/ggrpt.

Table 24. Largest Project-Level Direct Reductions of Sulfur Hexafluoride Emissions Reported on Form EIA-1605 by Reporter, Data Year 2004

Reporter	Direct SF_6 Emission Reductions Reported		Percent of Total Reported Direct Reductions of HFC, PFC, and SF_6 Emissions[a]
	Metric Tons of Gas	Metric Tons Carbon Dioxide Equivalent	
Consolidated Edison Company of New York, Inc.	78.1	1,734,332	24.7
Southern Company	22.8	505,805	7.2
TXU	16.8	371,882	5.3
Southern California Edison Co.	11.6	256,511	3.6
PG&E Corporation	5.2	115,280	1.6
American Electric Power, Inc.	5.0	110,437	1.6
National Grid USA	3.3	72,393	1.0
NiSource/NIPSCO	1.9	41,085	0.6
FPL Group	1.3	28,599	0.4
Cinergy Corp.	1.1	24,591	0.3
City Public Service	0.3	6,556	0.1
Entergy Services, Inc.	0.2	3,524	0.1
South Carolina Electric & Gas Company	0.1	2,316	0.0
Reported Total	**147.4**	**3,273,310**	**46.6**

[a]Based on metric tons carbon dioxide equivalent.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Energy Information Administration, Form EIA-1605. Global warming potentials from Intergovernmental Panel on Climate Change, *Climate Change 2001: The Scientific Basis* (Cambridge, UK: Cambridge University Press, 2001), Table 6.7, pp. 388-389.

7. Entity-Level Reporting and Future Commitments

Overview

The Voluntary Reporting of Greenhouse Gases Program permits three distinct types of emissions reporting:

- Entity-level emissions and emission reductions, defined as the emissions and reductions of an entire organization, usually defined as a corporation
- Project-level emissions and reductions, defined as the emission reductions consequences of a particular project or action
- Commitments to take action to reduce emissions in the future.

Chapters 2 through 6 of this report cover project-level emissions and reductions. This chapter covers entity-level emissions, emission reductions, and commitments to reduce emissions in the future.

Entity reporting and project reporting are not mutually exclusive. Most (175, or 77 percent) of the 225 participants in the program for 2004 reported project-level information on emissions and/or reductions, and 122 (54 percent) reported entity-level information. Of all the participants in the program, 70 (31 percent) reported both entity-level information and project-level information. In addition, 86 entities (38 percent of all participants in the program) reported formal commitments to reduce greenhouse gas emissions in the future or to provide financial support for activities related to greenhouse gas reductions.

Entity-Level Reporting

Who Reported

Electric power producers accounted for 40 of the 122 entity-level reporters. Those with the largest emissions totals for 2004 included Southern Company, Tennessee Valley Authority, Cinergy Corp., FPL Group, Duke Energy, First Energy Corporation, Allegheny Energy, DTE Energy/Detroit Edison, Entergy Services, and Florida Power Corp. Among the remaining 82 entity-level reporters, 20 other industries were represented.

The four other industries with the most entity-level reporters were the following:

- Landfill operators, with 11 reporters (Common-Wealth Bethlehem Energy, Energy Developments, Inc., Gas Recovery Systems, Greater New Bedford Regional, Integrated Waste Services, Middlesex Generating Company, Mystic Development, New Jersey Meadowlands, Palmer Capital Corporation, PEI Power Corporation, and Waste Management, Inc.)
- Transportation companies, with 10 reporters (BMW, DaimlerChrysler, Ford Motor Company, General Motors, International Truck and Engine, Mitsubishi Motors, Nissan, Rolls-Royce, Sikorsky Aircraft, and Toyota)
- Chemical companies, with 8 reporters (Ajinomoto Aminoscience, Allergan, Inc., Baxter Healthcare, Bristol-Myers Squibb, Dow Chemical, Fisher Scientific, Johnson & Johnson, and Mallinckrodt, Inc.)
- Textile companies, with 6 reporters (CommScope Solutions, Hanes Dye and Finishing, Highland Industries, M.J. Soffe Company, National Spinning, and Valdese Manufacturing).

Among the other industries represented were coal mining, food, apparel, petroleum refining, rubber, cement, primary metals, electronics, industrial instruments, railroads, communications, furniture, insurance, and personal services.

Reported Emissions

Total 2004 entity-level direct emissions of greenhouse gases reported to the Voluntary Reporting Program were 933.9 million $MTCO_2e$, or 13 percent of total estimated U.S. emissions of greenhouse gases[50] (Table 25). Entity-level indirect emissions reported to the program were 75.3 million $MTCO_2e$, or 1.1 percent of total U.S. greenhouse gas emissions. Carbon dioxide was the most widely reported greenhouse gas in terms of tonnage. Reported entity-level direct carbon dioxide emissions were 902.4 million $MTCO_2$, representing 97 percent of entity-level reported direct emissions (Table 25). Carbon dioxide also accounted for more than 99 percent (75.3 million metric tons) of all reported indirect emissions (Table 25), of which 74.9 million $MTCO_2$ resulted from purchased power transactions (i.e., the indirect emissions associated with generation of the electricity purchased) (Table 26).

[50]Energy Information Administration, *Emissions of Greenhouse Gases in the United States 2004*, DOE/EIA-0573(2004) (Washington, DC, December 2005), web site www.eia.doe.gov/oiaf/1605/ggrpt.

The single largest category of direct carbon dioxide emissions reported was the 879.2 million $MTCO_2$ emitted by stationary combustion sources (mostly electricity generators), which represented 97 percent of the total direct carbon dioxide emissions reported for 2004 (Table 26). The five largest reporters of direct carbon dioxide emissions were Southern Company (128.8 million $MTCO_2$), TVA (87.9 million $MTCO_2$), Cinergy Corporation (58.3 million $MTCO_2$), FPL Group (55.5 million $MTCO_2$), and Duke Energy Corporation (54.4 million $MTCO_2$) (Table 27). Direct emissions of greenhouse gases other than carbon dioxide included methane (25.4 million $MTCO_2e$), SF_6 (3.1 million $MTCO_2e$), HFCs (2.6 million $MTCO_2e$), PFCs (0.2 million $MTCO_2e$), and nitrous oxide (0.1 million $MTCO_2e$) (Table 25).

Table 25. Total Entity-Level Emissions of Greenhouse Gases by Type of Emissions,1990 and 1996-2004, Reported for Data Year 2004
(Million Metric Tons Carbon Dioxide Equivalent)

Gas and Type of Emissions	1990	1996	1997	1998	1999	2000	2001	2002	2003	2004
Carbon Dioxide										
Direct	682.2	738.1	779.1	868.1	873.2	904.5	884.8	891.0	898.7	902.4
Indirect	423.4	412.3	406.1	396.2	397.0	69.3	67.6	78.2	73.5	75.3
Methane										
Direct	59.5	30.4	32.3	37.3	31.8	30.4	30.2	27.4	23.5	25.4
Indirect	1.7	1.5	1.4	1.4	1.3	*	*	*	*	*
Nitrous Oxide										
Direct	*	*	*	*	*	0.1	*	0.1	*	0.1
Indirect	17.3	19.9	19.3	18.6	17.9	*	*	*	*	*
Hydrofluorocarbons										
Direct	*	*	*	0.1	0.2	0.4	0.8	2.1	2.3	2.6
Indirect	*	5.0	5.2	5.2	5.2	5.2	3.9	5.6	4.5	—
Perfluorocarbons										
Direct	0.6	0.3	0.3	0.2	0.1	0.2	0.2	0.2	0.2	0.2
Sulfur Hexafluoride										
Direct	0.2	5.2	5.3	4.1	3.3	3.7	3.9	3.6	3.1	3.1
Indirect	—	—	—	—	—	0.1	0.1	0.1	*	*
Total										
Direct	**742.5**	**774.0**	**817.1**	**909.7**	**908.7**	**939.1**	**919.9**	**924.4**	**927.9**	**933.9**
Indirect	**442.4**	**438.7**	**432.0**	**421.3**	**421.4**	**74.6**	**71.6**	**83.9**	**78.1**	**75.3**

*Less than 50,000 $MTCO_2e$.
— = None reported.
Source: Energy Information Administration, Form EIA-1605.

Table 26. Total Entity-Level Carbon Dioxide Emissions by Type and Source, 1990 and 1996-2004, Reported for Data Year 2004
(Million Metric Tons Carbon Dioxide)

Type of Emission Source	1990	1996	1997	1998	1999	2000	2001	2002	2003	2004
Direct Emissions										
Stationary Combustion	677.2	718.3	759.2	846.8	851.6	883.1	863.5	870.2	877.7	879.2
Transportation	1.3	11.7	12.0	13.3	13.5	13.3	13.1	13.0	13.7	15.1
Other Direct Sources	3.7	8.0	7.9	7.9	8.1	8.0	8.2	7.8	7.3	8.2
Total Direct	**682.2**	**738.1**	**779.1**	**868.1**	**873.2**	**904.5**	**884.8**	**891.0**	**898.7**	**902.4**
Indirect Emissions										
Purchased Power	49.2	52.0	53.4	50.7	56.2	69.1	66.6	77.0	72.0	74.9
Other Indirect Sources	374.1	360.3	352.7	345.5	340.8	0.2	1.0	1.2	1.5	0.3
Total Indirect	**423.4**	**412.3**	**406.1**	**396.2**	**397.0**	**69.3**	**67.6**	**78.2**	**73.5**	**75.3**

Source: Energy Information Administration, Form EIA-1605.

Thirteen companies reported entity-level direct emissions of methane. The companies that reported the four largest direct methane emissions were: Consol Coal Group (12.1 million $MTCO_2e$), Jim Walter Resources, Inc. (4.3 million $MTCO_2e$), Peabody Holding Company, Inc. (4.1 million $MTCO_2e$), and BP America (3.2 million $MTCO_2e$) (Table 28). These four entities together accounted for 75 percent of all reported direct emissions of other greenhouse gases for 2004. Six companies reported direct emissions of HFCs, including two companies (General Electric and Dow Chemical) with emissions in excess of 1 million $MTCO_2e$ each. Eight companies reported direct emissions of SF_6, including four companies (Consolidated Edison Company of New York, Duke Energy, Xenon Specialty Gas, and Public Service Enterprise Group) with emissions in excess of 0.2 million $MTCO_2e$ each. Three companies reported direct emissions of PFCs, including Alcan Primary Metals Group–Sebree Works, which reported 0.2 million $MTCO_2e$ of PFC emissions.

Reported Reductions

Entity-level direct reductions of greenhouse gas emissions reported for 2004 were 208.3 million $MTCO_2e$, and reported indirect reductions were 48.2 million $MTCO_2e$ (Table 29). Carbon sequestration reductions reported at the entity level were 6.9 million $MTCO_2e$ (Table 30).

Reported entity-level direct reductions of carbon dioxide emissions totaled 137.5 million $MTCO_2$ (Table 30), of which 136.9 million $MTCO_2$ was reported as reductions in emissions from stationary-source combustion. Reported indirect reductions of carbon dioxide emissions totaled 37.1 million $MTCO_2$, including 33.6 million $MTCO_2$ from sources other than stationary-source combustion, such as load control improvements, building shell improvements, improvement or replacement of equipment and appliances, lighting and lighting control improvements, coal ash reuse, materials recycling and reuse, improvements in motors and motor drives, and heating, ventilation, and air conditioning (HVAC).

Reported direct reductions in emissions of greenhouse gases other than carbon dioxide for 2004 were 72.2 million $MTCO_2e$, and indirect reductions were 9.7 million $MTCO_2e$ (Table 29). Virtually all were reductions in emissions of methane.

The largest direct reductions for 2004 were reported by Waste Management, Inc. (36.1 million $MTCO_2e$ methane), TVA (27.8 million $MTCO_2$), Consol Coal Group (19.3 million $MTCO_2e$ methane), FPL Group (16.6 million $MTCO_2$), and FirstEnergy Corporation (16.5 million $MTCO_2$). These five reported entity-level direct reductions accounted for 56 percent (116.3 million $MTCO_2e$) of total reported entity-level direct reductions (Table 31).

Table 27. Largest Reported Entity-Level Direct Carbon Dioxide Emissions by Reporter and Source, Data Year 2004

Reporter	Emissions Source	Reported Direct Carbon Dioxide Emissions (Million $MTCO_2$)	Percentage of 2004 Total Reported Direct Emissions of All Greenhouse Gases
Southern Company	Stationary Combustion	128.8	13.9
Tennessee Valley Authority	Stationary Combustion	87.9	9.5
Cinergy Corp.	Stationary Combustion	58.3	6.3
FPL Group	Stationary Combustion	55.5	6.0
Duke Energy Corporation	Stationary Combustion	54.4	5.9
FirstEnergy Corporation	Stationary Combustion	42.5	4.6
Allegheny Energy, Inc.	Stationary Combustion	40.3	4.4
DTE Energy/ Detroit Edison	Stationary Combustion	40.0	4.3
Entergy Services, Inc.	Stationary Combustion	34.7	3.8
BP America	Stationary Combustion	32.4	3.5
The Dow Chemical Company	Stationary Combustion	26.1	2.8
Florida Power Corporation	Stationary Combustion	22.4	2.4
Alliant Energy	Stationary Combustion	21.0	2.3
Public Service Enterprise Group	Stationary Combustion	20.6	2.2
Constellation Energy	Stationary Combustion	20.4	2.2
Dynegy, Inc.	Stationary Combustion	20.2	2.2
Total		**705.5**	**76.3**

Source: Energy Information Administration, Form EIA-1605.

The largest reporter of indirect emission reductions was the Integrated Waste Services Association (IWSA), which reported indirect emission reductions on behalf of its members. IWSA reported indirect emission reductions of 15 million $MTCO_2$ and 9.4 million $MTCO_2e$ methane, resulting from the combustion of municipal solid waste. FPL Group and Southern Company reported indirect reductions of carbon dioxide emissions at 4.6 million $MTCO_2$ and 4.2 million $MTCO_2$, respectively (Table 32). These four reductions together accounted for 33.2 million $MTCO_2e$ or 69 percent of total reported positive indirect emission reductions.[51]

Of the 45 largest reported entity-level reductions (direct and indirect), 38 were computed on the basis of "modified" reference cases—i.e., the reporter indicated that emissions were lower than they would have been without the actions taken (Tables 31 and 32). TVA, for example, used a generation planning model to calculate what its emissions from 1990 through 2004 would have been if it had used the set of generating units operational in 1990 at their 1990 capacity factors and heat rates. Since 1990, TVA has greatly expanded nuclear generation. Browns Ferry Unit 2 returned to service in 1991, Browns Ferry Unit 3 returned to service in 1995, and Watts Bar Unit 1 started commercial operation in 1996. TVA's reported carbon dioxide emissions from stationary combustion sources for 2004 were 13 million $MTCO_2$ above 1990 levels but 27.8 million $MTCO_2$ below what they would have been if the 1990 generation mix and heat rates had been used.

IWSA reported two sources of indirect reductions: (1) by burning municipal solid waste to generate electricity, its members made it possible for electric utilities to burn less coal; and (2) if the municipal solid waste had not been burned, it could reasonably have been expected to be landfilled, and some portion of the landfilled waste would have decomposed anaerobically, producing methane emissions. Thus, IWSA reported that burning the waste reduced both fossil fuel burning and methane emissions on the part of others.

A total of 32 companies, 15 of which were electric power producers, reported emission reductions or sequestration at the entity level using a "basic" reference case. In a basic reference case, reductions are calculated as the difference between actual emissions in the reporting year and emissions in a baseline year.

Table 28. Largest Reported Entity-Level Direct Emissions of Greenhouse Gases Other Than Carbon Dioxide by Reporter and Emissions Source, Data Year 2004

Reporter	Gas	Emissions Source	Reported Direct Emissions (Thousand $MTCO_2e$)	Percentage of Total Reported Direct Emissions of Other Greenhouse Gases
Consol Coal Group	CH_4	Other Direct	12,084.8	38.3
Jim Walter Resources, Inc.	CH_4	Other Direct	4,307.4	13.7
Peabody Energy	CH_4	Other Direct	4,070.1	12.9
BP America	CH_4	Other Direct	3,171.5	10.1
Consolidated Edison Company of New York, Inc.	SF_6	Other Direct	1,950.5	6.2
General Electric Company	HFC-134a	Other Direct	1,292.2	4.1
The Dow Chemical Company	HFC-134a	Other Direct	1,062.0	3.4
Public Service Enterprise Group	CH_4	Other Direct	651.8	2.1
Cinergy Corp.	CH_4	Other Direct	380.3	1.2
Consolidated Edison Company of New York, Inc.	CH_4	Other Direct	339.2	1.1
NiSource/NIPSCO	CH_4	Stationary Combustion	319.7	1.0
Duke Energy Corporation	SF_6	Other Direct	288.6	0.9
The Dow Chemical Company	HFC-245fa	Other Direct	245.8	0.8
Xenon Specialty Gas	SF_6	Other Direct	237.4	0.8
Public Service Enterprise Group	SF_6	Other Direct	195.4	0.6
Total			**30,596.7**	**97.0**

Source: Energy Information Administration, Form EIA-1605.

[51] Negative indirect reductions in entity-level emissions (i.e., emission increases) were reported for 2004 by 25 participants in the Voluntary Reporting Program.

Table 29. Total Entity-Level Reductions in Greenhouse Gas Emissions by Type of Emissions, 1991 and 1996-2004, Reported for Data Year 2004
(Million Metric Tons Carbon Dioxide Equivalent)

Gas and Type of Reduction	1991	1996	1997	1998	1999	2000	2001	2002	2003	2004
Carbon Dioxide										
Direct	27.3	87.8	89.2	102.5	107.7	126.3	128.9	131.9	127.6	137.5
Indirect	12.8	16.0	16.0	20.3	22.1	20.2	21.9	24.3	31.7	37.1
Methane										
Direct	5.9	35.0	39.3	43.0	49.7	54.6	59.8	67.3	70.8	69.5
Indirect	1.4	3.8	4.7	5.4	5.9	7.1	8.0	9.7	10.4	10.9
Nitrous Oxide										
Direct	*	*	*	*	*	-0.1	*	*	*	*
Indirect	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Hydrofluorocarbons										
Direct	—	—	—	—	—	—	—	*	*	—
Indirect	*	*	*	*	-0.2	-0.3	-0.7	-1.2	-1.1	-1.3
Perfluorocarbons										
Direct	*	0.1	0.1	0.2	0.3	0.3	0.4	0.4	0.4	0.5
Indirect	*	*	*	*	*	*	*	*	*	*
Sulfur Hexafluoride										
Direct	*	-0.1	-0.1	1.1	1.4	1.8	1.8	2.3	2.1	2.1
Indirect	—	—	*	*	*	*	*	*	*	*
Total										
Direct	**33.2**	**122.9**	**128.5**	**146.8**	**158.9**	**182.5**	**190.3**	**200.7**	**199.8**	**208.3**
Indirect	**14.2**	**19.9**	**20.8**	**25.9**	**28.1**	**27.5**	**30.0**	**34.2**	**42.3**	**48.2**

*Less than 0.05 million $MTCO_2e$.
— = none reported.
Note: Negative numbers indicate increases in emissions.
Source: Energy Information Administration, Form EIA-1605.

Table 30. Total Entity-Level Reductions in Carbon Dioxide Emissions by Type and Source, 1991 and 1996-2004, Reported for Data Year 2004
(Million Metric Tons Carbon Dioxide)

Type of Reduction Source	1991	1996	1997	1998	1999	2000	2001	2002	2003	2004
Direct Reductions										
Stationary Combustion	27.1	88.6	89.1	102.0	107.3	125.6	128.4	131.7	126.6	136.9
Transportation	*	0.1	0.2	0.5	0.5	0.7	0.8	0.8	0.7	0.9
Other Direct Sources	0.2	-0.8	-0.1	—	-0.2	—	-0.2	-0.6	0.3	-0.3
Total Direct	**27.3**	**87.8**	**89.2**	**102.5**	**107.7**	**126.3**	**128.9**	**131.9**	**127.6**	**137.5**
Indirect Reductions										
Purchased Power	0.2	-3.8	-3.9	0.1	-1.7	-4.5	-3.8	-3.9	0.9	3.5
Other Indirect Sources	12.6	19.8	19.9	20.3	23.8	24.8	25.7	28.2	30.8	33.6
Total Indirect	**12.8**	**16.0**	**16.0**	**20.3**	**22.1**	**20.2**	**21.9**	**24.3**	**31.7**	**37.1**
Carbon Sequestered	**0.6**	**6.6**	**6.9**	**7.1**	**7.1**	**6.7**	**6.8**	**6.8**	**6.8**	**6.9**

*Less than 0.05 million metric tons.
— = none reported.
Note: Negative numbers indicate increases in emissions.
Source: Energy Information Administration, Form EIA-1605.

Future Commitments To Reduce Emissions

The Voluntary Reporting Program also permits entities to report commitments to reduce emissions or to take action to reduce emissions in the future. There are three types of future commitment in the program: entity commitments, financial commitments, and project commitments. Entity and project commitments roughly parallel the entity and project aspects of emissions reporting: an entity commitment is a commitment to reduce the emissions of an entire organization, and a project commitment is a commitment to take a particular action that will have the effect of reducing the reporter's future emissions. A financial commitment has no emissions reporting counterpart. It is a commitment to spend a particular sum of money on emission reduction activities, without a specific promise as to the emissions consequences of the expenditure.

Entity-Level Commitments

Entity-level commitments to reduce greenhouse gas emissions were reported by 55 participants in the Voluntary Reporting Program. The firms made promises to reduce, avoid, or sequester future emissions at the corporate level. As in the case of entity reporting, some

Table 31. Largest Individual Reported Entity-Level Direct Emission Reductions by Gas, Source, and Type of Reference Case Employed, Data Year 2004

Reporter	Gas	Source	Reference Case	Reported Direct Emission Reduction (Million $MTCO_2e$)	Percent of Total Reported Direct Reductions
Waste Management, Inc.	CH_4	Other Direct	Modified	36.1	17.3
Tennessee Valley Authority	CO_2	Stationary Combustion	Modified	27.8	13.3
Consol Coal Group	CH_4	Other Direct	Basic	19.3	9.3
FPL Group	CO_2	Stationary Combustion	Modified	16.6	8.0
FirstEnergy Corporation	CO_2	Stationary Combustion	Modified	16.5	7.9
Southern Company	CO_2	Stationary Combustion	Modified	12.9	6.2
Duke Energy Corporation	CO_2	Stationary Combustion	Modified	10.7	5.2
Entergy Services, Inc.	CO_2	Stationary Combustion	Modified	8.2	3.9
Constellation Energy	CO_2	Stationary Combustion	Modified	6.4	3.1
Florida Power Corporation	CO_2	Stationary Combustion	Modified	5.7	2.7
The Dow Chemical Company	CO_2	Stationary Combustion	Basic	4.3	2.1
Jim Walter Resources, Inc.	CH_4	Other Direct	Modified	4.0	1.9
Municipal Electric Auth of Georgia (MEAG Power)	CO_2	Stationary Combustion	Modified	3.6	1.7
NiSource/NIPSCO	CH_4	Other Direct	Modified	3.4	1.7
PG&E Corporation	CO_2	Stationary Combustion	Modified	3.3	1.6
KeySpan Energy Corporation	CO_2	Stationary Combustion	Basic	3.0	1.4
CMS Energy	CO_2	Stationary Combustion	Modified	2.8	1.3
Alliant Energy	CO_2	Stationary Combustion	Modified	2.7	1.3
Palmer Capital Corporation	CH_4	Other Direct	Modified	2.7	1.3
BP America	CO_2	Stationary Combustion	Modified	2.3	1.1
General Motors Corporation	CO_2	Stationary Combustion	Basic	2.0	0.9
BP America	CH_4	Other Direct	Modified	2.0	0.9
Los Angeles Department of Water and Power	CO_2	Stationary Combustion	Basic	1.8	0.9
Consolidated Edison Company of New York, Inc.	SF_6	Other Direct	Modified	1.7	0.8
Sunoco, Inc.	CO_2	Stationary Combustion	Basic	1.6	0.8
Cinergy Corp.	CO_2	Stationary Combustion	Modified	1.6	0.8
Allegheny Energy, Inc.	CO_2	Stationary Combustion	Modified	1.5	0.7
Santee Cooper	CO_2	Stationary Combustion	Modified	1.2	0.6
BNSF Railway Company	CO_2	Transportation	Modified	1.2	0.6
Total				**207.1**	**99.4**

Note: For 2004, negative direct entity-level emission reductions were reported by 26 participants in the Voluntary Reporting of Greenhouse Gases Program.

Source: Energy Information Administration, Form EIA-1605.

Table 32. Largest Reported Individual Entity-Level Indirect Emission Reductions by Gas, Source, and Type of Reference Case Employed, Data Year 2004

Reporter	Gas	Source	Reference Case	Reported Indirect Emission Reduction (Million $MTCO_2e$)	Percent of Total Reported Indirect Reductions
Integrated Waste Services Association	CO_2	Other Indirect	Modified	15.0	31.1
Integrated Waste Services Association	CH_4	Other Indirect	Modified	9.4	19.6
FPL Group	CO_2	Other Indirect	Modified	4.6	9.6
Southern Company	CO_2	Other Indirect	Modified	4.2	8.8
Mystic Development, LLC	CO_2	Other Indirect	Modified	2.7	5.6
Sacramento Municipal Utility District	CO_2	Purchased Power	Basic	1.8	3.8
Portland General Electric Co.	CO_2	Purchased Power	Modified	1.4	3.0
General Motors Corporation	CO_2	Purchased Power	Basic	1.2	2.5
PG&E Corporation	CO_2	Other Indirect	Modified	1.0	2.0
Public Service Enterprise Group	CO_2	Purchased Power	Modified	0.9	1.9
Alliant Energy	CO_2	Other Indirect	Modified	0.9	1.9
Public Service Enterprise Group	CO_2	Other Indirect	Modified	0.8	1.7
FirstEnergy Corporation	CH_4	Other Indirect	Modified	0.8	1.6
Waste Management, Inc.	CO_2	Purchased Power	Modified	0.7	1.4
Berkshire Power LLC	CO_2	Other Indirect	Modified	0.7	1.4
CMS Energy	CO_2	Other Indirect	Modified	0.6	1.2
Total				**46.7**	**97.1**

Note: For 2004, negative indirect entity-level emission reductions were reported by 21 participants in the Voluntary Reporting of Greenhouse Gases Program.
Source: Energy Information Administration, Form EIA-1605.

Table 33. Largest Reported Individual Entity-Level Commitments To Reduce Greenhouse Gases by Gas and Type of Reference Case, Data Year 2004

Reporter	Gas	Reference Case	Reported Entity-Level Commitment (Million $MTCO_2e$)	Percent of Total Reported Entity-Level Reduction Commitments
Tennessee Valley Authority	CO_2	Modified	22.6	28.0
National Grid	CO_2	Basic	15.1	18.8
FPL Group	CO_2	Modified	10.0	12.4
Entergy Services, Inc.	CO_2	Basic	5.0	6.2
Middlesex Generating Company, LLC	CH_4	Modified	4.8	5.9
FirstEnergy Corporation	CO_2	Modified	2.9	3.5
Noranda Aluminum Inc.	CF_4	Basic	2.8	3.4
Alliant Energy	CO_2	Modified	2.4	3.0
Greater New Bedford Regional Refuse Mgt District	CH_4	Modified	2.1	2.6
BNSF Railway Company	CO_2	Modified	2.1	2.6
South Carolina Electric & Gas Company	CO_2	Basic	1.8	2.2
Allegheny Energy, Inc.	CO_2	Basic	1.8	2.2
Alliant Energy	CO_2	Modified	1.8	2.2
Public Service Company of New Mexico	CO_2	Basic	1.5	1.8
General Motors Corporation	CO_2	Basic	1.1	1.4
Alliant Energy	CO_2	Modified	1.0	1.2
Total			**83.8**	**97.6**

Note: Reporters are not asked to indicate whether future reductions will be direct, indirect, or sequestration.
Source: Energy Information Administration, Form EIA-1605.

commitments were to reduce emissions below a specific baseline, others to limit the growth of emissions per unit of output, and others to limit emissions by a specific amount in comparison with a baseline emissions growth trend.

Total entity-level emission reduction commitments reported in 2004 were 80.7 million $MTCO_2e$. TVA (22.6 million $MTCO_2e$), National Grid USA (15.1 million $MTCO_2e$), FPL Group (10 million $MTCO_2e$), Entergy Services (5 million $MTCO_2e$), and Middlesex Generating Company (4.8 million $MTCO_2e$) reported the five largest entity-level reduction commitments, which in combination accounted for 71 percent (57.5 million $MTCO_2e$) of the total reported entity-level commitments to reduce greenhouse gases. National Grid USA and Entergy Services, Inc., measured their reduction commitments using basic reference cases. The three other reporters used modified reference cases.

Project-Level Commitments

A total of 20 companies reported on commitments to undertake 107 individual emission reduction projects. Some of the commitments were linked to future results from projects already underway and forming part of the reporters' submissions; others indicated projects not yet begun. For all but one of the projects, the reporters provided data on the quantities of reductions expected. In total, the reporters indicated that their projects were expected to reduce future emissions by 62.9 million $MTCO_2e$, including 51.6 million $MTCO_2$, 6.9 million $MTCO_2e$ methane, 3.3 million $MTCO_2e$ perfluorocarbons, and about 1.0 million $MTCO_2e$ nitrous oxide and sulfur hexafluoride.

TVA reported the largest individual project-level commitment, described as "an increase in low-emitting capacity" resulting from TVA's nuclear power program. It would reduce carbon dioxide emissions by 17.6 million $MTCO_2$. The second and third largest individual project-level commitments were made by Middlesex Generating Company, LLC (4.8 million $MTCO_2e$ methane) and FirstEnergy Corporation (4.4 million $MTCO_2$). These three project-level commitments accounted for 43 percent of total reported project-level commitments, or 26.8 million $MTCO_2e$ (Table 34).

Financial Commitments

A total of 15 companies, 14 of which were electric utilities, made 31 financial commitments to reduce greenhouse gas emissions in the future. The total amount of promised funds was $19.1 million. The single largest reported financial commitment was made by Noranda Aluminum, Inc. ($5.5 million), followed by Ameren Corporation ($5.0 million) and by Minnesota Power, FirstEnergy Corporation, and Kansas City Power & Light Company, each of which committed to spend $2.0 million. Together, these 5 entities reported financial commitments that accounted for 86 percent of the financial commitments reported for 2004 (Table 35).

The largest expenditures reported for 2004 were by Entergy Services, Inc. ($2,000,000), Ameren Corporation ($500,000), Bountiful City Light & Power ($238,159), NiSource/NIPSCO ($200,000), and Noranda Aluminum, Inc. ($100,792). These four companies reported combined expenditures of $3,038,951 to reduce greenhouse gas emissions in 2004, making up 98 percent of the total reported expenditures (Table 36).

Table 34. Largest Reported Individual Project-Level Commitments To Reduce Greenhouse Gas Emissions, Data Year 2004

Reporter	Project Description	Gas	Reported Commitment (Million $MTCO_2e$)	Percent of Total Reported Project-Level Commitments
Tennessee Valley Authority	Increase in low-emitting capacity	CO_2	17.6	28.0
Middlesex Generating Company, LLC	Landfill gas control and energy recovery to produce electric power	CH_4	4.8	7.6
FirstEnergy Corporation	Supply-side efficiency improvements	CO_2	4.4	6.9
Noranda Aluminum Inc.	Reduce PFC emissions through anode effect reduction program, in keeping with EPA goal of 30-60%; 90% reduction in emissions from lines 1 & 2 and 69% reduction from line 3 (all reductions from 1990 baseline)	CF_4	2.8	4.4
FirstEnergy Corporation	Nuclear generation operation improvement	CO_2	2.5	4.0
Municipal Electric Authority of Georgia (MEAG Power)	Increase nuclear unit availability	CO_2	2.5	3.9
Alliant Energy	Modified forest management	CO_2	2.4	3.8
New York Power Authority	NYPA customer energy services programs	CO_2	2.3	3.6
Tennessee Valley Authority	Fuel switching	CO_2	2.2	3.5
Greater New Bedford Regional Refuse Management District	Landfill gas control and future utilization	CH_4	2.1	3.4
CMS Energy	Atlantic Methanol Production Company (AMPCO) to build methanol production plant adjacent to ALBA gas processing plant on Bioko Island, Equatorial Guinea, to make use of large quantities of residue natural gas currently being flared	CO_2	2.0	3.2
Alliant Energy	Other energy end-use projects/activities (electric)	CO_2	1.7	2.7
Santee Cooper	Cross Unit 2 retrofit	CO_2	1.1	1.8
Municipal Electric Authority of Georgia (MEAG Power)	Increase nuclear unit capacity	CO_2	1.0	1.5
Santee Cooper	Upgrade Summer Nuclear Station	CO_2	0.9	1.4
Allegheny Energy, Inc.	UtiliTree Rio Bravo Carbon Sequestration Project (Belize), 134,400 acres	CO_2	0.9	1.4
Tennessee Valley Authority	Heat rate improvement	CO_2	0.8	1.3
Tennessee Valley Authority	Other energy end-use projects/activities	CO_2	0.8	1.2
Consolidated Edison Company of New York, Inc.	Voluntary commitment under SF_6 Reduction Program for Electric Power Systems to reduce emissions by 4% per year relative to 1996 baseline levels (beginning in 2000), with ultimate goal of 20% reduction from 1996 baseline by 2005	SF_6	0.7	1.2
Lower Colorado River Authority	Coal combustion byproduct recycling	CO_2	0.6	1.0
New York Power Authority	Non-customer energy services programs	CO_2	0.6	1.0
BP America	Noel Kempff Climate Action Project	CO_2	0.6	1.0
Tennessee Valley Authority	Reconductoring	CO_2	0.6	0.9
Noranda Aluminum Inc.	Reduce PFC emissions through anode effect reduction program, in keeping with EPA goal of 30-60%; 90% reduction in emissions from lines 1 & 2 and 69% reduction from line 3 (all reductions from 1990 baseline)	C_2F_6	0.6	0.9
Lower Colorado River Authority	Residential and commercial DSM programs	CO_2	0.5	0.9
Total			**57.0**	**90.6**

Source: Energy Information Administration, Form EIA-1605.

Table 35. Largest Reported Individual Entity-Level Financial Commitments To Reduce Greenhouse Gas Emissions, Data Year 2004

Reporter	Industry	Financial Commitment (Dollars)	Voluntary Program Affiliation	Percent of Total Reported Financial Commitments
Noranda Aluminum Inc.	Primary Metals Industries	5,500,000	Voluntary Aluminum Industrial Partnership	28.7
Ameren Corporation[a]	Electric, Gas, and Sanitary Services	5,000,000	Climate Challenge	26.1
Minnesota Power	Electric, Gas, and Sanitary Services	2,000,000	Climate Challenge	10.4
Kansas City Power & Light Company	Electric, Gas, and Sanitary Services	2,000,000	Climate Challenge	10.4
FirstEnergy Corporation	Electric, Gas, and Sanitary Services	2,000,000	Climate Challenge	10.4
Dynegy, Inc.	Electric, Gas, and Sanitary Services	450,000	Climate Challenge	2.4
FirstEnergy Corporation	Electric, Gas, and Sanitary Services	400,000	Climate Challenge	2.1
Bountiful City Light & Power	Electric, Gas, and Sanitary Services	379,354	Climate Challenge	2.0
Kansas City Power & Light Company	Electric, Gas, and Sanitary Services	264,000	Climate Challenge	1.4
NiSource/NIPSCO	Electric, Gas, and Sanitary Services	200,000	Climate Challenge	1.0
FirstEnergy Corporation	Electric, Gas, and Sanitary Services	200,000	Climate Challenge	1.0
TXU	Electric, Gas, and Sanitary Services	155,000	Climate Challenge	0.8
Dynegy, Inc.	Electric, Gas, and Sanitary Services	105,000	Climate Challenge	0.5
Constellation Energy	Electric, Gas, and Sanitary Services	100,000	Climate Challenge	0.5
Total		**18,753,354**		**98.0**

[a]Formerly UE, CIPS, and CILCO.
Source: Energy Information Administration, Form EIA-1605.

Table 36. Reported Entity-Level Financial Expenditures To Reduce Greenhouse Gas Emissions, Data Year 2004

Reporter	Industry	2004 Financial Expenditure (Dollars)	Voluntary Program Affiliation	Percent of Total Reported Financial Expenditures
Entergy Services, Inc.	Electric, Gas, and Sanitary Services	2,000,000	None	65.2
Ameren Corporation[a]	Electric, Gas, and Sanitary Services	500,000	Climate Challenge	16.3
Bountiful City Light & Power	Electric, Gas, and Sanitary Services	238,159	Climate Challenge	7.8
NiSource/NIPSCO	Electric, Gas, and Sanitary Services	200,000	Climate Challenge	6.5
Noranda Aluminum Inc.	Primary Metals Industries	100,792	Voluntary Aluminum Industrial Partnership	3.3
Kansas City Power & Light Company	Electric, Gas, and Sanitary Services	10,000	Climate Challenge	0.3
TXU	Electric, Gas, and Sanitary Services	5,000	Climate Challenge	0.2
NiSource/NIPSCO	Electric, Gas, and Sanitary Services	5,000	Climate Challenge	0.2
Xcel Energy	Electric, Gas, and Sanitary Services	5,000	Climate Challenge	0.2
Cleco Corporation	Electric, Gas, and Sanitary Services	1,600	None	0.1
Total		**3,065,551**		**100.0**

[a]Formerly UE, CIPS, and CILCO.
Source: Energy Information Administration, Form EIA-1605.

8. Project-Level Reporting on Form EIA-1605EZ

EIA provides Form EIA-1605EZ to participants in the Voluntary Reporting of Greenhouse Gases Program as a less comprehensive and less detailed alternative to Form EIA-1605. Form EIA-1605EZ (the "short form") allows reporters to provide a brief summary of their emission reduction projects for a single year. The short form is used exclusively for reporting projects undertaken within the geographic boundaries of the United States, its territories, and its trusts. Because reports submitted on Form EIA-1605EZ do not make a distinction between owning or controlling an emissions source and simply initiating or participating in an emission reduction activity, there is no systematic way to distinguish between direct and indirect emissions reported on this form.

Who Reported on Form EIA-1605EZ

A total of 31 entities submitted reports on Form EIA-1605EZ for 2004. Of those, 16 were electric power providers, typically, relatively small electric power cooperatives; 7 were alternative energy providers, including 5 firms that combusted biomass to reduce greenhouse gas emissions; and 6 were manufacturing firms—1 each from the textile, refining, fabricated metals, and microprocessor industries, and 2 from the pharmaceutical industry. One individual household and a forestry firm also filed Form EIA-1605EZ for 2004.

What Was Reported on Form EIA-1605EZ

A total of 212 projects were reported on Form EIA-1605EZ for 2004 (Table 37), down from 226 projects reported on the short form for 2003. The decrease was primarily in landfill gas recovery projects, which dropped from 42 to 19 projects. U.S. Energy Biogas Corporation, which reported 36 projects in 2003, did not submit data for 2004. Of the remaining 193 projects reported for 2004, 101 focused on improvements in energy end-use efficiency, and 49 emphasized reductions in emissions from electric power generation, transmission, and distribution. Together, the 212 projects reported on the short form for 2004 reduced greenhouse gas emissions by 13.8 million $MTCO_2e$ (Table 38). Of that total, 11.8 million $MTCO_2e$ resulted from efforts in the electric power generation, transmission, and distribution sector (Table 39).

Federal voluntary programs played an important role in those projects reported on Form EIA-1605EZ. Of the projects reported, 102 (48 percent) were associated with some Federal voluntary initiative: 62 were associated with the DOE's Climate Challenge program, and 18 were associated with the EPA's ENERGY STAR Program (Table 40).

Table 37. Number of Projects Reported on Form EIA-1605EZ by Reduction Objective and Project Type, Data Years 1994-2004

Reduction Objective and Project Type	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003(R)	2004
Reducing Carbon Dioxide Emissions	**88**	**118**	**125**	**138**	**177**	**151**	**148**	**146**	**186**	**166**	**176**
Electricity Generation, Transmission, and Distribution	35	44	44	46	59	53	55	50	58	52	49
Cogeneration and Waste Heat Recovery	0	1	2	2	2	0	0	0	1	0	0
Energy End Use	44	50	53	60	66	56	61	64	97	79	101
Transportation and Offroad Vehicles	5	8	11	9	14	11	12	13	9	10	9
Other Projects	4	15	15	21	36	31	20	19	21	25	17
Reducing Methane and Nitrous Oxide Emissions	**15**	**21**	**30**	**32**	**41**	**45**	**44**	**47**	**51**	**44**	**20**
Waste Treatment and Disposal (Methane)	10	16	21	28	39	42	43	45	49	42	19
Agriculture (Methane and Nitrous Oxide)	0	0	0	0	0	0	0	0	0	0	0
Oil and Natural Gas Systems and Coal Mining (Methane)	5	5	9	4	2	3	1	2	2	2	1
Carbon Sequestration	**20**	**24**	**23**	**30**	**34**	**41**	**35**	**14**	**14**	**15**	**15**
Halogenated Substances	**2**	**1**	**1**	**1**	**0**	**0**	**2**	**3**	**2**	**1**	**1**
Total	**125**	**164**	**179**	**201**	**252**	**237**	**229**	**210**	**253**	**226**	**212**

(R) = revised.
Note: Table excludes projects submitted in confidential reports.
Source: Energy Information Administration, Form EIA-1605EZ.

Table 38. Emission Reductions Reported on Form EIA-1605EZ by Reduction Objective and Project Type, Data Years 1994-2004
(Million Metric Tons Carbon Dioxide Equivalent)

Reduction Objective and Project Type	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003(R)	2004
Reducing Carbon Dioxide Emissions	**3.7**	**5.0**	**4.4**	**6.7**	**16.4**	**9.6**	**9.2**	**10.9**	**12.8**	**12.5**	**13.1**
Electricity Generation, Transmission, and Distribution	2.3	2.9	2.1	3.8	13.0	8.1	7.8	9.7	11.6	11.1	11.8
Cogeneration and Waste Heat Recovery	—	*	*	*	*	—	—	—	*	—	—
Energy End Use	1.4	1.6	1.9	2.4	2.4	0.3	0.4	0.3	0.4	0.4	0.5
Transportation and Offroad Vehicles	*	*	*	*	*	*	*	*	*	*	*
Other Projects	0.1	0.5	0.4	0.5	0.8	1.1	1.0	0.9	0.9	1.0	0.8
Reducing Methane and Nitrous Oxide Emissions	**0.6**	**1.2**	**1.3**	**1.8**	**3.0**	**3.2**	**3.1**	**4.0**	**4.3**	**3.9**	**0.6**
Waste Treatment and Disposal (Methane)	0.6	1.1	1.2	1.8	3.0	3.2	3.1	3.8	4.0	3.5	0.3
Agriculture (Methane and Nitrous Oxide)	—	—	—	—	—	—	—	—	—	—	—
Oil and Natural Gas Systems and Coal Mining (Methane)	*	*	*	*	0.1	0.1	*	0.2	0.3	0.3	0.4
Carbon Sequestration	*****	*****	*****	*****	*****	**0.1**	*****	*****	*****	*****	**0.1**
Halogenated Substances	**—**	**—**	**—**	**0.1**	**—**	**—**	*****	*****	**0.1**	*****	**—**
Total	**4.3**	**6.1**	**5.7**	**8.6**	**19.4**	**12.9**	**12.3**	**14.8**	**17.3**	**16.4**	**13.8**

*Less than 0.05 million metric tons.
(R) = revised. — = none reported.
Note: Table excludes data submitted in confidential reports.
Source: Energy Information Administration, Form EIA-1605EZ.

Table 39. Carbon Dioxide and Methane Emission Reductions Reported on Form EIA-1605EZ by Reduction Objective and Project Type, Data Year 2004
(Million Metric Tons Carbon Dioxide Equivalent)

Reduction Objective and Project Type	Carbon Dioxide	Methane
Reducing Carbon Dioxide Emissions	**13.0**	*****
Electricity Generation, Transmission, and Distribution	11.8	—
Cogeneration and Waste Heat Recovery	—	—
Energy End Use	0.5	*
Transportation and Offroad Vehicles	*	—
Other Projects	0.8	*
Reducing Methane and Nitrous Oxide Emissions	**0.1**	**0.6**
Waste Treatment and Disposal (Methane)	0.1	0.2
Agriculture (Methane and Nitrous Oxide)	—	—
Oil and Natural Gas Systems and Coal Mining (Methane)	—	0.4
Carbon Sequestration	**0.1**	**—**
Halogenated Substances	**—**	**—**
Total	**13.2**	**0.6**

*Less than 0.05 million metric tons.
— = none reported.
Notes: Table excludes data submitted in confidential reports.
Source: Energy Information Administration, Form EIA-1605EZ.

Table 40. Number of Projects Reported on Form EIA-1605EZ Associated with Other Federal Voluntary Programs, Data Years 1994-2004

Voluntary Program	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003(R)	2004
Climate Challenge	106	127	117	124	129	114	111	97	75	63	62
Landfill Methane Outreach Program	—	—	2	2	34	40	42	44	48	41	5
Climate Wise Recognition Program	—	3	5	12	25	25	12	1	1	2	0
ENERGY STAR Programs	5	6	10	5	2	1	2	8	28	11	16
Energy Efficiency and Renewable Energy Information and Training Programs	—	—	—	—	—	—	—	—	27	1	1
Green Lights Program	1	3	6	4	6	2	1	1	1	—	—
Coalbed Methane Outreach Program	—	—	1	1	2	3	—	—	—	—	—
WasteWise Program	—	—	—	—	—	—	—	2	4	3	3
Sulfur Hexafluoride Emissions Reduction Partnership	—	—	—	—	—	—	1	2	1	2	1
Other	4	11	3	9	7	1	3	11	7	4	14
Total	**116**	**150**	**144**	**157**	**205**	**186**	**172**	**166**	**192**	**127**	**102**

(R) = revised. — = none reported.
Note: Table excludes data submitted in confidential reports.
Source: Energy Information Administration, Form EIA-1605EZ.

Glossary

Afforestation: Planting of new forests on lands that have not been recently forested.

Anaerobic lagoon: A liquid-based manure management system, characterized by waste residing in water to a depth of at least 6 feet for a period ranging between 30 and 200 days.

Associated natural gas: See "Associated-dissolved natural gas."

Associated-dissolved natural gas: Natural gas that occurs in crude oil reservoirs either as free gas (associated) or as gas in solution with crude oil (dissolved).

Baseline period: The years 1987 through 1990 for which entity-level emissions may be reported.

Biofuels: Liquid fuels and blending components produced from biomass (plant) feedstocks, used primarily for transportation.

Biogas: Gas produced from the anaerobic decomposition of organic materials in a landfill.

Biomass: Organic nonfossil material of biological origin constituting a renewable energy source.

British thermal unit: The quantity of heat required to raise the temperature of 1 pound of liquid water by 1 degree Fahrenheit at the temperature at which water has its greatest density (approximately 39 degrees Fahrenheit).

Carbon dioxide equivalent: The amount of carbon dioxide by weight emitted into the atmosphere that would produce the same estimated radiative forcing as a given weight of another radiatively active gas. Carbon dioxide equivalents are computed by multiplying the weight of the gas being measured (for example, methane) by its estimated global warming potential (which is 23 for methane). "Carbon equivalent units" are defined as carbon dioxide equivalents multiplied by the carbon content of carbon dioxide (i.e., 12/44).

Carbon sequestration: The fixation of atmospheric carbon dioxide in a carbon sink through biological or physical processes.

Carbon sink: A reservoir that absorbs or takes up released carbon from another part of the carbon cycle. The four sinks, which are regions of the Earth within which carbon behaves in a systematic manner, are the atmosphere, terrestrial biosphere (usually including freshwater systems), oceans, and sediments (including fossil fuels).

Chlorofluorocarbon (CFC): Any of various compounds consisting of carbon, hydrogen, chlorine, and flourine used as refrigerants. CFCs are now thought to be harmful to the Earth's atmosphere.

Climate: The average course or condition of the weather over a period if years, as exhibited by temperature, humidity, wind velocity, and precipitation. The classical period is 30 years, as defined by the World Meteorological Organization (WMO).

Climate change: A term used to refer to all forms of climatic inconsistency in general and, in particular, significant change from one prevailing climatic condition to another. In some cases, "climate change" has been used synonymously with the term "global warming"; however, scientists tend to use the term in its general sense, including natural changes in climate and climatic cooling.

Cogeneration: The production of electrical energy and another form of useful energy (such as heat or steam) through the sequential use of energy.

Commercial scale: Application of a demonstrated technology at a cost-effective scale.

Commitment: An expressed intention to undertake an action or actions that will reduce greenhouse gas emissions, increase carbon sequestration, or achieve a stated emissions goal.

Conversion factor: A number that translates units of one measurement system into corresponding values of another measurement system. For specific conversion factors, see EIA data products.

Deforestation: The net removal of trees from forested land.

Emission reduction: A decrease in annual greenhouse gas emissions.

Emissions: Anthropogenic releases of gases to the atmosphere. In the context of global climate change, they consist of radiatively important greenhouse gases (e.g., the release of carbon dioxide during fuel combustion).

Emissions coefficient: A unique value for scaling emissions to activity data in terms of a standard rate of emissions per unit of activity (e.g., pounds of carbon dioxide emissions per Btu of fossil fuel consumed).

Emissions, direct: Emissions from sources owned (wholly or in part) or leased by an entity.

Emissions, fugitive: Unintended leaks of gas from the processing, transmission, and/or transportation of fossil fuels.

Emissions, indirect: Emissions from sources not owned or leased by an entity that occur, wholly or in part, as a result of its activities.

Energy conservation: Activities that reduce end-use demand for energy by reducing the service demanded.

Entity: For the purposes of the Voluntary Reporting of Greenhouse Gases Program, an individual or organization that is a legal U.S. person (e.g., a U.S. citizen, resident alien, company, organization, or group incorporated under or recognized by U.S. law; or a Federal, State, or local government agency).

Entity boundary: Conceptually, a line drawn to encompass the emissions sources and sinks to be evaluated in an entity-level report. An entity boundary should include all the emissions sources and sinks owned (wholly or in part) or leased by the entity and, to the extent possible, other emissions sources and sinks affected by the entity's activities.

Entity-level reporting: Reporting of greenhouse gas emissions, emission reductions, and carbon sequestration for an entire entity. See also "Project-level reporting."

Estimation method: The techniques, including key assumptions and data sources, used by the reporter to derive the reported emissions, emission reductions, or sequestration.

Foreign activities: All actions outside the United States, its territories, and its trusts.

Forest preservation: Protecting existing forests from harvest and, in some cases, conversion to another land use as a means of mitigating increases in atmospheric carbon.

Fossil fuel: An energy source formed in the Earth's crust from decayed organic material. The common fossil fuels are petroleum, coal, and natural gas.

Fuel cycle: The entire set of sequential processes or stages involved in the utilization of fuel, including extraction, transformation, transportation, and combustion. Emissions generally occur at each stage of the fuel cycle.

Fuel switching: The substitution of one type of fuel for another. The fuel substitution may be either temporary (as in the case of a power plant that temporarily switches from coal to natural gas) or permanent (as in the case of a fleet operator who replaces gasoline-powered automobiles with electric cars).

Fugitive emissions: See "Emissions, fugitive."

Global warming potential (GWP): An index used to compare the relative radiative forcing of different gases without directly calculating changes in their atmospheric concentrations. GWPs are calculated as the ratio of the radiative forcing that would result from the emission of 1 kilogram of a greenhouse gas to that from the emission of 1 kilogram of carbon dioxide over a fixed period of time, such as 100 years.

Gob: A zone of rubble created when the roof of a coal mine collapses behind the mining operations.

Greenhouse effect: The result of water vapor, carbon dioxide, and other atmospheric gases trapping radiant (infrared) energy, thereby keeping the Earth's surface warmer than it would otherwise be. Greenhouse gases within the lower levels of the atmosphere trap infrared radiation that would otherwise escape into space, and subsequent re-radiation of some of the energy back to the Earth maintains higher surface temperatures than would occur if the gases were absent. See "Greenhouse gases."

Greenhouse gases: Those gases, such as water vapor, carbon dioxide, nitrous oxide, methane, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulfur hexafluoride (SF_6), that are transparent to solar (short-wave) radiation but opaque to long-wave (infrared) radiation, thus preventing long-wave radiant energy from leaving Earth's atmosphere. The net effect is a trapping of absorbed radiation and a tendency to warm the planet's surface.

Halogenated substance: A volatile compound containing halogens, such as chlorine, fluorine, or bromine.

Horizon year: The year in which a commitment to reduce greenhouse gas emissions or increase sequestration (reported on Schedule IV) is expected to be met.

Intergovernmental Panel on Climate Change (IPCC): A panel established jointly in 1988 by the World Meteorological Organization (WMO) and the United Nations Environment Programme (UNEP) to assess scientific information related to climate change and to formulate realistic response strategies.

Life cycle: The progression of a product through its service life. For most products, emissions and energy-consuming characteristics will be altered as they age.

Longwall mining: An automated form of underground coal mining characterized by high recovery and extraction rates, feasible only in relatively flat-lying, thick, and uniform coalbeds. A high-powered cutting machine is passed across the exposed face of coal, shearing away broken coal, which is continuously hauled away by a floor-level conveyor system. Longwall mining extracts all machine-minable coal between the floor and ceiling

within a contiguous block of coal, known as a panel, leaving no support pillars within the panel area. Panel dimensions vary over time and with mining conditions but currently average about 900 feet wide (coal face width) and more than 8,000 feet long (the minable extent of the panel, measured in direction of mining). Longwall mining is done under movable roof supports that are advanced as the bed is cut. The roof in the mined-out area is allowed to fall as the mining advances.

Manure management: The method used to dispose of the solid waste produced by livestock and poultry.

Modified forest management: The modification of the management regimes of existing forests to increase their carbon capture rates.

Municipal solid waste: Residential solid waste and some nonhazardous commercial, institutional, and industrial wastes.

Ozone: A molecule made up of three atoms of oxygen. Ozone occurs naturally in the stratosphere and provides a protective layer shielding the Earth from harmful ultraviolet radiation. In the troposphere, it is a chemical oxidant, a greenhouse gas, and a major component of photochemical smog.

Photosynthesis: The manufacture of carbohydrates and oxygen from carbon dioxide and water in the presence of chlorophyll, with sunlight as the energy source. Carbon is sequestered and oxygen and water are released in the process.

Pilot project: A small-scale trial designed to test or demonstrate the efficiency or efficacy of a project.

Project: An action undertaken to reduce greenhouse gas emissions or sequester carbon.

Project boundary: Conceptually, a line drawn to encompass the emissions sources and sinks affected by a project. A project boundary should include all the significant and quantifiable effects of the project.

Project ID code: A unique code assigned by the Energy Information Administration to a reported project for tracking purposes.

Project-level reporting: Reporting on emission reductions or carbon sequestration achieved as a result of a specific action or group of actions.

Reconductoring: Replacement of existing conductors with large-diameter conductors to reduce line losses. Conductors (including feeders and transmission lines) are a major source of transmission and distribution system losses. In general, the smaller the diameter of the conductor, the greater its resistance to the flow of electric current, and the greater the consequent line losses.

Reference case: The emissions level to which current actual emissions levels are compared when emission reductions are calculated.

Reference case, basic: A reference case using actual historical emissions or sequestration values.

Reference case, modified: A reference case using projected emissions or sequestration values, representing the emissions level that would have occurred in the absence of reduction or sequestration efforts.

Reforestation: Replanting of forests on lands that have recently been harvested or otherwise cleared of trees.

Reporter: An entity completing either Form EIA-1605 or Form EIA-1605EZ and submitting it to the Voluntary Reporting of Greenhouse Gases Program. See "Entity."

Room-and-pillar mining: The most common method of underground mining in which the mine roof is supported mainly by coal pillars left at regular intervals. Rooms are places where the coal is mined; pillars are areas of coal left between the rooms. Room-and-pillar mining is done by either conventional or continuous mining.

Sequestered carbon: Carbon that is removed from the atmosphere and retained in a carbon sink (such as a growing tree) or in soil.

Sequestration: See "Carbon sequestration."

Sink: See "Carbon sink."

Third-party reporter: An authorized party that submits a report on behalf of two or more entities that have engaged in emissions-reducing or sequestration-increasing activities. Possible third-party reporters include trade associations reporting on behalf of members that have undertaken reduction projects.

Urban forestry: The planting of trees individually or in small groups in urban or suburban settings.

Vhar metering: Phase shifters on watt-hour meters that measure reactive volt ampere hours or varhours.

Watt (W): The unit of electrical power equal to 1 ampere under a pressure of 1 volt. A watt is equal to 1/746 horsepower.

Appendix A

The Voluntary Reporting Program: A Developmental Overview

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The Voluntary Reporting Program: A Developmental Overview

Introduction

Rising global atmospheric concentrations of carbon dioxide, methane, nitrous oxide, and other "greenhouse gases" have been a subject of increasing scientific and policy concern for the past decade. Many scientists and policymakers believe that increasing atmospheric concentrations of these gases (thought to be caused by human activities, particularly, the combustion of fossil fuels) may cause significant long-term changes in global weather and climate by trapping more of the sun's heat in the atmosphere.

In 1992, President George H.W. Bush signed a multilateral treaty, the Framework Convention on Climate Change, which committed the United States to take steps, in conjunction with other signatory states, to ". . . achieve . . . stabilization of the greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system."[52]

As the Framework Convention was being negotiated, Congress began to consider measures that would help the U.S. Government develop the national "commitment" required by the treaty. One such measure was Section 1605(b) of the Energy Policy Act of 1992, which requires the Energy Information Administration (EIA) to create reporting forms and a database for the voluntary reporting of emissions and reductions in emissions of greenhouse gases. The Voluntary Reporting Program was developed in a cooperative effort with potential reporters, the Department of Energy's Office of Policy, and the U.S. Environmental Protection Agency. The program permits individuals, corporations, and other organizations to report to EIA on actions taken that have reduced emissions of greenhouse gases or increased the sequestration of carbon.

Reporters choose to undertake the effort of preparing their voluntary submissions for a variety of reasons, such as:

- To establish a public record of their contributions to achieving a national policy objective
- To provide the opportunity for others to benefit from their experience in reducing emissions
- To demonstrate their commitment to voluntary approaches to solving or ameliorating environmental conditions
- To record the activities undertaken pursuant to voluntary programs
- To establish a basis for requesting consideration of prior actions in a possible future "credit for early reductions" program or a possible future regulatory scheme to stabilize or reduce national emissions of greenhouse gases.

Development of the Voluntary Reporting Program

The Voluntary Reporting Program is required by Section 1605(b) of the Energy Policy Act of 1992 (see box in Chapter 1, page 2). About 3 years elapsed from the passage of the law, in October 1992, to the completion of the first reporting cycle. The development of the Voluntary Reporting Program consisted of three phases:

- Guidelines development (October 1992 to October 1994)
- Forms development (February 1994 to July 1995)
- First report cycle (July 1995 to March 1996).

Guidelines Development

The principal clauses of Section 1605(b) of the Energy Policy Act require the U.S. Department of Energy (DOE), in consultation with the U.S. Environmental Protection Agency (EPA), to issue guidelines for reporting emissions and emission reductions of greenhouse gases. EIA was then required to develop a reporting

[52]United Nations, "Report of the Intergovernmental Negotiating Committee for a Framework on Convention for Climate Change on the Work of the Second Part of its Fifth Session, Held at New York from 30 April to 9 May 1992," UN Document A/AC.237/18, Part II (May 15, 1992), web site www.unfcc.de.

framework consistent with the guidelines. The information collected was to be accessible for public use.

The development of the guidelines was assigned to DOE's Office of Policy, which began a series of public workshops to gather information about public expectations of the program. The public workshops on the guidelines ran from September 1993 to March 1994 and were held in Washington, DC, Atlanta, GA, and Chicago, IL. The workshops spanned a range of issues related to the objectives of the Voluntary Reporting Program, the definition of a "credible" report, and methods of reporting.

Differing notions of the purpose of the Voluntary Reporting Program were expressed, as well as differing views about the nature and type of information to be collected. Many potential reporters tended to stress the notion that the reporting system should be "simple and flexible." They typically opposed suggestions to construct detailed "official" definitions of baselines, reporting entities, and coverage of reports. It was argued that such definitions were premature in an experimental program, would discourage companies from reporting, and would render the program relatively narrow.

Some commenters, who were not potential reporters, argued the reverse. They urged explicit and specific definitions of "who is responsible for an emission." The individuals and organizations holding these views hoped to elicit reports that revealed absolute and verifiable emission reductions.

Following the workshops, a public review draft of the guidelines was published in May 1994. After further public comment, final guidelines were published in October 1994.[53] The guidelines contain several broad themes that have shaped the program:

- The Department held that the primary objective of the program was "broad participation." Any U.S. "legal person" (i.e., individual, corporation, trade association, or private voluntary organization) may report.
- Within the confines of the statute, reporters were given nearly complete flexibility in crafting their reports. Reporters were free to define as they saw fit the nature of the reporting entity, the emissions and reductions to be reported, methods of calculating emissions and reductions, and the type of activity deemed to cause emission reductions.
- Reporters were to be permitted to report on activities both in the United States and abroad, so long as they distinguish between domestic and foreign activities.
- Reporters were to be encouraged to report both emissions and emission reductions as comprehensively as possible, accounting for both "direct" and "indirect" emissions.
- Reporters were to be encouraged to report on emissions and emission reductions for a range of greenhouse gases.
- Reporters were to report "achieved reductions," defined as emission reductions achieved since 1990. Reductions occurring prior to 1990 or reductions expected to occur in the future are not permitted.

The guidelines did not define "property rights" in emissions. For example, the emissions from generating electricity could be the responsibility of an electric utility or the purchaser of the electricity. By accepting the validity of differing possible interpretations of who "owns" emissions, reporters were given considerable flexibility in reporting on their greenhouse gas emissions and emission reduction activities. The guidelines explicitly recognized the possibility that, in the absence of clear "property rights," two or more organizations might report on the same emission reduction activity, an eventuality called "double reporting." The flexibility of the guidelines has, of necessity, resulted in a relatively complex reporting form and database.

Forms Development

EIA developed, in parallel, reporting forms and a database consistent with the guidelines. In early November 1994, 2 weeks after the issuance of the final guidelines, EIA issued draft forms for public review. The draft forms were pre-tested by several firms interested in reporting, including Niagara Mohawk Power, Houston Light & Power (now Reliant Energy), and General Motors. Many useful comments were received, both from pre-testers and from the public review process.

Following the public review, EIA sent the forms to the Office of Management and Budget (OMB) for formal clearance under the Paperwork Reduction Act, a legal requirement for any Federal data collection exercise. The OMB requested further public comment and, after reviewing the forms, cleared them for public use in May 1995. After final editing and layout revisions to enhance readability, EIA released the forms to the public in July 1995.

[53]U.S. Department of Energy, *Voluntary Reporting of Greenhouse Gases Under Section 1605(b) of the Energy Policy Act of 1992: General Guidelines;* and *Sector-Specific Issues and Reporting Methodologies Supporting the General Guidelines for the Voluntary Reporting of Greenhouse Gases Under Section 1605(b) of the Energy Policy Act of 1992*, Volumes 1 and 2, DOE/PO-0028 (Washington, DC, October 1994), web site www.eia.doe.gov/oiaf/1605/guidelns.html.

The Voluntary Reporting Program and the Climate Change Action Plan

On April 21, 1993 (Earth Day), President Clinton committed the United States to stabilizing its emissions of greenhouse gases at 1990 levels by the year 2000. The methods by which the Government proposed to achieve this objective were described in the President's *Climate Change Action Plan*, published in October 1993.[54] That document spelled out a range of largely voluntary programs intended to limit emissions of greenhouse gases. The *Climate Change Action Plan* is updated yearly through the preparation and submission of the United States' *Climate Action Report*, under the annual requirement to the United Framework Convention on Climate Change. The most recent report, *U.S. Climate Action Report 2002*, was released in May 2002.[55]

As President Clinton's Climate Change Action Plan got underway, managers of certain DOE- and EPA-sponsored voluntary emission reduction programs (as well as some participants) felt the need for a reporting system to record and describe the actions of participants in those programs. The 1605(b) Voluntary Reporting Program, already underway with an OMB-approved data collection instrument and a requirement to collect information about a broad range of emission reduction activities, was a useful vehicle for recording results of the voluntary reduction programs. Participants in the Climate Challenge program (for electric utilities) and the Climate Wise program (for manufacturing firms) were strongly encouraged to file reports with the Voluntary Reporting Program documenting their emission reduction efforts.[56]

Forms Design

The data collection forms for the Voluntary Reporting Program, as developed, endeavored to cover the complexity in categories of emissions required by the guidelines. To this end, the structure of the voluntary reporting database needed to be expansible to cover many different contingencies, including the following:

- Reporters ranged from some of the largest industrial firms in the United States to individual households.
- Reporters could report on specific actions (projects) they had taken to reduce emissions or on the emissions (and reductions) of their entire organizations.
- The statute required, and reporters requested, the ability to report on many different classes of actions that have the effect of reducing greenhouse gas emissions, ranging from energy conservation to carbon sequestration.
- The reporting format sought to identify areas where multiple reporting of the same project actually occurred, and to make possible a general assessment of the reliability and possible ownership of the reports.
- The lack of generally accepted accounting principles for greenhouse gas emissions required a design that permitted a variety of reporting formats. This led to ambiguities that the forms design tried to clarify.
- The guidelines permitted the reporting of foreign emission reduction actions.
- The guidelines permitted reporting on reductions for a range of greenhouse gases.
- Managers of voluntary programs asked EIA to develop a mechanism for collecting participants' commitments to reduce future emissions.

EIA developed two alternative reporting instruments: the long form (Form EIA-1605) and the short form (Form EIA-1605EZ). The short form is intended to cover reporting solely on emission reduction projects and for a single year only.

The text box on page 76 outlines the basic structure of the long form. The form has four schedules. The first schedule asks for the name and address of the reporter, along with some particulars about the report. The most fundamental distinction is between "project reporting" in Schedule II and "entity reporting" in Schedule III. Project reporters are reporting on specific actions they have taken to reduce emissions. Entity reporters are reporting on emissions and emission reductions for an entire organization. For example, during the eleventh reporting cycle of the Voluntary Reporting Program (2004 data year), 122 reporters provided entity-level reports, and 175 reporters provided project-level reports. Seventy reporters filed both entity-level and project-level reports, while 52 reporters filed only entity-level reports. Within Schedule II, the report is further subdivided into ten sections, reflecting the diversity of anticipated reduction actions. Each section contains general questions that are applicable to all ten sections, as well as

[54]President William J. Clinton and Vice President Albert Gore, Jr., *The Climate Change Action Plan* (Washington, DC, October 1993), web site www.gcrio.org/USCCAP/toc.html.

[55]U.S. Department of State, *U.S. Climate Action Report 2002* (Washington DC, May 2002), web site http://unfccc.int/resource/docs/natc/usnc3.pdf.

[56]Not all participants in those programs have filed 1605(b) reports. Many participants have promised to take actions in the future, which will not be reportable until the actions have produced results. Section 1605(b) obliges EIA to receive reports of "achieved reductions," meaning the results of actions already taken. Further, some voluntary program participants may have experienced difficulty in gathering together the necessary information to file their reports.

other questions specific to the particular type of project, to help reporters and EIA understand and describe the project.

In order to clarify what reporters are claiming as "their" emissions, the Voluntary Reporting Program generally distinguishes between "direct" and "indirect" emissions. A direct emission is defined as an emission from a facility actually owned by a reporter. An indirect emission is defined as an emission from a facility owned by someone else, but for which the reporter claims some responsibility. Some reporters reported only direct emissions and some reported only indirect emissions, depending on the nature of the project and the reporter's view on the ownership of the emission. For more discussion, see the text box on page 78.

Schedule IV was added to assist participants in DOE- and EPA-sponsored voluntary programs in recording their commitments to reduce future emissions. Eighty-six firms reported on Schedule IV during the 2004 data reporting cycle. Twenty-eight (33 percent) of the 2004 Schedule IV reporters were electric utilities participating in DOE's Climate Challenge program.

Forty-nine (57 percent) of the reporting entities that filed Schedule IV information for the 2004 reporting cycle were classified under Standard Industrial Classification (SIC) codes other than SIC 49 (Electric, Gas, and Sanitary Services). They were:

- SIC 20, Food and Kindred Products—the Oil Seeds Division of Cargill, Inc.
- SIC 22, Textile Mill Products or SIC 23, Apparel and Other Textile Products—CommScope Solutions (1111 Digital Dr.), the Butner Plant of Hanes Dye and Finishing, Highland Industries, Inc.'s Kernersville Finishing Pt, Valdese Manufacturing Company, four

The Structure of Form EIA-1605

Schedule I. General Information

This schedule asks for the reporter's name, address, and type of entity, and whether the report contains confidential information.

Schedule II. Project Level Emissions and Reductions

This schedule covers reporting of specific actions that the reporter has taken that have reduced emissions. It is divided into ten parts, each covering a specific type of project. Each part requests general information about the location and nature of the project, emissions, emission reductions, and (if applicable) fuel or energy savings. Each part also asks a number of questions specific to the project type that will enhance the ability of data users to assess the emission reductions claimed.

Section 1	Electric Power Generation, Transmission, and Distribution
Section 2	Cogeneration and Waste Heart Recovery
Section 3	Energy End Use
Section 4	Transportation and Off-Road Vehicles
Section 5	Waste Treatment and Disposal—Methane
Section 6	Agriculture—Methane and Nitrous Oxide
Section 7	Oil and Natural Gas Systems and Coal Mining—Methane
Section 8	Carbon Sequestration
Section 9	Halogenated Substances
Section 10	Other Emission Reduction Projects

Schedule III. Entity Level Emissions and Reductions

This schedule covers reporting on the emissions of an entire entity. It requests direct emissions (Part Ia) and reductions in direct emissions (Part Ib) from sources such as stationary combustion, transportation, and other direct sources. Schedule III also requests indirect emissions (Part IIa) and reductions in indirect emissions (Part IIb) from sources such as power transactions, which include purchased power and electricity wholesaling, and other indirect sources. Carbon sequestered, total emissions, and total reductions in emissions (Parts III, IVa, and IVb, respectively) for the entire entity are also requested on Schedule III. It should also be noted that if reporting entities had both foreign and domestic emission reduction activities, they were requested to submit two separate copies of Schedule III, Parts I through III—one representative of their domestic emission reduction activities and the other representative of their foreign emission reduction activities.

Schedule IV. Commitments to Emission Reduction or Sequestration Projects

This schedule permits reporters to outline commitments to reduce emissions some time in the future, generally as part of a Government-sponsored voluntary program. Commitments can take several forms. The reporter can describe entity-level commitments to reduce greenhouse gas emissions (Section 1). Section 2 allows the reporter to report on financial commitments in terms of dollars pledged toward emission reduction or sequestration activities or research. Section 3 can be used to report on commitments to undertake specific actions or projects whose intended objective is to reduce greenhouse gas emissions or sequester carbon.

subsidiaries of M.J. Soffe Company, and six subsidiaries of National Spinning, Inc.

- SIC 28, Chemicals and Allied Products—Ajinomoto Aminoscience, LLC, Allergan, Inc., Baxter Healthcare, Inc., the Dow Chemical Company, and Mallinckrodt, Inc.
- SIC 29, Petroleum Refining and Other Related Industries—BP America
- SIC 30, Rubber and Miscellaneous Plastic Products—Azdel, Inc and Pak-Lite, Inc. - Mebane Plant
- SIC 32, Stone, Clay, Glass, and Concrete Products—Arizona Portland Cement Co. and California Portland Cement Co.'s Colton and Mojave Plants
- SIC 33, Primary Metals Industries—Alcan Primary Metals Group, nine COMMSCOPE plants, Connectivity Solutions Manufacturing Inc, and Noranda Aluminum, Inc.
- SIC 35, Industrial and Commercial Equipment and Components—General Electric Company
- SIC 36, Electronic and Other Electrical Equipment—IBM, Lucent Technologies, and Penn Compression Moulding, Inc.
- SIC 37, Transportation Equipment—General Motors, International Truck and Engine Corporation, Sikorsky Aircraft Corporation, and Toyota Motor North America, Inc.
- SIC 38, Instruments and Related Products—Danaher Controls
- SIC 40, Railroad Transportation—BNSF Railway Company
- SIC 72, Personal Services—Maple Springs Laundry.

Accounting Issues for Voluntary Reporting and Beyond

The Voluntary Reporting of Greenhouse Gases Program was designed primarily to serve as a mechanism by which entities could report voluntary actions intended to reduce greenhouse gas emissions and sequester carbon.[57] EIA has the responsibility, among other things, for establishing and maintaining a database of reported greenhouse reductions that also serves as a national registry of reported reductions. While the information in the database may be used by the reporting entity to demonstrate achieved reductions of greenhouse gases, the program was not designed to support credit for early reductions or emissions trading programs. The program guidelines did not attempt to resolve the issues that arise in constructing the required reporting rules that would create a set of comparable, verifiable, auditable emission and reduction reports. Such rules would also be required for the flexible mechanisms, such as the Clean Development Mechanism, Activities Implemented Jointly, and Joint Implementation, included in the United Nations Framework Convention on Climate Change and its Kyoto Protocol.

The current Voluntary Reporting of Greenhouse Gases Program allows reporters considerable flexibility in the scope and content of their reports. As a result, companies can report their emissions and reductions in several different ways, and potentially more than one reporter can claim the same reduction. Some commentators on the program have characterized this aspect as a defect: a problem needing a solution. A more restrictive program, however, could limit the number of entities reporting, as well as the types of activities reported. Therefore, because it tends to increase participation in voluntary reporting, flexibility can be viewed as a useful attribute of the program for the following reasons:

- The educational and public recognition aspects of the program are enhanced by maximizing the participation and do not necessarily require a complete and fully-defined system of property rights to a reported emission reduction.
- The Voluntary Reporting Program can be viewed as a survey of emission accounting methods and theories actually in use, and a set of illustrations of the potential accounting and baseline problems that must be confronted in designing future policy instruments. A more structured approach might have been less useful for identifying and analyzing these emissions accounting issues.
- The Voluntary Reporting database illustrates the range and diversity of concrete actions that firms can undertake to limit greenhouse gas emissions, including many not imagined by the designers of the program. A more structured approach might have excluded some of the more original and innovative projects reported to the program.

These features make the program useful in evaluating the design and consequences of any proposed credit for early action program as well as the Kyoto Protocol's flexible mechanisms. By creating a database of real-world emission reduction actions and actors, the data reported to the Voluntary Reporting Program can be used to gain

[57]This discussion of accounting issues is based on testimony given by Jay Hakes, former EIA Administrator, on March 30, 2000, before the Senate Committee on Energy and Natural Resources on Senate Bills S. 882 and S. 1776 and their potential impacts on EIA's Programs. The full text of the testimony is available on EIA's web site at www.eia.doe.gov/neic/speeches/hrtest3-30-00/testimony3.htm.

Double Reporting of Emission Reductions

Double reporting of emission reductions to the Voluntary Reporting of Greenhouse Gases Program can occur, because the ownership rights for such reductions may be claimed by more than one party. For example, both the manufacturers and owners of more efficient automobiles can claim emission reductions resulting from the operation of those vehicles (see page 81, "Who Owns the Reduction?"). Because the purpose of the Voluntary Reporting Program is to encourage reporting, EIA does not prohibit double reporting; however, EIA does endeavor to identify instances where double reporting may occur.

Reporters are required to distinguish between direct and indirect emissions and emission reductions on Form EIA-1605. Direct emissions are releases of greenhouse gases from sources owned (wholly or in part) or leased by the reporting entity. Indirect emissions are emissions from sources not owned or leased by the reporter that occur as a result of the reporter's activities. The most important indirect emissions are those associated with the consumption of electricity purchased from an electricity generator. Because the distinction between direct and indirect is unambiguous, direct emission reductions reported to the Program should include no double reporting.

The reporting forms do not currently allow the reporter to indicate whether carbon sequestered through forestry projects is direct (occurring on land owned by the reporter) or indirect (occurring on land owned by others). Also, Form EIA-1605EZ does not distinguish between direct and indirect reductions. EIA intends to address these issues in future modifications of its reporting forms. To put this issue in perspective, of total project-level emission reductions for 2004, 71 percent (277 million metric tons carbon dioxide equivalent) are reported as direct emission reductions, 24 percent (92 million metric tons carbon dioxide equivalent) are reported as indirect emission reductions, and 5 percent (22 million metric tons carbon dioxide equivalent) are unspecified, reported as sequestration on the long form or as reductions or sequestration on the short form.

A second mechanism to identify possible double reporting is to require reporters using the long form to identify any other entity or entities that participate in a project reported to the Program. This captures situations where more than one entity is responsible for creating the emission reduction, such as landfill gas projects where the landfill owner, the owner of the power plant that uses the landfill gas, and the purchaser of the resulting power all can, and often do, report all the effects of the project. In the case of the landfill operator, for example, the methane captured at the landfill would be reported as a direct emission reduction, and the possible reduction in central-station fossil fuel power generation would be reported as an indirect emission. In contrast, the operator of the power plant could claim the emission reduction at the power plant as a direct reduction and the reduction in methane emissions at the landfill as an indirect reduction. In general, EIA believes that instances of double reporting of direct emissions are very rare if not nonexistent; however, double counting can be an issue for indirect reductions, because their ownership is not as unambiguous.

Because of the concern that double reporting could result in double counting of emission reductions, EIA has discontinued reporting the direct, indirect, and unspecified reductions reported to the Program, in order to avoid giving the impression that the totals represent the cumulative effects of U.S.-sponsored projects on worldwide emissions of greenhouse gases. Emissions, emission reductions, and sequestration are disaggregated into the following categories: direct, indirect, and unspecified reductions and sequestration. Unspecified reductions and sequestration include sequestration reported on Form EIA-1605 and reductions and sequestration reported on Form EIA-1605EZ. As in the past, EIA does not combine reductions reported at the project level with those reported at the entity level, because the reported reductions represent the results of different approaches to estimating changes in greenhouse gas emissions.

EIA does not verify greenhouse gas emission reductions reported by participants, nor does it grant a property right associated with the claimed reductions. EIA does, however, conduct a four-step desk review to see that the data submissions are comprehensive, arithmetically accurate, internally consistent, plausible, and consistent with Program guidelines. The four steps of the desk review are (1) an analyst's review, (2) electronic edit checks incorporated into the reporting software to screen for errors, (3) manual checks of the methodologies employed, and (4) follow up with reporters as needed to clarify any other issues. The Program requires the participants themselves to certify that the information reported is accurate to the best of their knowledge and belief; thus, the reporters are ultimately responsible for the accuracy of the reports submitted to the Voluntary Reporting Program.

insight into the incentive effects and beneficiaries of various credit-for-early-action and related proposals. The Voluntary Reporting of Greenhouse Gases database has provided a mechanism for identifying some of the issues that would have to be resolved in developing an accounting system for quantifying emissions, emission reductions, and sequestration. Such an accounting system will have to answer the following questions:

- Who can report?
- What is a reduction?
- Who owns the reduction?
- Would the reduction have happened anyway?
- How does one verify reports?

Who Can Report?

Section 1605(b) of the Energy Policy Act of 1992 mentioned only "entities" and "persons" as prospective reporters. Several overlapping concepts of "who can report" surfaced at the public hearings for the guidelines for the Voluntary Reporting Program, all of which were accommodated. These included:

- **A legal person: i.e., an individual, household, corporation, or trade association.** In this approach, emissions and reductions are calculated and reported for the entire entity.
- **A facility or group of facilities.** Emissions and reductions are calculated as those of a particular facility, defined as a single plant in a specified location, or perhaps even a single stack within a plant. A corporation or legal person acquires responsibility for emissions and reductions through ownership of one or more specified facilities.
- **A "project" or activity.** Reductions are defined by comparing the emissions from some set of sources deemed relevant with an estimate of what emissions would have been if a particular action or bundle of actions had not been undertaken.

What is a Reduction?

Perhaps the most intuitive definition of a reduction is one measured against an historical baseline, which represents the use of a "basic reference case." In this approach, the reduction is defined as the difference between the emissions of an entity or facility in a prior, baseline year, usually 1990, and in the current year. This approach is best suited to reporters whose activities have not appreciably changed since the baseline year. It presents particular problems for firms that have participated in mergers, acquisitions, or divestitures, or have made significant changes in the composition of their business. Startup companies or new facilities that have no history cannot use historical baselines. The historical baseline approach is also not well suited to measuring the reductions achieved by projects, because projects are often entirely new activities with no history.

Alternatively, many reporters define their reductions by comparison with what would have happened in the absence of a specified set of actions. Thus, corporate emissions may have risen, but they are less than they would have been in the absence of corporate action. This approach is called, in the Voluntary Reporting Program, a "modified reference case" or a "hypothetical baseline." It is important to point out, however, that a hypothetical baseline is a best guess of what would have happened in the absence of a project, and there is no way per se to prove or disprove it. Most of the projects reported to the Voluntary Reporting Program use a hypothetical baseline to calculate emission reductions or sequestration.

The "unit of production" approach is a variant of the fixed historical baseline, where the reporter normalizes baseline emissions to reflect changes in production. If emissions per unit of output have declined, by comparison either with levels in a prior year or with what they would have been in the absence of some actions, then the reporter has a reduction. This approach works reasonably well for organizations that have a well-defined product that is homogeneous across companies and over time: for example, kilowatthours generated or sold, tons of steel, or barrels of crude oil. As products increase in complexity, this approach gradually breaks down. Tons of semiconductors, for example, is a meaningless measure of output.

The alternative measures of reductions have their advantages and disadvantages. Basic reference cases are objective and relatively easily verifiable. On the other hand, absolute reductions are often the product of circumstance rather than action, while modified reference cases (which are more difficult to verify) explicitly measure the results of actions. Unit-of-production reference cases are useful only in a limited number of cases, and they can combine some of the disadvantages of both basic and modified reference cases.

Who Owns the Reduction?

Two theories of emissions ownership coexist in the Voluntary Reporting Program. The most intuitive, and commonplace, is called "direct emissions" and "direct reductions." If a reporter owns or uses (e.g., leases) the emission source, that reporter owns the emission as well as any reductions from this source. The advantage of limiting ownership to direct emissions is that it generally prevents multiple ownership of the same emission or reduction. However, this approach excludes many important emission reduction methods, including all

activities that tend to reduce electricity consumption, the activities of energy service companies, and the provision of energy-efficient or emission reducing capital goods.

The alternative theory of ownership is based on causation: if an organization causes an emission or reduction, it is responsible for that emission, even if it does not own the emission source. Emissions or reductions from sources not owned by the reporter are referred to as "indirect." The most important example of indirect emissions is those produced through the consumption of electricity. If entities reduce their consumption of electricity, they cause their electric utility to reduce its emissions. This approach permits reporting of any action that has an influence on national emissions. However, the concept of "causing an emission" is inherently more ambiguous than "owning the smoke stack," and in many cases more than one firm may credibly claim to have helped cause an emission reduction.

EIA requires that reporters using Form EIA-1605 explicitly identify all emissions and reductions as either direct or indirect so that potentially double-counted reductions can be identified.

Would the Reduction Have Happened Anyway?

This issue is often discussed in other contexts under the term "additionality." It has been suggested that many emission reduction projects do not represent "real" reductions, because they would have been undertaken "anyway" in the normal course of business; however, creating an operational definition of additionality is difficult, because the "normal course of business" is a hypothetical concept. For the purposes of voluntary reporting—which include publicizing the types of actions that limit national greenhouse gas emissions and providing recognition for the companies that undertake those actions voluntarily—determining the additionality of projects is unnecessary. For the purposes of a credit for early reduction program, however, additionality is an issue that needs to be considered.

How Does One Verify Reports?

The Department of Energy decided not to require verification by an independent third party after considering this issue during the development of the guidelines for the Voluntary Reporting Program. However, reporters must certify the accuracy of their 1605(b) reports. Also, filing a false statement on a U.S. Government form is illegal. EIA reviews each report received for comprehensiveness, arithmetic accuracy, internal consistency, and plausibility and makes suggestions for improving the accuracy and clarity of reports; however, the reporter is ultimately responsible for the accuracy of any report submitted to the Voluntary Reporting Program.

In general, reports submitted to EIA are factually accurate. Meaningful verification of the accuracy of 1605(b) reporting would require putting in place common baselines and accounting standards that dictate what information should be included in 1605(b) reports and how estimates of greenhouse gas emissions and reductions and carbon sequestration should be calculated. For example, if the accounting treatment for indirect emissions from electricity purchases is undefined, then a particular set of facts about a reporter could result in two different estimates of emissions: one including electricity purchases and one excluding electricity purchases. A third-party verifier can verify the facts about the reporter but cannot determine whether or not indirect emissions from electricity purchases ought to be included and, consequently, cannot determine whether the total emissions reported are correct or not.

Appendix B

Summary of Reports Received

Table B1. Reporting Enitities, Data Year 2004

Reporter Name	Sector	Type of Form	Number of Projects Reported (Schedule II)	Entity-Wide Report (Schedule III)	Commitments (Schedule IV)
A&N Electric Cooperative	Electric Providers	1605	2	No	Yes
Abe Krasne Home Furnishings, Inc.	Services and Retail	1605	0	Yes	No
Advanced Micro Devices, Inc.	Industrial	1605EZ	6	No	No
AES Hawaii, Inc.	Electric Providers	1605	1	Yes	No
AES Shady Point, LLC	Electric Providers	1605	1	Yes	No
AES Thames, LLC	Electric Providers	1605	1	Yes	Yes
AES Warrior Run, LLC	Electric Providers	1605	2	Yes	No
Ajinomoto Aminoscience LLC	Industrial	1605	0	Yes	Yes
Alabama Biomass Partners, Ltd	Alternative Energy	1605EZ	1	No	No
Alcan Primary Products Corporation, Sebree Works	Industrial	1605	1	Yes	Yes
Algonquin Power - Cambrian Pacific Genco LLC	Electric Providers	1605	9	No	No
Allegheny Energy, Inc.	Electric Providers	1605	53	Yes	Yes
Allergan, Inc.	Industrial	1605	50	Yes	Yes
Alliant Energy	Electric Providers	1605	46	Yes	Yes
Ameren Corporation (formerly UE, CIPS, and CILCO)	Electric Providers	1605	38	No	Yes
American Electric Power, Inc.	Electric Providers	1605	108	No	No
American Municipal Power - Ohio	Electric Providers	1605EZ	9	No	No
Anoka Municipal Utility	Electric Providers	1605EZ	4	No	No
Arizona Portland Cement Co.	Industrial	1605	14	Yes	Yes
Arizona Public Service Company	Electric Providers	1605	3	Yes	Yes
Asheville Landfill Gas, LLC	Alternative Energy	1605	1	No	No
AT&T	Industrial	1605	4	Yes	No
Azdel, Inc	Industrial	1605	0	Yes	Yes
BARC Electric Cooperative	Electric Providers	1605	2	No	No
Baxter Healthcare Inc.	Industrial	1605	0	Yes	Yes
Berkshire Power LLC	Electric Providers	1605	1	Yes	No
Biomass Partners, LP	Alternative Energy	1605EZ	1	No	No
Blue Source, LLC	Industrial	1605	10	Yes	No
BMW US Holding Corp.	Industrial	1605	1	Yes	No
BNSF Railway Company	Services and Retail	1605	1	Yes	Yes
Bountiful City Light & Power	Electric Providers	1605	7	Yes	Yes
BP America	Industrial	1605	12	Yes	Yes
Branson Ultrasonics Corporation	Industrial	1605	1	No	No
Bristol-Myers Squibb Company	Industrial	1605	3	Yes	No
Burlington County Board of Chosen Freeholders	Services and Retail	1605	3	No	No
California Portland Cement Co. - Colton Plant	Industrial	1605	9	Yes	Yes
California Portland Cement Co. - Mojave Plant	Industrial	1605	6	Yes	Yes
Cambrian Energy Development LLC	Electric Providers	1605	1	No	No
Cargill, Inc. - Oil Seeds Division	Industrial	1605	0	Yes	Yes
Carolina Power & Light Company	Electric Providers	1605	4	No	No
Catawba Landfill Gas, LLC	Alternative Energy	1605	1	No	No
CDX Gas, LLC	Alternative Energy	1605	2	No	No
Chevron Corporation	Industrial	1605EZ	1	No	No
Choptank Electric Cooperative	Electric Providers	1605	1	No	No
Cinergy Corp.	Electric Providers	1605	51	Yes	No
City of Austin Electric Utility (Austin Energy)	Electric Providers	1605EZ	9	No	No
City of Springfield	Services and Retail	1605	1	No	No
City Public Service	Electric Providers	1605	9	No	No
Cleco Corporation	Electric Providers	1605	16	No	Yes
CMS Energy	Electric Providers	1605	12	Yes	Yes
CMV Joint Venture	Alternative Energy	1605	2	No	No
Common Purpose Institute	Agricultural	1605EZ	1	No	No
CommonWealth Bethlehem Energy, LLC	Alternative Energy	1605	1	Yes	No
COMMSCOPE CATAWBA PLANT	Industrial	1605	0	Yes	Yes
COMMSCOPE CLAREMONT PLANT	Industrial	1605	0	Yes	Yes
COMMSCOPE CONOVER REEL RECYCLING	Industrial	1605	0	Yes	Yes
COMMSCOPE Headquarters- Hickory	Industrial	1605	0	Yes	Yes
COMMSCOPE NEWTON PLANT	Industrial	1605	0	Yes	Yes
COMMSCOPE SCOTTSBORO PLANT	Industrial	1605	0	Yes	Yes
CommScope Solutions (1111 Digital Dr)	Industrial	1605	0	Yes	Yes
CommScope Solutions (1300 E. Lookout Dr)	Industrial	1605	0	Yes	Yes
COMMSCOPE SPARKS PLANT	Industrial	1605	0	Yes	Yes

Table B1. Reporting Enitities, Data Year 2004 (Continued)

Reporter Name	Sector	Type of Form	Number of Projects Reported (Schedule II)	Entity-Wide Report (Schedule III)	Commitments (Schedule IV)
COMMSCOPE STATESVILLE PLANT	Industrial	1605	0	Yes	Yes
Community Electric Cooperative	Electric Providers	1605	1	No	No
CONNECTIVITY SOLUTONS MANUFACTURING	Industrial	1605	0	Yes	Yes
Consol Coal Group	Industrial	1605	0	Yes	No
Consolidated Edison Company of New York, Inc.	Electric Providers	1605	5	Yes	Yes
Constellation Energy	Electric Providers	1605	28	Yes	Yes
County Sanitation Districts of Los Angeles County	Alternative Energy	1605	2	No	No
DADS Landfill / Dept. Of Env. Health	Alternative Energy	1605	1	No	No
DaimlerChrysler Corporation	Industrial	1605	2	Yes	No
Dakota Gasification Company	Industrial	1605	W	W	W
Danaher Controls	Industrial	1605	0	Yes	Yes
DeBourgh Manufacturing Company	Industrial	1605EZ	2	No	No
Delaware Electric Cooperative	Electric Providers	1605	1	No	No
Dominion Generation	Electric Providers	1605	5	No	No
DTE Energy/ Detroit Edison	Electric Providers	1605	50	Yes	No
Duke Energy Corporation	Electric Providers	1605	31	Yes	Yes
Dynegy, Inc.	Electric Providers	1605	36	Yes	Yes
ENCAP	Electric Providers	1605	1	No	No
Energy Developments, Inc.	Alternative Energy	1605	9	Yes	No
Energy Management Partners, LP	Alternative Energy	1605EZ	1	No	No
Entergy Services, Inc.	Electric Providers	1605	91	Yes	Yes
Environmental Synergy, Inc.	Agricultural	1605	2	No	No
Exelon Corporation	Electric Providers	1605	50	No	Yes
FirstEnergy Corporation	Electric Providers	1605	59	Yes	Yes
Fisher Scientific Company L.L.C	Industrial	1605	0	Yes	No
Florida Power Corporation	Electric Providers	1605	3	Yes	No
Ford Motor Company	Industrial	1605	3	Yes	No
FPL Group	Electric Providers	1605	32	Yes	Yes
Gas Recovery Systems	Alternative Energy	1605	29	Yes	No
General Electric Company	Industrial	1605	0	Yes	Yes
General Motors Corporation	Industrial	1605	4	Yes	Yes
Golden Valley Electric Association, Inc	Electric Providers	1605EZ	3	No	No
Granger Electric Company	Alternative Energy	1605	7	No	No
Granger Energy, LLC	Alternative Energy	1605	2	No	No
Greater New Bedford Regional Refuse Mgt District	Alternative Energy	1605	1	Yes	Yes
Green Mountain Energy Company	Electric Providers	1605	3	Yes	Yes
Greene Energy, LLC	Alternative Energy	1605EZ	1	No	No
Hanes Dye and Finishing, Butner Plant	Industrial	1605	0	Yes	Yes
Highland Industries, Inc.Kernersville Finishing Pt	Industrial	1605	0	Yes	Yes
Hollomon Family	Other (Households)	1605EZ	1	No	No
IBM	Industrial	1605	0	Yes	Yes
Integrated Waste Services Association	Alternative Energy	1605	1	Yes	No
International Truck and Engine Corporation	Industrial	1605	0	Yes	Yes
Iredell Landfill Gas, LLC	Alternative Energy	1605	1	No	No
JEA	Electric Providers	1605EZ	6	No	No
Jim Walter Resources, Inc.	Alternative Energy	1605	4	Yes	No
Johnson & Johnson	Industrial	1605	14	Yes	No
Kansas City Power & Light Company	Electric Providers	1605	21	Yes	Yes
Kern County Waste Management Department	Services and Retail	1605	6	Yes	No
KeySpan Energy Corporation	Electric Providers	1605	0	Yes	No
Klickitat County Public Utility District No. 1	Electric Providers	1605	1	No	No
Landfill Energy Systems	Alternative Energy	1605	14	No	No
Lehigh Cement Co. (fmrly Lehigh Portland Cement Co	Industrial	1605	13	Yes	No
Lehigh Cement Co. (formerly Calaveras Cement Co.)	Industrial	1605	3	Yes	No
Los Angeles Department of Water and Power	Electric Providers	1605	28	Yes	No
Lower Colorado River Authority	Electric Providers	1605	7	Yes	Yes
Lucent Technologies Inc.	Industrial	1605	26	Yes	Yes
Lynchburg Gas Producers, LLC	Alternative Energy	1605	1	No	No
M. J. SOFFE COMPANY - Maxton	Industrial	1605	0	Yes	Yes
M. J. SOFFE COMPANY - Bladenboro	Industrial	1605	0	Yes	Yes
M. J. SOFFE COMPANY Fayettville	Industrial	1605	0	Yes	Yes
M. J. SOFFE COMPANY Rowland	Industrial	1605	0	Yes	Yes
Mallinckrodt, Inc.	Industrial	1605	0	Yes	Yes
Maple Springs Laundry	Services and Retail	1605	0	Yes	Yes
McNeil Generating Station	Electric Providers	1605	0	Yes	No
Mecklenburg Electric Cooperative	Electric Providers	1605	1	No	No
Michael Paul Taylor	Other (Households)	1605	3	No	No

Table B1. Reporting Enitities, Data Year 2004 (Continued)

Reporter Name	Sector	Type of Form	Number of Projects Reported (Schedule II)	Entity-Wide Report (Schedule III)	Commitments (Schedule IV)
Michigan CAT	Industrial	1605	2	No	No
Middlesex Generating Company, LLC	Alternative Energy	1605	3	Yes	Yes
Minnesota Power	Electric Providers	1605	10	No	Yes
Mirant Kendall, L.L.C.	Electric Providers	1605	1	No	No
Mitsubishi Motors North America, Inc.	Industrial	1605	0	Yes	No
Model City Energy, LLC	Alternative Energy	1605	1	No	No
Montauk Energy Capital	Alternative Energy	1605	27	No	No
Municipal Electric Auth of Georgia (MEAG Power)	Electric Providers	1605	1	Yes	Yes
Mystic Development, LLC	Alternative Energy	1605	1	Yes	No
Nashville Electric Service	Electric Providers	1605EZ	3	No	No
National Grid	Electric Providers	1605	24	Yes	Yes
National Spinning Co. Alamance Yarn Plant	Industrial	1605	0	Yes	Yes
National Spinning Co. Alamance Dye Plant	Industrial	1605	0	Yes	Yes
National Spinning Co., Inc. Washington	Industrial	1605	0	Yes	Yes
National Spinning Inc. Beulaville	Industrial	1605	0	Yes	Yes
National Spinning Inc. Warsaw	Industrial	1605	0	Yes	Yes
National Spinning Inc. Whiteville	Industrial	1605	0	Yes	Yes
Natural Power, Inc.	Alternative Energy	1605	1	No	No
NC Muni Landfill Gas Partners, LLC	Alternative Energy	1605	1	No	No
Nebraska Public Power District	Electric Providers	1605EZ	15	No	No
New Jersey Meadowlands Commission	Alternative Energy	1605	4	Yes	No
New York Power Authority	Electric Providers	1605	0	Yes	Yes
Newton Landfill Gas, LLC	Alternative Energy	1605	1	No	No
NiSource/NIPSCO	Electric Providers	1605	41	Yes	Yes
Nissan North America, Inc.	Industrial	1605	0	Yes	No
Noranda Aluminum Inc.	Industrial	1605	1	No	Yes
North Carolina Biomass Partners	Alternative Energy	1605EZ	1	No	No
North Carolina Electric Membership Corporation	Electric Providers	1605EZ	1	No	No
Northern Neck Electric Cooperative	Electric Providers	1605	2	No	No
Northern Virginia Electric Cooperative	Electric Providers	1605	2	No	No
Ocean County Landfill Corporation	Alternative Energy	1605	2	No	No
Oglethorpe Power Corporation	Electric Providers	1605	3	No	No
Oklahoma Gas & Electric Co.	Electric Providers	1605	3	No	No
Old Dominion Electric Cooperative	Electric Providers	1605	3	No	No
Omaha Public Power District	Electric Providers	1605EZ	10	No	No
Orlando Utilities Commission (OUC)	Alternative Energy	1605EZ	1	No	No
Pak-Lite, Inc. - Mebane Plant	Industrial	1605	0	Yes	Yes
Palmer Capital Corporation	Alternative Energy	1605	10	Yes	No
Peabody Energy	Industrial	1605	2	Yes	No
PEI Power Corp	Alternative Energy	1605	1	Yes	No
Penn Compression Moulding, Inc.	Industrial	1605	0	Yes	Yes
Pepco Holdings Inc	Electric Providers	1605	31	No	No
Pfizer Pharmaceuticals LLC - Arecibo	Industrial	1605EZ	11	No	No
PG&E Corporation	Electric Providers	1605	9	Yes	No
Pitt Landfill Gas, LLC	Alternative Energy	1605	1	No	No
Polar Refrigerant Technology, LLC	Industrial	1605	1	No	No
Portland General Electric Co.	Electric Providers	1605	33	Yes	No
Prince George Electric Cooperative	Electric Providers	1605	1	No	No
Public Service Company of New Mexico	Electric Providers	1605	8	No	Yes
Public Service Enterprise Group	Electric Providers	1605	20	Yes	Yes
Public Utility District No. 1 of Snohomish County	Electric Providers	1605	9	No	No
Rangely Weber Sand Unit	Industrial	1605	1	No	No
Rappahannock Electric Cooperative	Electric Providers	1605	3	No	No
Reliant Energy, Inc.	Electric Providers	1605	4	No	No
Republic Metals Corporation	Industrial	1605	0	Yes	No
Rolls-Royce Corporation	Industrial	1605	4	Yes	No
Sacramento Municipal Utility District	Electric Providers	1605	7	Yes	No
Salt River Project	Electric Providers	1605EZ	28	No	No
Santee Cooper	Electric Providers	1605	12	Yes	Yes
Seattle City Light	Electric Providers	1605	20	Yes	No
SeaWest WindPower, Inc.	Alternative Energy	1605	10	No	No
Seminole Electric Cooperative, Inc.	Electric Providers	1605EZ	5	No	No
Seneca Energy II, LLC	Alternative Energy	1605	2	No	No
Seneca Energy II, LLC_Ontario LFGE	Alternative Energy	1605	1	No	No
Shenandoah Valley Electric Cooperative	Electric Providers	1605	3	No	No
Sikorsky Aircraft Corporation	Industrial	1605	6	Yes	Yes
Smithfield Foods, Inc.	Industrial	1605EZ	14	No	No

Table B1. Reporting Enitities, Data Year 2004 (Continued)

Reporter Name	Sector	Type of Form	Number of Projects Reported (Schedule II)	Entity-Wide Report (Schedule III)	Commitments (Schedule IV)
South Carolina Electric & Gas Company	Electric Providers	1605	20	No	Yes
Southeastern Biomass Partners, LP	Alternative Energy	1605EZ	1	No	No
Southern California Edison Co.	Electric Providers	1605	19	No	No
Southern Company	Electric Providers	1605	35	Yes	Yes
Southside Electric Cooperative	Electric Providers	1605	1	No	No
Springs Industries, Inc.	Industrial	1605EZ	3	No	No
State Farm Mutual Automobile Insurance Co.	Services and Retail	1605	0	Yes	No
Sunoco, Inc.	Industrial	1605	0	Yes	No
Sustainable Development Technology Corporation	Agricultural	1605	1	No	No
Tacoma Power	Electric Providers	1605EZ	7	No	No
Tampa Electric Company	Electric Providers	1605	11	Yes	Yes
Tennessee Valley Authority	Electric Providers	1605	30	Yes	Yes
The Dow Chemical Company	Industrial	1605	0	Yes	Yes
The Empire District Electric Co.	Electric Providers	1605	10	No	No
The Estee Lauder Companies	Industrial	1605	31	No	No
Toyota Motor North America, Inc.	Industrial	1605	0	Yes	Yes
TS Designs, Inc.	Industrial	1605	0	Yes	No
TXU	Electric Providers	1605	29	No	Yes
Utah Municipal Power Agency	Electric Providers	1605EZ	7	No	No
Valdese Manufacturing Company	Industrial	1605	0	Yes	Yes
Vermont Public Power Supply Authority	Electric Providers	1605	13	No	No
Waste Management, Inc.	Alternative Energy	1605	229	Yes	No
Waverly Gas Producers, LLC	Alternative Energy	1605	1	No	No
Waverly Light & Power Company	Electric Providers	1605	9	Yes	Yes
We Energies	Electric Providers	1605	28	No	No
Wisconsin Public Power Inc.	Electric Providers	1605EZ	54	No	No
Wyeth Vaccines	Industrial	1605EZ	2	No	No
Xcel Energy	Electric Providers	1605	48	No	Yes
Xenon Specialty Gas	Industrial	1605	1	Yes	No
Zeeland Board of Public Works	Electric Providers	1605EZ	3	No	No

Notes: W indicates that a report is confidential and its data is withheld from publication.
Source: Energy Information Administration, Forms EIA-1605 and EIA-1605EZ

Table B2. Project-Level Reductions and Sequestration Reported, Data Year 2004

(Metric Tons Carbon Dioxide Equivalent)

Reporter and Reduction Type	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
A&N Electric Cooperative														
Indirect		1	85	621	699	3,129	3,411	4,120	3,850	5,988	4,211	6,193	4,890	4,102
Advanced Micro Devices, Inc.														
Unspecified (EZ)														1,142
AES Hawaii, Inc.														
Sequestration		1,540,000	1,540,000	1,540,000	1,540,000	1,540,000	1,540,000	1,540,000	1,540,000	1,540,000	1,540,000	1,540,000	1,540,000	1,540,000
AES Shady Point, LLC														
Sequestration			4,150,000	4,150,000	4,150,000	4,150,000	4,150,000	4,150,000	4,150,000	4,150,000	4,150,000	4,150,000	4,150,000	4,150,000
AES Thames, LLC														
Sequestration	550,000	70,000	290,000	370,000	480,000	440,000	440,000	590,000	530,000	370,000	410,000	410,000	410,000	410,000
AES Warrior Run, LLC														
Direct									1,091	38,702	44,227	41,841	41,899	39,980
Indirect						0	23,000	23,000	23,000	23,000	23,000	23,000		
Alabama Biomass Partners, Ltd														
Unspecified (EZ)														74,644
Alcan Primary Products Corporation, Sebree Works														
Direct	-259	37,660	37,889	105,635	126,282	148,239	95,249	220,423	301,145	277,748	441,219	454,631	452,559	512,857
Algonquin Power - Cambrian Pacific Genco LLC														
Direct					289,104	336,694	336,714	1,100,964	1,730,152	1,900,770	1,902,837	1,847,583	1,701,857	1,456,411
Allegheny Energy, Inc.														
Direct	158,688	240,497	330,730	526,288	812,086	963,417	906,110	1,142,380	1,207,142	1,360,860	1,359,361	1,457,386	1,556,472	1,502,429
Indirect	11,209	29,542	37,098	39,192	70,262	68,309	98,365	162,706	261,557	244,824	226,899	201,959	181,286	171,737
Sequestration					4,212	4,212	5,000	5,007	5,358	1,395	1,726	1,431	739	697
Allergan, Inc.														
Direct	0	0	0	0	0	0	0	552	552	552	552	875	927	927
Indirect	0	0	0	0	116	116	501	2,922	3,665	5,152	8,264	12,377	13,529	16,101
Alliant Energy														
Direct	49,745	82,568	142,274	232,179	317,865	454,535	554,406	794,241	1,112,820	1,662,105	1,761,645	2,105,972	2,596,442	2,715,380
Indirect	17,835	27,971	41,300	59,367	73,045	371,566	379,493	393,118	386,945	458,602	789,571	794,419	808,833	914,875
Sequestration	17	28,203	28,257	28,327	29,617	29,715	30,227	30,150	30,785	30,491	30,691	30,855	30,990	31,200
Ameren Corporation (formerly UE, CIPS, and CILCO)														
Direct	1,932,744	117,298	433,327	2,042,927	363,413	1,029,217	1,111,638	530,338	784,760	2,161,108	605,808	628,581	2,018,430	437,654
Indirect	921	1,166	2,643	5,651	15,949	34,833	67,604	85,680	118,287	119,794	317,409	338,340	261,119	300,245
Sequestration					1,203	1,203	1,130	1,760	1,638	343	390	300	155	200
American Electric Power, Inc.														
Direct	4,161,586	-3,217,946	5,598,085	25,858	4,845,064	7,328,779	2,203,070	-7,536,031	-7,538,191	-2,411,979	7,092,210	7,235,914	6,450,431	9,091,939
Indirect	223,425	295,977	346,900	612,498	586,185	558,641	664,270	663,011	735,772	710,050	684,609	647,856	623,662	625,376
Sequestration	3,616	4,947	6,857	10,207	27,092	50,232	137,737	184,676	193,071	210,830	222,127	242,578	222,856	219,973
American Municipal Power - Ohio														
Unspecified (EZ)														374,078
Anoka Municipal Utility														
Unspecified (EZ)														1,884
Arizona Portland Cement Co.														
Direct		21,474	34,332	28,673	50,013	33,034	54,636	61,389	70,151	42,575	47,307	48,081	54,048	49,590
Indirect		2,483	3,681	4,507	5,901	8,014	8,403	7,057	11,644	-365	-5,507	-3,436	-6,805	-6,454
Sequestration											1	2	3	3
Arizona Public Service Company														
Sequestration														55
Asheville Landfill Gas, LLC														
Indirect							29,033	88,621	76,542	85,724	96,916	70,344	54,294	60,637
AT&T														
Direct												5,534	5,715	8,231
Indirect							52,617	47,174	36,287	44,452	63,503	127,094	317,821	171,756
BARC Electric Cooperative														
Indirect	392	668	1,536	898	1,392	1,178	2,430	3,386	1,798	2,445	3,216	1,768	3,231	4,142
Berkshire Power LLC														
Direct										-276,914	-247,835	-533,682	-476,501	-494,693
Indirect										381,370	418,510	930,870	730,680	659,026
Biomass Partners, LP														
Unspecified (EZ)														96,506
Blue Source, LLC														
Direct										6,692,513	7,717,151	8,034,784	13,201,557	17,341,803
Indirect										2,465	124,014	247,018	339,409	317,169
BMW US Holding Corp.														
Direct													38,501	55,211
BNSF Railway Company														
Direct							95,254	387,368	735,727	714,862	926,236	1,156,661	1,126,724	1,028,748	1,172,990
Bountiful City Light & Power														
Direct	28	1,338	10,310	6,426	11,851	14,618	16,786	19,226	15,556	11,627	9,577	-907	-1,049	-816
Sequestration	2	3	4	4	5	6	8	9	10	12	13	14	16	18
BP America														
Direct	0	353,408	567,061	771,054	1,060,764	1,355,010	1,748,993	1,986,805	2,728,387	3,062,630	3,021,482	3,600,577	4,074,794	4,312,555
Indirect										304	608	1,216	1,216	1,216
Sequestration							102,980	102,980	102,980	102,980	102,980	102,980	102,980	102,980
Branson Ultrasonics Corporation														
Indirect						130	196	391	65	40	163	241	42	149
Bristol-Myers Squibb Company														
Direct									23,757	40,555	41,085	38,203	39,818	35,963
Indirect					1,442	1,945	1,945	1,945	1,945	1,945	1,896	1,896	1,896	1,919
Burlington County Board of Chosen Freeholders														
Direct	9,160	10,588	11,266	11,533	11,452	17,867	84,638	287,946	203,346	197,786	200,594	202,050	356,879	350,197
Indirect	25,769	33,118	37,442	41,388	44,108	49,938	56,204	63,313	68,640	65,375	82,941	79,263	87,248	89,215
California Portland Cement Co. - Colton Plant														
Direct	26,183	6,801	63,738	-11,818	-4,053	53,589	40,322	42,328	18,868	65,492	96,685	80,832	74,717	93,676
Indirect	938	1,296	3,571	2,773	3,457	4,959	5,405	3,823	4,040	4,450	10,185	13,169	15,062	14,088

Table B2. Project-Level Reductions and Sequestration Reported, Data Year 2004 (Continued)

(Metric Tons Carbon Dioxide Equivalent)

Reporter and Reduction Type	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
California Portland Cement Co. - Mojave Plant														
Direct	11,929	79,005	44,691	97,384	51,690	32,403	47,533	66,489	37,557	36,184	38,671	33,375	122,808	99,841
Indirect	1,341	7,422	7,333	10,620	8,724	8,559	7,209	8,429	7,383	6,801	11,645	12,129	16,982	15,918
Cambrian Energy Development LLC														
Direct								32,557	87,853	90,960	154,430	152,762	141,441	144,181
Carolina Power & Light Company														
Direct				3,493,951	4,906,992	5,182,056	5,595,117	6,974,302	7,403,076	8,163,018	6,242,285	8,435,784	9,446,801	8,737,481
Sequestration														27
Catawba Landfill Gas, LLC														
Indirect								35,273	85,349	97,904	112,209	89,671	105,941	134,157
CDX Gas, LLC														
Direct								459,701	377,469	814,859	1,547,494	2,202,911	2,076,092	1,407,236
Chevron Corporation														
Unspecified (EZ)														2,586
Choptank Electric Cooperative														
Indirect	9,752	14,820	2,233	29,061	25,420	23,886	29,005	19,750	19,734	10,667	29,823	16,538	24,158	23,035
Cinergy Corp.														
Direct	117	95,404	194,294	399,922	1,126,673	1,273,541	1,348,458	1,378,240	1,421,036	1,495,340	1,386,203	1,453,487	1,575,934	1,665,789
Indirect	63,888	519,314	467,617	493,680	537,483	704,388	670,768	709,018	203,061	207,336	245,285	268,786	296,196	292,654
Sequestration	2	24	284	511	169,479	169,794	170,722	170,879	173,862	30,628	42,167	35,498	19,645	20,789
City of Austin Electric Utility (Austin Energy)														
Unspecified (EZ)														1,633,907
City of Springfield														
Direct													48,266	33,675
City Public Service														
Direct	2,701,813	3,378,803	209,559	2,583,896	3,798,320	3,650,658	3,760,563	3,883,746	3,700,037	3,430,618	3,750,841	3,972,432	3,498,118	4,317,960
Indirect		80,395	112,008	123,315	130,294	162,441	146,159	147,408	156,211	157,893	161,842	150,535	164,302	160,008
Sequestration			0	0	0	1	1	2	4	6	9	11	13	21
Cleco Corporation														
Sequestration					1,805	1,805	2,218	2,267	2,459	719	1,189	2,110	1,806	1,842
CMS Energy														
Direct	1,733,445	1,724,432	375,093	1,365,046	1,716,033	2,228,352	2,883,816	2,469,102	2,794,259	3,446,945	881,178	3,921,810	3,695,333	2,852,330
Indirect						21,446	121,159	65,719	580,038	743,196	735,843	489,725	571,626	596,359
CMV Joint Venture														
Direct				65,494	249,365	410,054	479,404	475,475	500,390	501,325	767,464	650,349	512,617	351,162
Common Purpose Institute														
Unspecified (EZ)														51,152
CommonWealth Bethlehem Energy, LLC														
Direct								38,339	73,702	112,684			53,181	122,991
Community Electric Cooperative														
Indirect	331	729	1,291	1,450	2,495	2,977	2,648	3,093	2,296	3,228	4,379	1,075	5,872	3,432
Consolidated Edison Company of New York, Inc.														
Direct	695,442	1,113,627	1,575,781	1,595,630	1,440,320	1,577,966	926,606	1,860,104	956,635	1,257,363	1,158,614	1,523,278	1,617,241	1,804,616
Constellation Energy														
Direct	1,495	1,033,402	2,097,259	1,703,077	2,857,556	2,438,320	3,155,633	3,343,966	3,680,371	4,031,804	3,750,446	5,106,030	6,232,418	6,449,973
Indirect			87,871	133,265	132,599	113,251	116,332	132,198	154,142	246,088	141,930	264,870	291,988	365,693
Sequestration					1,203	1,203	1,130	948	882	253	287	221	114	108
County Sanitation Districts of Los Angeles County														
Direct								4,399,535	4,248,470	4,170,710	4,139,789	4,141,591	3,819,717	3,443,169
Indirect								187,706	192,282	212,214	195,744	218,562	229,906	223,825
DADS Landfill / Dept. Of Env. Health														
Direct											24,932	59,202	77,993	97,483
DaimlerChrysler Corporation														
Direct				13,024	68,856	88,338	112,115	115,370	156,956	244,613	259,122	267,932	181,219	151,340
Indirect					38,108	70,903	117,620	135,866	141,505	137,360	159,593	187,357	172,770	165,447
DeBourgh Manufacturing Company														
Unspecified (EZ)														*
Delaware Electric Cooperative														
Indirect	12,890	14,524	25,241	12,397	23,990	25,485	18,172	23,712	26,407	40,177	31,769	35,731	34,709	32,357
Dominion Generation														
Direct	4,924,666	4,410,697	3,809,520	6,361,163	6,087,394	7,159,639	7,902,529	8,042,549	9,035,444	9,054,485	7,720,851	9,276,652	6,863,315	10,230,967
Sequestration														55
DTE Energy/ Detroit Edison														
Direct	-645,223	526,734	1,495,067	-6,427,801	-1,557,140	-1,823,155	-792,710	1,107,553	3,140,348	1,952,135	2,178,158	2,909,743	1,673,089	1,699,495
Indirect	-1,199	157,603	379,470	557,598	815,348	1,411,923	2,248,375	3,667,596	4,548,356	5,716,772	5,873,698	6,497,462	6,298,030	5,493,200
Sequestration					167,973	168,930	192,002	205,260	226,576	84,321	112,796	117,466	104,544	106,719
Duke Energy Corporation														
Direct	7,898,659	6,883,847	7,117,085	9,558,516	12,766,380	5,685,010	4,119,150	12,147,503	13,359,220	15,017,819	14,544,847	13,326,026	11,476,525	11,365,413
Indirect	-33,173	-15,919	29,057	72,973	166,484	126,998	233,028	303,751	154,306	134,201	113,169	83,323	75,191	103,655
Sequestration					1,203	1,203	2,176	2,638	3,154	797	905	697	360	394
Dynegy, Inc.														
Direct	1,934	39,385	64,818	173,310	296,271	259,458	278,559	349,214	119,006	128,828	142,751	283,606	364,169	308,886
Indirect		7,038	4,582	3,807	4,260	7,714	2,087	3,682	10,847	70,239	25,407	43,552	97,966	119,249
Sequestration					4,814	11,073	23,164	34,650	47,789	90,704	131,344	151,347	168,337	181,447
ENCAP														
Direct								142,462	172,754	195,921	201,934	150,272	163,985	42,434
Energy Developments, Inc.														
Indirect											22,019	143,015	169,117	208,620
Energy Management Partners, LP														
Unspecified (EZ)														4,639,800
Entergy Services, Inc.														
Direct	447,503	427,207	804,472	737,733	2,514,074	2,863,446	5,601,165	6,428,576	3,744,250	5,941,430	6,744,003	8,288,876	6,670,710	8,213,907
Indirect	70,418	83,249	94,393	120,298	227,757	230,687	267,217	298,035	333,864	289,077	276,078	193,373	246,664	272,536
Sequestration					2,407	22,365	46,377	66,972	68,004	63,290	63,790	64,490	66,032	55,693
Environmental Synergy, Inc.														
Sequestration									1,604	1,446	2,003	2,278	2,785	3,637

Table B2. Project-Level Reductions and Sequestration Reported, Data Year 2004 (Continued)

(Metric Tons Carbon Dioxide Equivalent)

Reporter and Reduction Type	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Exelon Corporation														
Direct	96,602	92,575	131,213	155,295	147,523	192,986	812,339	684,698	462,062	384,538	507,484	701,107	571,000	519,014
Indirect	566,241	541,349	767,445	970,573	1,761,838	2,422,518	2,873,152	3,051,966	4,324,090	6,970,388	9,991,208	10,362,371	10,917,688	10,166,482
Sequestration					349	483	613	732	2,600	4,438	6,058	6,916	7,751	8,208
FirstEnergy Corporation														
Direct	3,439,807	4,367,999	1,325,941	2,267,218	5,677,120	4,205,737	5,411,952	11,055,182	10,977,710	14,802,683	14,211,306	10,705,905	7,744,307	16,179,957
Indirect	121,013	128,833	138,607	127,673	109,541	113,958	384,249	673,676	893,440	910,152	949,735	922,415	883,059	855,366
Sequestration		12	27	42	18,108	18,123	29,586	25,664	24,597	5,401	6,129	4,765	2,550	2,478
Florida Power Corporation														
Sequestration														27
Ford Motor Company														
Direct								39,468	38,170	92,990	108,101	207,465	178,220	149,129
Indirect								57,290	67,546	116,710	133,873	158,668	111,719	108,477
FPL Group														
Direct	111,211	339,137	1,685,919	6,794,462	7,722,975	8,532,729	8,557,380	10,400,076	10,449,213	10,660,919	11,530,698	14,964,955	15,635,169	16,595,039
Indirect								67,541	671,881	1,810,193	2,012,658	3,776,274	3,289,462	4,819,368
Sequestration					3,008	3,008	2,824	2,369	2,204	462	525	404	208	197
Gas Recovery Systems														
Indirect					62,305	66,036	73,062	73,085	64,596	405,745	430,724	426,600	459,147	410,999
General Motors Corporation														
Direct	47,632	169,341	245,775	292,427	214,338	487,459	635,740	906,927	850,821	832,571	657,973	924,472	822,405	805,412
Indirect	67,738	250,302	354,617	424,520	286,828	427,272	540,196	875,336	756,071	691,157	5,690,136	5,242,091	5,967,877	5,734,752
Golden Valley Electric Association, Inc														
Unspecified (EZ)														16,528
Granger Electric Company														
Direct	-6,623	-8,051	-14,880	-35,940	-50,901	-60,821	-68,561	-72,399	-74,170	-75,307	-76,767	-73,822	-76,801	-77,139
Indirect	111,200	123,415	172,189	370,595	513,555	587,040	649,156	686,850	702,338	707,789	728,797	700,107	726,674	735,437
Granger Energy, LLC														
Indirect									244,353	404,389	440,551	453,571	468,594	444,850
Greater New Bedford Regional Refuse Mgt District														
Direct										65,600	72,638	115,660	115,255	115,255
Green Mountain Energy Company														
Indirect												537,392	546,432	567,440
Greene Energy, LLC														
Unspecified (EZ)														388,428
Hollomon Family														
Unspecified (EZ)														*
Integrated Waste Services Association														
Direct	-7,260,856	-7,714,656	-7,714,656	-7,714,656	-7,806,113	-7,897,008	-7,806,148	-7,806,177	-8,532,238	-9,438,949	-9,438,949	-9,476,461	-7,933,287	-7,933,287
Indirect	13,725,220	14,880,113	15,213,582	15,547,050	18,530,980	19,603,404	19,393,158	19,822,052	21,719,492	20,804,366	21,623,118	23,314,961	23,714,533	24,500,151
Iredell Landfill Gas, LLC														
Indirect							26,351	60,008	89,370	88,984	89,425	49,653	71,796	75,837
JEA														
Unspecified (EZ)														258,226
Jim Walter Resources, Inc.														
Direct	5,090,683	4,774,846	5,319,950	4,257,033	4,615,539	4,330,416	4,425,353	5,023,622	5,594,787	5,242,457	5,061,284	5,493,862	5,121,626	4,026,618
Johnson & Johnson														
Direct	0	16,442	24,855	28,049	32,431	36,210	42,886	49,239	61,536	65,159	65,852	66,496	68,583	70,331
Indirect	3,501	16,352	46,404	64,954	78,893	119,792	142,151	158,050	179,579	183,672	196,163	207,009	294,969	409,998
Kansas City Power & Light Company														
Direct	306,499	163,897	220,095	487,720	443,438	452,433	551,225	633,862	347,982	723,786	625,049	1,013,067	946,818	817,909
Indirect	69,712	79,435	99,539	133,644	121,722	155,099	137,869	150,898	168,452	158,238	187,481	125,327	141,840	148,223
Sequestration					2,407	2,407	3,306	3,586	4,036	982	1,258	1,070	552	548
Kern County Waste Management Department														
Direct										22,702	26,691	56,296	50,419	79,054
Klickitat County Public Utility District No. 1														
Direct									174,363	275,586	264,477	265,075	300,909	313,651
Landfill Energy Systems														
Direct	111,483	160,433	258,541	289,359	327,960	326,291	593,136	700,175	795,008	939,604	761,297	1,114,058	1,279,144	1,167,640
Indirect	15,608	129,825	277,008	344,770	296,464	318,629	417,702	475,019	560,648	614,436	721,793	563,006	899,628	717,751
Lehigh Cement Co. (fmrly Lehigh Portland Cement Co														
Direct		-11,079	587	315,697	395,704	433,355	435,738	459,061	463,112	447,548	487,263	881,618	1,075,040	1,436,468
Indirect			1,922	27,882	49,359	38,266	50,614	41,430	43,023	40,210	60,902	39,154	45,240	25,109
Lehigh Cement Co. (formerly Calaveras Cement Co.)														
Direct	26,507	84,224	269,706	195,382	171,778	180,264	216,135	194,310	185,298	184,609	143,114	185,751	144,728	351,392
Indirect	-1,256	-3,143	7	3,096	1,704	3,138	5,411	6,288	2,094	24,367	6,452	10,776	7,376	9,073
Los Angeles Department of Water and Power														
Direct					354,289	264,004	302,946	368,293	561,281	617,666	615,089	637,826	796,178	781,322
Indirect	8,508	8,508	8,508	8,508	8,475	8,475	8,475	8,475	8,475	7,086	7,086	8,167	8,167	7,055
Sequestration		1,669	2,003	2,003	2,003	2,003	2,003	2,126	2,434	2,532	2,623	4,013	5,295	6,464
Lower Colorado River Authority														
Direct	14,152	23,678	35,199	48,262	98,430	226,343	266,259	285,672	280,139	310,620	415,672	511,380	513,920	547,648
Indirect	47,536	50,802	68,130	91,172	112,037	121,018	126,643	116,936	151,409	123,286	139,525	141,158	169,975	159,926
Lucent Technologies Inc.														
Direct			7,947	15,508	13,996	15,790	13,371	10,333	12,053	13,150	11,329	7,237	6,450	5,383
Indirect						22,816	18,988	80,931	11,187	26,170	33,340	18,813	24,898	72,560
Lynchburg Gas Producers, LLC														
Indirect										12,596	20,567	49,264	78,859	51,548
Mecklenburg Electric Cooperative														
Indirect	1,754	3,058	5,903	2,633	11,659	11,395	10,023	11,646	10,738	13,785	13,966	14,656	13,123	15,574
Michael Paul Taylor														
Direct									2	3	4	5	4	5
Indirect										0	1	2	2	2
Michigan CAT														
Direct							300,752	284,164	316,401	303,026	319,489	367,708	356,107	442,009
Indirect										7,756	7,756	7,612	7,409	7,550

Table B2. Project-Level Reductions and Sequestration Reported, Data Year 2004 (Continued)

(Metric Tons Carbon Dioxide Equivalent)

Reporter and Reduction Type	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Middlesex Generating Company, LLC														
Direct							8,947	306,511	452,006	452,519	480,664	497,823	592,411	380,122
Minnesota Power														
Direct	31,798	83,880	162,890	244,875	348,788	448,938	569,407	656,146	756,943	717,252	850,232	987,935	959,642	856,656
Indirect			7,256	47,855	70,738	70,738	70,738	70,738	70,738	70,738	70,738	70,738	70,738	70,738
Minnesota Power														
Sequestration					3,006	13,921	15,430	15,430	15,430	15,430	15,430	15,430	15,430	15,430
Mirant Kendall, L.L.C.														
Direct													55,122	57,692
Model City Energy, LLC														
Direct											118,810	196,780	185,814	194,262
Indirect											28,118	47,029	43,967	45,969
Montauk Energy Capital														
Indirect	6,600,722	2,191,686	2,518,853	2,390,323	2,593,133	2,679,515	3,228,272	4,778,977	6,077,630	6,473,861	7,451,398	6,326,761	5,682,860	5,712,280
Municipal Electric Auth of Georgia (MEAG Power)														
Direct	863,000	1,144,000	1,353,000	1,590,000	2,234,000	2,125,000	2,415,000	2,543,000	2,460,000	2,782,000	2,870,000	2,482,000	2,851,000	3,568,000
Mystic Development, LLC														
Direct													-250,641	-816,343
Indirect													1,959,023	2,678,506
Nashville Electric Service														
Unspecified (EZ)														7,381
National Grid														
Direct	2,490,763	1,646,778	3,267,287	4,218,391	3,700,152	4,307,314	2,950,224	3,844,762	2,477,916	2,141,485	82,934	93,453	98,800	89,637
Indirect	97,751	237,179	374,956	534,355	740,967	840,042	990,718	1,109,812	1,165,345	1,221,326	2,829,828	1,459,847	1,565,876	1,664,736
Natural Power, Inc.														
Direct	89,206	81,401	88,179	108,179	113,380	140,815	133,003	222,834	387,526	355,201	207,238	264,805	200,201	178,342
Indirect	10,746	10,258	10,243	10,522	10,160	11,792	12,004	16,321	14,593	16,891	15,906	15,516	17,077	14,836
NC Muni Landfill Gas Partners, LLC														
Indirect					18,271	28,608	54,959	79,265	80,304	65,254	72,486	65,285	61,491	67,140
Nebraska Public Power District														
Unspecified (EZ)														1,034,194
New Jersey Meadowlands Commission														
Direct	324,941	368,274	394,915	378,381	370,838	397,577	413,896	721,375	638,922	536,259	472,455	348,320	202,802	250,195
Newton Landfill Gas, LLC														
Indirect							12,561	46,053	29,014	27,098	21,209	19,354	19,739	24,036
NiSource/NIPSCO														
Direct	7,034	10,280	500,150	514,933	626,471	1,130,251	1,582,926	2,067,811	2,566,342	3,137,375	3,562,520	6,614,987	6,091,877	3,870,186
Indirect	19,414	22	20,903	29,541	99,400	116,153	121,890	114,404	111,763	99,067	120,712	131,020	107,600	221,824
Sequestration			4	58	1,265	1,348	1,278	1,099	1,043	350	399	354	280	279
Noranda Aluminum Inc.														
Direct	2,595,400	2,784,500	2,853,400	2,939,400	2,922,300	3,272,500	3,255,400	3,404,600	3,347,100	3,255,400	3,163,700	3,180,800	3,140,400	3,571,400
North Carolina Biomass Partners														
Unspecified (EZ)														10,994
North Carolina Electric Membership Corporation														
Unspecified (EZ)														292,066
Northern Neck Electric Cooperative														
Indirect	931	891	2,121	1,432	2,426	2,826	2,055	3,331	1,560	3,087	3,521	1,125	4,356	2,582
Northern Virginia Electric Cooperative														
Indirect	37	15,275	27,979	9,958	32,283	32,437	30,892	33,140	43,336	22,383	27,220	61,166	50,107	62,631
Ocean County Landfill Corporation														
Direct			258,743	262,790	278,505	274,292	254,508	335,323	447,370	516,803	471,766	504,824	539,246	483,271
Indirect							-9,407	-11,085	-10,562	-10,478	-10,686	-11,901	-10,607	-11,513
Oglethorpe Power Corporation														
Sequestration														55
Oklahoma Gas & Electric Co.														
Sequestration														27
Old Dominion Electric Cooperative														
Indirect					60	61	61	61	61	61	70	70	70	70
Sequestration					0	1	1	2	2	2	3	4	5	20
Omaha Public Power District														
Unspecified (EZ)														2,014,310
Orlando Utilities Commission (OUC)														
Unspecified (EZ)														108,767
Palmer Capital Corporation														
Direct	489,421	885,021	1,080,949	1,068,935	1,276,334	2,069,062	4,534,869	5,245,307	5,628,924	5,988,577	5,562,563	5,206,941	2,818,673	2,702,561
Indirect	-618	-43,423	-60,970	-42,679	-32,206	-48,600	-68,432	-89,323	-153,699	-162,020	-136,702	-127,687	-49,127	-22,271
Peabody Energy														
Direct	15,106	35,930	59,529	52,643	81,625	106,434	81,166	93,539	90,347	132,411	75,031	289,172	570,706	513,995
PEI Power Corp														
Direct								131	300	326	64	695	696	733
Indirect								7,450	16,321	18,391	444	40,716	40,495	42,427
Pepco Holdings Inc														
Direct	131,032	143,266	469,362	888,556	1,446,702	1,385,125	814,363	604,599	1,054,615	474,758	817,522	877,445	803,517	867,405
Indirect	1,068	16,832	3,901	6,504	10,133	18,888	26,290	27,767	28,442	23,125	25,003	23,519	32,209	67,400
Sequestration	14	30	50	73	1,301	1,331	1,288	1,141	1,116	459	532	535	514	592
Pfizer Pharmaceuticals LLC - Arecibo														
Unspecified (EZ)														5,771
PG&E Corporation														
Direct	59,366	380,075	770,904	1,204,180	1,685,998	1,994,946	2,399,379	2,416,834	2,303,030	2,356,641	2,775,747	2,705,796	3,059,169	3,387,366
Indirect	59,366	214,881	329,205	390,851	447,959	494,836	504,387	519,391	1,244,320	1,190,959	1,022,152	890,651	842,092	964,418
Pitt Landfill Gas, LLC														
Indirect								68,497	73,096	68,454	70,408	65,384	58,938	61,046
Polar Refrigerant Technology, LLC														
Indirect				0	71	71	212	17,618	7,192	150,560	10,093	31,317	39,227	10,834
Portland General Electric Co.														
Direct			3	8	8	12	23	39	52	59	59	64	56	51
Indirect	104,266	176,506	285,166	476,976	677,942	758,508	801,846	856,520	940,068	1,026,654	1,160,625	1,312,564	1,350,371	1,512,325
Sequestration						1	135	473	900	1,422	2,146	2,658	3,171	3,684

Table B2. Project-Level Reductions and Sequestration Reported, Data Year 2004 (Continued)

(Metric Tons Carbon Dioxide Equivalent)

Reporter and Reduction Type	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Prince George Electric Cooperative														
Indirect	15	30	45	60	60	1,383	2,259	5,135	5,113	6,216	1,814	3,774	4,264	25
Public Service Company of New Mexico														
Direct	501,925	568,855	183,984	322,415	763,258	1,333,793	1,554,079	1,496,336	1,945,937	1,671,397	1,498,851	1,691,854	1,246,976	1,365,404
Indirect													11,835	529,705
Sequestration														55
Public Service Enterprise Group														
Direct												1,620	2,923	3,232
Indirect	68,133	105,519	157,707	221,479	359,617	736,892	897,826	1,134,069	1,266,229	1,959,585	1,705,800	1,844,064	1,695,737	1,846,125
Sequestration					1,203	1,203	2,176	2,638	3,154	797	905	697	360	366
Public Utility District No. 1 of Snohomish County														
Direct	0	1	2	3	3	3	3	3	3	3	2	3	2	2
Indirect	1,292	22,895	44,396	65,056	89,979	113,426	120,001	119,978	125,875	131,575	158,363	181,956	203,570	225,175
Rangely Weber Sand Unit														
Indirect	2,394,000	1,761,000	1,700,000	1,088,000	745,000	619,000	924,000	756,000	685,801	1,028,926	694,260	685,082	742,528	932,220
Rappahannock Electric Cooperative														
Indirect	2,016	1,592	12,757	5,367	-10,595	32,813	27,408	35,049	34,585	35,638	44,151	35,367	53,336	54,795
Sequestration	0	0	1	1	1	2	3	3	4	5	6	4	5	6
Reliant Energy, Inc.														
Sequestration													272	356
Rolls-Royce Corporation														
Direct							32,413	29,252	30,809	38,955	31,248	31,267	34,268	40,634
Indirect									40,135	259,808	265,236	250,171	202,216	153,801
Sacramento Municipal Utility District														
Direct				12	24	8	19	15	18	19	23	28	24	27
Indirect				517	923	460,052	489,296	497,239	513,459	523,369	545,598	609,033	279,363	357,835
Sequestration	69	184	367	619	890	1,158	1,440	1,764	1,945	2,278	2,651	3,026	3,422	3,778
Salt River Project														
Unspecified (EZ)														2,216,652
Santee Cooper														
Direct	12,936	17,843	185,544	169,832	216,930	452,768	426,433	949,134	1,093,337	1,193,594	1,151,567	1,169,421	1,187,499	1,182,246
Indirect	20,218	27,473	22,377	16,759	88,532	106,693	149,115	173,320	141,465	109,248	166,106	204,759	470,496	544,001
Sequestration	155	397	875	921	940	980	1,247	2,173	2,195	2,269	3,621	7,665	8,732	8,732
Seattle City Light														
Indirect	7,238	32,306	55,122	82,821	123,434	169,853	187,017	209,972	238,806	247,214	282,538	325,785	334,793	361,343
Sequestration					2	9	15	21	30	41	52	62	74	82
SeaWest WindPower, Inc.														
Indirect	16,191	14,656	17,745	17,748	17,859	19,897	18,925	21,070	85,711	118,115	156,534	236,368	215,033	214,678
Seminole Electric Cooperative, Inc.														
Unspecified (EZ)														250,444
Seneca Energy II, LLC														
Direct							188,079	284,811	411,588	426,569	439,276	402,616	399,111	410,399
Indirect							16,672	25,245	36,481	37,811	38,935	35,689	35,377	36,377
Seneca Energy II, LLC_Ontario LFGE														
Direct													23,176	110,772
Indirect													5,484	26,212
Shenandoah Valley Electric Cooperative														
Indirect		229	897	920	1,104	15,210	10,084	14,227	14,916	13,872	18,095	24,401	20,781	17,251
Sequestration			0	0	0	0	1	1	1	1	1	1	1	1
Sikorsky Aircraft Corporation														
Direct	0	0	0	0	0	0	0	0	0	170	509	509	509	509
Indirect	0	16	334	1,677	2,134	2,692	3,380	3,927	4,580	5,078	4,642	4,949	5,091	5,200
Smithfield Foods, Inc.														
Unspecified (EZ)														89,722
South Carolina Electric & Gas Company														
Direct				96,172	323,954	316,216	1,794,998	1,802,798	1,807,282	1,767,498	1,773,664	2,002,005	1,961,121	1,907,515
Indirect	44,522	53,097	70,861	81,333	90,622	104,581	109,590	57,968	109,765	123,712	146,584	221,385	289,121	138,052
Sequestration			486	883	3,237	3,699	4,055	4,050	4,133	3,995	4,088	4,268	7,096	9,730
Southeastern Biomass Partners, LP														
Unspecified (EZ)														108,857
Southern California Edison Co.														
Direct	789,251	1,464,196	1,860,636	4,024,635	3,104,840	4,689,374	4,148,051	5,571,863	5,590,147	6,752,578	5,625,361	7,323,749	7,982,985	7,813,288
Indirect	57,969	57,969	59,783	64,773	72,393	82,191	85,910	108,046	111,493	120,202	116,120	113,942	113,035	113,942
Sequestration	24,017	24,120	23,942	24,072	24,350	24,188	24,256	24,185	24,190	24,194	24,214	24,313	24,324	24,563
Southern Company														
Direct	770,340	2,255,635	2,441,647	2,863,002	3,376,687	3,483,795	3,741,520	2,666,235	4,926,229	6,355,439	12,030,239	15,704,673	14,998,944	13,422,208
Indirect		1,461	4,577	181,584	341,136	418,911	768,313	961,012	1,618,507	2,081,239	2,502,254	3,088,714	3,665,871	4,235,890
Sequestration	1,993	3,398	4,477	5,630	20,761	42,432	82,419	107,586	157,903	163,935	176,526	194,226	207,220	233,793
Southside Electric Cooperative														
Indirect	-1,001	-21,789	-17,971	-3,031	-15,548	-8,475	9,407	13,051	5,158	21,019	16,683	14,084	12,199	1,133
Springs Industries, Inc.														
Unspecified (EZ)														27,934
Sustainable Development Technology Corporation														
Direct				189	378	567	756	943	1,133	1,322	1,511	1,700	1,889	2,078
Sequestration				284	284	852	2,153	2,887	3,466	3,893	5,230	3,230	4,366	4,378
Tacoma Power														
Unspecified (EZ)														5,144
Tampa Electric Company														
Indirect	240,404	237,682	234,054	240,585	265,406	267,583	266,857	271,909	268,024	321,131	323,092	294,353	243,517	233,667
Sequestration					1,203	1,203	1,130	948	882	185	210	162	83	79
Tennessee Direct	2,860,047	8,560,179	6,971,811	7,764,758	10,285,021	22,314,014	23,905,216	25,646,860	25,758,777	27,216,142	26,997,068	26,274,256	25,162,758	27,794,969
Indirect		74,102	74,652	84,671	119,617	157,217	221,937	376,685	246,132	219,627	230,956	268,933	298,990	579
Sequestration	1,064	1,710	2,701	3,087	30,549	31,603	31,749	28,665	28,576	13,581	16,352	17,828	18,142	19,398
The Empire District Electric Co.														
Sequestration					1,203	1,203	1,130	948	882	185	210	162	83	79

Table B2. Project-Level Reductions and Sequestration Reported, Data Year 2004 (Continued)

(Metric Tons Carbon Dioxide Equivalent)

Reporter and Reduction Type	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
The Estee Lauder Companies														
Direct				41	41	1,784	1,811	1,811	1,835	1,919	1,942	1,985	1,987	2,047
Indirect				109	288	352	823	944	1,292	2,139	2,692	3,089	3,485	4,588
TXU														
Direct	6,433,516	8,017,010	11,586,203	15,360,518	17,614,774	15,782,087	18,259,746	18,415,694	18,047,520	19,266,645	19,593,482	19,156,238	20,771,466	22,671,284
Indirect	93,354	115,225	84,618	104,562	108,526	367,456	389,601	693,431	663,092	781,680	929,140	899,762	877,135	941,189
Sequestration	542	1,086	1,628	2,172	5,629	7,565	13,096	16,749	19,288	21,965	26,113	27,697	29,463	32,677
Utah Municipal Power Agency														
Unspecified (EZ)														7,865
Vermont Public Power Supply Authority														
Indirect		29	62	851	1,287	1,913	2,069	2,244	1,782	1,856	1,161	2,523	1,956	2,451
Waste Management, Inc.														
Direct					10,006,541	12,211,321	14,240,657	16,582,034	18,548,879	21,631,730	26,079,953	30,086,208	33,018,892	36,136,013
Indirect					410,464	460,828	493,770	509,783	525,247	550,165	597,914	594,723	617,031	679,525
Waverly Gas Producers, LLC														
Indirect												0	0	24,466
Waverly Light & Power Company														
Direct	3,009	5,805	9,169	11,063	11,718	12,700	13,417	13,554	15,296	15,642	16,787	18,163	17,726	18,950
Indirect	1,129	3,208	4,047	7,100	6,505	5,879	5,393	4,978	5,509	6,354	7,560	7,971	8,764	9,021
Sequestration	18	36	54	73	84	95	106	116	124	132	137	144	149	153
We Energies														
Direct	467,275	955,346	1,638,466	2,231,600	2,431,109	2,824,947	3,121,150	3,000,732	3,039,948	3,255,219	2,900,390	2,741,721	2,574,554	2,172,196
Indirect	709,256	813,922	861,951	927,820	958,462	979,954	955,315	941,702	988,223	1,193,004	1,231,660	1,346,982	1,500,218	1,549,241
Sequestration					162,696	162,695	207,508	380,887	380,820	240,156	206,447	74,380	45,552	33,975
Wisconsin Public Power Inc.														
Unspecified (EZ)														69,678
Wyeth Vaccines														
Unspecified (EZ)														1,732
Xcel Energy														
Direct	219,873	281,825	326,984	420,452	547,323	787,937	824,582	1,461,454	2,092,852	2,149,544	2,109,562	2,541,178	2,904,453	3,197,456
Indirect	179,941	334,561	620,762	977,712	1,502,592	1,819,336	2,121,910	2,412,174	2,608,622	2,773,055	3,003,944	3,083,925	3,225,042	3,476,751
Sequestration														55
Xenon Specialty Gas														
Indirect								898,237	207,440	563,916	1,799,495	2,074,555	2,184,669	237,408
Zeeland Board of Public Works														
Unspecified (EZ)														399

* = less than 0.05 metric tons.

Notes: This table excludes data reported as confidential. A negative reduction represents an increase in emissions.

Source: Energy Information Administration, Forms EIA-1605 and EIA-1605EZ.

Table B3. Entity-Level Emission Reductions Reported, Data Year 2004

(Metric Tons Carbon Dioxide Equivalent)

Reporter and Gas	Reduction Type	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
AES Hawaii, Inc.															
Carbon Dioxide	Sequestration		1,540,000	1,540,000	1,540,000	1,540,000	1,540,000	1,540,000	1,540,000	1,540,000	1,540,000	1,540,000	1,540,000	1,540,000	1,540,000
AES Shady Point, LLC															
Carbon Dioxide	Sequestration			4,150,000	4,150,000	4,150,000	4,150,000	4,150,000	4,150,000	4,150,000	4,150,000	4,150,000	4,150,000	4,150,000	4,150,000
AES Thames, LLC															
Carbon Dioxide	Sequestration	550,000	70,000	290,000	370,000	480,000	440,000	440,000	590,000	530,000	370,000	410,000	410,000	410,000	410,000
AES Warrior Run, LLC															
Methane	Indirect						2,926	15,518	30,562	31,708	20,017	21,045	21,135		
Ajinomoto Aminoscience LLC															
Carbon Dioxide	Direct		124	182	139	322	170	117	226	226	145	262	-581	-581	-610
Carbon Dioxide	Indirect		4,036	1,349	891	5,616	4,629	4,891	3,738	5,237	1,775	5,412	5,636	13,287	13,951
Alcan Primary Products Corporation, Sebree Works															
Perfluoroethane	Direct	-48	6,509	6,545	18,243	21,813	25,609	16,458	38,080	52,015	47,981	76,208	78,171	78,171	88,584
Perfluoromethane	Direct	-211	31,151	31,344	87,392	104,470	122,630	78,791	182,343	249,130	229,767	365,011	374,387	374,387	424,274
Allegheny Energy, Inc.															
Carbon Dioxide	Direct	158,688	240,497	330,730	526,288	812,086	963,417	906,110	1,142,381	1,207,142	1,360,861	1,359,361	1,549,538	1,549,538	1,502,430
Carbon Dioxide	Indirect	11,209	29,542	37,098	39,192	70,262	68,056	98,049	162,318	261,106	244,321	226,398	201,459	180,786	171,237
Carbon Dioxide	Sequestration					4,212	4,212	5,000	5,007	5,358	1,395	1,726	1,431	739	672
Methane	Indirect						252	315	388	451	503	501	501	501	501
Sulfur Hexafluoride	Direct							134,532	194,346	59,814	44,911	0	0	0	0
Allergan, Inc.															
Carbon Dioxide	Direct	0	0	0	0	0	0	0	552	552	552	552	1,568	1,568	1,568
Carbon Dioxide	Indirect	0	0	0	0	116	116	501	2,922	3,665	5,152	8,264	12,389	13,729	17,408
Alliant Energy															
Carbon Dioxide	Direct	49,745	82,568	142,274	232,179	317,865	454,536	554,407	794,215	1,112,820	1,662,105	1,761,645	2,596,442	2,596,442	2,715,381
Carbon Dioxide	Indirect	17,835	27,971	41,300	59,367	73,045	371,566	379,493	393,118	386,945	458,602	789,492	794,184	808,580	912,521
Carbon Dioxide	Sequestration	17	28,203	28,257	28,327	29,617	29,715	30,227	30,150	30,785	30,491	30,691	30,855	30,990	31,200
Methane	Indirect											52	107	153	699
Perfluoroethane	Indirect											4	18	14	236
Perfluoromethane	Indirect											23	110	86	1,419
Arizona Portland Cement Co.															
Carbon Dioxide	Direct		21,475	34,332	28,673	50,013	33,034	54,636	61,388	70,151	39,586	44,053	50,339	50,339	49,591
Carbon Dioxide	Indirect		2,482	3,681	4,507	5,900	8,014	8,403	7,058	11,645	-365	-5,507	-3,437	-6,806	-6,454
Carbon Dioxide	Sequestration											1	2	3	3
Arizona Public Service Company															
Carbon Dioxide	Direct	1,702,868	1,288,657	1,050,245	1,266,240	2,647,238	2,857,146	2,125,011	1,518,907	903,797	-594,250	-1,424,243	-60,534	-60,534	-1,278,648
Carbon Dioxide	Indirect	-14,802	-25,121	-11,618	-14,064	-8,918	-3,559	18,634	19,963	28,588	35,494	120,868	169,908	163,941	130,433
Carbon Dioxide	Sequestration														54
AT&T															
Carbon Dioxide	Direct														-45
Carbon Dioxide	Indirect							52,617	47,174	36,287	44,452	63,503	63,503	585,134	237,682
Azdel, Inc															
Carbon Dioxide	Direct									0	0	0	0	0	0
Carbon Dioxide	Indirect									231	1,635	1,059	2,469	2,035	800
Baxter Healthcare Inc.															
Carbon Dioxide	Direct					0	-402	1,786	1,364	1,405	536	1,261	-129	2,712	2,712	2,281
Carbon Dioxide	Indirect					0	1,356	101	80	-532	-1,811	6,770	11,270	10,855	21,472	17,485
Berkshire Power LLC															
Carbon Dioxide	Direct										-276,914	-247,835	-476,501	-476,501	-494,693
Carbon Dioxide	Indirect										381,370	418,510	930,870	730,680	659,026
BMW US Holding Corp.															
Carbon Dioxide	Direct												38,501	38,501	55,211
Carbon Dioxide	Indirect													4,608	6,459
Methane	Indirect													1	2
Nitrous Oxide	Indirect													26	34
BNSF Railway Company															
Carbon Dioxide	Direct						95,254	387,368	735,727	714,862	926,236	1,156,661	1,028,748	1,028,748	1,172,990
Carbon Dioxide	Indirect														8,165
Bountiful City Light & Power															
Carbon Dioxide	Direct	28	1,338	10,310	6,426	11,851	14,618	16,786	19,226	15,556	11,627	9,577	6,274	6,274	6,517
Carbon Dioxide	Sequestration					0	0	1	1	1	2	2	3	16	18
BP America															
Carbon Dioxide	Direct	0	353,367	566,665	770,657	1,060,367	1,354,614	1,748,597	1,986,408	2,265,784	2,220,926	1,986,420	2,113,544	2,113,544	2,304,922
Carbon Dioxide	Indirect										304	608	1,216	1,216	1,216
Carbon Dioxide	Sequestration							102,980	102,980	102,980	102,980	102,980	102,980	102,980	102,980
Methane	Direct		42	396	396	396	396	396	396	462,603	841,704	1,035,062	1,961,250	1,961,250	2,007,634
Bristol-Myers Squibb Company															
Carbon Dioxide	Direct									23,685	40,440	40,997	39,706	39,706	35,884
Carbon Dioxide	Indirect					1,435	1,936	1,936	1,936	1,936	1,936	1,887	1,887	1,887	1,910
Methane	Direct									8	11	5	10	10	2
Methane	Indirect					0	0	0	0	0	0	0	0	0	0
Nitrous Oxide	Direct									64	105	83	102	102	78
Nitrous Oxide	Indirect					7	9	9	9	9	9	9	9	9	9
California Portland Cement Co. - Colton Plant															
Carbon Dioxide	Direct	26,301	7,579	65,154	-10,013	-2,629	54,645	49,538	61,666	34,199	79,684	114,230	125,333	125,333	146,480
Carbon Dioxide	Indirect	-620	-1,432	2,639	2,311	3,505	6,832	5,182	3,851	3,293	4,005	10,670	14,218	15,878	15,115
California Portland Cement Co. - Mojave Plant															
Carbon Dioxide	Direct	14,606	80,282	46,025	98,953	52,938	33,580	36,940	67,668	38,580	37,113	35,895	123,813	123,813	100,203
Carbon Dioxide	Indirect	2,291	8,583	5,347	9,123	6,315	7,272	6,707	8,246	6,268	6,439	13,924	14,563	20,043	18,551
Cargill, Inc. - Oil Seeds Division															
Carbon Dioxide	Direct					1,269	-104	-692	-243	1,387	2,300	438	-5,877	-5,877	-4,108
Carbon Dioxide	Indirect					189	332	-373	-200	-255	907	1,606	1,614	943	495
Cinergy Corp.															
Carbon Dioxide	Direct	117	95,404	194,294	399,922	1,126,673	1,273,541	1,348,458	1,378,240	1,421,036	1,474,747	1,380,101	1,509,924	1,509,924	1,629,346
Carbon Dioxide	Indirect	63,888	64,994	62,686	62,391	70,751	90,853	53,673	55,314	51,050	54,200	94,144	119,165	145,006	145,992
Carbon Dioxide	Sequestration	2	24	284	511	169,479	169,794	170,722	170,879	173,862	30,628	42,167	35,498	19,645	20,789
Methane	Direct												13,062	13,062	11,851
Methane	Indirect		454,320	404,932	431,289	466,733	613,534	617,096	653,704	152,010	153,136	151,142	149,621	151,190	146,662
Sulfur Hexafluoride	Direct										20,593	6,102	52,948	52,948	24,591
CMS Energy															
Carbon Dioxide	Direct	1,733,445	1,724,432	375,093	1,365,046	1,716,033	2,228,352	2,811,141	2,395,079	2,714,168	3,356,012	788,724	3,602,879	3,602,879	2,758,054
Carbon Dioxide	Indirect						21,446	121,159	65,719	580,038	743,196	735,843	489,725	571,626	596,359
Methane	Direct							72,674	74,030	80,102	90,931	92,454	92,454	92,454	94,269
CommonWealth Bethlehem Energy, LLC															
Carbon Dioxide	Direct								-5,206	-10,010	-15,303		-7,224	-7,224	-16,702
Methane	Direct								43,546	83,711	127,987		60,405	60,405	139,693
COMMSCOPE CATAWBA PLANT															
Carbon Dioxide	Direct										0	-81	-367	-367	-309
Carbon Dioxide	Indirect										0	-4,362	-1,628	-2,494	-223
COMMSCOPE CLAREMONT PLANT															
Carbon Dioxide	Direct											205	-304	-304	-278
Carbon Dioxide	Indirect											-771	-3,741	-3,380	-5,309

Table B3. Entity-Level Emission Reductions Reported, Data Year 2004 (Continued)

(Metric Tons Carbon Dioxide Equivalent)

Reporter and Gas	Reduction Type	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
COMMSCOPE CONOVER REEL RECYCLING															
Carbon Dioxide	Direct											-16	-43	-43	-82
Carbon Dioxide	Indirect											0	28	22	17
COMMSCOPE Headquarters- Hickory															
Carbon Dioxide	Indirect													174	216
COMMSCOPE NEWTON PLANT															
Carbon Dioxide	Direct											207	266	266	609
Carbon Dioxide	Indirect											-329	-3,675	-2,188	-788
COMMSCOPE SCOTTSBORO PLANT															
Carbon Dioxide	Direct											-6	54	54	-16
Carbon Dioxide	Indirect										0	-70	699	309	796
CommScope Solutions (1111 Digital Dr)															
Carbon Dioxide	Indirect													0	47
CommScope Solutions (1300 E. Lookout Dr)															
Carbon Dioxide	Indirect													0	780
COMMSCOPE SPARKS PLANT															
Carbon Dioxide	Direct												161	161	325
Carbon Dioxide	Indirect												886	757	1,789
COMMSCOPE STATESVILLE PLANT															
Carbon Dioxide	Direct											-897	-57	-57	658
Carbon Dioxide	Indirect											8,007	13,329	6,609	14,618
CONNECTIVITY SOLUTONS MANUFACTURING Inc.															
Carbon Dioxide	Direct											-4,651	-8,935	-8,935	-9,891
Carbon Dioxide	Indirect											20,462	-16,819	-18,186	-16,122
Consol Coal Group															
Methane	Direct		2,065,096	6,948,024	13,354,741	12,109,607	14,389,699	13,752,057	13,917,831	17,195,324	17,681,297	18,747,448	20,731,191	20,731,191	19,288,338
Consolidated Edison Company of New York, Inc.															
Carbon Dioxide	Direct	2,111,503	2,362,581	2,778,264	2,558,252	2,616,122	3,854,943	4,065,382	2,935,068	2,189,430	902,833	-194,307	281,493	281,493	-397,277
Methane	Direct	26,123	36,118	44,631	54,834	59,090	65,454	69,231	73,967	78,662	76,763	80,686	90,972	90,972	95,292
Sulfur Hexafluoride	Direct							-375,199	586,060	875,464	1,155,806	1,081,894	1,542,082	1,542,082	1,734,213
Constellation Energy															
Carbon Dioxide	Direct	1,495	1,033,402	2,096,505	1,701,477	2,854,996	2,435,663	3,152,599	3,336,918	3,683,032	4,028,111	3,747,775	6,231,892	6,231,892	6,449,973
Carbon Dioxide	Indirect			87,791	129,697	129,101	110,060	112,870	128,590	151,140	242,956	140,378	262,390	290,124	358,708
Carbon Dioxide	Sequestration					1,203	1,203	1,130	948	882	253	287	221	114	108
HFC-134a	Indirect												47	42	
Methane	Direct			754	1,601	2,560	2,657	3,034	2,456	3,693	3,693	2,671	526	526	0
Methane	Indirect			71	1,056	1,095	1,050	1,125	1,657	1,160	1,210	730	935	1,006	1,615
Perfluoroethane	Indirect			1	358	342	306	322	267	251	262	106	202	105	260
Perfluoromethane	Indirect			7	2,155	2,060	1,837	1,934	1,604	1,511	1,579	636	1,216	631	1,563
Sulfur Hexafluoride	Direct								4,592	-6,354					
Sulfur Hexafluoride	Indirect							81	81	81	81	81	81	81	81
DaimlerChrysler Corporation															
Carbon Dioxide	Direct				13,024	68,856	88,338	112,115	115,370	156,956	244,613	259,122	181,219	181,219	151,340
Carbon Dioxide	Indirect					38,108	70,903	117,620	135,866	141,505	137,360	159,593	187,357	172,770	165,447
Carbon Dioxide	Sequestration						1	2	2	3	4	5	6	6	7
Danaher Controls															
Carbon Dioxide	Direct							-84	35	58	-75	-11	-100	-100	136
Carbon Dioxide	Indirect							167	-354	882	1,576	1,199	458	90	-268
DTE Energy/ Detroit Edison															
Carbon Dioxide	Direct	67,920	3,499,116	1,095,963	-2,520,646	-1,899,735	-2,210,056	-2,222,172	-3,754,608	-2,373,621	-1,176,943	551,499	1,763,174	1,763,174	154,847
Carbon Dioxide	Indirect	-1,162,697	-768,696	-318,143	-4,501,857	-3,423,902	-3,216,902	-4,165,281	-5,129,972	-4,729,455	-6,652,109	-4,442,287	-7,555,878	-4,314,247	-2,667,505
Carbon Dioxide	Sequestration					167,973	168,930	192,001	205,261	226,574	84,279	112,781	117,466	104,508	106,685
Duke Energy Corporation															
Carbon Dioxide	Direct	7,898,659	6,883,847	6,858,749	9,350,458	12,640,570	5,524,723	3,977,240	12,017,898	13,142,008	14,809,531	14,276,289	11,002,933	11,002,933	10,745,955
Carbon Dioxide	Indirect	-33,173	-15,919	29,057	72,973	166,484	126,998	77,916	94,842	128,661	105,336	84,672	83,323	75,191	103,655
Carbon Dioxide	Sequestration					1,203	1,203	2,176	2,638	3,154	797	905	697	360	400
Methane	Direct			258,336	208,058	125,833	160,287	141,933	129,605	217,212	208,288	224,158	431,411	431,411	619,459
Methane	Indirect							155,112	208,909	25,645	28,865	28,497			
Sulfur Hexafluoride	Direct											44,400	44,400	44,400	
Dynegy, Inc.															
Carbon Dioxide	Direct	1,934	39,385	64,818	173,310	296,271	259,458	278,559	349,214	119,006	128,828	142,751	364,169	364,169	308,886
Carbon Dioxide	Indirect		7,038	4,582	3,807	4,260	7,714	2,087	3,682	10,847	70,239	25,407	43,552	97,966	119,249
Carbon Dioxide	Sequestration					4,814	11,073	23,164	34,650	47,789	90,704	131,344	151,347	168,337	181,447
Entergy Services, Inc.															
Carbon Dioxide	Direct	446,690	426,498	803,763	736,940	2,512,759	2,862,048	5,600,017	6,427,575	3,743,269	5,939,636	6,738,684	6,665,724	6,665,724	8,208,839
Carbon Dioxide	Indirect	70,418	83,249	94,393	120,298	227,757	230,687	267,217	298,035	333,864	289,077	276,078	193,373	246,664	272,536
Carbon Dioxide	Sequestration					2,407	22,365	46,377	66,972	68,004	63,290	63,790	64,490	66,032	55,693
Methane	Direct	814	709	709	793	1,315	1,398	1,148	1,002	981	1,794	1,794	1,461	1,461	1,544
Sulfur Hexafluoride	Direct											3,524	3,524	3,524	3,524
FirstEnergy Corporation															
Carbon Dioxide	Direct	3,439,754	4,367,833	1,325,633	2,266,758	5,676,464	4,204,905	5,411,062	11,054,134	10,977,101	14,798,441	14,208,697	7,999,735	7,999,735	16,509,135
Carbon Dioxide	Indirect	72,364	77,721	82,682	74,534	65,904	83,647	49,714	64,751	63,166	4,479	35,591	73,797	142,360	76,825
Carbon Dioxide	Sequestration		12	27	42	18,108	18,123	29,586	25,664	24,597	5,401	6,129	4,765	2,550	2,478
Methane	Direct	3	8	15	23	32	43	44	53	38	9	7	9	9	12
Methane	Indirect	46,970	49,440	53,763	50,995	41,635	28,158	332,671	607,129	828,294	903,084	912,145	846,958	738,934	778,297
Nitrous Oxide	Direct	50	157	293	436	625	789	846	995	571	65	59	41	41	57
Nitrous Oxide	Indirect		0	1	1	63	13	1	1	1	1	0	0	0	0
Perfluoroethane	Indirect	253	252	325	322	291	322	280	270	298	389	301	249	264	432
Perfluoromethane	Indirect	1,427	1,421	1,836	1,822	1,647	1,818	1,582	1,525	1,682	2,198	1,698	1,410	1,500	18
Sulfur Hexafluoride	Direct										4,169	2,543	-255,459	-255,459	-329,231
Fisher Scientific Company L.L.C															
Carbon Dioxide	Direct												43,837	43,837	40,475
Florida Power Corporation															
Carbon Dioxide	Direct				4,437,347	5,607,021	3,985,430	2,934,597	3,114,658	5,040,912	4,752,600	2,878,319	4,777,115	4,777,115	5,718,047
Ford Motor Company															
Carbon Dioxide	Direct								39,468	38,170	92,990	108,101	178,220	178,220	149,129
Carbon Dioxide	Indirect								57,290	67,546	116,710	133,872	158,668	111,719	108,477
FPL Group															
Carbon Dioxide	Direct	135,056	373,027	1,685,919	6,794,462	7,722,975	8,532,729	8,557,380	10,400,076	10,382,732	10,586,845	11,429,999	16,566,441	16,566,441	25,174,327
Carbon Dioxide	Indirect								20,828	533,769	1,568,425	1,771,137	3,484,397	2,960,442	4,602,381
Carbon Dioxide	Sequestration					3,008	3,008	2,824	2,369	2,204	462	525	404	209	197
Methane	Indirect								46,713	138,111	241,768	231,185	279,995	317,840	204,187
Perfluoroethane	Indirect											1,474	1,695	1,592	1,824
Perfluoromethane	Indirect											8,863	10,187	9,587	10,976
Sulfur Hexafluoride	Direct									66,482	74,074	100,699	3,524	3,524	28,599
Gas Recovery Systems															
Carbon Dioxide	Indirect					62,305	66,036	73,062	73,085	64,596	405,745	426,286	426,599	459,145	410,610
General Motors Corporation															
Carbon Dioxide	Direct	323,000	430,000	-50,000	221,000	389,000	482,000	755,000	1,413,000	1,375,000	1,212,000	1,700,000	1,681,000	1,681,000	1,973,000
Carbon Dioxide	Indirect	250,000	449,000	35,000	-272,000	-330,000	-126,000	-205,000	110,000	163,000	56,000	361,000	492,000	904,000	1,215,000
Carbon Dioxide	Sequestration	0	65	160	267	874	1,369	2,160	2,664	3,301	3,822	4,460	5,052	5,616	6,189

Table B3. Entity-Level Emission Reductions Reported, Data Year 2004 (Continued)

(Metric Tons Carbon Dioxide Equivalent)

Reporter and Gas	Reduction Type	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Greater New Bedford Regional Refuse Mgt District															
Carbon Dioxide	Direct										-8,909	-9,863	-15,653	-15,653	-15,653
Methane	Direct										74,510	82,501	130,909	130,909	130,909
Green Mountain Energy Company															
Carbon Dioxide	Direct														6
Carbon Dioxide	Indirect														955
Hanes Dye and Finishing, Butner Plant															
Carbon Dioxide	Direct												1,521	1,521	313
Carbon Dioxide	Indirect												-437	-468	-590
Highland Industries, Inc.Kernersville Finishing Pt															
Carbon Dioxide	Direct										0	617	1,954	1,954	1,146
Carbon Dioxide	Indirect										0	206	759	506	160
IBM															
Carbon Dioxide	Direct	6,985	6,169	22,498	12,519	12,809	7,439	13,308	16,793	13,565	11,699	19,410	17,785	17,785	12,791
Carbon Dioxide	Indirect	119,113	114,033	91,626	88,088	89,902	50,167	67,612	91,386	92,623	95,036	132,449	86,795	93,109	60,047
Integrated Waste Services Association															
Carbon Dioxide	Indirect	12,337,713	13,154,180	13,154,180	13,154,180	15,785,016	16,510,763	15,966,452	16,057,171	17,145,793	15,422,142	15,422,142	15,331,423	14,968,549	14,968,549
Methane	Indirect	1,316,347	1,649,941	1,983,409	2,316,877	2,656,126	2,997,335	3,334,601	3,671,992	4,474,344	5,292,805	6,111,557	7,859,210	8,624,610	9,410,228
Nitrous Oxide	Indirect	71,160	75,993	75,993	75,993	91,299	95,327	92,105	92,910	99,355	89,419	89,419	124,328	121,374	121,374
International Truck and Engine Corporation															
Carbon Dioxide	Direct						-25,710	-19,060	1,673	-1,070	15,279	5,034	17,716	17,716	27,372
Carbon Dioxide	Indirect						21,751	28,331	4,750	-25,812	-30,829	-13,225	-29,256	-54,105	-70,459
Jim Walter Resources, Inc.															
Methane	Direct	5,090,683	4,774,846	5,319,950	4,257,033	4,615,539	4,330,416	4,425,353	5,023,622	5,594,787	5,242,457	5,061,284	5,121,626	5,121,626	4,026,618
Johnson & Johnson															
Carbon Dioxide	Direct	0	16,442	24,854	28,048	32,431	36,209	42,885	49,238	61,534	65,158	65,851	68,582	68,582	70,330
Carbon Dioxide	Indirect	3,501	16,351	46,403	64,953	78,892	119,790	142,149	158,047	179,575	188,205	196,160	207,006	294,965	409,991
Kansas City Power & Light Company															
Carbon Dioxide	Direct	306,499	163,897	220,095	487,720	443,438	452,433	551,225	633,862	347,982	723,786	625,049	946,818	946,818	817,909
Carbon Dioxide	Indirect	69,712	79,435	99,539	133,644	121,722	155,099	137,869	150,898	168,452	158,238	187,481	125,327	141,840	148,223
Carbon Dioxide	Sequestration					2,407	2,407	3,306	3,586	4,036	982	1,258	1,070	552	548
Kern County Waste Management Department															
Methane	Direct										26,726	29,785	56,166	56,166	89,539
KeySpan Energy Corporation															
Carbon Dioxide	Direct	2,064,480	4,594,347	4,963,027	6,496,985	6,150,259	5,789,653	5,268,294	4,880,745	3,686,073	2,726,725	2,245,192	2,398,324	2,398,324	3,008,225
Lehigh Cement Co. (fmrly Lehigh Portland Cement Co															
Carbon Dioxide	Direct	50,408	83,546	-31,377	138,025	70,717	106,849	-23,271	53,959	86,676	77,697	119,813	329,195	329,195	317,483
Carbon Dioxide	Indirect	-2,687	-943	-11,428	-12,966	-6,715	-40,424	-12,979	-1,191	8,999	20,263	34,669	27,716	44,324	58,885
Lehigh Cement Co. (formerly Calaveras Cement Co.)															
Carbon Dioxide	Direct	38,285	93,410	281,300	175,444	159,935	152,222	183,013	143,035	152,585	155,370	123,817	166,648	166,648	187,369
Carbon Dioxide	Indirect	-1,305	-4,124	-1,971	-352	-1,624	246	-556	254	-4,199	9,134	8,251	11,793	10,182	11,054
Los Angeles Department of Water and Power															
Carbon Dioxide	Direct	1,089,281	-858,909	125,964	-954,766	2,231,921	3,637,171	1,937,199	453,939	-569,569	393,217	1,158,974	2,640,837	2,640,837	1,835,322
Carbon Dioxide	Indirect	172,249	172,249	82,818	82,818	-71,216	148,294	360,646	240,959	390,109	-1,298,949	-1,703,938	-2,514,588	-2,707,780	-1,928,182
Carbon Dioxide	Sequestration		1,669	2,003	2,003	2,003	2,003	2,003	2,126	2,434	2,532	2,623	4,013	5,295	6,464
Lower Colorado River Authority															
Carbon Dioxide	Direct	15,422	26,490	41,458	59,239	98,430	226,343	266,259	285,672	280,139	310,620	415,672	513,920	513,920	548,847
Carbon Dioxide	Indirect	47,536	50,802	68,130	91,172	112,037	121,018	126,643	116,936	151,409	123,286	139,525	141,158	163,475	163,112
Lucent Technologies Inc.															
Carbon Dioxide	Direct			7,947	15,508	13,996	15,790	13,371	10,333	12,053	13,150	11,329	6,451	6,451	5,383
Carbon Dioxide	Indirect						19,543	16,230	68,841	10,268	24,163	30,264	16,658	22,081	62,750
Methane	Indirect						809	808	2,784	916	1,360	1,904	1,523	1,815	3,502
Nitrous Oxide	Indirect										50	44	25	25	25
Perfluoroethane	Indirect						351	254	1,326	0	85	161	87	139	895
Perfluoromethane	Indirect						2,112	1,672	7,980	3	514	968	520	837	5,388
M. J. SOFFE COMPANY - Maxton															
Carbon Dioxide	Indirect													77	0
M. J. SOFFE COMPANY - Bladenboro															
Carbon Dioxide	Indirect									0	-18	24	-15	-88	-125	-101
M. J. SOFFE COMPANY Fayettville															
Carbon Dioxide	Direct									0	863	1,074	1,362	446	446	-156
Carbon Dioxide	Indirect									0	-889	773	468	42	-418	-1,637
M. J. SOFFE COMPANY Rowland															
Carbon Dioxide	Indirect									0	72	-53	-37	-16	-5
Mallinckrodt, Inc.															
Carbon Dioxide	Direct							-3,111	2,636	8,609	8,806	11,476	17,455	17,455	20,997
Carbon Dioxide	Indirect							-341	-54	446	2,827	5,046	6,595	8,836	12,426
Maple Springs Laundry															
Carbon Dioxide	Direct									82	12	628	567	567	588
Carbon Dioxide	Indirect									-23	-17	12	25	139	-43
McNeil Generating Station															
Carbon Dioxide	Direct		-43,522	-14,080	-8,626	-7,150	-1,258	-1,860	-9,956	-7,981	-66,836	-8,345	-3,758	-3,758	-2,812
Carbon Dioxide	Indirect		57,966	42,871	52,354	83,663	90,230	101,977	94,560	135,492	141,609	132,230	98,257	123,429	117,764
Middlesex Generating Company, LLC															
Carbon Dioxide	Direct							-1,215	-41,626	-61,384	-61,455	-65,275	-80,451	-80,451	-51,622
Methane	Direct							10,161	348,137	513,389	513,974	545,939	672,863	672,863	431,744
Municipal Electric Auth of Georgia (MEAG Power)															
Carbon Dioxide	Direct	863,000	1,144,000	1,353,000	1,590,000	2,234,000	2,125,000	2,415,000	2,543,000	2,460,000	2,782,000	2,870,000	2,851,000	2,851,000	3,568,000
Mystic Development, LLC															
Carbon Dioxide	Direct												-250,641	-250,641	-816,343
Carbon Dioxide	Indirect													1,959,023	2,678,506
National Grid															
Carbon Dioxide	Direct	900,109	3,601,252	6,165,954	7,107,067	7,326,334	7,701,092	6,982,511	5,487,742	9,745,523	14,600,867	15,015,814			
Carbon Dioxide	Indirect	274,968	-2,017,760	-3,770,351	-3,464,539	-3,512,166	-3,583,017	-3,302,878	-743,892	-3,079,257	-2,632,378	-3,556,527			
Methane	Direct	536	1,014	1,617	2,508	2,775	3,000	8,296	8,334	8,665	9,066	9,913			
Methane	Indirect	173	263	461	461	593	557	797	870	691	714	841			
Nitrous Oxide	Direct										5,356				
Nitrous Oxide	Indirect											4,410			
Perfluoroethane	Indirect	238	291	313	313	378	227	551	605	324	216	162			
Perfluoromethane	Indirect	1,153	1,396	1,525	1,489	1,815	1,065	2,663	2,870	1,562	1,029	910			
Sulfur Hexafluoride	Direct										10,432	35,829			
National Spinning Co. Alamance Yarn Plant															
Carbon Dioxide	Indirect													-446	-279
National Spinning Co. Alamance Dye Plant															
Carbon Dioxide	Direct												29,353	29,353	29,201
Carbon Dioxide	Indirect													1,494	1,379
National Spinning Co., Inc. Washington															
Carbon Dioxide	Direct										0	2,077	-1,262	-1,262	4,252
National Spinning Co., Inc. Washington															
Carbon Dioxide	Indirect										0	7,091	75	-4,173	3,030
National Spinning Inc. Beulaville															
Carbon Dioxide	Indirect										0	1,167	436	-2,236	-880

Table B3. Entity-Level Emission Reductions Reported, Data Year 2004 (Continued)

(Metric Tons Carbon Dioxide Equivalent)

Reporter and Gas	Reduction Type	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
National Spinning Inc. Warsaw															
Carbon Dioxide	Indirect										0	-498	-826	-1,074	-907
National Spinning Inc. Whiteville															
Carbon Dioxide	Indirect										0	173	-1,449	-1,864	-1,750
New Jersey Meadowlands Commission															
Carbon Dioxide	Direct								-8,068	-2,182	-2,933	-4,961	-9,155	-9,155	-3,975
Methane	Direct	324,941	368,274	394,915	378,381	370,838	397,577	413,896	729,443	641,104	539,191	477,418	211,958	211,958	254,170
New York Power Authority															
Carbon Dioxide	Direct	3,717	24,219	58,238	99,951	128,945	155,276	197,529	232,789	272,337	300,493	321,009	382,103	382,103	420,707
Carbon Dioxide	Indirect	3,927	14,222	37,146	68,333	101,178	132,371	155,992	179,737	153,096	164,569	106,366	109,492	110,384	116,162
NiSource/NIPSCO															
Carbon Dioxide	Direct	2,603	4,371	6,144	10,891	41,743	264,581	937,948	1,373,967	1,833,479	1,638,163	1,287,340	1,191,249	1,191,249	382,788
Carbon Dioxide	Indirect	19,414	18	20,886	29,170	99,013	115,708	121,390	113,717	110,917	98,101	119,813	130,107	83,223	100,447
Carbon Dioxide	Sequestration			5	59	1,266	1,349	1,278	1,099	1,043	350	399	355	279	279
Methane	Direct	4,432	5,909	494,006	504,042	584,728	841,099	620,407	669,274	695,001	1,449,467	2,224,830	4,814,110	4,814,110	3,446,313
Methane	Indirect	0	4	17	136	159	179	240	278	311	351	380	457	616	709
Perfluoroethane	Indirect				33	32	38	37	58	76	88	74	65	59	74
Perfluoromethane	Indirect				202	196	228	221	351	459	528	446	391	361	444
Sulfur Hexafluoride	Direct	0	0	0	0	0	24,570	24,570	24,570	37,862	49,745	50,349	79,148	79,148	41,085
Pak-Lite, Inc. - Mebane Plant															
Carbon Dioxide	Direct										0	33	4	4	-4
Carbon Dioxide	Indirect										0	-76	-71	-59	-105
Palmer Capital Corporation															
Carbon Dioxide	Indirect	-618	-43,423	-60,970	-42,679	-32,206	-48,600	-68,432	-89,323	-153,699	-162,020	-136,702	-127,687	-49,127	-22,271
Methane	Direct	489,421	885,021	1,080,949	1,068,935	1,280,507	2,069,062	4,534,869	5,245,308	5,628,924	5,988,577	5,562,563	2,818,673	2,818,673	2,702,561
Peabody Energy															
Carbon Dioxide	Direct				21,704	41,137	-12,054	-132,854	-183,137	-139,449	-144,100	-321,684	-260,531	-260,531	-250,157
Carbon Dioxide	Indirect				160,890	180,875	243,781	174,983	219,916	141,960	344,327	363,098	340,019	353,729	383,311
Methane	Direct	-23,713	-33,787	777,400	719,325	389,505	389,804	828,414	54,119	-136,873	179,814	-406,801	535,762	535,762	4,278
PEI Power Corp															
Carbon Dioxide	Direct								131	300	326	64	696	696	733
Carbon Dioxide	Indirect								7,450	16,321	18,391	444	40,716	40,495	42,427
Penn Compression Moulding, Inc.															
Carbon Dioxide	Direct										0	-7	12	12	12
Carbon Dioxide	Indirect										0	272	230	220	220
PG&E Corporation															
Carbon Dioxide	Direct	59,366	380,075	629,250	1,044,248	1,526,650	1,827,836	2,268,720	2,320,812	2,233,347	2,287,713	2,683,814	2,920,282	2,920,282	3,268,393
Carbon Dioxide	Indirect	59,366	214,881	329,205	390,851	447,959	494,836	504,387	519,391	1,244,320	1,190,959	1,022,152	890,651	842,092	964,418
Methane	Direct			141,654	159,932	159,348	167,110	130,658	96,022	59,654	28,064	8,555	1,231	1,231	3,693
Sulfur Hexafluoride	Direct									10,030	40,864	83,379	137,656	137,656	115,280
Portland General Electric Co.															
Carbon Dioxide	Direct			3	8	8	12	23	39	52	59	59	56	56	51
Carbon Dioxide	Indirect	103,214	175,242	283,700	475,672	676,645	757,121	799,526	854,504	937,744	1,024,606	1,158,623	1,310,972	1,348,628	1,510,181
Carbon Dioxide	Sequestration						1	135	473	900	1,422	2,146	2,658	3,171	3,683
Methane	Indirect	230	285	340	316	326	365	563	525	590	531	533	452	495	593
Perfluoroethane	Indirect	117	140	161	142	138	145	250	213	247	216	208	163	178	221
Perfluoromethane	Indirect	706	841	966	853	832	875	1,506	1,280	1,486	1,300	1,260	978	1,071	1,331
Public Service Enterprise Group															
Carbon Dioxide	Direct												2,923	2,923	3,232
Carbon Dioxide	Indirect	65,045	99,427	148,651	209,565	340,567	702,611	856,052	1,089,869	1,211,955	1,900,851	1,639,431	1,769,608	1,620,136	1,773,837
Carbon Dioxide	Sequestration					1,203	1,203	2,176	2,638	3,154	797	905	697	360	366
Methane	Indirect	3,088	6,093	9,056	11,914	19,050	30,109	36,744	43,066	50,598	57,108	64,223	68,125	70,212	71,630
Perfluoroethane	Indirect						594	713	162	524	232	308	901	766	92
Perfluoromethane	Indirect						3,578	4,318	972	3,152	1,394	1,838	5,430	4,623	566
Republic Metals Corporation															
Carbon Dioxide	Direct							125	107	267	364	247	114	114	278
Carbon Dioxide	Indirect							-98	-100	229	196	185	173	159	197
Rolls-Royce Corporation															
Carbon Dioxide	Direct								53,365	23,380	29,009	46,166	42,075	42,075	46,576
Carbon Dioxide	Indirect								133,087	110,060	122,749	120,989	131,383	144,832	157,262
Methane	Indirect									40,135	259,808	265,236	250,171	202,216	153,801
Sacramento Municipal Utility District															
Carbon Dioxide	Direct						-156,791	-517,709	-1,032,341	-1,124,407	-1,314,465	-1,432,554	-1,027,325	-1,027,325	-1,073,873
Carbon Dioxide	Indirect						786,869	1,067,915	2,179,511	2,067,389	1,786,303	1,278,919	1,194,222	2,445,097	1,807,480
Carbon Dioxide	Sequestration						1,158	1,440	1,764	1,945	2,278	2,651	3,026	3,422	3,778
Santee Cooper															
Carbon Dioxide	Direct	12,936	17,843	185,543	169,831	216,930	452,768	426,434	949,134	1,093,336	1,193,595	1,151,565	1,187,498	1,187,498	1,182,246
Carbon Dioxide	Indirect	20,218	27,473	22,377	16,759	87,004	106,669	149,090	173,295	141,375	108,816	144,523	135,765	355,562	424,287
Carbon Dioxide	Sequestration	155	397	875	921	940	980	1,247	2,173	2,195	2,269	3,621	7,665	8,732	8,732
Methane	Indirect					313	21	21	21	83	125	20,302	68,083	113,131	118,264
Perfluoroethane	Indirect					184				1	54	194	140	270	216
Perfluoromethane	Indirect					1,034				10	259	1,086	776	1,551	1,241
Seattle City Light															
Carbon Dioxide	Indirect	7,238	30,760	55,281	82,921	123,607	170,007	187,106	209,930	238,825	246,921	280,687	324,696	332,852	361,343
Carbon Dioxide	Sequestration					2	9	15	22	30	41	52	62	74	83
Sikorsky Aircraft Corporation															
Carbon Dioxide	Direct										170	509	509	509	509
Carbon Dioxide	Indirect		16	34	1,677	2,134	2,692	3,380	3,927	4,135	5,078	4,642	4,949	5,091	5,200
Southern Company															
Carbon Dioxide	Direct	770,340	2,255,635	2,441,647	2,863,002	3,376,687	3,483,795	3,741,520	2,666,235	4,542,236	5,979,127	11,609,127	14,458,796	14,458,796	12,916,403
Carbon Dioxide	Indirect				174,325	332,019	407,938	755,507	946,607	1,603,274	2,065,134	2,486,094	3,072,970	3,650,576	4,221,009
Carbon Dioxide	Sequestration	1,993	3,398	4,477	5,630	20,761	42,432	82,419	107,586	157,903	163,935	176,526	194,226	207,220	233,793
Methane	Indirect		1,461	4,577	7,259	9,117	10,973	12,806	14,405	15,233	16,105	16,160	15,744	15,295	14,881
Sulfur Hexafluoride	Direct									383,993	376,312	421,112	540,126	540,126	505,805
Sunoco, Inc.															
Carbon Dioxide	Direct	126,883	-68,093	334,432	637,536	620,679	652,201	898,345	1,251,527	1,480,158	1,549,670	1,562,363	1,540,236	1,540,236	1,590,745
Carbon Dioxide	Indirect	-18,509	6,470	18,310	-23,384	-46,087	-201,931	-251,317	-96,874	-114,213	-188,480	-196,483	-231,468	-68,793	-145,187
Tampa Electric Company															
Carbon Dioxide	Indirect	240,404	237,682	234,054	240,585	265,406	267,583	266,857	271,909	268,024	321,131	323,092	294,353	243,517	233,667
Carbon Dioxide	Sequestration					1,203	1,203	1,130	948	882	185	210	162	83	79
Tennessee Valley Authority															
Carbon Dioxide	Direct	2,859,607	8,558,862	6,970,759	7,763,632	10,283,520	22,310,595	23,901,553	25,642,873	25,754,777	27,239,127	27,002,869	25,158,875	25,158,875	27,790,660
Carbon Dioxide	Indirect	0	-10,048	-10,123	-9,715	-8,332	9,454	73,035	243,865	122,577	76,187	71,137	115,811	176,561	378
Carbon Dioxide	Sequestration	1,064	1,710	2,701	3,087	30,549	31,603	31,750	28,702	28,561	13,570	16,339	14,193	16,265	19,398
HFC-134a	Direct				-29	-43	-42	-42							
Methane	Direct	440	1,317	1,047	1,152	1,536	3,443	3,714	3,964	4,006	4,236	4,173	3,881	3,881	4,319
Methane	Indirect		84,150	84,776	94,394	127,946	147,768	148,894	132,828	123,564	143,449	159,828	153,130	122,437	209

Table B3. Entity-Level Emission Reductions Reported, Data Year 2004 (Continued)

(Metric Tons Carbon Dioxide Equivalent)

Reporter and Gas	Reduction Type	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
The Dow Chemical Company															
Carbon Dioxide	Direct					-1,142,120	-788,865	-2,819,270	-2,870,956	-3,499,626	-869,150	-458,552	3,248,200	3,248,200	4,326,479
HFC-125	Direct							-154		-1,018	-6,817	-1,388	-925	-925	-586
HFC-134a	Direct					-5,897	-9,553	-12,407	-39,508	-182,644	-322,514	-722,995	-1,118,510	-1,118,510	-1,051,795
HFC-143	Direct												-15	-15	
HFC-143a	Direct									-1,287		-1,287	-1,014	-1,014	-741
HFC-152a	Direct					7,483		-1	-4	-7	22,705	22,717	22,653	22,653	22,694
HFC-227ea	Direct												-1,175	-1,175	-3,778
HFC-23	Direct							-5,661	-6,858	-8,818	-7,620	-9,362	-14,261	-14,261	-12,955
HFC-245fa	Direct											-682	-23,962	-23,962	-245,764
HFC-365mfc	Direct												-3,989	-3,989	-8,914
Methane	Direct					-9,926	-13,533	20,980	1,439	39,334	-119,390	-50,826	23,997	23,997	57,094
Nitrous Oxide	Direct					-730	-440	-70	-158	-2,924	-123,377	-27,022	-12,022	-12,022	-9,200
Perfluoromethane	Direct												-7,653	-7,653	-19,391
Sulfur Hexafluoride	Direct					74,516	-81,565	129,698	301,690						
Toyota Motor North America, Inc.															
Carbon Dioxide	Direct											28,904	20,985	20,985	16,895
TS Designs, Inc.															
Carbon Dioxide	Direct									-2	43	25	-4	-4	-34
Valdese Manufacturing Company															
Carbon Dioxide	Direct											-922	3,095	3,095	3,875
Carbon Dioxide	Indirect											-983	-1,461	-484	1,331
Waste Management, Inc.															
Carbon Dioxide	Indirect					410,464	460,828	493,770	509,783	525,247	550,165	597,914	594,723	617,031	679,525
Methane	Direct					10,006,541	12,211,321	14,240,657	16,582,034	18,548,879	21,631,730	26,079,953	33,018,892	33,018,892	36,136,013
Waverly Light & Power Company															
Carbon Dioxide	Direct	3,009	5,805	9,169	11,063	11,718	12,700	13,417	13,554	15,296	15,642	16,787	17,726	17,726	18,950
Carbon Dioxide	Indirect	1,129	3,208	4,047	7,100	6,505	5,879	5,393	4,978	5,509	6,354	7,560	7,970	8,764	9,021
Carbon Dioxide	Sequestration	18	36	54	73	84	95	106	116	124	132	137	144	149	153

Notes: This table excludes data reported as confidential; a negative reduction represents an increase in emissions.

Source: Energy Information Administration, Forms EIA-1605.

Table B4. Total Emission Reductions and Sequestration Reported at Project and Entity Levels, Data Year 2004

(Metric Tons Carbon Dioxide Equivalent)

Report Name	Sector	Reduction Type	Project Level	Entity Level
A&N Electric Cooperative	Electric Providers	Indirect	4,102	
Abe Krasne Home Furnishings, Inc.[a]	Services and Retail			
Advanced Micro Devices, Inc.	Industrial	Unspecified (EZ)	1,142	
AES Hawaii, Inc.	Electric Providers	Sequestration	1,540,000	1,540,000
AES Shady Point, LLC	Electric Providers	Sequestration	4,150,000	4,150,000
AES Thames, LLC	Electric Providers	Sequestration	410,000	410,000
AES Warrior Run, LLC	Electric Providers	Direct	39,980	
Ajinomoto Aminoscience LLC	Industrial	Direct		-610
		Indirect		13,951
Alabama Biomass Partners, Ltd	Alternative Energy	Unspecified (EZ)	74,644	
Alcan Primary Products Corporation, Sebree Works	Industrial	Direct	512,857	512,857
Algonquin Power - Cambrian Pacific Genco LLC	Electric Providers	Direct	1,456,411	
Allegheny Energy, Inc.	Electric Providers	Direct	1,502,429	1,502,430
		Indirect	171,737	171,737
		Sequestration	697	672
Allergan, Inc.	Industrial	Direct	927	1,568
		Indirect	16,101	17,408
Alliant Energy	Electric Providers	Direct	2,715,380	2,715,381
		Indirect	914,875	914,875
		Sequestration	31,200	31,200
Ameren Corporation (formerly UE, CIPS, and CILCO)	Electric Providers	Direct	437,654	
		Indirect	300,245	
		Sequestration	200	
American Electric Power, Inc.	Electric Providers	Direct	9,091,939	
		Indirect	625,376	
		Sequestration	219,973	
American Municipal Power - Ohio	Electric Providers	Unspecified (EZ)	374,078	
Anoka Municipal Utility	Electric Providers	Unspecified (EZ)	1,884	
Arizona Portland Cement Co.	Industrial	Direct	49,590	49,591
		Indirect	-6,454	-6,454
		Sequestration	3	3
Arizona Public Service Company	Electric Providers	Direct		-1,278,648
		Indirect		130,433
		Sequestration	55	54
Asheville Landfill Gas, LLC	Alternative Energy	Indirect	60,637	
AT&T	Industrial	Direct	8,231	-45
		Indirect	171,756	237,682
Azdel, Inc	Industrial	Indirect		800
BARC Electric Cooperative	Electric Providers	Indirect	4,142	
Baxter Healthcare Inc.	Industrial	Direct		2,281
		Indirect		17,485
Berkshire Power LLC	Electric Providers	Direct	-494,693	-494,693
		Indirect	659,026	659,026
Biomass Partners, LP	Alternative Energy	Unspecified (EZ)	96,506	
Blue Source, LLC	Industrial	Direct	17,341,803	
		Indirect	317,169	
BMW US Holding Corp.	Industrial	Direct	55,211	55,211
		Indirect		6,495
BNSF Railway Company	Services and Retail	Direct	1,172,990	1,172,990
		Indirect		8,165
Bountiful City Light & Power	Electric Providers	Direct	-816	6,517
		Sequestration	18	18
BP America	Industrial	Direct	4,312,555	4,312,555
		Indirect	1,216	1,216
		Sequestration	102,980	102,980
Branson Ultrasonics Corporation	Industrial	Indirect	149	
Bristol-Myers Squibb Company	Industrial	Direct	35,963	35,963
		Indirect	1,919	1,919
Burlington County Board of Chosen Freeholders	Services and Retail	Direct	350,197	
		Indirect	89,215	
California Portland Cement Co. - Colton Plant	Industrial	Direct	93,676	146,480
		Indirect	14,088	15,115

Table B4. Total Emission Reductions and Sequestration Reported at Project and Entity Levels, Data Year 2004 (Continued)

(Metric Tons Carbon Dioxide Equivalent)

Report Name	Sector	Reduction Type	Project Level	Entity Level
California Portland Cement Co. - Mojave Plant	Industrial	Direct	99,841	100,203
		Indirect	15,918	18,551
Cambrian Energy Development LLC	Electric Providers	Direct	144,181	
Cargill, Inc. - Oil Seeds Division	Industrial	Direct		-4,108
		Indirect		495
Carolina Power & Light Company	Electric Providers	Direct	8,737,481	
		Sequestration	27	
Catawba Landfill Gas, LLC	Alternative Energy	Indirect	134,157	
CDX Gas, LLC	Alternative Energy	Direct	1,407,236	
Chevron Corporation	Industrial	Unspecified (EZ)	2,586	
Choptank Electric Cooperative	Electric Providers	Indirect	23,035	
Cinergy Corp.	Electric Providers	Direct	1,665,789	1,665,789
		Indirect	292,654	292,654
		Sequestration	20,789	20,789
City of Austin Electric Utility (Austin Energy)	Electric Providers	Unspecified (EZ)	1,633,907	
City of Springfield	Services and Retail	Direct	33,675	
City Public Service	Electric Providers	Direct	4,317,960	
		Indirect	160,008	
		Sequestration	21	
Cleco Corporation	Electric Providers	Sequestration	1,842	
CMS Energy	Electric Providers	Direct	2,852,330	2,852,323
		Indirect	596,359	596,359
CMV Joint Venture	Alternative Energy	Direct	351,162	
Common Purpose Institute	Agricultural	Unspecified (EZ)	51,152	
CommonWealth Bethlehem Energy, LLC	Alternative Energy	Direct	122,991	122,991
COMMSCOPE CATAWBA PLANT	Industrial	Direct		-309
		Indirect		-223
COMMSCOPE CLAREMONT PLANT	Industrial	Direct		-278
		Indirect		-5,309
COMMSCOPE CONOVER REEL RECYCLING	Industrial	Direct		-82
		Indirect		17
COMMSCOPE Headquarters- Hickory	Industrial	Indirect		216
COMMSCOPE NEWTON PLANT	Industrial	Direct		609
		Indirect		-788
COMMSCOPE SCOTTSBORO PLANT	Industrial	Direct		-16
		Indirect		796
CommScope Solutions (1111 Digital Dr)	Industrial	Indirect		47
CommScope Solutions (1300 E. Lookout Dr)	Industrial	Indirect		780
COMMSCOPE SPARKS PLANT	Industrial	Direct		325
		Indirect		1,789
COMMSCOPE STATESVILLE PLANT	Industrial	Direct		658
		Indirect		14,618
Community Electric Cooperative	Electric Providers	Indirect	3,432	
CONNECTIVITY SOLUTONS MANUFACTURING Inc.	Industrial	Direct		-9,891
		Indirect		-16,122
Consol Coal Group	Industrial	Direct		19,288,338
Consolidated Edison Company of New York, Inc.	Electric Providers	Direct	1,804,616	1,432,227
Constellation Energy	Electric Providers	Direct	6,449,973	6,449,973
		Indirect	365,693	362,226
		Sequestration	108	108
County Sanitation Districts of Los Angeles County	Alternative Energy	Direct	3,443,169	
		Indirect	223,825	
DADS Landfill / Dept. Of Env. Health	Alternative Energy	Direct	97,483	
DaimlerChrysler Corporation	Industrial	Direct	151,340	151,340
		Indirect	165,447	165,447
		Sequestration		7
Danaher Controls	Industrial	Direct		136
		Indirect		-268

Table B4. Total Emission Reductions and Sequestration Reported at Project and Entity Levels, Data Year 2004 (Continued)

(Metric Tons Carbon Dioxide Equivalent)

Report Name	Sector	Reduction Type	Project Level	Entity Level
DeBourgh Manufacturing Company	Industrial	Unspecified (EZ)	*	
Delaware Electric Cooperative	Electric Providers	Indirect	32,357	
Dominion Generation	Electric Providers	Direct	10,230,967	
		Sequestration	55	
DTE Energy/ Detroit Edison	Electric Providers	Direct	1,699,495	154,847
		Indirect	5,493,200	-2,667,505
		Sequestration	106,719	106,685
Duke Energy Corporation	Electric Providers	Direct	11,365,413	11,365,414
		Indirect	103,655	103,655
		Sequestration	394	400
Dynegy, Inc.	Electric Providers	Direct	308,886	308,886
		Indirect	119,249	119,249
		Sequestration	181,447	181,447
ENCAP	Electric Providers	Direct	42,434	
Energy Developments, Inc.	Alternative Energy	Indirect	208,620	
Energy Management Partners, LP	Alternative Energy	Unspecified (EZ)	4,639,800	
Entergy Services, Inc.	Electric Providers	Direct	8,213,907	8,213,907
		Indirect	272,536	272,536
		Sequestration	55,693	55,693
Environmental Synergy, Inc.	Agricultural	Sequestration	3,637	
Exelon Corporation	Electric Providers	Direct	519,014	
		Indirect	10,166,482	
		Sequestration	8,208	
FirstEnergy Corporation	Electric Providers	Direct	16,179,957	16,179,973
		Indirect	855,366	855,572
		Sequestration	2,478	2,478
Fisher Scientific Company L.L.C	Industrial	Direct		40,475
Florida Power Corporation	Electric Providers	Direct		5,718,047
		Sequestration	27	
Ford Motor Company	Industrial	Direct	149,129	149,129
		Indirect	108,477	108,477
FPL Group	Electric Providers	Direct	16,595,039	25,202,926
		Indirect	4,819,368	4,819,368
		Sequestration	197	197
Gas Recovery Systems	Alternative Energy	Indirect	410,999	410,610
General Electric Company [a]	Industrial			
General Motors Corporation	Industrial	Direct	805,412	1,973,000
		Indirect	5,734,752	1,215,000
		Sequestration		6,189
Golden Valley Electric Association, Inc	Electric Providers	Unspecified (EZ)	16,528	
Granger Electric Company	Alternative Energy	Direct	-77,139	
		Indirect	735,437	
Granger Energy, LLC	Alternative Energy	Indirect	444,850	
Greater New Bedford Regional Refuse Mgt District	Alternative Energy	Direct	115,255	115,255
Green Mountain Energy Company	Electric Providers	Direct		6
		Indirect	567,440	955
Greene Energy, LLC	Alternative Energy	Unspecified (EZ)	388,428	
Hanes Dye and Finishing, Butner Plant	Industrial	Direct		313
		Indirect		-590
Highland Industries, Inc.Kernersville Finishing Pt	Industrial	Direct		1,146
		Indirect		160
Hollomon Family	Other (Households)	Unspecified (EZ)	*	
IBM	Industrial	Direct		12,791
		Indirect		60,047
Integrated Waste Services Association	Alternative Energy	Direct	-7,933,287	24,500,151
		Indirect	24,500,151	
International Truck and Engine Corporation	Industrial	Direct		27,372
		Indirect		-70,459
Iredell Landfill Gas, LLC	Alternative Energy	Indirect	75,837	
JEA	Electric Providers	Unspecified (EZ)	258,226	
Jim Walter Resources, Inc.	Alternative Energy	Direct	4,026,618	4,026,618

Table B4. Total Emission Reductions and Sequestration Reported at Project and Entity Levels, Data Year 2004 (Continued)

(Metric Tons Carbon Dioxide Equivalent)

Report Name	Sector	Reduction Type	Project Level	Entity Level
Johnson & Johnson	Industrial	Direct	70,331	70,330
		Indirect	409,998	409,991
Kansas City Power & Light Company	Electric Providers	Direct	817,909	817,909
		Indirect	148,223	148,223
		Sequestration	548	548
Kern County Waste Management Department	Services and Retail	Direct	79,054	89,539
KeySpan Energy Corporation	Electric Providers	Direct		3,008,225
Klickitat County Public Utility District No. 1	Electric Providers	Direct	313,651	
Landfill Energy Systems	Alternative Energy	Direct	1,167,640	
		Indirect	717,751	
Lehigh Cement Co. (fmrly Lehigh Portland Cement Co	Industrial	Direct	1,436,468	317,483
		Indirect	25,109	58,885
Lehigh Cement Co. (formerly Calaveras Cement Co.)	Industrial	Direct	351,392	187,369
		Indirect	9,073	11,054
Los Angeles Department of Water and Power	Electric Providers	Direct	781,322	1,835,322
		Indirect	7,055	-1,928,182
		Sequestration	6,464	6,464
Lower Colorado River Authority	Electric Providers	Direct	547,648	548,847
		Indirect	159,926	163,112
Lucent Technologies Inc.	Industrial	Direct	5,383	5,383
		Indirect	72,560	72,560
Lynchburg Gas Producers, LLC	Alternative Energy	Indirect	51,548	
M. J. SOFFE COMPANY - Maxton	Industrial	Indirect		0
M. J. SOFFE COMPANY - Bladenboro	Industrial	Indirect		-101
M. J. SOFFE COMPANY Fayettville	Industrial	Direct		-156
		Indirect		-1,637
M. J. SOFFE COMPANY Rowland	Industrial	Indirect		-5
Mallinckrodt, Inc.	Industrial	Direct		20,997
		Indirect		12,426
Maple Springs Laundry	Services and Retail	Direct		588
		Indirect		-43
McNeil Generating Station	Electric Providers	Direct		-2,812
		Indirect		117,764
Mecklenburg Electric Cooperative	Electric Providers	Indirect	15,574	
Michael Paul Taylor	Other (Households)	Direct	5	
		Indirect	2	
Michigan CAT	Industrial	Direct	442,009	
		Indirect	7,550	
Middlesex Generating Company, LLC	Alternative Energy	Direct	380,122	380,122
Minnesota Power	Electric Providers	Direct	856,656	
		Indirect	70,738	
		Sequestration	15,430	
Mirant Kendall, L.L.C.	Electric Providers	Direct	57,692	
Mitsubishi Motors North America, Inc.[a]	Industrial			
Model City Energy, LLC	Alternative Energy	Direct	194,262	
		Indirect	45,969	
Montauk Energy Capital	Alternative Energy	Indirect	5,712,280	
Municipal Electric Auth of Georgia (MEAG Power)	Electric Providers	Direct	3,568,000	3,568,000
Mystic Development, LLC	Alternative Energy	Direct	-816,343	-816,343
		Indirect	2,678,506	2,678,506
Nashville Electric Service	Electric Providers	Unspecified (EZ)	7,381	
National Grid	Electric Providers	Direct	89,637	
		Indirect	1,664,736	
National Spinning Co. Alamance Yarn Plant	Industrial	Indirect		-279
National Spinning Co. Alamance Dye Plant	Industrial	Direct		29,201
		Indirect		1,379
National Spinning Co., Inc. Washington	Industrial	Direct		4,252
		Indirect		3,030
National Spinning Inc. Beulaville	Industrial	Indirect		-880
National Spinning Inc. Warsaw	Industrial	Indirect		-907

Table B4. Total Emission Reductions and Sequestration Reported at Project and Entity Levels, Data Year 2004 (Continued)

(Metric Tons Carbon Dioxide Equivalent)

Report Name	Sector	Reduction Type	Project Level	Entity Level
National Spinning Inc. Whiteville	Industrial	Indirect		-1,750
Natural Power, Inc.	Alternative Energy	Direct	178,342	
		Indirect	14,836	
NC Muni Landfill Gas Partners, LLC	Alternative Energy	Indirect	67,140	
Nebraska Public Power District	Electric Providers	Unspecified (EZ)	1,034,194	
New Jersey Meadowlands Commission	Alternative Energy	Direct	250,195	250,195
New York Power Authority	Electric Providers	Direct		420,707
		Indirect		116,162
Newton Landfill Gas, LLC	Alternative Energy	Indirect	24,036	
NiSource/NIPSCO	Electric Providers	Direct	3,870,186	3,870,186
		Indirect	221,824	101,675
		Sequestration	279	279
Nissan North America, Inc.[a]	Industrial			
Noranda Aluminum Inc.	Industrial	Direct	3,571,400	
North Carolina Biomass Partners	Alternative Energy	Unspecified (EZ)	10,994	
North Carolina Electric Membership Corporation	Electric Providers	Unspecified (EZ)	292,066	
Northern Neck Electric Cooperative	Electric Providers	Indirect	2,582	
Northern Virginia Electric Cooperative	Electric Providers	Indirect	62,631	
Ocean County Landfill Corporation	Alternative Energy	Direct	483,271	
		Indirect	-11,513	
Oglethorpe Power Corporation	Electric Providers	Sequestration	55	
Oklahoma Gas & Electric Co.	Electric Providers	Sequestration	27	
Old Dominion Electric Cooperative	Electric Providers	Indirect	70	
		Sequestration	20	
Omaha Public Power District	Electric Providers	Unspecified (EZ)	2,014,310	
Orlando Utilities Commission (OUC)	Alternative Energy	Unspecified (EZ)	108,767	
Pak-Lite, Inc. - Mebane Plant	Industrial	Direct		-4
		Indirect		-105
Palmer Capital Corporation	Alternative Energy	Direct	2,702,561	2,702,561
		Indirect	-22,271	-22,271
Peabody Energy	Industrial	Direct	513,995	-245,879
		Indirect		383,311
PEI Power Corp	Alternative Energy	Direct	733	733
		Indirect	42,427	42,427
Penn Compression Moulding, Inc.	Industrial	Direct		12
		Indirect		220
Pepco Holdings Inc	Electric Providers	Direct	867,405	
		Indirect	67,400	
		Sequestration	592	
Pfizer Pharmaceuticals LLC - Arecibo	Industrial	Unspecified (EZ)	5,771	
PG&E Corporation	Electric Providers	Direct	3,387,366	3,387,366
		Indirect	964,418	964,418
Pitt Landfill Gas, LLC	Alternative Energy	Indirect	61,046	
Polar Refrigerant Technology, LLC	Industrial	Indirect	10,834	
Portland General Electric Co.	Electric Providers	Direct	51	51
		Indirect	1,512,325	1,512,326
		Sequestration	3,684	3,683
Prince George Electric Cooperative	Electric Providers	Indirect	25	
Public Service Company of New Mexico	Electric Providers	Direct	1,365,404	
		Indirect	529,705	
		Indirect	55	
Public Service Enterprise Group	Electric Providers	Direct	3,232	3,232
		Indirect	1,846,125	1,846,125
		Sequestration	366	366
Public Utility District No. 1 of Snohomish County	Electric Providers	Direct	2	
		Indirect	225,175	
Rangely Weber Sand Unit	Industrial	Indirect	932,220	
Rappahannock Electric Cooperative	Electric Providers	Indirect	54,795	
		Sequestration	6	

Table B4. Total Emission Reductions and Sequestration Reported at Project and Entity Levels, Data Year 2004 (Continued)

(Metric Tons Carbon Dioxide Equivalent)

Report Name	Sector	Reduction Type	Project Level	Entity Level
Reliant Energy, Inc.	Electric Providers	Sequestration	356	
Republic Metals Corporation	Industrial	Direct		278
		Indirect		197
Rolls-Royce Corporation	Industrial	Direct	40,634	46,576
		Indirect	153,801	311,063
Sacramento Municipal Utility District	Electric Providers	Direct	27	-1,073,873
		Indirect	357,835	1,807,480
		Sequestration	3,778	3,778
Salt River Project	Electric Providers	Unspecified (EZ)	2,216,652	
Santee Cooper	Electric Providers	Direct	1,182,246	1,182,246
		Indirect	544,001	544,008
		Sequestration	8,732	8,732
Seattle City Light	Electric Providers	Indirect	361,343	361,343
		Sequestration	82	83
SeaWest WindPower, Inc.	Alternative Energy	Indirect	214,678	
Seminole Electric Cooperative, Inc.	Electric Providers	Unspecified (EZ)	250,444	
Seneca Energy II, LLC	Alternative Energy	Direct	410,399	
		Indirect	36,377	
Seneca Energy II, LLC_Ontario LFGE	Alternative Energy	Direct	110,772	
		Indirect	26,212	
Shenandoah Valley Electric Cooperative	Electric Providers	Indirect	17,251	
		Sequestration	1	
Sikorsky Aircraft Corporation	Industrial	Direct	509	509
		Indirect	5,200	5,200
Smithfield Foods, Inc.	Industrial	Unspecified (EZ)	89,722	
South Carolina Electric & Gas Company	Electric Providers	Direct	1,907,515	
		Indirect	138,052	
		Sequestration	9,730	
Southeastern Biomass Partners, LP	Alternative Energy	Unspecified (EZ)	108,857	
Southern California Edison Co.	Electric Providers	Direct	7,813,288	
		Indirect	113,942	
		Sequestration	24,563	
Southern Company	Electric Providers	Direct	13,422,208	13,422,208
		Indirect	4,235,890	4,235,890
		Sequestration	233,793	233,793
Southside Electric Cooperative	Electric Providers	Indirect	1,133	
Springs Industries, Inc.	Industrial	Unspecified (EZ)	27,934	
State Farm Mutual Automobile Insurance Co.[a]	Services and Retail			
Sunoco, Inc.	Industrial	Direct		1,590,745
		Indirect		-145,187
Sustainable Development Technology Corporation	Agricultural	Direct	2,078	
		Sequestration	4,378	
Tacoma Power	Electric Providers	Unspecified (EZ)	5,144	
Tampa Electric Company	Electric Providers	Indirect	233,667	233,667
		Sequestration	79	79
Tennessee Valley Authority	Electric Providers	Direct	27,794,969	27,794,979
		Indirect	579	587
		Sequestration	19,398	19,398
The Dow Chemical Company	Industrial	Direct		4,326,479
The Empire District Electric Co.	Electric Providers	Sequestration	79	
The Estee Lauder Companies	Industrial	Direct	2,047	
		Indirect	4,588	
Toyota Motor North America, Inc.	Industrial	Direct		3,053,144
TS Designs, Inc.	Industrial	Direct		-34
TXU	Electric Providers	Direct	22,671,284	
		Indirect	941,189	
		Sequestration	32,677	
Utah Municipal Power Agency	Electric Providers	Unspecified (EZ)	7,865	
Valdese Manufacturing Company	Industrial	Direct		3,875
		Indirect		1,331
Vermont Public Power Supply Authority	Electric Providers	Indirect	2,451	

Table B4. Total Emission Reductions and Sequestration Reported at Project and Entity Levels, Data Year 2004 (Continued)

(Metric Tons Carbon Dioxide Equivalent)

Report Name	Sector	Reduction Type	Project Level	Entity Level
Waste Management, Inc.	Alternative Energy	Direct	36,136,013	36,136,013
		Indirect	679,525	679,525
Waverly Gas Producers, LLC	Alternative Energy	Indirect	24,466	
Waverly Light & Power Company	Electric Providers	Direct	18,950	18,950
		Indirect	9,021	9,021
		Sequestration	153	18,950
We Energies	Electric Providers	Direct	2,172,196	
		Indirect	1,549,241	
		Sequestration	33,975	
Wisconsin Public Power Inc.	Electric Providers	Unspecified (EZ)	69,678	
Wyeth Vaccines	Industrial	Unspecified (EZ)	1,732	
Xcel Energy	Electric Providers	Direct	3,197,456	
		Indirect	3,476,751	
		Sequestration	55	
Xenon Specialty Gas	Industrial	Indirect	237,408	
Zeeland Board of Public Works	Electric Providers	Unspecified (EZ)	399	

[a] Reporter reported entity-level emissions, and did not report reductions for 2004.

* = less than 0.05 metric tons

Notes: This table excludes data reported as confidential; a negative reduction represents an increase in emissions.

Source: Energy Information Administration, Forms EIA-1605 and EIA-1605EZ

Table B5. Distribution of Projects Reported by Project Type and Reporting Form, Data Year 2004

Project Type	Form EIA-1605		Form EIA-1605EZ		Total	
	Number of Reporters	Number of Projects	Number of Reporters	Number of Projects	Number of Reporters	Number of Projects
Electricity Generation, Transmission, and Distribution	65	469	19	49	84	518
Cogeneration and Waste Heat Recovery	11	18	--	--	11	18
Energy End Use	64	345	17	101	81	446
Transportation and Off-Road vehicles	31	65	5	9	36	74
Waste Treatment Disposal - Methane	52	403	4	19	56	422
Agriculture -- Methane and Nitrous Oxide	2	2	--	--	2	2
Oil and Natural Gas Systems and Coal Mining -- Methane	19	38	1	1	20	39
Carbon Sequestration	54	478	13	15	67	493
Halogenated Substances	28	40	1	1	29	41
Other Emission Reduction Projects	46	84	7	17	53	101
Total	**141**	**1,942**	**31**	**212**	**172**	**2,154**

Notes: The total number of reporters is smaller than the sum of the numbers of reporters for each project type because most reporters reported information on projects of more than one type. This table includes reporters classified as confidential but excludes projects reported as confidential.
Source: Energy Information Administration, Forms EIA-1605 and EIA-1605EZ

Table B6. Distribution of Emission Reductions by Project Type and Reduction Type, Data Year 2004
(Metric Tons Carbon Dioxide Equivalent)

Project Type	Reduction Type			
	Direct	Indirect	Unspecified (EZ)	Sequestration
Electricity Generation, Transmission, and Distribution	171,948,147	18,140,510	11,801,461	-
Cogeneration and Waste Heat Recovery	1,740,225	836,119		-
Energy End Use	22,295,753	13,806,084	502,956	-
Transportation and Off-Road vehicles	2,673,820	191,681	4,375	-
Waste Treatment Disposal - Methane	42,688,987	45,828,413	253,733	-
Agriculture -- Methane and Nitrous Oxide	112	662	388,428	-
Oil and Natural Gas Systems and Coal Mining -- Methane	12,562,804			-
Carbon Sequestration	3,982	41	84,970	7,236,120
Halogenated Substances	7,028,337	269,515	0	-
Other Emission Reduction Projects	16,080,016	12,668,607	754,866	-
Total (All Project Types)	**277,022,183**	**91,741,633**	**13,790,789**	**7,236,120**

Note: This table excludes information reported as confidential.
Source: Energy Information Administration, Forms EIA-1605 and EIA-1605EZ.

Table B7. Affiliation of Reported Emission Reduction and Carbon Sequestration Projects with Voluntary Programs, by Project Type, Data Year 2004

Voluntary Program	Number of Reporters	Number of Projects by Type						
		Electricity	End Use	Transportation	Carbon Sequestration	Methane	Halogens and Other Project	Total
Climate Challenge	70	331	139	38	437	35	74	1,054
Landfill Methane Outreach Program	36	13	2			335	0	350
Not applicable	24	15	50	3	5	19	6	98
Energy Star Building Program	7	1	70			1	1	73
Climate Wise Recognition Program	7	2	38	1	2	1	7	51
United States Initiative on Joint Implementation	27	3			31	0	0	34
Other Energy Star Programs	7	0	30			0	1	31
Other Federal, state and local programs	9	4	16	2	1	0	2	25
Natural Gas STAR	12	0	1			23	0	24
Green Lights Program	13	0	15			0	0	15
Sulfur Hexafluoride Emissions Reduction Partnership	11	1				0	12	13
Waste Wise Program	7	0				0	9	9
Compressed Air Challenge	3	0	7		1	0	0	8
Energy Star Transformers	7	6	1			0	0	7
Coalbed Methane Outreach Program	3	0				5	0	5
Motor Challenge Program	4	0	4			0	0	4
Energy Star Computers Program	2	0	2			0	0	2
Rebuild America	1	0	1			0	1	2
Voluntary Aluminum Industrial Partnership	2	0				0	2	2
Energy Efficiency and Renewable Energy Information a	1	0				0	1	1
Industrial Combined Heat and Power Initiative	1	1				0	0	1

Source: Energy Information Administration, Forms EIA-1605 and EIA-1605EZ.

Table B8. Reporting Enitities by Sector and SIC Code, Data Year 2004

Sector	SIC Code	Reporter Name	Type of Form	Number of Projects Reported (Schedule II)	Entity-Wide Report (Schedule III)	Commitments (Schedule IV)
Agricultural and Forestry						
	08 - Forestry					
		Common Purpose Institute	1605EZ	1	No	No
		Environmental Synergy, Inc.	1605	2	No	No
		Sustainable Development Technology Corporation	1605	1	No	No
Total Number of Projects Reported by Entities in Sector				**4**		
Total Number of Entities in Sector Reporting on Schedule				**3**	**0**	**0**
Alternative Energy						
	12 - Coal Mining					
		Greene Energy, LLC	1605EZ	1	No	No
		Jim Walter Resources, Inc.	1605	4	Yes	No
	29-Petroleum Refining and other related Industries					
		CDX Gas, LLC	1605	2	No	No
		CMV Joint Venture	1605	2	No	No
	49-Electric, Gas, and Sanitary Services					
		Alabama Biomass Partners, Ltd	1605EZ	1	No	No
		Asheville Landfill Gas, LLC	1605	1	No	No
		Biomass Partners, LP	1605EZ	1	No	No
		Catawba Landfill Gas, LLC	1605	1	No	No
		CommonWealth Bethlehem Energy, LLC	1605	1	Yes	No
		County Sanitation Districts of Los Angeles County	1605	2	No	No
		DADS Landfill / Dept. Of Env. Health	1605	1	No	No
		Energy Developments, Inc.	1605	9	Yes	No
		Energy Management Partners, LP	1605EZ	1	No	No
		Gas Recovery Systems	1605	29	Yes	No
		Granger Electric Company	1605	7	No	No
		Granger Energy, LLC	1605	2	No	No
		Greater New Bedford Regional Refuse Mgt District	1605	1	Yes	Yes
		Integrated Waste Services Association	1605	1	Yes	No
		Iredell Landfill Gas, LLC	1605	1	No	No
		Landfill Energy Systems	1605	14	No	No
		Lynchburg Gas Producers, LLC	1605	1	No	No
		Middlesex Generating Company, LLC	1605	3	Yes	Yes
		Model City Energy, LLC	1605	1	No	No
		Montauk Energy Capital	1605	27	No	No
		Mystic Development, LLC	1605	1	Yes	No
		Natural Power, Inc.	1605	1	No	No
		NC Muni Landfill Gas Partners, LLC	1605	1	No	No
		New Jersey Meadowlands Commission	1605	4	Yes	No
		Newton Landfill Gas, LLC	1605	1	No	No
		North Carolina Biomass Partners	1605EZ	1	No	No
		Ocean County Landfill Corporation	1605	2	No	No
		Orlando Utilities Commission (OUC)	1605EZ	1	No	No
		Palmer Capital Corporation	1605	10	Yes	No
		PEI Power Corp	1605	1	Yes	No
		Pitt Landfill Gas, LLC	1605	1	No	No
		SeaWest WindPower, Inc.	1605	10	No	No
		Seneca Energy II, LLC	1605	2	No	No
		Seneca Energy II, LLC_Ontario LFGE	1605	1	No	No
		Southeastern Biomass Partners, LP	1605EZ	1	No	No
		Waste Management, Inc.	1605	229	Yes	No
		Waverly Gas Producers, LLC	1605	1	No	No
Total Number of Projects Reported by Entities in Sector				**382**		
Total Number of Entities in Sector Reporting on Schedule				**41**	**12**	**2**

Table B8. Reporting Enitities by Sector and SIC Code, Data Year 2004 (Continued)

Sector	SIC Code	Reporter Name	Type of Form	Number of Projects Reported (Schedule II)	Entity-Wide Report (Schedule III)	Commitments (Schedule IV)
Electric Providers						
	49-Electric, Gas, and Sanitary Services					
		A&N Electric Cooperative	1605	2	No	Yes
		AES Hawaii, Inc.	1605	1	Yes	No
		AES Shady Point, LLC	1605	1	Yes	No
		AES Thames, LLC	1605	1	Yes	Yes
		AES Warrior Run, LLC	1605	2	Yes	No
		Algonquin Power - Cambrian Pacific Genco LLC	1605	9	No	No
		Allegheny Energy, Inc.	1605	53	Yes	Yes
		Alliant Energy	1605	46	Yes	Yes
		Ameren Corporation (formerly UE, CIPS, and CILCO)	1605	38	No	Yes
		American Electric Power, Inc.	1605	108	No	No
		American Municipal Power - Ohio	1605EZ	9	No	No
		Anoka Municipal Utility	1605EZ	4	No	No
		Arizona Public Service Company	1605	3	Yes	Yes
		BARC Electric Cooperative	1605	2	No	No
		Berkshire Power LLC	1605	1	Yes	No
		Bountiful City Light & Power	1605	7	Yes	Yes
		Cambrian Energy Development LLC	1605	1	No	No
		Carolina Power & Light Company	1605	4	No	No
		Choptank Electric Cooperative	1605	1	No	No
		Cinergy Corp.	1605	51	Yes	No
		City of Austin Electric Utility (Austin Energy)	1605EZ	9	No	No
		City Public Service	1605	9	No	No
		Cleco Corporation	1605	16	No	Yes
		CMS Energy	1605	12	Yes	Yes
		Community Electric Cooperative	1605	1	No	No
		Consolidated Edison Company of New York, Inc.	1605	5	Yes	Yes
		Constellation Energy	1605	28	Yes	Yes
		Delaware Electric Cooperative	1605	1	No	No
		Dominion Generation	1605	5	No	No
		DTE Energy/ Detroit Edison	1605	50	Yes	No
		Duke Energy Corporation	1605	31	Yes	Yes
		Dynegy, Inc.	1605	36	Yes	Yes
		ENCAP	1605	1	No	No
		Entergy Services, Inc.	1605	91	Yes	Yes
		Exelon Corporation	1605	50	No	Yes
		FirstEnergy Corporation	1605	59	Yes	Yes
		Florida Power Corporation	1605	3	Yes	No
		FPL Group	1605	32	Yes	Yes
		Golden Valley Electric Association, Inc	1605EZ	3	No	No
		Green Mountain Energy Company	1605	3	Yes	Yes
		JEA	1605EZ	6	No	No
		Kansas City Power & Light Company	1605	21	Yes	Yes
		KeySpan Energy Corporation	1605	0	Yes	No
		Klickitat County Public Utility District No. 1	1605	1	No	No
		Los Angeles Department of Water and Power	1605	28	Yes	No
		Lower Colorado River Authority	1605	7	Yes	Yes
		McNeil Generating Station	1605	0	Yes	No
		Mecklenburg Electric Cooperative	1605	1	No	No
		Minnesota Power	1605	10	No	Yes
		Mirant Kendall, L.L.C.	1605	1	No	No
		Municipal Electric Auth of Georgia (MEAG Power)	1605	1	Yes	Yes
		Nashville Electric Service	1605EZ	3	No	No
		National Grid	1605	24	Yes	Yes
		Nebraska Public Power District	1605EZ	15	No	No
		New York Power Authority	1605	0	Yes	Yes
		NiSource/NIPSCO	1605	41	Yes	Yes
		North Carolina Electric Membership Corporation	1605EZ	1	No	No
		Northern Neck Electric Cooperative	1605	2	No	No
		Northern Virginia Electric Cooperative	1605	2	No	No
		Oglethorpe Power Corporation	1605	3	No	No
		Oklahoma Gas & Electric Co.	1605	3	No	No
		Old Dominion Electric Cooperative	1605	3	No	No
		Omaha Public Power District	1605EZ	10	No	No
		Pepco Holdings Inc	1605	31	No	No
		PG&E Corporation	1605	9	Yes	No
		Portland General Electric Co.	1605	33	Yes	No
		Prince George Electric Cooperative	1605	1	No	No

Table B8. Reporting Enitities by Sector and SIC Code, Data Year 2004 (Continued)

Sector	SIC Code	Reporter Name	Type of Form	Number of Projects Reported (Schedule II)	Entity-Wide Report (Schedule III)	Commitments (Schedule IV)
		Public Service Company of New Mexico	1605	8	No	Yes
		Public Service Enterprise Group	1605	20	Yes	Yes
		Public Utility District No. 1 of Snohomish County	1605	9	No	No
		Rappahannock Electric Cooperative	1605	3	No	No
		Reliant Energy, Inc.	1605	4	No	No
		Sacramento Municipal Utility District	1605	7	Yes	No
		Salt River Project	1605EZ	28	No	No
		Santee Cooper	1605	12	Yes	Yes
		Seattle City Light	1605	20	Yes	No
		Seminole Electric Cooperative, Inc.	1605EZ	5	No	No
		Shenandoah Valley Electric Cooperative	1605	3	No	No
		South Carolina Electric & Gas Company	1605	20	No	Yes
		Southern California Edison Co.	1605	19	No	No
		Southern Company	1605	35	Yes	Yes
		Southside Electric Cooperative	1605	1	No	No
		Tacoma Power	1605EZ	7	No	No
		Tampa Electric Company	1605	11	Yes	Yes
		Tennessee Valley Authority	1605	30	Yes	Yes
		The Empire District Electric Co.	1605	10	No	No
		TXU	1605	29	No	Yes
		Utah Municipal Power Agency	1605EZ	7	No	No
		Vermont Public Power Supply Authority	1605	13	No	No
		Waverly Light & Power Company	1605	9	Yes	Yes
		We Energies	1605	28	No	No
		Wisconsin Public Power Inc.	1605EZ	54	No	No
		Xcel Energy	1605	48	No	Yes
		Zeeland Board of Public Works	1605EZ	3	No	No
Total Number of Projects Reported by Entities in Sector				**1,489**		
Total Number of Entities in Sector Reporting on Schedule				**91**	**40**	**35**
Industrial						
	12 - Coal Mining					
		Consol Coal Group	1605	0	Yes	No
		Peabody Energy	1605	2	Yes	No
	13 - Oil and Gas Extraction					
		Rangely Weber Sand Unit	1605	1	No	No
	20 - Food and Kindred Products					
		Cargill, Inc. - Oil Seeds Division	1605	0	Yes	Yes
		Smithfield Foods, Inc.	1605EZ	14	No	No
	22-Textile Mill Products					
		CommScope Solutions (1111 Digital Dr)	1605	0	Yes	Yes
		Hanes Dye and Finishing, Butner Plant	1605	0	Yes	Yes
		Highland Industries, Inc.Kernersville Finishing Pt	1605	0	Yes	Yes
		M. J. SOFFE COMPANY - Maxton	1605	0	Yes	Yes
		M. J. SOFFE COMPANY - Bladenboro	1605	0	Yes	Yes
		M. J. SOFFE COMPANY Rowland	1605	0	Yes	Yes
		National Spinning Co. Alamance Yarn Plant	1605	0	Yes	Yes
		National Spinning Co. Alamance Dye Plant	1605	0	Yes	Yes
		National Spinning Co., Inc. Washington	1605	0	Yes	Yes
		National Spinning Inc. Beulaville	1605	0	Yes	Yes
		National Spinning Inc. Warsaw	1605	0	Yes	Yes
		National Spinning Inc. Whiteville	1605	0	Yes	Yes
		Springs Industries, Inc.	1605EZ	3	No	No
		Valdese Manufacturing Company	1605	0	Yes	Yes
	23-Apparel and Other Textile Products					
		M. J. SOFFE COMPANY Fayettville	1605	0	Yes	Yes
		TS Designs, Inc.	1605	0	Yes	No

Table B8. Reporting Enitities by Sector and SIC Code, Data Year 2004 (Continued)

Sector	SIC Code	Reporter Name	Type of Form	Number of Projects Reported (Schedule II)	Entity-Wide Report (Schedule III)	Commitments (Schedule IV)
	28-Chemicals and Allied Products					
		Ajinomoto Aminoscience LLC	1605	0	Yes	Yes
		Allergan, Inc.	1605	50	Yes	Yes
		Baxter Healthcare Inc.	1605	0	Yes	Yes
		Bristol-Myers Squibb Company	1605	3	Yes	No
		Fisher Scientific Company L.L.C	1605	0	Yes	No
		Johnson & Johnson	1605	14	Yes	No
		Mallinckrodt, Inc.	1605	0	Yes	Yes
		Pfizer Pharmaceuticals LLC - Arecibo	1605EZ	11	No	No
		Polar Refrigerant Technology, LLC	1605	1	No	No
		The Dow Chemical Company	1605	0	Yes	Yes
		The Estee Lauder Companies	1605	31	No	No
		Wyeth Vaccines	1605EZ	2	No	No
	29-Petroleum Refining and other related Industries					
		BP America	1605	12	Yes	Yes
		Chevron Corporation	1605EZ	1	No	No
		Sunoco, Inc.	1605	0	Yes	No
	30-Rubber and Micsellaneous Products					
		Azdel, Inc	1605	0	Yes	Yes
		Pak-Lite, Inc. - Mebane Plant	1605	0	Yes	Yes
	32-Stone, Clay, Glass, and Concrete Products					
		Arizona Portland Cement Co.	1605	14	Yes	Yes
		California Portland Cement Co. - Colton Plant	1605	9	Yes	Yes
		California Portland Cement Co. - Mojave Plant	1605	6	Yes	Yes
		Lehigh Cement Co. (fmrly Lehigh Portland Cement Co	1605	13	Yes	No
		Lehigh Cement Co. (formerly Calaveras Cement Co.)	1605	3	Yes	No
	33-Primary Metals Industries					
		Alcan Primary Products Corporation, Sebree Works	1605	1	Yes	Yes
		COMMSCOPE CATAWBA PLANT	1605	0	Yes	Yes
		COMMSCOPE CLAREMONT PLANT	1605	0	Yes	Yes
		COMMSCOPE CONOVER REEL RECYCLING	1605	0	Yes	Yes
		COMMSCOPE Headquarters- Hickory	1605	0	Yes	Yes
		COMMSCOPE NEWTON PLANT	1605	0	Yes	Yes
		COMMSCOPE SCOTTSBORO PLANT	1605	0	Yes	Yes
		CommScope Solutions (1300 E. Lookout Dr)	1605	0	Yes	Yes
		COMMSCOPE SPARKS PLANT	1605	0	Yes	Yes
		COMMSCOPE STATESVILLE PLANT	1605	0	Yes	Yes
		CONNECTIVITY SOLUTONS MANUFACTURING Inc.	1605	0	Yes	Yes
		Noranda Aluminum Inc.	1605	1	No	Yes
		Republic Metals Corporation	1605	0	Yes	No
	34-Fabricated Metal Products except machinery and transportation equipment					
		DeBourgh Manufacturing Company	1605EZ	2	No	No
	35-Industrial and Commercial Equipment and Components					
		General Electric Company	1605	0	Yes	Yes
		Michigan CAT	1605	2	No	No
	36-Electronic and Other Electrical Equipment					
		Advanced Micro Devices, Inc.	1605EZ	6	No	No
		Branson Ultrasonics Corporation	1605	1	No	No
		IBM	1605	0	Yes	Yes
		Lucent Technologies Inc.	1605	26	Yes	Yes
		Penn Compression Moulding, Inc.	1605	0	Yes	Yes
	37-Transportation Equipment					
		BMW US Holding Corp.	1605	1	Yes	No
		DaimlerChrysler Corporation	1605	2	Yes	No
		Ford Motor Company	1605	3	Yes	No
		General Motors Corporation	1605	4	Yes	Yes
		International Truck and Engine Corporation	1605	0	Yes	Yes
		Mitsubishi Motors North America, Inc.	1605	0	Yes	No
		Nissan North America, Inc.	1605	0	Yes	No
		Rolls-Royce Corporation	1605	4	Yes	No
		Sikorsky Aircraft Corporation	1605	6	Yes	Yes
		Toyota Motor North America, Inc.	1605	0	Yes	Yes

Table B8. Reporting Enitities by Sector and SIC Code, Data Year 2004 (Continued)

Sector	SIC Code	Reporter Name	Type of Form	Number of Projects Reported (Schedule II)	Entity-Wide Report (Schedule III)	Commitments (Schedule IV)
	38-Instrumentation and Related Products					
		Danaher Controls	1605	0	Yes	Yes
	48-Communications					
		AT&T	1605	4	Yes	No
	49-Electric, Gas, and Sanitary Services					
		Dakota Gasification Company	1605	W	W	W
		Xenon Specialty Gas	1605	1	Yes	No
	67-Holding and Other Investment Offices					
		Blue Source, LLC	1605	10	Yes	No
Total Number of Projects Reported by Entities in Sector				**264**		
Total Number of Entities in Sector Reporting on Schedule				**34**	**65**	**47**
Other						
	88-Private Household					
		Hollomon Family	1605EZ	1	No	No
		Michael Paul Taylor	1605	3	No	No
Total Number of Projects Reported by Entities in Sector				**4**		
Total Number of Entities in Sector Reporting on Schedule				**2**	**0**	**0**
Services and Retail						
	40-Railroad Transportation					
		BNSF Railway Company	1605	1	Yes	Yes
	49-Electric, Gas, and Sanitary Services					
		Burlington County Board of Chosen Freeholders	1605	3	No	No
		City of Springfield	1605	1	No	No
		Kern County Waste Management Department	1605	6	Yes	No
	57-Furniture and Home Furnishing Stores					
		Abe Krasne Home Furnishings, Inc.	1605	0	Yes	No
	63-Insurance Carrier					
		State Farm Mutual Automobile Insurance Co.	1605	0	Yes	No
	72-Personal Services					
		Maple Springs Laundry	1605	0	Yes	Yes
Total Number of Projects Reported by Entities in Sector				**11**		
Total Number of Entities in Sector Reporting on Schedule				**4**	**5**	**2**
Total Number of Projects Reported for 2002				**2,154**		
Total Number of Entities Reporting on Schedule				**175**	**122**	**86**

Note: W indicates that a report is confidential and its data are withheld from publication.

Source: Energy Information Administration, Forms EIA-1605 and EIA-1605EZ.

Table B9. Emission Reduction Projects by Entity, Data Year 2004

Reporter	Form Type	Project	Location	Project Type
A&N Electric Cooperative	1605	Demand-Side Management Load Control Program	U.S.	Energy End Use
		Transmission and Distribution Efficiency Improvements	U.S.	Electricity Generation, Transmission, and Distribution
Advanced Micro Devices, Inc.	1605EZ	Controls Upgrade for Chiller and Air Handlers	U.S.	Energy End Use
		Lighting Replacement	U.S.	Energy End Use
		Process Vacuum Loop Improvement	U.S.	Energy End Use
		Replace Chiller for Process Cooling Water Loop	U.S.	Energy End Use
		Replacement of Chiller with New Efficient Chiller	U.S.	Energy End Use
		VFD Installation for Cooling Towers	U.S.	Energy End Use
AES Hawaii, Inc.	1605	Mbaracayu Conservation	Foreign	Carbon Sequestration
AES Shady Point, LLC	1605	OXFAM America Amazon	Foreign	Carbon Sequestration
AES Thames, LLC	1605	CARE Agroforestry	Foreign	Carbon Sequestration
AES Warrior Run, LLC	1605	Carbon Dioxide Plant	U.S.	Other Emission Reduction Projects
		Indian Dairy Poject	Foreign	Agriculture--Methane and Nitrous Oxide
Alabama Biomass Partners, Ltd	1605EZ	Biomass Waste to Energy	U.S.	Electricity Generation, Transmission, and Distribution
Alcan Primary Products Corporation, Sebree Works	1605	PFC Reduction Project	U.S.	Halogenated Substances
Algonquin Power - Cambrian Pacific Genco LLC	1605	Balefill Landfill Gas Utilization Project	U.S.	Waste Treatment and Disposal--Methane
		Bordeaux Landfill Gas Utilization Project	U.S.	Waste Treatment and Disposal--Methane
		Flying Cloud Landfill Gas Utilization Project	U.S.	Waste Treatment and Disposal--Methane
		Four Hills Landfill Gas Utilization Project	U.S.	Waste Treatment and Disposal--Methane
		Kingsland Landfill Gas Utilization Project	U.S.	Waste Treatment and Disposal--Methane
		Kraemer Landfill Gas Utilization Project	U.S.	Waste Treatment and Disposal--Methane
		Prima Deshecha Landfill Gas Utilization Project	U.S.	Waste Treatment and Disposal--Methane
		San Bernadino Landfill Gas Utilization Project	U.S.	Waste Treatment and Disposal--Methane
		Tajiguas Landfill Gas Utilization Project	U.S.	Waste Treatment and Disposal--Methane
Allegheny Energy, Inc.	1605	Adjustable Speed Drives for PA Fans - Hatfield's Ferry P.S.	U.S.	Electricity Generation, Transmission, and Distribution
		Adjustable Speed Drives-Plastic Injection Molding Machines	U.S.	Energy End Use
		Albright Unit #3 Generation with Wood Based Biomass	U.S.	Electricity Generation, Transmission, and Distribution
		Application of Capacitors	U.S.	Electricity Generation, Transmission, and Distribution
		Armstrong Boiler No. 1 Emissions Reduction Project	U.S.	Electricity Generation, Transmission, and Distribution
		Armstrong Boiler No. 2 Emissions Reduction Project	U.S.	Electricity Generation, Transmission, and Distribution
		Armstrong Unit 1 - Boiler Controls Replacement	U.S.	Electricity Generation, Transmission, and Distribution
		Armstrong Unit 2 - Boiler Controls Replacement	U.S.	Electricity Generation, Transmission, and Distribution
		Auxiliary Fuel Switching	U.S.	Electricity Generation, Transmission, and Distribution
		Bayou Cocodrie Bottomland Hardwood Forest Restoration	U.S.	Carbon Sequestration
		Carryall Vehicle Program	U.S.	Transportation and Off-Road Vehicles
		Conversion to Higher Voltage Distribution	U.S.	Electricity Generation, Transmission, and Distribution
		Demand-Side Management Programs	U.S.	Energy End Use
		Economic Conductor Selection	U.S.	Electricity Generation, Transmission, and Distribution
		Efficient Distribution Transformers	U.S.	Electricity Generation, Transmission, and Distribution
		Energy Star Transformer Program	U.S.	Electricity Generation, Transmission, and Distribution
		EnviroTech Fund - Domestic Activities	U.S.	Other Emission Reduction Projects
		EnviroTech Fund - Foreign Activities	Foreign	Other Emission Reduction Projects
		Fly Ash Use asReplacement for Cement	U.S.	Other Emission Reduction Projects
		Green Lights Utility Ally Program	U.S.	Energy End Use
		Harrison Unit #2 Boiler Controls Replacement	U.S.	Electricity Generation, Transmission, and Distribution
		Harrison Unit #3 Boiler Controls Replacement	U.S.	Electricity Generation, Transmission, and Distribution
		Harrison Unit #3 HP Turbine Rotor Replacement	U.S.	Electricity Generation, Transmission, and Distribution
		Hatfield's Ferry Unit 1 - HP/IP Turbine Rotor Replacement	U.S.	Electricity Generation, Transmission, and Distribution
		Hatfield's Ferry Unit 1 - LP Turbine Rotor Replacement	U.S.	Electricity Generation, Transmission, and Distribution
		Hatfield's Ferry Unit 2 - HP/IP Turbine Rotor Replacement	U.S.	Electricity Generation, Transmission, and Distribution
		Hatfield's Ferry Unit 2 LP Turbine Rotor Replacement	U.S.	Electricity Generation, Transmission, and Distribution
		Hatfield's Ferry Unit 3 - LP Turbine Rotor Replacement	U.S.	Electricity Generation, Transmission, and Distribution
		High Pressure Sodium Vapor Streetlight Replacement Program	U.S.	Energy End Use
		Lake Lynn Hydro Electric Station Relicensing	U.S.	Electricity Generation, Transmission, and Distribution
		Mississippi River Valley Bottomland Hardwood Restoration	U.S.	Carbon Sequestration
		Overflow Bottomland Hardwood Forest Restoration Project	U.S.	Carbon Sequestration
		Performance Monitoring Systems	U.S.	Electricity Generation, Transmission, and Distribution
		Pleasants Unit 2 - Boiler Controls Replacement	U.S.	Electricity Generation, Transmission, and Distribution
		Potomac Edison 138/500 kV System Split	U.S.	Electricity Generation, Transmission, and Distribution
		R. P. Smith Unit 4 - Boiler Controls Replacement	U.S.	Electricity Generation, Transmission, and Distribution
		Reduced Impact Logging of Natural Forest in Malaysia	Foreign	Carbon Sequestration
		Replace Small Primary Conductors	U.S.	Electricity Generation, Transmission, and Distribution
		Rio Bravo Carbon Sequestration Pilot Project	Foreign	Carbon Sequestration
		Rivesville Unit 6 - High Pressure Turbine Rotor Replacement	U.S.	Electricity Generation, Transmission, and Distribution
		Rivesville Unit No. 6 - Boiler Controls Replacement	U.S.	Electricity Generation, Transmission, and Distribution
		Small Hydroelectric Station Relicensing	U.S.	Electricity Generation, Transmission, and Distribution
		Small Run-of-River Hydroelectric Station Relicensing	U.S.	Electricity Generation, Transmission, and Distribution
		St. Catherine-ESI	U.S.	Carbon Sequestration
		St. Catherine-NFWF	U.S.	Carbon Sequestration
		St. Francis River Carbon Offset Project	U.S.	Carbon Sequestration
		Upper Ouachita River Valley Bottomland Hardwood Restoration	U.S.	Carbon Sequestration
		Western Oregon Carbon Sequestration Project	U.S.	Carbon Sequestration
		Willow Island Unit #2 Biomass Project	U.S.	Electricity Generation, Transmission, and Distribution
		Willow Island Unit #2 Tire Derived Fuel Project	U.S.	Electricity Generation, Transmission, and Distribution
		Willow Island Unit 1- Low Pressure Turbine Rotor Replacement	U.S.	Electricity Generation, Transmission, and Distribution
		Willow Island Unit 2 Boiler Controls Replacement	U.S.	Electricity Generation, Transmission, and Distribution
		Wire Replacement on Transmission Lines	U.S.	Electricity Generation, Transmission, and Distribution
Allergan, Inc.	1605	Acetone Catalytic Oxidizer Improvement	Foreign	Energy End Use
		Add Variable Frequency Drive to Existing Chiller	U.S.	Energy End Use
		Air Compressor System Upgrade	Foreign	Energy End Use
		Air Compressor System Upgrade	U.S.	Energy End Use
		Allergan America Facility Closure	U.S.	Energy End Use
		Allergan Brazil Building Management System Installation	Foreign	Energy End Use
		Allergan Facility Divestiture	U.S.	Energy End Use
		Allergan Italy Facility Closure	Foreign	Energy End Use
		Allergan LOK Brazil Operation Consolidation	Foreign	Energy End Use
		Allergan Medical Plastics Energy Managment System Upgrade	U.S.	Energy End Use
		AMO Facility Closure	U.S.	Energy End Use
		Botox Core Three Air Compressor Upgrade	Foreign	Energy End Use
		Botox Core Three Chiller Upgrade	Foreign	Energy End Use
		Botox Core Three Motor Upgrades	Foreign	Energy End Use
		CFC Substitution with Chiller Replacement	U.S.	Halogenated Substances
		Chilled Water Decouple Loop	U.S.	Energy End Use
		Chiller Replacement	U.S.	Energy End Use

Table B9. Emission Reduction Projects by Entity, Data Year 2004 (Continued)

Reporter	Form Type	Project	Location	Project Type
		Classified Area Lighting Upgrade	Foreign	Energy End Use
		Compressed Air Leak Repair	Foreign	Energy End Use
		Compressor Replacement	U.S.	Energy End Use
		Curtail Weekend Energy Usage	Foreign	Energy End Use
		Direct Expansion Cooler Unit Redesign	U.S.	Energy End Use
		Downsize Boiler to Meet Requirements	Foreign	Energy End Use
		Elimination of Catalytic Thermal Oxidizer	U.S.	Energy End Use
		Elimination of CFCs at Farnborough, UK	Foreign	Halogenated Substances
		Elimination of CFCs at U.S. Plants	U.S.	Halogenated Substances
		Floor Fan Elimination	U.S.	Energy End Use
		HID Lighting Upgrade	Foreign	Energy End Use
		Install Bi-Level Lighting Controls on HID Lighting	U.S.	Energy End Use
		Install High Efficiency T8 Fixtures in Office Areas	U.S.	Energy End Use
		Install Higher Efficiency Chiller	U.S.	Energy End Use
		Install Higher Efficiency Motors	U.S.	Energy End Use
		Install Occupancy Sensors	U.S.	Energy End Use
		Install On/Off Controller on Hot/Cold Water Pumps	U.S.	Energy End Use
		Install Photoelectric Sensor on Grinder and Blowers	U.S.	Energy End Use
		Install VSD Air Handler Fan #20	U.S.	Energy End Use
		Install VSD on 40 HP Cooling Water Pump	U.S.	Energy End Use
		Install VSD on 50 HP Water Pump	U.S.	Energy End Use
		Install VSDs on Hot Water Pumps	U.S.	Energy End Use
		Install Wattman Controller in parking structure	U.S.	Energy End Use
		Insulate Process Lines	Foreign	Energy End Use
		Irvine Microturbine/Waste Heat Recovery Project	U.S.	Cogeneration and Waste Heat Recovery
		Lighting Retrofits and Upgrades	U.S.	Energy End Use
		Lighting Upgrade at Allergan Irvine	U.S.	Energy End Use
		Motor Replacement Project	Foreign	Energy End Use
		RD III Building Startup in Irvine, CA	U.S.	Energy End Use
		Reduce Air Compressor Discharge Pressure	U.S.	Energy End Use
		Reduction in Operating Time for Blowmolding Equipment	Foreign	Energy End Use
		Replace Existing Hot Water Boiler with Heat Exchanger	U.S.	Energy End Use
		Replace Mercury Vapor Lamps with Fluorescent Lamps	Foreign	Energy End Use
Alliant Energy	1605	Afforestation	U.S.	Carbon Sequestration
		Ameresco Landfill	U.S.	Electricity Generation, Transmission, and Distribution
		Bayou Cocodrie Bottomland Hardwood Forest Restoration	U.S.	Carbon Sequestration
		Berlin Landfill	U.S.	Electricity Generation, Transmission, and Distribution
		Biomass - IA	U.S.	Electricity Generation, Transmission, and Distribution
		Cedar Rapids Landfill (IES)	U.S.	Electricity Generation, Transmission, and Distribution
		Columbia 1&2 Turbine Efficiency	U.S.	Electricity Generation, Transmission, and Distribution
		Conservation tillage	U.S.	Carbon Sequestration
		Deer Ridge Dairy	U.S.	Electricity Generation, Transmission, and Distribution
		Double S Dairy	U.S.	Electricity Generation, Transmission, and Distribution
		Energy End Use - Electric IES	U.S.	Energy End Use
		Energy End Use - Electric IPC	U.S.	Energy End Use
		Energy End Use - Gas IES	U.S.	Energy End Use
		Energy End Use - Gas IPC	U.S.	Energy End Use
		Energy end use-Electric WP&L	U.S.	Energy End Use
		Energy end use-Gas WP&L	U.S.	Energy End Use
		Fly Ash Utilization	U.S.	Other Emission Reduction Projects
		Forest preservation	U.S.	Carbon Sequestration
		Habitat Restoration	U.S.	Carbon Sequestration
		Hydro - IA	U.S.	Electricity Generation, Transmission, and Distribution
		Hydro - WI	U.S.	Electricity Generation, Transmission, and Distribution
		Mallard Ridge Landfill	U.S.	Electricity Generation, Transmission, and Distribution
		Minergy Waste Generation	U.S.	Electricity Generation, Transmission, and Distribution
		Mississippi River Valley Bottomland Hardwood Restoration	U.S.	Carbon Sequestration
		Onyx Glacier Ridge Landfill	U.S.	Electricity Generation, Transmission, and Distribution
		Overflow Bottomland Hardwood Forest Restoration Project	U.S.	Carbon Sequestration
		Recycling Activities	U.S.	Other Emission Reduction Projects
		Reduced Impact Logging of Natural Forest in Malaysia	Foreign	Carbon Sequestration
		Rio Bravo Carbon Sequestration Pilot Project	Foreign	Carbon Sequestration
		Sauk County Landfill	U.S.	Electricity Generation, Transmission, and Distribution
		SFDL Fuel Switching	U.S.	Electricity Generation, Transmission, and Distribution
		St. Catherine-ESI	U.S.	Carbon Sequestration
		St. Catherine-NFWF	U.S.	Carbon Sequestration
		St. Francis River Carbon Offset Project	U.S.	Carbon Sequestration
		Switchgrass Cofiring	U.S.	Electricity Generation, Transmission, and Distribution
		Tire Derived Fuel Generation	U.S.	Electricity Generation, Transmission, and Distribution
		Transmission line improvements	U.S.	Electricity Generation, Transmission, and Distribution
		Upper Ouachita River Valley Bottomland Hardwood Restoration	U.S.	Carbon Sequestration
		Urban Forestry IES	U.S.	Energy End Use
		Urban Forestry IP&L	U.S.	Carbon Sequestration
		Urban Forestry IPC	U.S.	Energy End Use
		Verona Landfill	U.S.	Electricity Generation, Transmission, and Distribution
		Western Oregon Carbon Sequestration Project	U.S.	Carbon Sequestration
		Wind Power-Iowa	U.S.	Electricity Generation, Transmission, and Distribution
		Wind Power-Wisconsin	U.S.	Electricity Generation, Transmission, and Distribution
		WP&L Green Lights Projects	U.S.	Energy End Use
Ameren Corporation (formerly UE, CIPS, and CILCO)	1605	Bayou Cocodrie Bottomland Hardwood Forest Restoration	U.S.	Carbon Sequestration
		Carpooling	U.S.	Transportation and Off-Road Vehicles
		CILCO Demand Side Management	U.S.	Energy End Use
		CILCO Landfill Gas Purchase	U.S.	Waste Treatment and Disposal--Methane
		CIPS Mine Gas to Energy	U.S.	Oil and Natural Gas Systems and Coal Mining--Methane
		Conversion to a dry flyash handling system.	U.S.	Electricity Generation, Transmission, and Distribution
		Demand Side Management Projects	U.S.	Energy End Use
		EnviroTech Fund - Foreign	Foreign	Energy End Use
		EnviroTech Fund - US	U.S.	Energy End Use
		Flyash substitution for cement	U.S.	Other Emission Reduction Projects
		Grand Tower Repowering	U.S.	Electricity Generation, Transmission, and Distribution
		Green Leaf Project	U.S.	Carbon Sequestration
		Increased Nuclear generation	U.S.	Electricity Generation, Transmission, and Distribution
		Install adjustible speed fan drives replacing fixed speed	U.S.	Electricity Generation, Transmission, and Distribution
		Keokuk Upgrades	U.S.	Electricity Generation, Transmission, and Distribution
		Meramec Power Plant Control Upgrade	U.S.	Electricity Generation, Transmission, and Distribution
		Meramec Power Plant Lighting Upgrade	U.S.	Energy End Use
		Milam Landfill Methane Recovery	U.S.	Waste Treatment and Disposal--Methane

Table B9. Emission Reduction Projects by Entity, Data Year 2004 (Continued)

Reporter	Form Type	Project	Location	Project Type
		Mississippi River Valley Bottomland Hardwood Restoration	U.S.	Carbon Sequestration
		Overflow Bottomland Hardwood Forest Restoration Project	U.S.	Carbon Sequestration
		Purchase of Light Weight Rail Cars	U.S.	Transportation and Off-Road Vehicles
		Reduced Impact Logging of Natural Forest in Malaysia	Foreign	Carbon Sequestration
		Replaced motor-generator exciters with static exciter system	U.S.	Electricity Generation, Transmission, and Distribution
		Rio Bravo Carbon Sequestration Pilot Project	Foreign	Carbon Sequestration
		Sioux Plant Control Upgrade	U.S.	Electricity Generation, Transmission, and Distribution
		Spanish Lake Carbon Offset Project	U.S.	Carbon Sequestration
		St. Catherine-ESI	U.S.	Carbon Sequestration
		St. Catherine-NFWF	U.S.	Carbon Sequestration
		St. Francis River Carbon Offset Project	U.S.	Carbon Sequestration
		Street Light Conversion	U.S.	Energy End Use
		Subtransmission Reconductoring	U.S.	Electricity Generation, Transmission, and Distribution
		Tire Burning	U.S.	Electricity Generation, Transmission, and Distribution
		Transformer Replacement	U.S.	Electricity Generation, Transmission, and Distribution
		Upper Ouachita River Valley Bottomland Hardwood Restoration	U.S.	Carbon Sequestration
		Walsh Lake Carbon Offset Project	U.S.	Carbon Sequestration
		Waste Oil Heat Recovery	U.S.	Electricity Generation, Transmission, and Distribution
		Western Oregon Carbon Sequestration Project	U.S.	Carbon Sequestration
		White River Carbon Offset Project	U.S.	Carbon Sequestration
American Electric Power, Inc.	1605	AEP-AGCROP-2002	U.S.	Carbon Sequestration
		AEP-AGSPOIL-1992	U.S.	Carbon Sequestration
		AEP-AGSPOIL-1993	U.S.	Carbon Sequestration
		AEP-AGSPOIL-1994	U.S.	Carbon Sequestration
		AEP-AGSPOIL-1995	U.S.	Carbon Sequestration
		AEP-AGSPOIL-1996	U.S.	Carbon Sequestration
		AEP-AGSPOIL-1997	U.S.	Carbon Sequestration
		AEP-AGSPOIL-1998	U.S.	Carbon Sequestration
		AEP-AGSPOIL-1999	U.S.	Carbon Sequestration
		AEP-AGSPOIL-2000	U.S.	Carbon Sequestration
		AEP-AGSPOIL-2001	U.S.	Carbon Sequestration
		AEP-AGSPOIL-2002	U.S.	Carbon Sequestration
		AEP-AGSPOIL-2003	U.S.	Carbon Sequestration
		AEP-Fernwood-2001	U.S.	Carbon Sequestration
		AEP-FM-1991	U.S.	Carbon Sequestration
		AEP-FM-1992	U.S.	Carbon Sequestration
		AEP-FM-1993	U.S.	Carbon Sequestration
		AEP-FM-1994	U.S.	Carbon Sequestration
		AEP-FM-1995	U.S.	Carbon Sequestration
		AEP-FM-1996	U.S.	Carbon Sequestration
		AEP-FM-1997	U.S.	Carbon Sequestration
		AEP-FM-1998	U.S.	Carbon Sequestration
		AEP-FM-1999	U.S.	Carbon Sequestration
		AEP-FM-2000	U.S.	Carbon Sequestration
		AEP-FM-2001	U.S.	Carbon Sequestration
		AEP-FM-2002	U.S.	Carbon Sequestration
		AEP-FM-2003	U.S.	Carbon Sequestration
		AEP-MARAG- 1992	U.S.	Carbon Sequestration
		AEP-MARAG-1991	U.S.	Carbon Sequestration
		AEP-MARAG-1993	U.S.	Carbon Sequestration
		AEP-MARAG-1993-2	U.S.	Carbon Sequestration
		AEP-MARAG-1994	U.S.	Carbon Sequestration
		AEP-MARAG-1994-2	U.S.	Carbon Sequestration
		AEP-MARAG-1995	U.S.	Carbon Sequestration
		AEP-MARAG-1996	U.S.	Carbon Sequestration
		AEP-MARAG-1997	U.S.	Carbon Sequestration
		AEP-MARAG-1998	U.S.	Carbon Sequestration
		AEP-MARAG-1999	U.S.	Carbon Sequestration
		AEP-MARAG-2000	U.S.	Carbon Sequestration
		AEP-Private lands-2001	U.S.	Carbon Sequestration
		AEP-Private Lands-2002	U.S.	Carbon Sequestration
		AEP-Private Lands-2003	U.S.	Carbon Sequestration
		AEP-West Land Management	U.S.	Carbon Sequestration
		Bayou Cocodrie Bottomland Hardwood Forest Restoration	U.S.	Carbon Sequestration
		Catahoula Reforestation Project-2001	U.S.	Carbon Sequestration
		Catahoula-Reforestation Project-2002	U.S.	Carbon Sequestration
		ClearChoice(sm) Green Pricing Initiative: AEP-West	U.S.	Electricity Generation, Transmission, and Distribution
		Commercial/Industrial DSM Programs: AEP-East	U.S.	Energy End Use
		Dan Tabberer Carbon Sequestration Project	U.S.	Carbon Sequestration
		Demand Side Management Activities: AEP-West	U.S.	Energy End Use
		Distribution System Equipment Improvements	U.S.	Electricity Generation, Transmission, and Distribution
		DUNDAS-AGSPOIL-1998	U.S.	Carbon Sequestration
		DUNDAS-MARAG-1998	U.S.	Carbon Sequestration
		ECCF-AGSPOIL-1995	U.S.	Carbon Sequestration
		ECCF-AGSPOIL-1997	U.S.	Carbon Sequestration
		ECCF-AGSPOIL-1998	U.S.	Carbon Sequestration
		ECCF-AGSPOIL-2000	U.S.	Carbon Sequestration
		ECCF-MARAG-1991	U.S.	Carbon Sequestration
		ECCF-MARAG-1992	U.S.	Carbon Sequestration
		ECCF-MARAG-1993	U.S.	Carbon Sequestration
		ECCF-MARAG-1995	U.S.	Carbon Sequestration
		ECCF-MARAG-1996	U.S.	Carbon Sequestration
		ECCF-MARAG-1997	U.S.	Carbon Sequestration
		ECCF-MARAG-1998	U.S.	Carbon Sequestration
		ECCF-MARAG-1999	U.S.	Carbon Sequestration
		ECCF-MARAG-2000	U.S.	Carbon Sequestration
		Enviro Tech Investment Fund I Limited Partnership - US	U.S.	Other Emission Reduction Projects
		Enviro Tech Investment Funds - Foreign	Foreign	Other Emission Reduction Projects
		Fly Ash Utilization Program (Cement Replacement)	U.S.	Other Emission Reduction Projects
		Fuel Switch Coal to Natural Gas (Conesville Unit 1-3)	U.S.	Electricity Generation, Transmission, and Distribution
		Green Lights	U.S.	Energy End Use
		Green River State Forest Carbon Project	U.S.	Carbon Sequestration
		Guaraquecaba Climate Action Project	Foreign	Carbon Sequestration
		Heat Rate Improvement (Due to improved load optimization)	U.S.	Electricity Generation, Transmission, and Distribution
		Heat Rate Improvement Projects (Oper. and Equip. Changes)	U.S.	Electricity Generation, Transmission, and Distribution
		Hydroelectric Facility Improvements: AEP-East	U.S.	Electricity Generation, Transmission, and Distribution
		Mississippi River Valley Bottomland Hardwood Restoration	U.S.	Carbon Sequestration
		Morgan County Improvement Corporation Forest Management Proj	U.S.	Carbon Sequestration
		Noel Kempff Mercado Climate Action Project	Foreign	Carbon Sequestration

Table B9. Emission Reduction Projects by Entity, Data Year 2004 (Continued)

Reporter	Form Type	Project	Location	Project Type
		Nuclear Plant Improved Utilization	U.S.	Electricity Generation, Transmission, and Distribution
		Ohio Central Station Site-MARAG-1996	U.S.	Carbon Sequestration
		Open-Loop Transmission Groundwire Resistive Loss Reduction	U.S.	Electricity Generation, Transmission, and Distribution
		Overflow Bottomland Hardwood Forest Restoration Project	U.S.	Carbon Sequestration
		Reduced Impact Logging of Natural Forest in Malaysia	Foreign	Carbon Sequestration
		Renewable Generation - Solar	U.S.	Electricity Generation, Transmission, and Distribution
		Renewable Generation - Wind: AEP-East	U.S.	Electricity Generation, Transmission, and Distribution
		Renewable Generation - Wind: AEP-West	U.S.	Electricity Generation, Transmission, and Distribution
		Residential Demand Side Management Programs: AEP-East	U.S.	Energy End Use
		Rio Bravo Carbon Sequestration Pilot Project	Foreign	Carbon Sequestration
		Simon Kenton Council Forest Management Project	U.S.	Carbon Sequestration
		Southwest Mesa Wind Farm	U.S.	Electricity Generation, Transmission, and Distribution
		Spanish Lake Carbon Offset Project	U.S.	Carbon Sequestration
		St. Catherine-ESI	U.S.	Carbon Sequestration
		St. Catherine-NFWF	U.S.	Carbon Sequestration
		St. Francis River Carbon Offset Project	U.S.	Carbon Sequestration
		Sulfur Hexafluoride Gas Reduction	U.S.	Halogenated Substances
		Transmission Efficiency Improvements: AEP-West	U.S.	Electricity Generation, Transmission, and Distribution
		Transmission System Reinforcements	U.S.	Electricity Generation, Transmission, and Distribution
		Upper Ouachita River Valley Bottomland Hardwood Restoration	U.S.	Carbon Sequestration
		USFWS Catahoula Reforestation Project-2002	U.S.	Carbon Sequestration
		Walsh Lake Carbon Offset Project	U.S.	Carbon Sequestration
		Watts on Schools	U.S.	Electricity Generation, Transmission, and Distribution
		WCFGPL-MARAG-1996	U.S.	Carbon Sequestration
		WCFGPL-MARAG-2000	U.S.	Carbon Sequestration
		Western Oregon Carbon Sequestration Project	U.S.	Carbon Sequestration
		White River Carbon Offset Project	U.S.	Carbon Sequestration
		Wilderness Center Carbon Sequestration Project	U.S.	Carbon Sequestration
		WILDS PROJECT-MARAG-1998	U.S.	Carbon Sequestration
American Municipal Power - Ohio	1605EZ	AMP-Ohio Member Communities: Lighting Improvements	U.S.	Energy End Use
		AMP-Ohio Member Communities: Reconductoring	U.S.	Electricity Generation, Transmission, and Distribution
		AMP-Ohio Member Communities: Urban Forestry - Tree City USA	U.S.	Carbon Sequestration
		AMP-Ohio: Landfill Gas	U.S.	Electricity Generation, Transmission, and Distribution
		AMP-Ohio: OMEGA JV5 Belleville Hydro Plant	U.S.	Electricity Generation, Transmission, and Distribution
		AMP-Ohio: Wind Turbines	U.S.	Electricity Generation, Transmission, and Distribution
		Bryan: Auglaize Hydro	U.S.	Electricity Generation, Transmission, and Distribution
		Orrville: Voltage Conversion	U.S.	Electricity Generation, Transmission, and Distribution
		Wadsworth: Lighting Improvements (Traffic Lights)	U.S.	Energy End Use
Anoka Municipal Utility	1605EZ	Central A/C Replacement	U.S.	Energy End Use
		Demand Management	U.S.	Energy End Use
		Lighting Replacement	U.S.	Energy End Use
		Urban Foresttry	U.S.	Carbon Sequestration
Arizona Portland Cement Co.	1605	100 Ton Haul Trucks	U.S.	Transportation and Off-Road Vehicles
		ASTM C-150 Specification Revision	U.S.	Other Emission Reduction Projects
		Bulk Load Bin Filling	U.S.	Energy End Use
		CM7 High Efficiency Separator	U.S.	Energy End Use
		D2 Finish Mill Conversion with High Efficiency Separator	U.S.	Energy End Use
		D3 Finish Grind System Improvements	U.S.	Energy End Use
		Lighting Program	U.S.	Energy End Use
		New Vertical Roller Mill	U.S.	Energy End Use
		Optimize AC Raw Mill Systems DISCONTUNED in 2001	U.S.	Energy End Use
		Optimize Compressed Air System	U.S.	Energy End Use
		PGNA Analyzer	U.S.	Energy End Use
		Rimod 3000	U.S.	Energy End Use
		Tree Planting	U.S.	Carbon Sequestration
		Upgrade the D2 Raw Mill System DISCONTINUED	U.S.	Energy End Use
Arizona Public Service Company	1605	Spanish Lake Carbon Offset Project	U.S.	Carbon Sequestration
		Walsh Lake Carbon Offset Project	U.S.	Carbon Sequestration
		White River Carbon Offset Project	U.S.	Carbon Sequestration
Asheville Landfill Gas, LLC	1605	Buncombe County Landfill	U.S.	Waste Treatment and Disposal--Methane
AT&T	1605	Electricity Use Reduction Program	U.S.	Energy End Use
		Fleet Cost Reduction Program	U.S.	Transportation and Off-Road Vehicles
		Recycling/Takeback/Reuse Projects	U.S.	Other Emission Reduction Projects
		Telecommuting	U.S.	Transportation and Off-Road Vehicles
BARC Electric Cooperative	1605	Demand-Side Management Load Control Programs	U.S.	Energy End Use
		System Line Conversions and Reconductoring	U.S.	Electricity Generation, Transmission, and Distribution
Berkshire Power LLC	1605	Natural gas fired electric generation	U.S.	Electricity Generation, Transmission, and Distribution
Biomass Partners, LP	1605EZ	Biomass Waste to Energy	U.S.	Electricity Generation, Transmission, and Distribution
Blue Source, LLC	1605	Bucksport - Fuel Switching Project	U.S.	Electricity Generation, Transmission, and Distribution
		Empty Mile Reduction Project	U.S.	Transportation and Off-Road Vehicles
		Energy Conservation Management	U.S.	Energy End Use
		Idling Reduction Bonus Program Project	U.S.	Transportation and Off-Road Vehicles
		Intermodal Transport Project	U.S.	Transportation and Off-Road Vehicles
		Methane Capture and Flare at Wastewater Treatment Facilities	U.S.	Waste Treatment and Disposal--Methane
		Mississippi EOR	U.S.	Other Emission Reduction Projects
		West Texas CO2 Pipeline-EOR	U.S.	Other Emission Reduction Projects
		West Texas EOR-A	U.S.	Other Emission Reduction Projects
		Wyoming EOR	U.S.	Other Emission Reduction Projects
BMW US Holding Corp.	1605	BMW Landfill Gas Project	U.S.	Energy End Use
BNSF Railway Company	1605	Locomotive GHG reduction	U.S.	Transportation and Off-Road Vehicles
Bountiful City Light & Power	1605	Air fuel ratio controller installed in dual fuel engine	U.S.	Electricity Generation, Transmission, and Distribution
		Capacitor bank installation - increasing system efficiency	U.S.	Electricity Generation, Transmission, and Distribution
		District heating	U.S.	Cogeneration and Waste Heat Recovery
		Hydroelectric plant operations	U.S.	Electricity Generation, Transmission, and Distribution
		Residential compact fluorescent lighting program	U.S.	Energy End Use
		Street lighting replacement	U.S.	Energy End Use
		Tree planting	U.S.	Carbon Sequestration
BP America	1605	Crude production and exploration process improvements	U.S.	Energy End Use
		Crude Production Emission Reduction	U.S.	Other Emission Reduction Projects
		Noel Kempff Mercado Climate Action Project	Foreign	Carbon Sequestration
		Non-VOCs for Upstream	U.S.	Other Emission Reduction Projects
		Oil and Gas Methane Reduction-from Equipment Upgrade	U.S.	Oil and Natural Gas Systems and Coal Mining--Methane
		Oil and Gas Methane Reduction-Reduced Vent with Flaring	U.S.	Oil and Natural Gas Systems and Coal Mining--Methane
		Oil and Gas Methane Reductions-Reduced Venting with Recovery	U.S.	Oil and Natural Gas Systems and Coal Mining--Methane
		Petroleum Marketing Power Generation	U.S.	Electricity Generation, Transmission, and Distribution

Table B9. Emission Reduction Projects by Entity, Data Year 2004 (Continued)

Reporter	Form Type	Project	Location	Project Type
		Petroleum refining + Chemical plant emission control project	U.S.	Other Emission Reduction Projects
		Petroleum refining and Chemical Plant VOC control projects	U.S.	Other Emission Reduction Projects
		Petroleum Refining and Chemicals process modifications	U.S.	Energy End Use
		Thermal Process Efficiency Improvements	U.S.	Cogeneration and Waste Heat Recovery
Branson Ultrasonics Corporation	1605	Electrical Energy Consumption	U.S.	Energy End Use
Bristol-Myers Squibb Company	1605	Coal-Fired Boilers Replaced with Nat Gas/Oil Fired Boilers	U.S.	Energy End Use
		Compressed Air System Renovation & Leak Survey/Repair	U.S.	Energy End Use
		On-site Renewable Energy - Solar	U.S.	Electricity Generation, Transmission, and Distribution
Burlington County Board of Chosen Freeholders	1605	Burlington County Regional Recycling Program	U.S.	Other Emission Reduction Projects
		Demonstration Greenhouse Boiler (Gas to Heat Conversion)	U.S.	Waste Treatment and Disposal--Methane
		Landfill Gas Flaring	U.S.	Waste Treatment and Disposal--Methane
California Portland Cement Co. - Colton Plant	1605	ASTM C-150 Specification Revision	U.S.	Other Emission Reduction Projects
		Energy Conservation in Office, Lab, Garage and Shop Areas	U.S.	Energy End Use
		Finish Mill System Optimization	U.S.	Energy End Use
		Install New Gravity Blend Homogenizing Silo	U.S.	Energy End Use
		Install New Raw Material Transport System	U.S.	Energy End Use
		Kiln Systems Optimization	U.S.	Energy End Use
		Optimize High Pressure Air System	U.S.	Energy End Use
		Raw Grinding System Improvements	U.S.	Energy End Use
		Reduce Plant Water Consumption	U.S.	Energy End Use
California Portland Cement Co. - Mojave Plant	1605	Finish Grinding Process Addition	U.S.	Other Emission Reduction Projects
		New D3-1/FM6 Finish Mill System	U.S.	Energy End Use
		Optimize the D3-1 Finish Mill System DISCONTINUED in 1996	U.S.	Energy End Use
		Plant High Pressure Air System Improvements	U.S.	Energy End Use
		Pyro System Optimization	U.S.	Energy End Use
		Raw Mill Energy Efficiency Improvements	U.S.	Energy End Use
Cambrian Energy Development LLC	1605	Fort Smith Landfill Gas Utilization Project	U.S.	Waste Treatment and Disposal--Methane
Carolina Power & Light Company	1605	Nuclear Capacity Improvement	U.S.	Electricity Generation, Transmission, and Distribution
		Spanish Lake Carbon Offset Project	U.S.	Carbon Sequestration
		Walsh Lake Carbon Offset Project	U.S.	Carbon Sequestration
		White River Carbon Offset Project	U.S.	Carbon Sequestration
Catawba Landfill Gas, LLC	1605	Blackburn Landfill	U.S.	Waste Treatment and Disposal--Methane
CDX Gas, LLC	1605	Arkoma Mine Coalbed Methane Recovery	U.S.	Oil and Natural Gas Systems and Coal Mining--Methane
		Pinnacle Mine Coalbed Methane Recovery	U.S.	Oil and Natural Gas Systems and Coal Mining--Methane
Chevron Corporation	1605EZ	Chevron Lower Mississippi River Valley Reforestation	U.S.	Carbon Sequestration
Choptank Electric Cooperative	1605	System Line Conversions and Reconductoring	U.S.	Electricity Generation, Transmission, and Distribution
Cinergy Corp.	1605	Bayou Cocodrie Bottomland Hardwood Forest Restoration	U.S.	Carbon Sequestration
		Benificial Use of Coal Fly Ash	U.S.	Other Emission Reduction Projects
		Cayuga Heat Rate Improvements	U.S.	Electricity Generation, Transmission, and Distribution
		Cinergy Corp. Ducks Unlimited Bottomland Hardwood Reforest.	U.S.	Carbon Sequestration
		Cinergy Corp. The Nature Conservancy Reforestation and Bio.	U.S.	Carbon Sequestration
		Cinergy Corp. Wild Turkey Federation Operation Big Sky.	U.S.	Carbon Sequestration
		Commercial Audit/Incentive Program	U.S.	Energy End Use
		Commercial Direct Lighting	U.S.	Energy End Use
		Commercial/Industrial Adjustable Speed Drive Plan	U.S.	Energy End Use
		Commercial/Industrial High Efficiency Motors Plan	U.S.	Energy End Use
		Commercial/Industrial Lighting Rebate Program	U.S.	Energy End Use
		Commercial/Industrial Peak Reduction Program	U.S.	Energy End Use
		Danville, IN Electric Generation	U.S.	Waste Treatment and Disposal--Methane
		Facility Tree Planting Program	U.S.	Carbon Sequestration
		Fleet Alternative Fuels	U.S.	Transportation and Off-Road Vehicles
		Gibson Performance Maximization Program	U.S.	Electricity Generation, Transmission, and Distribution
		Green Lights Program	U.S.	Energy End Use
		Hendricks County McCloud Park Project	U.S.	Carbon Sequestration
		Home Energy House Call	U.S.	Energy End Use
		Industrial Efficiency Improvement & Energy Awareness Program	U.S.	Energy End Use
		Merger Dispatch Savings	U.S.	Electricity Generation, Transmission, and Distribution
		Mississippi River Valley Bottomland Hardwood Restoration	U.S.	Carbon Sequestration
		Natural Gas Star Program	U.S.	Oil and Natural Gas Systems and Coal Mining--Methane
		NICHES project	U.S.	Carbon Sequestration
		Noblesville repowering	U.S.	Electricity Generation, Transmission, and Distribution
		Overflow Bottomland Hardwood Forest Restoration Project	U.S.	Carbon Sequestration
		Photovoltaic systems	U.S.	Energy End Use
		Planergy	U.S.	Energy End Use
		Recycling Programs	U.S.	Other Emission Reduction Projects
		Reduced Impact Logging of Natural Forest in Malaysia	Foreign	Carbon Sequestration
		Renewable energy projects	U.S.	Energy End Use
		Residential Energy Efficient Lighting Program	U.S.	Energy End Use
		Residential Seal-Up & Low-Income Efficiency Program	U.S.	Energy End Use
		Residential Smart $aver & Heat Pump Savings Programs	U.S.	Energy End Use
		Residential Wrap-Up Program	U.S.	Energy End Use
		Rio Bravo Carbon Sequestration Pilot Project	Foreign	Carbon Sequestration
		Rio Bravo Carbon Sequestration Pilot Project (Full Share)	Foreign	Carbon Sequestration
		Rumpke Landfill Gas Recovery	U.S.	Waste Treatment and Disposal--Methane
		SF6 Emission Reduction Partnership	U.S.	Halogenated Substances
		Spanish Lake Carbon Offset Project	U.S.	Carbon Sequestration
		St. Catherine-ESI	U.S.	Carbon Sequestration
		St. Catherine-NFWF	U.S.	Carbon Sequestration
		St. Francis River Carbon Offset Project	U.S.	Carbon Sequestration
		Sycamore Land Trust	U.S.	Carbon Sequestration
		Thermal Energy (Cool) Storage Program	U.S.	Energy End Use
		Upper Ouachita River Valley Bottomland Hardwood Restoration	U.S.	Carbon Sequestration
		Wabash River Heat Rate Improvement	U.S.	Electricity Generation, Transmission, and Distribution
		Walsh Lake Carbon Offset Project	U.S.	Carbon Sequestration
		Western Oregon Carbon Sequestration Project	U.S.	Carbon Sequestration
		White River Carbon Offset Project	U.S.	Carbon Sequestration
		WRP Tree Planting Program	U.S.	Carbon Sequestration
City of Austin Electric Utility (Austin Energy)	1605EZ	Coal Combustion Byproduct Reutilization	U.S.	Other Emission Reduction Projects
		Demand Side Management	U.S.	Energy End Use
		Hydro Power Purchase	U.S.	Electricity Generation, Transmission, and Distribution
		Landfill Gas Generation	U.S.	Waste Treatment and Disposal--Methane
		NOx Reduction at Coal Fired Power Plant	U.S.	Other Emission Reduction Projects

Table B9. Emission Reduction Projects by Entity, Data Year 2004 (Continued)

Reporter	Form Type	Project	Location	Project Type
		SF-6 Leak Reduction Project	U.S.	Electricity Generation, Transmission, and Distribution
		South Texas Project	U.S.	Electricity Generation, Transmission, and Distribution
		Transmission Improvement Project	U.S.	Electricity Generation, Transmission, and Distribution
		West Texas Wind Power Purchase	U.S.	Electricity Generation, Transmission, and Distribution
City of Springfield	1605	Springfield Sanitary Landfill	U.S.	Waste Treatment and Disposal--Methane
City Public Service	1605	All Other Recycling	U.S.	Other Emission Reduction Projects
		Desert Sky Wind Turbine Power Purchase	U.S.	Electricity Generation, Transmission, and Distribution
		Flyash Sales	U.S.	Other Emission Reduction Projects
		Mow Down Smog	U.S.	Energy End Use
		SF6 Inventory	U.S.	Halogenated Substances
		South Texas Project Nuclear Operating Company	U.S.	Electricity Generation, Transmission, and Distribution
		Streetlight Replacements	U.S.	Energy End Use
		Tree Planting	U.S.	Carbon Sequestration
		Wash Right Rebates	U.S.	Energy End Use
Cleco Corporation	1605	Bayou Cocodrie Bottomland Hardwood Forest Restoration	U.S.	Carbon Sequestration
		Bayou Jean de Jean Reforestation	U.S.	Carbon Sequestration
		Maknockanut Lake Plantation Carbon Unit #1	U.S.	Carbon Sequestration
		Maknockanut Lake Plantation Carbon Unit #2	U.S.	Carbon Sequestration
		Mississippi River Valley Bottomland Hardwood Restoration	U.S.	Carbon Sequestration
		Overflow Bottomland Hardwood Forest Restoration Project	U.S.	Carbon Sequestration
		Reduced Impact Logging of Natural Forest in Malaysia	Foreign	Carbon Sequestration
		Rio Bravo Carbon Sequestration Pilot Project	Foreign	Carbon Sequestration
		Spanish Lake Carbon Offset Project	U.S.	Carbon Sequestration
		St. Catherine-ESI	U.S.	Carbon Sequestration
		St. Catherine-NFWF	U.S.	Carbon Sequestration
		St. Francis River Carbon Offset Project	U.S.	Carbon Sequestration
		Upper Ouachita River Valley Bottomland Hardwood Restoration	U.S.	Carbon Sequestration
		Walsh Lake Carbon Offset Project	U.S.	Carbon Sequestration
		Western Oregon Carbon Sequestration Project	U.S.	Carbon Sequestration
		White River Carbon Offset Project	U.S.	Carbon Sequestration
CMS Energy	1605	Antrim CO2 Sequestration	U.S.	Other Emission Reduction Projects
		CMS VIRON	U.S.	Energy End Use
		Fly Ash Sales	U.S.	Other Emission Reduction Projects
		Increased Nuclear Availibility (Consumers)	U.S.	Electricity Generation, Transmission, and Distribution
		Jorf Lasfar	Foreign	Other Emission Reduction Projects
		Karn 3 and Aux Boiler Fuel Switch	U.S.	Electricity Generation, Transmission, and Distribution
		Karn 4 Fuel Switch (Consumers)	U.S.	Electricity Generation, Transmission, and Distribution
		Natural Gas Star Program (Consumers)	U.S.	Oil and Natural Gas Systems and Coal Mining--Methane
		NPS-Biomass Electric Generation	Foreign	Electricity Generation, Transmission, and Distribution
		Toledo Power Efficiency Improvements	Foreign	Electricity Generation, Transmission, and Distribution
		US Biomass Electric Generation	U.S.	Electricity Generation, Transmission, and Distribution
		Wind Power	U.S.	Electricity Generation, Transmission, and Distribution
CMV Joint Venture	1605	Oak Grove Coalbed Methane Recovery Project	U.S.	Oil and Natural Gas Systems and Coal Mining--Methane
		White Oak Creek Coalbed Methane Recovery	U.S.	Oil and Natural Gas Systems and Coal Mining--Methane
Common Purpose Institute	1605EZ	Energy Crop Tree Farm	U.S.	Carbon Sequestration
CommonWealth Bethlehem Energy, LLC	1605	North Country Landfill Gas Utilization Facility	U.S.	Waste Treatment and Disposal--Methane
Community Electric Cooperative	1605	System Line Conversion and Reconductoring	U.S.	Electricity Generation, Transmission, and Distribution
Consolidated Edison Company of New York, Inc.	1605	Alternative Fuel Vehicles - Bio diesel	U.S.	Transportation and Off-Road Vehicles
		Alternative Fuel Vehicles - CNG	U.S.	Transportation and Off-Road Vehicles
		Arthur Kill - Fuel Switching to Natural Gas	U.S.	Electricity Generation, Transmission, and Distribution
		Natural Gas STAR Best Management Practices	U.S.	Oil and Natural Gas Systems and Coal Mining--Methane
		SF6 Best Management Practices	U.S.	Halogenated Substances
Constellation Energy	1605	Alternatively Fueled Vehicles	U.S.	Transportation and Off-Road Vehicles
		Baltimore RESCO Waste-to-Energy MWh Purchases	U.S.	Electricity Generation, Transmission, and Distribution
		Bayou Cocodrie Bottomland Hardwood Forest Restoration	U.S.	Carbon Sequestration
		Brandon Shores Generating Station Heat Rate Improvement	U.S.	Electricity Generation, Transmission, and Distribution
		Brandon Shores Station Auxiliary-Load Reductions	U.S.	Energy End Use
		C.P. Crane Generating Station Heat Rate Improvements	U.S.	Electricity Generation, Transmission, and Distribution
		Calvert Cliffs Nuclear Power Plant Generation Increases	U.S.	Electricity Generation, Transmission, and Distribution
		Coal Ash Substitution for Portland Cement	U.S.	Other Emission Reduction Projects
		Demand Side Management Programs	U.S.	Energy End Use
		Employee Commute Options	U.S.	Transportation and Off-Road Vehicles
		Energy Star Buildings/Green Lights Program Participation	U.S.	Energy End Use
		Gas Systems O & M (Natural Gas Star Partnership)	U.S.	Oil and Natural Gas Systems and Coal Mining--Methane
		H.A. Wagner Generating Station Heat Rate Improvements	U.S.	Electricity Generation, Transmission, and Distribution
		Hydroelectric Generation Improvements	U.S.	Electricity Generation, Transmission, and Distribution
		Mississippi River Valley Bottomland Hardwood Restoration	U.S.	Carbon Sequestration
		Nine Mile Pt Nuclear Generating Improvements	U.S.	Electricity Generation, Transmission, and Distribution
		Overflow Bottomland Hardwood Forest Restoration Project	U.S.	Carbon Sequestration
		Reduced Impact Logging of Natural Forest in Malaysia	Foreign	Carbon Sequestration
		Refrigerant/Solvent Recycling and Reduction	U.S.	Halogenated Substances
		Rio Bravo Carbon Sequestration Pilot Project	Foreign	Carbon Sequestration
		SF6 Handling Procedures in Electric Distribution	U.S.	Halogenated Substances
		Solid Waste Recycling and Source Reduction	U.S.	Other Emission Reduction Projects
		St. Catherine-ESI	U.S.	Carbon Sequestration
		St. Catherine-NFWF	U.S.	Carbon Sequestration
		St. Francis River Carbon Offset Project	U.S.	Carbon Sequestration
		Transmission / Distribution Improvements	U.S.	Electricity Generation, Transmission, and Distribution
		Upper Ouachita River Valley Bottomland Hardwood Restoration	U.S.	Carbon Sequestration
		Western Oregon Carbon Sequestration Project	U.S.	Carbon Sequestration
County Sanitation Districts of Los Angeles County	1605	Solid Waste Management	U.S.	Waste Treatment and Disposal--Methane
		Wastewater Treatment Plants	U.S.	Waste Treatment and Disposal--Methane
DADS Landfill / Dept. Of Env. Health	1605	Landfill methane flaring	U.S.	Waste Treatment and Disposal--Methane
DaimlerChrysler Corporation	1605	Facility Energy Reduction Projects	U.S.	Energy End Use
		Powerhouse Conversion Projects	U.S.	Energy End Use
DeBourgh Manufacturing Company	1605EZ	Motor & Motor Drive	U.S.	Energy End Use
		Powder Reclaimers	U.S.	Waste Treatment and Disposal--Methane
Delaware Electric Cooperative	1605	System Line Conversions & Reconductoring	U.S.	Electricity Generation, Transmission, and Distribution
Dominion Generation	1605	Increased Nuclear Generation at North Anna Nuclear Power St.	U.S.	Electricity Generation, Transmission, and Distribution
		Increased Nuclear Generation at Surry Power Station	U.S.	Electricity Generation, Transmission, and Distribution
		Spanish Lake Carbon Offset Project	U.S.	Carbon Sequestration
		Walsh Lake Carbon Offset Project	U.S.	Carbon Sequestration
		White River Carbon Offset Project	U.S.	Carbon Sequestration

Table B9. Emission Reduction Projects by Entity, Data Year 2004 (Continued)

Reporter	Form Type	Project	Location	Project Type
DTE Energy/ Detroit Edison	1605	Bayou Cocodrie Bottomland Hardwood Forest Restoration	U.S.	Carbon Sequestration
		Coal Ash Reuse - Canada	Foreign	Other Emission Reduction Projects
		Coal Ash Reuse - U.S.	U.S.	Other Emission Reduction Projects
		Distribution Improvements	U.S.	Electricity Generation, Transmission, and Distribution
		Electric Vehicle Demonstration Project	U.S.	Transportation and Off-Road Vehicles
		Energy Partnerships	U.S.	Energy End Use
		Forest Land Management	U.S.	Carbon Sequestration
		Geothermal Projects	U.S.	Energy End Use
		Greenwood Energy Center Fuel Switching	U.S.	Electricity Generation, Transmission, and Distribution
		Increased Nuclear Utilization	U.S.	Electricity Generation, Transmission, and Distribution
		Landfill Energy Purchases, non-DTE Projects	U.S.	Waste Treatment and Disposal--Methane
		Landfill Gas Recovery Projects	U.S.	Waste Treatment and Disposal--Methane
		LFG Recovery & Energy Gen - DTE Proj outside Service Area	U.S.	Waste Treatment and Disposal--Methane
		LFG Recovery & Energy Gen - DTE Projects in Service Area	U.S.	Waste Treatment and Disposal--Methane
		Miscellaneous Tree Plantings - 1999	U.S.	Carbon Sequestration
		Miscellaneous Tree Plantings - 1995	U.S.	Carbon Sequestration
		Miscellaneous Tree Plantings - 1996	U.S.	Carbon Sequestration
		Miscellaneous Tree Plantings - 1997	U.S.	Carbon Sequestration
		Miscellaneous Tree Plantings - 1998	U.S.	Carbon Sequestration
		Miscellaneous Tree Plantings - 2000	U.S.	Carbon Sequestration
		Miscellaneous Tree Plantings - 2001	U.S.	Carbon Sequestration
		Miscellaneous Tree Plantings - 2002	U.S.	Carbon Sequestration
		Miscellaneous Tree Plantings - 2003	U.S.	Carbon Sequestration
		Mississippi River Valley Bottomland Hardwood Restoration	U.S.	Carbon Sequestration
		Overflow Bottomland Hardwood Forest Restoration Project	U.S.	Carbon Sequestration
		Plant Efficiency Improvements	U.S.	Electricity Generation, Transmission, and Distribution
		Reduced Impact Logging of Natural Forest in Malaysia	Foreign	Carbon Sequestration
		Rio Bravo Carbon Sequestration Pilot Project	Foreign	Carbon Sequestration
		Rio Bravo Carbon Sequestration Pilot Project (Full Share)	Foreign	Carbon Sequestration
		Six Lakes - 2002	U.S.	Carbon Sequestration
		Solar Power - California	U.S.	Electricity Generation, Transmission, and Distribution
		Solar Power - Michigan	U.S.	Electricity Generation, Transmission, and Distribution
		Southeast Michigan Afforestation - 1996	U.S.	Carbon Sequestration
		Southeast Michigan Afforestation - 1997	U.S.	Carbon Sequestration
		Southeastern Michigan Afforestation - 1995	U.S.	Carbon Sequestration
		Spanish Lake Carbon Offset Project	U.S.	Carbon Sequestration
		St. Catherine-ESI	U.S.	Carbon Sequestration
		St. Catherine-NFWF	U.S.	Carbon Sequestration
		St. Francis River Carbon Offset Project	U.S.	Carbon Sequestration
		State Forest Land Afforestation - 1996	U.S.	Carbon Sequestration
		State Forest Land Afforestation - 1997	U.S.	Carbon Sequestration
		State Forest Land Afforestation - 1998	U.S.	Carbon Sequestration
		State Forest Land Afforestation - 1999	U.S.	Carbon Sequestration
		State Forest Land Afforestation - 2000	U.S.	Carbon Sequestration
		State Forest Land Afforestation - 2001	U.S.	Carbon Sequestration
		State Forest Land Afforestation - 2002	U.S.	Carbon Sequestration
		Upper Ouachita River Valley Bottomland Hardwood Restoration	U.S.	Carbon Sequestration
		Walsh Lake Carbon Offset Project	U.S.	Carbon Sequestration
		Western Oregon Carbon Sequestration Project	U.S.	Carbon Sequestration
		White River Carbon Offset Project	U.S.	Carbon Sequestration
Duke Energy Corporation	1605	Bayou Cocodrie Bottomland Hardwood Forest Restoration	U.S.	Carbon Sequestration
		Improved Efficiency an Nantahala Hydro	U.S.	Electricity Generation, Transmission, and Distribution
		Improved Efficiency at Cedar Creek Hydro	U.S.	Electricity Generation, Transmission, and Distribution
		Improved Hydro Efficiency at Dearborn Hydro	U.S.	Electricity Generation, Transmission, and Distribution
		Improved Hydro Efficiency at Fishing Creek Hydro	U.S.	Electricity Generation, Transmission, and Distribution
		Improved Hydro Efficiency at Lookout Shoals Hydro	U.S.	Electricity Generation, Transmission, and Distribution
		Improved Hydro Efficiency at Oxford Hydro	U.S.	Electricity Generation, Transmission, and Distribution
		Improved Hydro Efficiency at Wateree Hydro	U.S.	Electricity Generation, Transmission, and Distribution
		Improved Hydro Efficiency at Wylie Hydro	U.S.	Electricity Generation, Transmission, and Distribution
		Increased Nuclear Generation at Catawba Nuclear Station	U.S.	Electricity Generation, Transmission, and Distribution
		Increased Nuclear Generation at McGuire Nuclear Station	U.S.	Electricity Generation, Transmission, and Distribution
		Increased Nuclear Generation at Oconee Nuclear Station	U.S.	Electricity Generation, Transmission, and Distribution
		Mississippi River Valley Bottomland Hardwood Restoration	U.S.	Carbon Sequestration
		Natural Gas Star - Emergency Shutdowm Practices	U.S.	Oil and Natural Gas Systems and Coal Mining--Methane
		Natural Gas Star - Pipeline Pull Downs	U.S.	Oil and Natural Gas Systems and Coal Mining--Methane
		Natural Gas Star - Sleeve Repairs	U.S.	Oil and Natural Gas Systems and Coal Mining--Methane
		Natural Gas Star - Use of Hot Taps for New Connections	U.S.	Oil and Natural Gas Systems and Coal Mining--Methane
		Overflow Bottomland Hardwood Forest Restoration Project	U.S.	Carbon Sequestration
		Recycling Flyash	U.S.	Other Emission Reduction Projects
		Reduced Impact Logging of Natural Forest in Malaysia	Foreign	Carbon Sequestration
		Rio Bravo Carbon Sequestration Pilot Project	Foreign	Carbon Sequestration
		Spanish Lake Carbon Offset Project	U.S.	Carbon Sequestration
		St. Catherine-ESI	U.S.	Carbon Sequestration
		St. Catherine-NFWF	U.S.	Carbon Sequestration
		St. Francis River Carbon Offset Project	U.S.	Carbon Sequestration
		Transmission Breaker Repairs	U.S.	Halogenated Substances
		Upper Ouachita River Valley Bottomland Hardwood Restoration	U.S.	Carbon Sequestration
		Walsh Lake Carbon Offset Project	U.S.	Carbon Sequestration
		Western Oregon Carbon Sequestration Project	U.S.	Carbon Sequestration
		White River Carbon Offset Project	U.S.	Carbon Sequestration
		White Street Landfill Gas Recovery Project	U.S.	Waste Treatment and Disposal--Methane
Dynegy, Inc.	1605	Add Turbine Shell Heaters on Wood River 4	U.S.	Electricity Generation, Transmission, and Distribution
		Baldwin 2 Turbine H.E.L.P. Blades Installation	U.S.	Electricity Generation, Transmission, and Distribution
		Baldwin 3 Heat Rate Improvement	U.S.	Electricity Generation, Transmission, and Distribution
		Bayou Cocodrie Bottomland Hardwood Forest Restoration	U.S.	Carbon Sequestration
		Burn Waste Oil at Baldwin 3	U.S.	Electricity Generation, Transmission, and Distribution
		Cofire Plastic at Baldwin	U.S.	Electricity Generation, Transmission, and Distribution
		Combustion of used lubricating oil	U.S.	Electricity Generation, Transmission, and Distribution
		Convert Vermilion Units 1 And 2 To Natural Gas	U.S.	Electricity Generation, Transmission, and Distribution
		Dynegy Mississippi River Valley Reforestation Project	U.S.	Carbon Sequestration
		Flyash Sales	U.S.	Other Emission Reduction Projects
		Flyash Sales (Baldwin, Havana, Hennepin, Vermilion, Wd Rvr)	U.S.	Other Emission Reduction Projects
		Fuel Switch To Natural Gas at Hennepin	U.S.	Electricity Generation, Transmission, and Distribution
		Fuel Switch To Natural Gas at Wood River	U.S.	Electricity Generation, Transmission, and Distribution
		Havana 6 Cooling Tower Upgrade	U.S.	Electricity Generation, Transmission, and Distribution
		Hennepin Boiler Optimizer	U.S.	Electricity Generation, Transmission, and Distribution
		Hennepin Feedwater Heater Orifice Replacements	U.S.	Electricity Generation, Transmission, and Distribution
		Hennepin Gas Reburn Project	U.S.	Electricity Generation, Transmission, and Distribution
		Hennepin I Turbine Steam Path Upgrade	U.S.	Electricity Generation, Transmission, and Distribution
		Hennepin Orimulsion Reburn	U.S.	Electricity Generation, Transmission, and Distribution
		IDNR Tree Planting Partnership	U.S.	Carbon Sequestration

Table B9. Emission Reduction Projects by Entity, Data Year 2004 (Continued)

Reporter	Form Type	Project	Location	Project Type
		Install Natural Gas Fired Aux. Boiler at Havana	U.S.	Electricity Generation, Transmission, and Distribution
		Mississippi River Valley Bottomland Hardwood Restoration	U.S.	Carbon Sequestration
		New Boiler Controls at Hennepin	U.S.	Electricity Generation, Transmission, and Distribution
		Overflow Bottomland Hardwood Forest Restoration Project	U.S.	Carbon Sequestration
		Reduce Number of Plant Start-ups	U.S.	Electricity Generation, Transmission, and Distribution
		Reduced Impact Logging of Natural Forest in Malaysia	Foreign	Carbon Sequestration
		Rio Bravo Carbon Sequestration Pilot Project	Foreign	Carbon Sequestration
		St. Catherine-ESI	U.S.	Carbon Sequestration
		St. Catherine-NFWF	U.S.	Carbon Sequestration
		St. Francis River Carbon Offset Project	U.S.	Carbon Sequestration
		Tire-Derived Fuel Cofiring at Baldwin	U.S.	Electricity Generation, Transmission, and Distribution
		Upper Ouachita River Valley Bottomland Hardwood Restoration	U.S.	Carbon Sequestration
		Vermilion 1 Heat Rate Improvements	U.S.	Electricity Generation, Transmission, and Distribution
		Vermilion 2 Heat Rate Improvements	U.S.	Electricity Generation, Transmission, and Distribution
		Western Oregon Carbon Sequestration Project	U.S.	Carbon Sequestration
		Wood River 4 Turbine Rotor Replacement	U.S.	Electricity Generation, Transmission, and Distribution
ENCAP	1605	Kingsland Landfill	U.S.	Waste Treatment and Disposal--Methane
Energy Developments, Inc.	1605	Carbon-Limestone Power Station	U.S.	Electricity Generation, Transmission, and Distribution
		Lorain Power Station	U.S.	Electricity Generation, Transmission, and Distribution
		Middle Point Power Station	U.S.	Electricity Generation, Transmission, and Distribution
		Model Power Station	U.S.	Electricity Generation, Transmission, and Distribution
		Ottawa County Power Station	U.S.	Electricity Generation, Transmission, and Distribution
		Roberts Road Power Station	U.S.	Electricity Generation, Transmission, and Distribution
		Taylor County Power Station	U.S.	Electricity Generation, Transmission, and Distribution
		Tessman Road Power Station	U.S.	Electricity Generation, Transmission, and Distribution
		Zion Power Station	U.S.	Electricity Generation, Transmission, and Distribution
Energy Management Partners, LP	1605EZ	Biomass Waste to Energy	U.S.	Electricity Generation, Transmission, and Distribution
Entergy Services, Inc.	1605	ANO - SF6 Breaker Replacement	U.S.	Halogenated Substances
		Baxter WIlson 1 - Condenser Vacuum Pump Replacement	U.S.	Electricity Generation, Transmission, and Distribution
		Baxter Wilson 1- Air Preheater & By Pass Seal Replacement	U.S.	Electricity Generation, Transmission, and Distribution
		Baxter Wilson 2 - Air Preheater Seal Replacement	U.S.	Electricity Generation, Transmission, and Distribution
		Baxter Wilson 2 - Burner Management System	U.S.	Electricity Generation, Transmission, and Distribution
		Bayou Cocodrie Bottomland Hardwood Forest Restoration	U.S.	Carbon Sequestration
		Energy Efficiency Programs at Entergy Gulf States, Inc.	U.S.	Energy End Use
		Entergy Forestry Projects	U.S.	Carbon Sequestration
		Entergy Integrated Solutions, Inc. (Entergy SASI Lighting)	U.S.	Energy End Use
		Fly Ash use as replacement for cement	U.S.	Other Emission Reduction Projects
		Grand Gulf Nuclear Station Turbine Upgrade	U.S.	Electricity Generation, Transmission, and Distribution
		Independence 1 Burner Tilt Upgrade	U.S.	Electricity Generation, Transmission, and Distribution
		Independence 2 APH Basket & Turbine Refurbish	U.S.	Electricity Generation, Transmission, and Distribution
		Independence Unit 1 Feedwater Heater Replacement	U.S.	Electricity Generation, Transmission, and Distribution
		ISES 2 HP Turbine Upgrade	U.S.	Electricity Generation, Transmission, and Distribution
		ISES 2 Neural Network	U.S.	Electricity Generation, Transmission, and Distribution
		Lake Catherine Unit 4 Efficiency Improvement Project	U.S.	Electricity Generation, Transmission, and Distribution
		Lewis Creek 1 - Minimum Load Reduction	U.S.	Electricity Generation, Transmission, and Distribution
		Lewis Creek 1 - Retube Condenser	U.S.	Electricity Generation, Transmission, and Distribution
		Lewis Creek 2 - Lower Minimum Load	U.S.	Electricity Generation, Transmission, and Distribution
		Lewis Creek Combustion Control	U.S.	Electricity Generation, Transmission, and Distribution
		Little Gypsy 2 - Minimum Load Reduction	U.S.	Electricity Generation, Transmission, and Distribution
		Little Gypsy 3 - Optimized Temperature Control	U.S.	Electricity Generation, Transmission, and Distribution
		Little Gypsy Plant Reforestation	U.S.	Carbon Sequestration
		Little Gypsy Unit 3 #6LP Feedwater Heater Replacement	U.S.	Electricity Generation, Transmission, and Distribution
		Louisiana Station 1 Repowering and Unit Upgrade	U.S.	Electricity Generation, Transmission, and Distribution
		Michoud 3 - Boiler Feedwater Control System	U.S.	Electricity Generation, Transmission, and Distribution
		Michoud 3 - Fuel Gas Control Upgrade	U.S.	Electricity Generation, Transmission, and Distribution
		Michoud Unit 3 Efficiency Improvement Project	U.S.	Electricity Generation, Transmission, and Distribution
		Mississippi River Valley Bottomland Hardwood Restoration	U.S.	Carbon Sequestration
		Natural Gas Pipeline Leak Repairs	U.S.	Oil and Natural Gas Systems and Coal Mining--Methane
		Natural Gas Vehicle Program	U.S.	Transportation and Off-Road Vehicles
		Nelson 6 - Neural Net Installation and Analog Boiler Control	U.S.	Electricity Generation, Transmission, and Distribution
		Nelson 6 - Preheat Basket Replacement	U.S.	Electricity Generation, Transmission, and Distribution
		Ninemile 4 - Cold End Pre-Heater Basket Replacement	U.S.	Electricity Generation, Transmission, and Distribution
		Ninemile 4 - RheoVac Air In-Leakage Monitoring	U.S.	Electricity Generation, Transmission, and Distribution
		Ninemile 5 - Cold End Pre-heater Basket Replacement	U.S.	Electricity Generation, Transmission, and Distribution
		Ninemile 5 - Neural Network Installation	U.S.	Electricity Generation, Transmission, and Distribution
		Ninemile 5 - RheoVac Air In-Leakage Monitoring	U.S.	Electricity Generation, Transmission, and Distribution
		Ninemile Turbine Retrofit	U.S.	Electricity Generation, Transmission, and Distribution
		Overflow Bottomland Hardwood Forest Restoration Project	U.S.	Carbon Sequestration
		Raise Nuclear Unit Targets on Annual Capacity Factor	U.S.	Electricity Generation, Transmission, and Distribution
		Reduced Impact Logging of Natural Forest in Malaysia	Foreign	Carbon Sequestration
		Rex Brown 4 - Replace Boiler Feed Pump	U.S.	Electricity Generation, Transmission, and Distribution
		Rio Bravo Carbon Sequestration Pilot Project	Foreign	Carbon Sequestration
		Ritchie 1, No. 1 Condenser Retubing	U.S.	Electricity Generation, Transmission, and Distribution
		Sabine 1 - Install New Design Condenser Tube Plugs	U.S.	Electricity Generation, Transmission, and Distribution
		Sabine 1 - Install New Drip Pump & Bypass Line	U.S.	Electricity Generation, Transmission, and Distribution
		Sabine 2 - Install New Design Condenser Tube Plugs	U.S.	Electricity Generation, Transmission, and Distribution
		Sabine 2 - Install New Drip Pump & Bypass Line	U.S.	Electricity Generation, Transmission, and Distribution
		Sabine 2 Furnace Membrane	U.S.	Electricity Generation, Transmission, and Distribution
		Sabine 3 - Control Valve Repair and Replacement	U.S.	Electricity Generation, Transmission, and Distribution
		Sabine 3 - Install New Design Condenser Tube Plugs	U.S.	Electricity Generation, Transmission, and Distribution
		Sabine 3 - Install RheoVac Air In-Leakage Monitor	U.S.	Electricity Generation, Transmission, and Distribution
		Sabine 4 - 4C & 4D Condneser Retubing	U.S.	Electricity Generation, Transmission, and Distribution
		Sabine 4 - Control Valve Repair and Replacement	U.S.	Electricity Generation, Transmission, and Distribution
		Sabine 4 - Install New Air Preheater Seals	U.S.	Electricity Generation, Transmission, and Distribution
		Sabine 4 - Install New Design Condenser Tube Plugs	U.S.	Electricity Generation, Transmission, and Distribution
		Sabine 4 - Install New Reheat Spray Valves	U.S.	Electricity Generation, Transmission, and Distribution
		Sabine 4 - Install RheoVac Air In-Leakage Monitor	U.S.	Electricity Generation, Transmission, and Distribution
		Sabine 5 - Install Condensate Filtration System	U.S.	Electricity Generation, Transmission, and Distribution
		Sabine 5 - Install New Design Condenser Tube Plugs	U.S.	Electricity Generation, Transmission, and Distribution
		Sabine 5 - Install RheoVac Air In-Leakage Monitor	U.S.	Electricity Generation, Transmission, and Distribution
		SAbine 5 - New Boiler & Feedwaqter Controls	U.S.	Electricity Generation, Transmission, and Distribution
		Sabine Unit 2 Feedwater Heater Replacement	U.S.	Electricity Generation, Transmission, and Distribution
		SF6 Reductions	U.S.	Halogenated Substances
		Spanish Lake Carbon Offset Project	U.S.	Carbon Sequestration
		St. Catherine-ESI	U.S.	Carbon Sequestration
		St. Catherine-NFWF	U.S.	Carbon Sequestration
		St. Francis River Carbon Offset Project	U.S.	Carbon Sequestration
		Tennessee Gas Compressor Replacement	U.S.	Energy End Use
		Transmission and Distribution Efficiency	U.S.	Electricity Generation, Transmission, and Distribution
		Upper Ouachita River Valley Bottomland Hardwood Restoration	U.S.	Carbon Sequestration
		Vidalia Hydroelectric Station	U.S.	Electricity Generation, Transmission, and Distribution

Table B9. Emission Reduction Projects by Entity, Data Year 2004 (Continued)

Reporter	Form Type	Project	Location	Project Type
		Walsh Lake Carbon Offset Project	U.S.	Carbon Sequestration
		Western Oregon Carbon Sequestration Project	U.S.	Carbon Sequestration
		Wetlands and Carbon Sequestration - Southeast LA & TX	U.S.	Carbon Sequestration
		White Bluff 1 - Install RheoVac Air In-Leakage Monitor	U.S.	Electricity Generation, Transmission, and Distribution
		White Bluff 1 - Install the Control Values ASV-4 & ASV-6	U.S.	Electricity Generation, Transmission, and Distribution
		White Bluff 1 - Replacement of Perimeter Fill in Cooling	U.S.	Electricity Generation, Transmission, and Distribution
		White Bluff 2 - Install Rheo Vac Air In-Leakage Monitor	U.S.	Electricity Generation, Transmission, and Distribution
		White Bluff 2 - Install the Control Valves ASV-4 & ASV-6	U.S.	Electricity Generation, Transmission, and Distribution
		White Bluff 2 - Replacement of Perimeter Fill in Cooling	U.S.	Electricity Generation, Transmission, and Distribution
		White Bluff 2 Aux Fuel Air Dampers	U.S.	Electricity Generation, Transmission, and Distribution
		White Bluff Unit 1 Feedwater Heater Replacement	U.S.	Electricity Generation, Transmission, and Distribution
		White Bluff Unit 2 Feedwater Heaters Replacement	U.S.	Electricity Generation, Transmission, and Distribution
		White River Carbon Offset Project	U.S.	Carbon Sequestration
		Willow Glen Plant - Reforestation	U.S.	Carbon Sequestration
		Willow Glen Unit 3 #2B Feedwater Heater Replacment	U.S.	Electricity Generation, Transmission, and Distribution
		Willow Glen Unit 5 Air Heater Replacement Project	U.S.	Electricity Generation, Transmission, and Distribution
		Willow Glen Unit 5 Kidney Trap Replacement	U.S.	Electricity Generation, Transmission, and Distribution
Environmental Synergy, Inc.	1605	ESI Bottomland Hardwood Restoration Project	U.S.	Carbon Sequestration
		ESI Florida Longleaf Pine Restoration	U.S.	Carbon Sequestration
Exelon Corporation	1605	Low Income Usage Reduction Program - Solar hot water	U.S.	Energy End Use
		Afforestation	U.S.	Carbon Sequestration
		Alternative Fuel Vehicles - ComEd Fleet	U.S.	Transportation and Off-Road Vehicles
		Alternative Fuel Vehicles - Consolidated Corporate Fleet	U.S.	Transportation and Off-Road Vehicles
		Change the Light Change the World	U.S.	Energy End Use
		Chicago Photovoltaic Initiative	U.S.	Electricity Generation, Transmission, and Distribution
		Chicago Public School Solar Partnership	U.S.	Electricity Generation, Transmission, and Distribution
		Clothes Washer Rebate Program	U.S.	Energy End Use
		ComEd North Commercial Center - Solar Panels	U.S.	Electricity Generation, Transmission, and Distribution
		ComEd Solar Schools Program	U.S.	Electricity Generation, Transmission, and Distribution
		ComEd South Commercial Center - Solar Panels	U.S.	Electricity Generation, Transmission, and Distribution
		Energy Cooperative & Demand Side Management Activities	U.S.	Energy End Use
		Exelon Energy Delivery Internal Energy Efficiency Initiative	U.S.	Energy End Use
		Exelon Nuclear Internal Energy Efficiency Initiative	U.S.	Energy End Use
		Fairless Hills LFG to Energy Operation	U.S.	Waste Treatment and Disposal--Methane
		Fuel Switching at Bynov Plant in Decin, Czech Republic	Foreign	Cogeneration and Waste Heat Recovery
		High Efficiency Transformers	U.S.	Electricity Generation, Transmission, and Distribution
		Illinois Prairie Grass Plantings	U.S.	Carbon Sequestration
		International Brotherhood of Electrical Workers Solar Panels	U.S.	Electricity Generation, Transmission, and Distribution
		Investment Recovery/Life Cycle Management/Recycling	U.S.	Other Emission Reduction Projects
		Landfill Gas Power Purchases	U.S.	Waste Treatment and Disposal--Methane
		Natural Gas STAR Best Management Practices	U.S.	Oil and Natural Gas Systems and Coal Mining--Methane
		Operation of CNG Vehicles - PECO Fleet	U.S.	Transportation and Off-Road Vehicles
		Overhaul of Conowingo Unit 10	U.S.	Electricity Generation, Transmission, and Distribution
		Overhaul of Conowingo Unit 5	U.S.	Electricity Generation, Transmission, and Distribution
		Overhaul of Conowingo Unit 8	U.S.	Electricity Generation, Transmission, and Distribution
		Overhaul of Conowingo Unit 9	U.S.	Electricity Generation, Transmission, and Distribution
		Overhaul of Muddy Run Units 5-8	U.S.	Electricity Generation, Transmission, and Distribution
		Pennsbury LFG to Energy Operation	U.S.	Waste Treatment and Disposal--Methane
		Rerate of Peach Bottom Unit 2	U.S.	Electricity Generation, Transmission, and Distribution
		Rerate of Braidwood Unit 1	U.S.	Electricity Generation, Transmission, and Distribution
		Rerate of Braidwood Unit 2	U.S.	Electricity Generation, Transmission, and Distribution
		Rerate of Byron Unit 1	U.S.	Electricity Generation, Transmission, and Distribution
		Rerate of Byron Unit 2	U.S.	Electricity Generation, Transmission, and Distribution
		Rerate of Lasalle Unit 1	U.S.	Electricity Generation, Transmission, and Distribution
		Rerate of Lasalle Unit 2	U.S.	Electricity Generation, Transmission, and Distribution
		Rerate of Limerick Unit 1	U.S.	Electricity Generation, Transmission, and Distribution
		Rerate of Limerick Unit 2	U.S.	Electricity Generation, Transmission, and Distribution
		Rerate of Peach Bottom Unit 3	U.S.	Electricity Generation, Transmission, and Distribution
		Rerate of Quad Cities Unit 2	U.S.	Electricity Generation, Transmission, and Distribution
		Spanish Lake Carbon Offset Project	U.S.	Carbon Sequestration
		The Municipal Tree Restoration Program	U.S.	Carbon Sequestration
		Urban Tree Planting	U.S.	Carbon Sequestration
		Utility Pole Reuse	U.S.	Carbon Sequestration
		Utilization of Coal Combustion and Scrubber Products	U.S.	Other Emission Reduction Projects
		Walsh Lake Carbon Offset Project	U.S.	Carbon Sequestration
		White River Carbon Offset Project	U.S.	Carbon Sequestration
		Wind and Photovoltaic Generation Pricing Experiment	U.S.	Electricity Generation, Transmission, and Distribution
		Wind Power Marketing in Pennsylvania	U.S.	Electricity Generation, Transmission, and Distribution
		Zion Power House Windmill	U.S.	Electricity Generation, Transmission, and Distribution
FirstEnergy Corporation	1605	Audit/Infiltration Single and Multi-Family	U.S.	Energy End Use
		Bayou Cocodrie Bottomland Hardwood Forest Restoration	U.S.	Carbon Sequestration
		Compressed Air Solution	U.S.	Energy End Use
		Corry	U.S.	Waste Treatment and Disposal--Methane
		Efficient Lighting (Industrial and Commercial)	U.S.	Energy End Use
		Efficient Lighting (Residential)	U.S.	Energy End Use
		Efficient Motors	U.S.	Energy End Use
		Electric Vehicles and Employee Trip Reduction Program	U.S.	Transportation and Off-Road Vehicles
		Energy Efficient Geothermal System	U.S.	Energy End Use
		Energy Star	U.S.	Energy End Use
		Food Service Conservation	U.S.	Energy End Use
		Fuel Switching	U.S.	Electricity Generation, Transmission, and Distribution
		Good Cents New Home Program	U.S.	Energy End Use
		GPU Service Lighting & Building Energy Efficiency Project	U.S.	Energy End Use
		Hamm's Landfill NUG	U.S.	Waste Treatment and Disposal--Methane
		Heat Pump Maintenance Check	U.S.	Energy End Use
		Heat Rate Improvement	U.S.	Electricity Generation, Transmission, and Distribution
		High Efficiency Heat Pump Rebates	U.S.	Energy End Use
		Hot Water Conservation	U.S.	Energy End Use
		Increased Generation at Beaver Valley Nuclear Power Station	U.S.	Electricity Generation, Transmission, and Distribution
		Increased Generation at Davis-Besse Nuclear Power Station	U.S.	Electricity Generation, Transmission, and Distribution
		Increased Generation at Perry Nuclear Power Plant	U.S.	Electricity Generation, Transmission, and Distribution
		Information Services - Green Computers	U.S.	Energy End Use
		JCP&L DSM, Efficiency & Electrotechnology Program	U.S.	Energy End Use
		Lake View Landfill	U.S.	Waste Treatment and Disposal--Methane
		Manchester Renewable	U.S.	Waste Treatment and Disposal--Methane
		Mason Dixon Farms, Inc.	U.S.	Agriculture--Methane and Nitrous Oxide

Table B9. Emission Reduction Projects by Entity, Data Year 2004 (Continued)

Reporter	Form Type	Project	Location	Project Type
		Met-Ed Lighting & Building Energy Consumption Reduction Prog	U.S.	Energy End Use
		Met-Ed/Penelec DSM, Efficiency & Electrotechnology Program	U.S.	Energy End Use
		Mississippi River Valley Bottomland Hardwood Restoration	U.S.	Carbon Sequestration
		Modern Landfill NUG	U.S.	Waste Treatment and Disposal--Methane
		Monmouth County Reclamation Center NUG	U.S.	Waste Treatment and Disposal--Methane
		Municipal Tree Replacement	U.S.	Carbon Sequestration
		Overflow Bottomland Hardwood Forest Restoration Project	U.S.	Carbon Sequestration
		Recycling Program	U.S.	Other Emission Reduction Projects
		Reduced Impact Logging of Natural Forest in Malaysia	Foreign	Carbon Sequestration
		Refrigerator Recycling	U.S.	Halogenated Substances
		Refrigerator Recycling Program	U.S.	Energy End Use
		Rio Bravo Carbon Sequestration Pilot Project	Foreign	Carbon Sequestration
		SF6 Emissions Reduction	U.S.	Halogenated Substances
		Shunt Capacitor Program	U.S.	Electricity Generation, Transmission, and Distribution
		Spanish Lake Carbon Offset Project	U.S.	Carbon Sequestration
		St. Catherine-ESI	U.S.	Carbon Sequestration
		St. Catherine-NFWF	U.S.	Carbon Sequestration
		St. Francis River Carbon Offset Project	U.S.	Carbon Sequestration
		Substitution of Fly Ash for Portland Cement in Concrete	U.S.	Other Emission Reduction Projects
		T & D System Improvements	U.S.	Electricity Generation, Transmission, and Distribution
		Thermal Energy Storage - Cooling	U.S.	Energy End Use
		Transformer Loss Evaluation Program	U.S.	Electricity Generation, Transmission, and Distribution
		Tree Source	U.S.	Carbon Sequestration
		Upper Ouachita River Valley Bottomland Hardwood Restoration	U.S.	Carbon Sequestration
		Various CFC Replacements	U.S.	Halogenated Substances
		Video-Conferencing	U.S.	Transportation and Off-Road Vehicles
		Walsh Lake Carbon Offset Project	U.S.	Carbon Sequestration
		Water Heater Efficiency Improvements	U.S.	Energy End Use
		Water Heating - Conservation	U.S.	Energy End Use
		Western Oregon Carbon Sequestration Project	U.S.	Carbon Sequestration
		White River Carbon Offset Project	U.S.	Carbon Sequestration
		Yards Creek Pumped Storage Upgrade	U.S.	Electricity Generation, Transmission, and Distribution
Florida Power Corporation	1605	Spanish Lake Carbon Offset Project	U.S.	Carbon Sequestration
		Walsh Lake Carbon Offset Project	U.S.	Carbon Sequestration
		White River Carbon Offset Project	U.S.	Carbon Sequestration
Ford Motor Company	1605	1998 - 2004 Performance Projects	U.S.	Energy End Use
		1998 - 2004 Plant Energy Efficiency Programs	U.S.	Energy End Use
		Process Upgrades	U.S.	Energy End Use
FPL Group	1605	Aroostook Valley Electric Company	U.S.	Waste Treatment and Disposal--Methane
		Bayou Cocodrie Bottomland Hardwood Forest Restoration	U.S.	Carbon Sequestration
		Cape Canaveral Boiler Enhansements and Controls Upgrades	U.S.	Electricity Generation, Transmission, and Distribution
		Fort Myers LP Turbine Improvements	U.S.	Electricity Generation, Transmission, and Distribution
		FPL Corporate Recycling	U.S.	Other Emission Reduction Projects
		FPL Energy Renewable Projects - Hydro	U.S.	Electricity Generation, Transmission, and Distribution
		FPLE East Mesa Geothermal Projects	U.S.	Electricity Generation, Transmission, and Distribution
		FPLE Renewable Projects - Wind	U.S.	Electricity Generation, Transmission, and Distribution
		Gas Expansion Project	U.S.	Electricity Generation, Transmission, and Distribution
		Manatee Plant Low NOx Burners	U.S.	Electricity Generation, Transmission, and Distribution
		Martin Plant LP turbine Improvements	U.S.	Electricity Generation, Transmission, and Distribution
		Mississippi River Valley Bottomland Hardwood Restoration	U.S.	Carbon Sequestration
		Montenay Power Plant	U.S.	Waste Treatment and Disposal--Methane
		Multitrade Power Plant	U.S.	Waste Treatment and Disposal--Methane
		Nuclear Generation Improvement	U.S.	Electricity Generation, Transmission, and Distribution
		Overflow Bottomland Hardwood Forest Restoration Project	U.S.	Carbon Sequestration
		Port Everglades Unit 4 Efficiency Improvement Project	U.S.	Electricity Generation, Transmission, and Distribution
		Putnam Plant Unit 1-2 HRSG replacement	U.S.	Electricity Generation, Transmission, and Distribution
		Radio Controlled Capacitor System (RCCS)	U.S.	Electricity Generation, Transmission, and Distribution
		Reduced Impact Logging of Natural Forest in Malaysia	Foreign	Carbon Sequestration
		Rio Bravo Carbon Sequestration Pilot Project	Foreign	Carbon Sequestration
		Riviera Plant Boiler Enhancements, Controls Upgrade, LP Turb	U.S.	Electricity Generation, Transmission, and Distribution
		Sanford Plant Blr & Controls Upgrades, LP Turbine	U.S.	Electricity Generation, Transmission, and Distribution
		Sanford Power Plant Fuel Switching	U.S.	Electricity Generation, Transmission, and Distribution
		SEGS VIII & IX - solar	U.S.	Electricity Generation, Transmission, and Distribution
		SF6 Reductions	U.S.	Halogenated Substances
		St. Catherine-ESI	U.S.	Carbon Sequestration
		St. Catherine-NFWF	U.S.	Carbon Sequestration
		St. Francis River Carbon Offset Project	U.S.	Carbon Sequestration
		Turkey Point Fossil Power Plt Blr, Controls, Turbine Improve	U.S.	Electricity Generation, Transmission, and Distribution
		Upper Ouachita River Valley Bottomland Hardwood Restoration	U.S.	Carbon Sequestration
		Western Oregon Carbon Sequestration Project	U.S.	Carbon Sequestration
Gas Recovery Systems	1605	Arbor Hills Electric	U.S.	Waste Treatment and Disposal--Methane
		C&C Electric	U.S.	Waste Treatment and Disposal--Methane
		Charlotte Motor Speedway	U.S.	Waste Treatment and Disposal--Methane
		Chicopee Electric	U.S.	Waste Treatment and Disposal--Methane
		East Bridgewater	U.S.	Waste Treatment and Disposal--Methane
		Fall River	U.S.	Waste Treatment and Disposal--Methane
		GRS American Canyon Landfill	U.S.	Waste Treatment and Disposal--Methane
		GRS Coyote Canyon	U.S.	Waste Treatment and Disposal--Methane
		Guadalupe	U.S.	Waste Treatment and Disposal--Methane
		Halifax	U.S.	Waste Treatment and Disposal--Methane
		Kapaa	U.S.	Waste Treatment and Disposal--Methane
		LGP Orange County, New York	U.S.	Waste Treatment and Disposal--Methane
		Lyon Electric	U.S.	Waste Treatment and Disposal--Methane
		Mallard Lake	U.S.	Waste Treatment and Disposal--Methane
		Menlo Park	U.S.	Waste Treatment and Disposal--Methane
		Newby Island 3	U.S.	Waste Treatment and Disposal--Methane
		Newby Island Landfill	U.S.	Waste Treatment and Disposal--Methane
		Pine Bend	U.S.	Waste Treatment and Disposal--Methane
		Quad Cities Electric	U.S.	Waste Treatment and Disposal--Methane
		Randolph	U.S.	Waste Treatment and Disposal--Methane
		Richmond Electric	U.S.	Waste Treatment and Disposal--Methane
		Rockford Electric	U.S.	Waste Treatment and Disposal--Methane
		Sacramento	U.S.	Waste Treatment and Disposal--Methane
		San Marcos	U.S.	Waste Treatment and Disposal--Methane
		Santa Cruz	U.S.	Waste Treatment and Disposal--Methane
		South Barrington	U.S.	Waste Treatment and Disposal--Methane
		Sunset Farms	U.S.	Waste Treatment and Disposal--Methane
		Sycamore	U.S.	Waste Treatment and Disposal--Methane
		Vienna Junction	U.S.	Waste Treatment and Disposal--Methane

Table B9. Emission Reduction Projects by Entity, Data Year 2004 (Continued)

Reporter	Form Type	Project	Location	Project Type
General Motors Corporation	1605	1991-2004 GM Annual Energy Competition & Projects	U.S.	Energy End Use
		1991-2004 Powerhouse Conversions	U.S.	Energy End Use
		1993 - 1997 Mich. Demand Side Mgt and Energy Partner Program	U.S.	Energy End Use
		Resource Management Programs i.e. EPA WasteWise	U.S.	Other Emission Reduction Projects
Golden Valley Electric Association, Inc	1605EZ	Energy Sense DSM Program	U.S.	Energy End Use
		Tree Give-Away for planting under power lines	U.S.	Carbon Sequestration
		Use of Hydropower	U.S.	Electricity Generation, Transmission, and Distribution
Granger Electric Company	1605	Brent Run Landfill Generating Station	U.S.	Waste Treatment and Disposal--Methane
		Grand Blanc Landfill Generating Station	U.S.	Waste Treatment and Disposal--Methane
		Granger #1 Generating Station - Wood Road Landfill	U.S.	Waste Treatment and Disposal--Methane
		Granger #2 Generating Station - Grand River Avenue Landfill	U.S.	Waste Treatment and Disposal--Methane
		Granger MotorWheel Facility	U.S.	Waste Treatment and Disposal--Methane
		Ottawa County Farms Landfill Generating Station	U.S.	Waste Treatment and Disposal--Methane
		Seymour Road Landfill Generating Station	U.S.	Waste Treatment and Disposal--Methane
Granger Energy, LLC	1605	Indianapolis/South Side Landfill Gas Project	U.S.	Waste Treatment and Disposal--Methane
		Lake County Landfill Gas Project	U.S.	Waste Treatment and Disposal--Methane
Greater New Bedford Regional Refuse Mgt District	1605	Crapo Hill Landfill Gas Control Project	U.S.	Waste Treatment and Disposal--Methane
Green Mountain Energy Company	1605	All Other GMEC Customers	U.S.	Energy End Use
		GMEC energy purchases for corporate offices	U.S.	Energy End Use
		Kinko's	U.S.	Energy End Use
Greene Energy, LLC	1605EZ	Methane Recovery	U.S.	Oil and Natural Gas Systems and Coal Mining--Methane
Hollomon Family	1605EZ	High Efficiency Air-Conditioner Replacement	U.S.	Energy End Use
Integrated Waste Services Association	1605	Waste-to-Energy - Waste Diversion	U.S.	Waste Treatment and Disposal--Methane
Iredell Landfill Gas, LLC	1605	Iredell County Landfil	U.S.	Waste Treatment and Disposal--Methane
JEA	1605EZ	Biodiesel	U.S.	Transportation and Off-Road Vehicles
		Fuel Switching	U.S.	Electricity Generation, Transmission, and Distribution
		Fuel Switching	U.S.	Electricity Generation, Transmission, and Distribution
		Photovoltaic Systems	U.S.	Electricity Generation, Transmission, and Distribution
		Urban Forestry	U.S.	Carbon Sequestration
		Variable Speed Fan Drives	U.S.	Energy End Use
Jim Walter Resources, Inc.	1605	Gobwell Degasification Program	U.S.	Oil and Natural Gas Systems and Coal Mining--Methane
		Horizontal Degasification Program	U.S.	Oil and Natural Gas Systems and Coal Mining--Methane
		Nitrogen Rejection Plant Program (LQG)	U.S.	Oil and Natural Gas Systems and Coal Mining--Methane
		Standard Degasification Well Program	U.S.	Oil and Natural Gas Systems and Coal Mining--Methane
Johnson & Johnson	1605	Building Shell	U.S.	Energy End Use
		Equipment & Appliances	U.S.	Energy End Use
		Fuel Cell	U.S.	Cogeneration and Waste Heat Recovery
		Fuel Switching	U.S.	Energy End Use
		Green Tag Purchase	U.S.	Other Emission Reduction Projects
		HVAC	U.S.	Energy End Use
		Installation of Energy Efficient Systems	U.S.	Energy End Use
		Installation of Timer Controls and Shutdowns	U.S.	Energy End Use
		Lighting & Lighting Controls	U.S.	Energy End Use
		Load Control	U.S.	Energy End Use
		Motor & Motor Drives	U.S.	Energy End Use
		On-site Renewable Energy - Solar	U.S.	Electricity Generation, Transmission, and Distribution
		Process Improvements	U.S.	Energy End Use
		Zero/low emitting power purchase (Green Power)	U.S.	Electricity Generation, Transmission, and Distribution
Kansas City Power & Light Company	1605	Aluminum Coal Cars	U.S.	Transportation and Off-Road Vehicles
		Bayou Cocodrie Bottomland Hardwood Forest Restoration	U.S.	Carbon Sequestration
		Coal Fly Ash Recycling	U.S.	Other Emission Reduction Projects
		DSM - AC upgrade	U.S.	Energy End Use
		ENVIROTECH Fund	U.S.	Other Emission Reduction Projects
		EPA's Green Lights	U.S.	Energy End Use
		Improve heat rate	U.S.	Electricity Generation, Transmission, and Distribution
		Mississippi River Valley Bottomland Hardwood Restoration	U.S.	Carbon Sequestration
		New Transmission Line & Reconductoring	U.S.	Electricity Generation, Transmission, and Distribution
		Nuclear Unit Uprate	U.S.	Electricity Generation, Transmission, and Distribution
		Overflow Bottomland Hardwood Forest Restoration Project	U.S.	Carbon Sequestration
		Reduced Impact Logging of Natural Forest in Malaysia	Foreign	Carbon Sequestration
		Rio Bravo Carbon Sequestration Pilot Project	Foreign	Carbon Sequestration
		Spanish Lake Carbon Offset Project	U.S.	Carbon Sequestration
		St. Catherine-ESI	U.S.	Carbon Sequestration
		St. Catherine-NFWF	U.S.	Carbon Sequestration
		St. Francis River Carbon Offset Project	U.S.	Carbon Sequestration
		Upper Ouachita River Valley Bottomland Hardwood Restoration	U.S.	Carbon Sequestration
		Walsh Lake Carbon Offset Project	U.S.	Carbon Sequestration
		Western Oregon Carbon Sequestration Project	U.S.	Carbon Sequestration
		White River Carbon Offset Project	U.S.	Carbon Sequestration
Kern County Waste Management Department	1605	Arvin Sanitary Landfill	U.S.	Waste Treatment and Disposal--Methane
		BENA Sanitary Landfill	U.S.	Waste Treatment and Disposal--Methane
		China Grade Sanitary Landfill	U.S.	Waste Treatment and Disposal--Methane
		Kern Valley Sanitary Landfill	U.S.	Waste Treatment and Disposal--Methane
		McFarland-Delano Sanitary Landfill	U.S.	Waste Treatment and Disposal--Methane
		Ridgecrest Sanitary Landfill	U.S.	Waste Treatment and Disposal--Methane
Klickitat County Public Utility District No. 1	1605	H.W. Hill Landfill Gas Power Plant	U.S.	Waste Treatment and Disposal--Methane
Landfill Energy Systems	1605	Adrian	U.S.	Waste Treatment and Disposal--Methane
		Ann Arbor	U.S.	Waste Treatment and Disposal--Methane
		Carleton Farms	U.S.	Waste Treatment and Disposal--Methane
		I-95 Phase I	U.S.	Waste Treatment and Disposal--Methane
		I-95 Phase II	U.S.	Waste Treatment and Disposal--Methane
		MRPC	U.S.	Waste Treatment and Disposal--Methane
		MRPC Flare	U.S.	Waste Treatment and Disposal--Methane
		Pine Tree	U.S.	Waste Treatment and Disposal--Methane
		Riverview	U.S.	Waste Treatment and Disposal--Methane
		Salem	U.S.	Waste Treatment and Disposal--Methane
		Salem Flare	U.S.	Waste Treatment and Disposal--Methane
		Sumpter	U.S.	Waste Treatment and Disposal--Methane
		Sunshine Canyon	U.S.	Waste Treatment and Disposal--Methane
		Wichita	U.S.	Waste Treatment and Disposal--Methane

Table B9. Emission Reduction Projects by Entity, Data Year 2004 (Continued)

Reporter	Form Type	Project	Location	Project Type
Lehigh Cement Co. (fmrly Lehigh Portland Cement Co	1605	Project 1. Evansville, PA - Waste Tire Burning	U.S.	Energy End Use
		Project 1. York, PA - Waste Oil Burning	U.S.	Energy End Use
		Project 1: Leeds, AL - Waste Tire Burning	U.S.	Energy End Use
		Project 1: Cementon, NY - Plant Shutdown	U.S.	Energy End Use
		Project 1: Lehigh Cement Company - Lighting Retrofit	U.S.	Energy End Use
		Project 1: Union Bridge, MD - Waste Tire Burning	U.S.	Energy End Use
		Project 1: Mason City, IA - Seed Burning	U.S.	Energy End Use
		Project 1: Mitchell, IN - Kiln Modernization	U.S.	Energy End Use
		Project 2. Leeds, AL - Ash Burning	U.S.	Energy End Use
		Project 2: Lehigh Cement Company - Motor retrofit	U.S.	Energy End Use
		Project 2: Mason City, IA - Ash Burning	U.S.	Energy End Use
		Project 2: Union Bridge, MD - Plant Modernization	U.S.	Energy End Use
		Project 3: Union Bridge, MD - Ash Burning	U.S.	Energy End Use
Lehigh Cement Co. (formerly Calaveras Cement Co.)	1605	Project 1. Plant Modernization	U.S.	Energy End Use
		Project 1. Waste Tire Burning & Rice Hull Burning	U.S.	Energy End Use
		Project 2: Nut Shell Burning	U.S.	Energy End Use
Los Angeles Department of Water and Power	1605	Chiller Replacement / Efficiency Program	U.S.	Energy End Use
		Commercial Lighting Program	U.S.	Energy End Use
		Consumer Rebate Program	U.S.	Energy End Use
		Cool Roofs Program	U.S.	Energy End Use
		Cool Schools Urban Forestry - Energy Efficiency Effects	U.S.	Energy End Use
		Cool Schools Urban Forestry Project	U.S.	Carbon Sequestration
		Electric Vehicles	U.S.	Transportation and Off-Road Vehicles
		Energy Efficient Transformers	U.S.	Electricity Generation, Transmission, and Distribution
		Energy Star Office Equipment	U.S.	Energy End Use
		Fuel Switching (Fuel Oil #6 to Natural Gas)	U.S.	Electricity Generation, Transmission, and Distribution
		High Efficiency Clothes Washers	U.S.	Energy End Use
		HVAC Replacement Program	U.S.	Energy End Use
		HVAC Tune-up	U.S.	Energy End Use
		JFB Lighting Retrofit	U.S.	Energy End Use
		LADWP Recycling Program	U.S.	Other Emission Reduction Projects
		LADWP Rideshare Program	U.S.	Transportation and Off-Road Vehicles
		Lopez Canyon Microturbines - Landfill Gas-to-Energy Project	U.S.	Waste Treatment and Disposal--Methane
		Mountain Reforestation Project	U.S.	Carbon Sequestration
		NBRS ("Neighborhood Bill Reduction Service") Program	U.S.	Energy End Use
		Reflective Window Film Rebate Program	U.S.	Energy End Use
		Refrigeration Tune-Up Program	U.S.	Energy End Use
		Refrigerator Replacement Program	U.S.	Energy End Use
		Refrigerator Turn-In and Recycle Program (RETIRE)	U.S.	Energy End Use
		Scattergood - Digester Gas Displacement of Natural Gas	U.S.	Waste Treatment and Disposal--Methane
		Solar Power	U.S.	Electricity Generation, Transmission, and Distribution
		Trees for a Green LA	U.S.	Carbon Sequestration
		Trees For a Green LA Urban Forestry - Energy Efficiency	U.S.	Energy End Use
		Water Conservation Program	U.S.	Energy End Use
Lower Colorado River Authority	1605	Coal Combustion By-Product Recycling	U.S.	Other Emission Reduction Projects
		Hydroelectric Dam Modernization	U.S.	Electricity Generation, Transmission, and Distribution
		Neural-Network Technology	U.S.	Electricity Generation, Transmission, and Distribution
		Residential & Commercial DSM Program	U.S.	Energy End Use
		SF6 Management and Circuit Breaker Replacement Project	U.S.	Halogenated Substances
		Supply-Side Efficiency Improvements	U.S.	Electricity Generation, Transmission, and Distribution
		Wind Power Project	U.S.	Electricity Generation, Transmission, and Distribution
Lucent Technologies Inc.	1605	LRE #1	U.S.	Energy End Use
		LU - #1 (US only)	U.S.	Other Emission Reduction Projects
		LU - #2 (International)	Foreign	Other Emission Reduction Projects
		ME - #1	U.S.	Energy End Use
		ME - #2	U.S.	Energy End Use
		ME - #3	U.S.	Energy End Use
		ME - #4	U.S.	Energy End Use
		ME - #5	U.S.	Energy End Use
		ME - #6	U.S.	Energy End Use
		ME - #7	U.S.	Energy End Use
		ME - #8	U.S.	Energy End Use
		OFS - #1	U.S.	Energy End Use
		OFS - #2	U.S.	Energy End Use
		OFS - #3	U.S.	Energy End Use
		OFS - #4	U.S.	Energy End Use
		OFS - Addition of VDFs	U.S.	Energy End Use
		OFS - Eliminate fan	U.S.	Energy End Use
		OFS - Light Switch	U.S.	Energy End Use
		OFS - Light Timer	U.S.	Energy End Use
		ONG - #1	U.S.	Energy End Use
		ONG - #2	U.S.	Energy End Use
		Replacement of TCE in Circuit Board Cleaning Operation	U.S.	Halogenated Substances
		WNG - #1	U.S.	Energy End Use
		WNG - #2	U.S.	Energy End Use
		WNG - #3	U.S.	Energy End Use
		WNG - #4	U.S.	Energy End Use
Lynchburg Gas Producers, LLC	1605	Lynchburg Landfill	U.S.	Waste Treatment and Disposal--Methane
Mecklenburg Electric Cooperative	1605	System Line Conversion and Reconductoring	U.S.	Electricity Generation, Transmission, and Distribution
Michael Paul Taylor	1605	Personal Home Electricity Reduction Program	U.S.	Energy End Use
		Personal Home Natural Gas Use Reduction	U.S.	Energy End Use
		Personal Vehicle Energy Reduction	U.S.	Transportation and Off-Road Vehicles
Michigan CAT	1605	Lower Potomac	U.S.	Waste Treatment and Disposal--Methane
		Sacramento	U.S.	Waste Treatment and Disposal--Methane
Middlesex Generating Company, LLC	1605	MCUA Landfill Gas Utilization Project - Edison Landfill	U.S.	Waste Treatment and Disposal--Methane
		MCUA Landfill Gas Utilization Project - ILR Landfill	U.S.	Waste Treatment and Disposal--Methane
		MCUA Landfill Gas Utilization Project - MCUA Landfill	U.S.	Waste Treatment and Disposal--Methane
Minnesota Power	1605	Cloquet Energy Center Turbine Generation 5 (Sappi Ltd)	U.S.	Cogeneration and Waste Heat Recovery
		Demand Side Mgmt., Conservation and Efficiency Improvements	U.S.	Energy End Use
		Electricity Substation, SF6 Breaker Replacement	U.S.	Halogenated Substances
		Expanded Generation from Existing Hydro Electric Resources	U.S.	Electricity Generation, Transmission, and Distribution
		Expanded Use of Renewable Biomass (wood waste)	U.S.	Energy End Use
		Heat Rate Improvements, Boswell Energy Center	U.S.	Electricity Generation, Transmission, and Distribution

Table B9. Emission Reduction Projects by Entity, Data Year 2004 (Continued)

Reporter	Form Type	Project	Location	Project Type
		Mud Lake Substation - Reduced Transmission Losses	U.S.	Electricity Generation, Transmission, and Distribution
		Short Rotation Woody Crop Establishment	U.S.	Carbon Sequestration
		Waste Paper Recycling Development	U.S.	Other Emission Reduction Projects
		Wind Sense Wind Energy Program	U.S.	Electricity Generation, Transmission, and Distribution
Mirant Kendall, L.L.C.	1605	Kendall Square Station Upgrade	U.S.	Electricity Generation, Transmission, and Distribution
Model City Energy, LLC	1605	Model City Energy Facility	U.S.	Waste Treatment and Disposal--Methane
Montauk Energy Capital	1605	Attleboro (MASS Energy, LLC)	U.S.	Waste Treatment and Disposal--Methane
		Bowerman Landfill Gas Recovery Plant	U.S.	Waste Treatment and Disposal--Methane
		Chautauqua (COP, LLC)	U.S.	Waste Treatment and Disposal--Methane
		Colebrookdale (COP, LLC)	U.S.	Waste Treatment and Disposal--Methane
		Dade County (Monteco)	U.S.	Waste Treatment and Disposal--Methane
		Davis Street Landfill Gas Recovery Plant	U.S.	Waste Treatment and Disposal--Methane
		Edison (COP, LLC)	U.S.	Waste Treatment and Disposal--Methane
		El Dorado (COP, LLC)	U.S.	Waste Treatment and Disposal--Methane
		Fresh Kills Landfill Gas Recovery Plant	U.S.	Waste Treatment and Disposal--Methane
		Glacier Ridge (Glacier Ridge LFG, LLC)	U.S.	Waste Treatment and Disposal--Methane
		ILR (COP, LLC)	U.S.	Waste Treatment and Disposal--Methane
		Kearny Landfill Gas Recovery Plant	U.S.	Waste Treatment and Disposal--Methane
		McCarty Road Landfill Gas Recovery Plant	U.S.	Waste Treatment and Disposal--Methane
		McCommas Bluff (Monteco)	U.S.	Waste Treatment and Disposal--Methane
		MCUA (COP, LLC)	U.S.	Waste Treatment and Disposal--Methane
		Monmouth Landfill Gas Recovery Plant	U.S.	Waste Treatment and Disposal--Methane
		Mountaingate Landfill Gas Recovery Plant	U.S.	Waste Treatment and Disposal--Methane
		Nelson Gardens (Monteco)	U.S.	Waste Treatment and Disposal--Methane
		North Country (CRMC Bethlehem, LLC)	U.S.	Waste Treatment and Disposal--Methane
		Oaks (COP, LLC)	U.S.	Waste Treatment and Disposal--Methane
		Olinda Landfill Gas Recovery Plant	U.S.	Waste Treatment and Disposal--Methane
		Pigeon Point LFG, Inc (COP, LLC)	U.S.	Waste Treatment and Disposal--Methane
		Roosevelt (Roosevelt Landfill Gas Recovery, LLC)	U.S.	Waste Treatment and Disposal--Methane
		Rosenberg (Monteco)	U.S.	Waste Treatment and Disposal--Methane
		Rumpke Landfill Gas Recovery Plant	U.S.	Waste Treatment and Disposal--Methane
		Virginia Beach (VB LFG, LLC)	U.S.	Waste Treatment and Disposal--Methane
		Zion (Zion LFG, LLC)	U.S.	Waste Treatment and Disposal--Methane
Municipal Electric Auth of Georgia (MEAG Power)	1605	Nuclear Generation Utilization	U.S.	Electricity Generation, Transmission, and Distribution
Mystic Development, LLC	1605	Gas-fired electric generation	U.S.	Electricity Generation, Transmission, and Distribution
Nashville Electric Service	1605EZ	Distribution Voltage Upgrade	U.S.	Electricity Generation, Transmission, and Distribution
		High-efficiency Transformers	U.S.	Electricity Generation, Transmission, and Distribution
		Ongoing Urban Forestry (tree planting)	U.S.	Carbon Sequestration
National Grid	1605	Alternative Fuel Vehicles	U.S.	Transportation and Off-Road Vehicles
		Amorphous Metal Core Transformers	U.S.	Electricity Generation, Transmission, and Distribution
		Appliance Removal Program, Residential DSM Programs	U.S.	Halogenated Substances
		Carpool	U.S.	Transportation and Off-Road Vehicles
		Coal Ash Utilization	U.S.	Other Emission Reduction Projects
		Cowley Ridge Windplant	Foreign	Electricity Generation, Transmission, and Distribution
		Demand-Side Management (DSM) Programs - New England	U.S.	Energy End Use
		Distribution Reconductoring	U.S.	Electricity Generation, Transmission, and Distribution
		Distribution Voltage Upgrade	U.S.	Electricity Generation, Transmission, and Distribution
		Electric Vehicles	U.S.	Transportation and Off-Road Vehicles
		Energy Efficiency and Conservation Programs (DSM) - NY	U.S.	Energy End Use
		Identify & Rehabilitate Leaky Gas Distribution Pipe	U.S.	Oil and Natural Gas Systems and Coal Mining--Methane
		Installation & Operation of Photovoltaic Energy Systems - NY	U.S.	Electricity Generation, Transmission, and Distribution
		Installation and Operation of Wind Turbines	U.S.	Electricity Generation, Transmission, and Distribution
		Investment Recovery Program (Recycling)	U.S.	Other Emission Reduction Projects
		Nuclear Generation Capacity Improvements	U.S.	Electricity Generation, Transmission, and Distribution
		Nuclear Generation Performance Improvements	U.S.	Electricity Generation, Transmission, and Distribution
		Partial Conversion of Oil-Fired Plant to Natural Gas	U.S.	Electricity Generation, Transmission, and Distribution
		Photovoltaic - New England	U.S.	Electricity Generation, Transmission, and Distribution
		Refrigerator Roundup	U.S.	Halogenated Substances
		SF6 Emission Reductions - New England	U.S.	Halogenated Substances
		SF6 Emission Reductions - New York	U.S.	Halogenated Substances
		SF6 Emissions Reductions - National Grid	U.S.	Halogenated Substances
		Transmission Reconductoring	U.S.	Electricity Generation, Transmission, and Distribution
Natural Power, Inc.	1605	Wilder's Grove Landfill Gas Project	U.S.	Waste Treatment and Disposal--Methane
NC Muni Landfill Gas Partners, LLC	1605	Henderson County Landfill	U.S.	Waste Treatment and Disposal--Methane
Nebraska Public Power District	1605EZ	1994-1996 Distribution Improvements	U.S.	Electricity Generation, Transmission, and Distribution
		1994-1997 Transformer Changeouts	U.S.	Electricity Generation, Transmission, and Distribution
		CH4 Reductions from Coal Ash Reuse	U.S.	Other Emission Reduction Projects
		CH4 Reductions from Material Recycling	U.S.	Other Emission Reduction Projects
		Coal Ash Reuse	U.S.	Other Emission Reduction Projects
		Electric Heat Pump Program, 1998-2004	U.S.	Energy End Use
		Lighting Replacement	U.S.	Energy End Use
		Loss On Ignition Reduction Project	U.S.	Electricity Generation, Transmission, and Distribution
		Materials Recycling	U.S.	Other Emission Reduction Projects
		Nuclear Plant Improved Utilization	U.S.	Electricity Generation, Transmission, and Distribution
		Plant Efficiency Improvements	U.S.	Electricity Generation, Transmission, and Distribution
		Tree planting	U.S.	Carbon Sequestration
		Video Conferencing	U.S.	Transportation and Off-Road Vehicles
		Voltage Conversions 2004	U.S.	Electricity Generation, Transmission, and Distribution
		Wind Turbines	U.S.	Electricity Generation, Transmission, and Distribution
New Jersey Meadowlands Commission	1605	MSLA 1-D Landfill	U.S.	Waste Treatment and Disposal--Methane
		NJMC 1-A Landfill	U.S.	Waste Treatment and Disposal--Methane
		NJMC 1-C Landfill	U.S.	Waste Treatment and Disposal--Methane
		NJMC Balefill	U.S.	Waste Treatment and Disposal--Methane
Newton Landfill Gas, LLC	1605	Newton Landfill	U.S.	Waste Treatment and Disposal--Methane
NiSource/NIPSCO	1605	Bayou Cocodrie Bottomland Hardwood Forest Restoration	U.S.	Carbon Sequestration
		Biomass Initiative	U.S.	Electricity Generation, Transmission, and Distribution
		Capacitor Additions	U.S.	Electricity Generation, Transmission, and Distribution
		Coal Combustion Byproduct Utilization	U.S.	Other Emission Reduction Projects
		Electric Vehicles	U.S.	Transportation and Off-Road Vehicles
		Employee Commute Options	U.S.	Transportation and Off-Road Vehicles
		Employee Training	U.S.	Other Emission Reduction Projects
		Fuel Switching at Bynov Plant in Decin, Czech Republic	Foreign	Cogeneration and Waste Heat Recovery
		Inland Steel -Northlake Energy	U.S.	Cogeneration and Waste Heat Recovery
		Ispat/Inland - Cokenergy	U.S.	Cogeneration and Waste Heat Recovery
		Landfill Methane Recovery - Deercroft	U.S.	Waste Treatment and Disposal--Methane
		Landfill Methane Recovery - Wheeler	U.S.	Waste Treatment and Disposal--Methane
		Landfill Methane Recovery-Prairie View	U.S.	Waste Treatment and Disposal--Methane
		Low Loss Transformers	U.S.	Electricity Generation, Transmission, and Distribution
		Mississippi River Valley Bottomland Hardwood Restoration	U.S.	Carbon Sequestration

Table B9. Emission Reduction Projects by Entity, Data Year 2004 (Continued)

Reporter	Form Type	Project	Location	Project Type
		National Steel- Portside Energy	U.S.	Cogeneration and Waste Heat Recovery
		Natural Gas Vehicles	U.S.	Transportation and Off-Road Vehicles
		NG Star - Columbia Gas of Kentucky	U.S.	Oil and Natural Gas Systems and Coal Mining--Methane
		NG Star - Columbia Gas of Ohio	U.S.	Oil and Natural Gas Systems and Coal Mining--Methane
		NG Star - Columbia Gas of Pennsylvania and Maryland	U.S.	Oil and Natural Gas Systems and Coal Mining--Methane
		NG Star - Columbia Gas of Virginia	U.S.	Oil and Natural Gas Systems and Coal Mining--Methane
		NG Star - Columbia Gas Transmission Company	U.S.	Oil and Natural Gas Systems and Coal Mining--Methane
		NG Star - Columbia Gulf Transmission Company	U.S.	Oil and Natural Gas Systems and Coal Mining--Methane
		NG Star - NIPSCO	U.S.	Oil and Natural Gas Systems and Coal Mining--Methane
		NG Star Bay State Gas	U.S.	Oil and Natural Gas Systems and Coal Mining--Methane
		North Trenton Pipeline Replacement	U.S.	Oil and Natural Gas Systems and Coal Mining--Methane
		Overflow Bottomland Hardwood Forest Restoration Project	U.S.	Carbon Sequestration
		Ozone Depleting Chemicals	U.S.	Halogenated Substances
		Recycling program	U.S.	Other Emission Reduction Projects
		Reduced Impact Logging of Natural Forest in Malaysia	Foreign	Carbon Sequestration
		Rio Bravo Carbon Sequestration Pilot Project	Foreign	Carbon Sequestration
		Rural Tree Planting	U.S.	Carbon Sequestration
		SF6 Reductions	U.S.	Halogenated Substances
		St. Catherine-ESI	U.S.	Carbon Sequestration
		St. Catherine-NFWF	U.S.	Carbon Sequestration
		St. Francis River Carbon Offset Project	U.S.	Carbon Sequestration
		Upper Ouachita River Valley Bottomland Hardwood Restoration	U.S.	Carbon Sequestration
		Urban Tree Planting	U.S.	Carbon Sequestration
		US Steel - Lakeside Energy	U.S.	Cogeneration and Waste Heat Recovery
		Western Oregon Carbon Sequestration Project	U.S.	Carbon Sequestration
		Whiting Clean Energy	U.S.	Cogeneration and Waste Heat Recovery
Noranda Aluminum Inc.	1605	PFC Emission Reduction via Reductions in Anode Effects	U.S.	Halogenated Substances
North Carolina Biomass Partners	1605EZ	Biomass Waste to Energy	U.S.	Electricity Generation, Transmission, and Distribution
North Carolina Electric Membership Corporation	1605EZ	Switch Away from Fossil Fuel Generated Power Purchases	U.S.	Electricity Generation, Transmission, and Distribution
Northern Neck Electric Cooperative	1605	Demand-Side Management Programs	U.S.	Energy End Use
		System Line Conversion and Reconductoring	U.S.	Electricity Generation, Transmission, and Distribution
Northern Virginia Electric Cooperative	1605	Demand-side Management Load Control Programs	U.S.	Energy End Use
		System Line Conversions and Reconductoring	U.S.	Electricity Generation, Transmission, and Distribution
Ocean County Landfill Corporation	1605	Flare Control of Landfill Gas	U.S.	Waste Treatment and Disposal--Methane
		Supplying Landfill Gas for Energy Recovery	U.S.	Waste Treatment and Disposal--Methane
Oglethorpe Power Corporation	1605	Spanish Lake Carbon Offset Project	U.S.	Carbon Sequestration
		Walsh Lake Carbon Offset Project	U.S.	Carbon Sequestration
		White River Carbon Offset Project	U.S.	Carbon Sequestration
Oklahoma Gas & Electric Co.	1605	Spanish Lake Carbon Offset Project	U.S.	Carbon Sequestration
		Walsh Lake Carbon Offset Project	U.S.	Carbon Sequestration
		White River Carbon Offset Project	U.S.	Carbon Sequestration
Old Dominion Electric Cooperative	1605	Carbon Sequestration from Tree Plantings	U.S.	Carbon Sequestration
		Green Lights	U.S.	Energy End Use
		Reforestation	U.S.	Carbon Sequestration
Omaha Public Power District	1605EZ	Coal Heat Rate Improvement	U.S.	Electricity Generation, Transmission, and Distribution
		Commercial & Industrial Audits	U.S.	Energy End Use
		Heat Pump Program (RECP)	U.S.	Energy End Use
		Nuclear Capacity Factor Improvement	U.S.	Electricity Generation, Transmission, and Distribution
		Recycling Fly Ash	U.S.	Other Emission Reduction Projects
		Recycling Programs	U.S.	Other Emission Reduction Projects
		Right Lights	U.S.	Energy End Use
		Street Light Replacement	U.S.	Energy End Use
		T&D Capacitor Installation	U.S.	Electricity Generation, Transmission, and Distribution
		Tree Planting	U.S.	Carbon Sequestration
Orlando Utilities Commission (OUC)	1605EZ	Landfill Gas to Energy	U.S.	Electricity Generation, Transmission, and Distribution
Palmer Capital Corporation	1605	Brookhaven Landfill Gas Limited Partnership	U.S.	Waste Treatment and Disposal--Methane
		Central Gas Limited Partnership	U.S.	Waste Treatment and Disposal--Methane
		Janes LFG Corporation	U.S.	Waste Treatment and Disposal--Methane
		Lancaster Landfill Gas Corporation	U.S.	Waste Treatment and Disposal--Methane
		Lebanon Landfill Gas Corporation	U.S.	Waste Treatment and Disposal--Methane
		LKD Los Angeles L.P.	U.S.	Waste Treatment and Disposal--Methane
		Portland LFG Joint Venture	U.S.	Waste Treatment and Disposal--Methane
		Raleigh Landfill Gas Corporation	U.S.	Waste Treatment and Disposal--Methane
		Scholl Canyon LFG Limited Partnership	U.S.	Waste Treatment and Disposal--Methane
		Sun LFG Corporation	U.S.	Waste Treatment and Disposal--Methane
Peabody Energy	1605	Coal Bed Methane Utilization	U.S.	Oil and Natural Gas Systems and Coal Mining--Methane
		Coal Mine Methane Utilization	U.S.	Oil and Natural Gas Systems and Coal Mining--Methane
PEI Power Corp	1605	PEI Power Corp	U.S.	Cogeneration and Waste Heat Recovery
Pepco Holdings Inc	1605	Ash Reuse	U.S.	Other Emission Reduction Projects
		Bayou Cocodrie Bottomland Hardwood Forest Restoration	U.S.	Carbon Sequestration
		CNG Vehicles	U.S.	Transportation and Off-Road Vehicles
		Deepwater Natural Gas Usage	U.S.	Electricity Generation, Transmission, and Distribution
		Delmarva & Atlantic City Electric Employee Van Pooling	U.S.	Transportation and Off-Road Vehicles
		Delmarva Power Facility Energy Saving	U.S.	Energy End Use
		Demand Side Management	U.S.	Energy End Use
		Edge Moor Fuel Substitution	U.S.	Electricity Generation, Transmission, and Distribution
		Edge Moor Landfill Gas Use	U.S.	Electricity Generation, Transmission, and Distribution
		Hay Road Combined Cycle	U.S.	Electricity Generation, Transmission, and Distribution
		Mass Transit to DC & Wilmington	U.S.	Transportation and Off-Road Vehicles
		Mississippi River Valley Bottomland Hardwood Restoration	U.S.	Carbon Sequestration
		Overflow Bottomland Hardwood Forest Restoration Project	U.S.	Carbon Sequestration
		Peach Bottom Nuclear Units #2 & #3 Uprate Program	U.S.	Electricity Generation, Transmission, and Distribution
		PHI Employee Telecommuting	U.S.	Transportation and Off-Road Vehicles
		PHI Hybrid Vehicles	U.S.	Transportation and Off-Road Vehicles
		Reduced Impact Logging of Natural Forest in Malaysia	Foreign	Carbon Sequestration
		Rio Bravo Carbon Sequestration Pilot Project	Foreign	Carbon Sequestration
		Soy Usage on Company Vehicles	U.S.	Transportation and Off-Road Vehicles
		Spanish Lake Carbon Offset Project	U.S.	Carbon Sequestration
		St. Catherine-ESI	U.S.	Carbon Sequestration
		St. Catherine-NFWF	U.S.	Carbon Sequestration
		St. Francis River Carbon Offset Project	U.S.	Carbon Sequestration
		T&D Loss Reduction	U.S.	Electricity Generation, Transmission, and Distribution
		Upper Ouachita River Valley Bottomland Hardwood Restoration	U.S.	Carbon Sequestration

Table B9. Emission Reduction Projects by Entity, Data Year 2004 (Continued)

Reporter	Form Type	Project	Location	Project Type
		Urban Tree Planting - Atlantic City Electric	U.S.	Carbon Sequestration
		Urban Tree Planting - Delmarva	U.S.	Carbon Sequestration
		Walsh Lake Carbon Offset Project	U.S.	Carbon Sequestration
		Western Oregon Carbon Sequestration Project	U.S.	Carbon Sequestration
		Wetlands Reclamation Project - ACE	U.S.	Carbon Sequestration
		White River Carbon Offset Project	U.S.	Carbon Sequestration
Pfizer Pharmaceuticals LLC - Arecibo	1605EZ	Chilled Water Plant Shutdown	U.S.	Energy End Use
		Chilled Water Plant Shutdown	U.S.	Energy End Use
		Chilled Water Plant Shutdown	U.S.	Energy End Use
		Cooling Tower Pump Shutdown	U.S.	Energy End Use
		Cooling Tower Pump Shutdown	U.S.	Energy End Use
		Cooling Tower Pump Shutdown	U.S.	Energy End Use
		Electrical System Improvements	U.S.	Energy End Use
		Electrical System Improvements	U.S.	Energy End Use
		Electrical System Improvements	U.S.	Energy End Use
		Recovery and Destruction of CFC-11	U.S.	Halogenated Substances
		Steam Systems Improvement	U.S.	Energy End Use
PG&E Corporation	1605	Electric Vehicles	U.S.	Transportation and Off-Road Vehicles
		Electrical Energy Conservation Savings	U.S.	Energy End Use
		Natural Gas Energy Conservation Savings	U.S.	Energy End Use
		Natural Gas Star Program - PG&E California	U.S.	Oil and Natural Gas Systems and Coal Mining--Methane
		Natural Gas Substitution for Residual Oil	U.S.	Electricity Generation, Transmission, and Distribution
		Natural Gas Vehicles - PG&E Customers	U.S.	Transportation and Off-Road Vehicles
		Natural Gas Vehicles - PG&E Fleet	U.S.	Transportation and Off-Road Vehicles
		Natural Gas Vehicles Pre-1999	U.S.	Transportation and Off-Road Vehicles
		SF6 Emission Reduction Partnership	U.S.	Halogenated Substances
Pitt Landfill Gas, LLC	1605	Pitt County Landfill	U.S.	Waste Treatment and Disposal--Methane
Polar Refrigerant Technology, LLC	1605	Recycle / Reclaim Operation	U.S.	Halogenated Substances
Portland General Electric Co.	1605	1995 Colstrip Units 3&4 Ruggedizing	U.S.	Electricity Generation, Transmission, and Distribution
		Beaver Efficiency Improvements	U.S.	Electricity Generation, Transmission, and Distribution
		Beaver Efficiency Improvements 2003	U.S.	Electricity Generation, Transmission, and Distribution
		Boardman Efficiency Improvements	U.S.	Electricity Generation, Transmission, and Distribution
		Boardman Upgrade 2004	U.S.	Electricity Generation, Transmission, and Distribution
		Building Rooftop Photovoltaic Systems	U.S.	Electricity Generation, Transmission, and Distribution
		Bull Run Turbine Runner Replacements	U.S.	Electricity Generation, Transmission, and Distribution
		Cal-Gon Farms Biogas Pilot	U.S.	Electricity Generation, Transmission, and Distribution
		Coyote Springs Efficiency Improvements	U.S.	Electricity Generation, Transmission, and Distribution
		Coyote Springs Improvements 2003	U.S.	Electricity Generation, Transmission, and Distribution
		Demand-Side Management Projects	U.S.	Energy End Use
		Electric Fleet Vehicles	U.S.	Transportation and Off-Road Vehicles
		Energy Management Systems	U.S.	Energy End Use
		Faraday Efficiency Improvements 2002	U.S.	Electricity Generation, Transmission, and Distribution
		Faraday Units 4&5 1994	U.S.	Electricity Generation, Transmission, and Distribution
		Fly Ash Reuse Program	U.S.	Other Emission Reduction Projects
		Friends of Trees	U.S.	Carbon Sequestration
		Gas Lawnmower Turn In Rebate	U.S.	Energy End Use
		Green Lights Programs	U.S.	Energy End Use
		Heat Pump Rebate	U.S.	Energy End Use
		Hunt Turtle Technology	U.S.	Transportation and Off-Road Vehicles
		Natural Gas Fleet Vehicles	U.S.	Transportation and Off-Road Vehicles
		North Fork Hydro Improvements	U.S.	Electricity Generation, Transmission, and Distribution
		Oak Grove Turbine Runner Replacements - 1991 - Units 1&2	U.S.	Electricity Generation, Transmission, and Distribution
		PGE Corporate Recycling Program	U.S.	Other Emission Reduction Projects
		Photoelectric Streetlight Controls	U.S.	Energy End Use
		River Mill Efficiency Improvements	U.S.	Electricity Generation, Transmission, and Distribution
		Round Butte	U.S.	Electricity Generation, Transmission, and Distribution
		Sullivan turbine rebuilds	U.S.	Electricity Generation, Transmission, and Distribution
		Sullivan Upgrade 2004	U.S.	Electricity Generation, Transmission, and Distribution
		T&D: Power Factor Correction Capacitors	U.S.	Electricity Generation, Transmission, and Distribution
		Transformer Efficiency Improvements	U.S.	Electricity Generation, Transmission, and Distribution
		Vansycle Ridge Wind Generation	U.S.	Electricity Generation, Transmission, and Distribution
Prince George Electric Cooperative	1605	Transmission and Dist. Efficiency Improvements	U.S.	Electricity Generation, Transmission, and Distribution
Public Service Company of New Mexico	1605	CNG Vehicles	U.S.	Transportation and Off-Road Vehicles
		Heat Rate Improvements at San Juan Generating Station	U.S.	Electricity Generation, Transmission, and Distribution
		Natural Gas Leak Surveying and Replacement	U.S.	Oil and Natural Gas Systems and Coal Mining--Methane
		New Mexico Wind Energy	U.S.	Electricity Generation, Transmission, and Distribution
		Palo Verde Generation Increase	U.S.	Electricity Generation, Transmission, and Distribution
		Spanish Lake Carbon Offset Project	U.S.	Carbon Sequestration
		Walsh Lake Carbon Offset Project	U.S.	Carbon Sequestration
		White River Carbon Offset Project	U.S.	Carbon Sequestration
Public Service Enterprise Group	1605	Bayou Cocodrie Bottomland Hardwood Forest Restoration	U.S.	Carbon Sequestration
		Biodiesel Purchases	U.S.	Transportation and Off-Road Vehicles
		Demand Side Management	U.S.	Energy End Use
		Electric Generation from Landfill Gas	U.S.	Electricity Generation, Transmission, and Distribution
		Hydro Projects - United States	U.S.	Electricity Generation, Transmission, and Distribution
		Mississippi River Valley Bottomland Hardwood Restoration	U.S.	Carbon Sequestration
		Municipal Solid Waste Generators	U.S.	Waste Treatment and Disposal--Methane
		Overflow Bottomland Hardwood Forest Restoration Project	U.S.	Carbon Sequestration
		Reduced Impact Logging of Natural Forest in Malaysia	Foreign	Carbon Sequestration
		Resource Recovery Coal Ash Management Program	U.S.	Other Emission Reduction Projects
		Rio Bravo Carbon Sequestration Pilot Project	Foreign	Carbon Sequestration
		Spanish Lake Carbon Offset Project	U.S.	Carbon Sequestration
		St. Catherine-ESI	U.S.	Carbon Sequestration
		St. Catherine-NFWF	U.S.	Carbon Sequestration
		St. Francis River Carbon Offset Project	U.S.	Carbon Sequestration
		Upper Ouachita River Valley Bottomland Hardwood Restoration	U.S.	Carbon Sequestration
		Walsh Lake Carbon Offset Project	U.S.	Carbon Sequestration
		WasteWise	U.S.	Other Emission Reduction Projects
		Western Oregon Carbon Sequestration Project	U.S.	Carbon Sequestration
		White River Carbon Offset Project	U.S.	Carbon Sequestration
Public Utility District No. 1 of Snohomish County	1605	Battery and Solar Powered Boat Races	U.S.	Transportation and Off-Road Vehicles
		Bicycles for Meter Readers	U.S.	Transportation and Off-Road Vehicles
		Commute Reduction Program	U.S.	Transportation and Off-Road Vehicles
		Conservation Voltage Reduction	U.S.	Electricity Generation, Transmission, and Distribution
		Demand Side Management	U.S.	Energy End Use
		Electric Car Race	U.S.	Transportation and Off-Road Vehicles

Table B9. Emission Reduction Projects by Entity, Data Year 2004 (Continued)

Reporter	Form Type	Project	Location	Project Type
		Scrap Metals Recycling	U.S.	Other Emission Reduction Projects
		Transmission Networking and Reconductoring	U.S.	Electricity Generation, Transmission, and Distribution
		We-cycle Office Wastepaper (WOW) Program	U.S.	Other Emission Reduction Projects
Rangely Weber Sand Unit	1605	Rangely CO2 Injection Project	U.S.	Other Emission Reduction Projects
Rappahannock Electric Cooperative	1605	Demand-Side Management Load Control Programs	U.S.	Energy End Use
		System Line Conversions and Reconductoring	U.S.	Electricity Generation, Transmission, and Distribution
		Tree Planting	U.S.	Carbon Sequestration
Reliant Energy, Inc.	1605	Reliant Old Sabine Bottom Restoration	U.S.	Carbon Sequestration
		Spanish Lake Carbon Offset Project	U.S.	Carbon Sequestration
		Walsh Lake Carbon Offset Project	U.S.	Carbon Sequestration
		White River Carbon Offset Project	U.S.	Carbon Sequestration
Rolls-Royce Corporation	1605	Boiler Conversion from Coal to Landfill/Natural Gas	U.S.	Energy End Use
		Co-Gen	U.S.	Cogeneration and Waste Heat Recovery
		Peak Saving Project	U.S.	Energy End Use
		Use of Landfill Gas	U.S.	Waste Treatment and Disposal--Methane
Sacramento Municipal Utility District	1605	Employee Commute Program	U.S.	Transportation and Off-Road Vehicles
		Energy Efficiency Programs	U.S.	Energy End Use
		Meter Reading - Bicycles	U.S.	Transportation and Off-Road Vehicles
		PV Pioneer	U.S.	Electricity Generation, Transmission, and Distribution
		Ride Electric	U.S.	Transportation and Off-Road Vehicles
		Shade Tree Program	U.S.	Carbon Sequestration
		Sulfur Hexaflouride Inventory	U.S.	Halogenated Substances
Salt River Project	1605EZ	AC Photovoltaic Residential System	U.S.	Energy End Use
		Alternate Work Week Schedule	U.S.	Transportation and Off-Road Vehicles
		AZ Falls Generation Facility	U.S.	Electricity Generation, Transmission, and Distribution
		Bike/Bus/Walk	U.S.	Transportation and Off-Road Vehicles
		Carpooling/Vapooling	U.S.	Transportation and Off-Road Vehicles
		Cesar Chavez HS Photovoltaic System	U.S.	Energy End Use
		Cooperative Photovoltaic Power Plants	U.S.	Electricity Generation, Transmission, and Distribution
		Electric Vehicles Demonstration and Business Use	U.S.	Transportation and Off-Road Vehicles
		Fly Ash Sales	U.S.	Other Emission Reduction Projects
		Geothermal Energy Power Purchase	U.S.	Electricity Generation, Transmission, and Distribution
		Heat Rate Improvements	U.S.	Electricity Generation, Transmission, and Distribution
		Home with PV System for Demonstration (Chandler House)	U.S.	Energy End Use
		Landfill Gas Flaring (CH4 Avoided)	U.S.	Waste Treatment and Disposal--Methane
		Landfill Gas Flaring (CO2 Increase)	U.S.	Waste Treatment and Disposal--Methane
		Mesa Library Photovoltaic System	U.S.	Energy End Use
		Palo Verde Nuclear Station Capacity Factor Increase	U.S.	Electricity Generation, Transmission, and Distribution
		Palo Verde Nuclear Station Capacity Increases	U.S.	Electricity Generation, Transmission, and Distribution
		Phoenix Park and Ride PV System	U.S.	Energy End Use
		Recycling (CH4 Reductions)	U.S.	Other Emission Reduction Projects
		Recycling (CO2 Reduction)	U.S.	Other Emission Reduction Projects
		Replace Gasoline Lawnmowers with Electric Lawnmowers	U.S.	Energy End Use
		Scottsdale CC PV System	U.S.	Energy End Use
		South Mountain CC Solar	U.S.	Energy End Use
		SRP Credit Union Photovoltaic System	U.S.	Energy End Use
		Telecommuting	U.S.	Transportation and Off-Road Vehicles
		Tempe Warehouse Photovoltaic System	U.S.	Energy End Use
		Tri-Cities Landfill Gas Generation Facility	U.S.	Waste Treatment and Disposal--Methane
		Wind Energy Power Purchase	U.S.	Electricity Generation, Transmission, and Distribution
Santee Cooper	1605	Afforestation/Reforestation	U.S.	Carbon Sequestration
		Cross Unit 1 Turbine Retrofit	U.S.	Electricity Generation, Transmission, and Distribution
		Cross Unit 2 Retrofit	U.S.	Electricity Generation, Transmission, and Distribution
		Demand Side Management Programs	U.S.	Energy End Use
		Fly Ash Used in Concrete Manufacture	U.S.	Other Emission Reduction Projects
		Recycling Program	U.S.	Other Emission Reduction Projects
		Santee Cooper - Horry County Landfill Site	U.S.	Waste Treatment and Disposal--Methane
		Summer Nuclear Upgrade	U.S.	Electricity Generation, Transmission, and Distribution
		Winyah Unit 1 Turbine Retrofit	U.S.	Electricity Generation, Transmission, and Distribution
		Winyah Unit 2 Turbine Retrofit	U.S.	Electricity Generation, Transmission, and Distribution
		Winyah Unit 3 Turbine Retrofit	U.S.	Electricity Generation, Transmission, and Distribution
		Winyah Unit 4 Turbine Retrofit	U.S.	Electricity Generation, Transmission, and Distribution
Seattle City Light	1605	$mart Business Rebates	U.S.	Energy End Use
		4kV to 26kV Distribution System Conversion	U.S.	Electricity Generation, Transmission, and Distribution
		Built Smart/Long-Term Super Good Cents Program	U.S.	Energy End Use
		Cedar Falls turbine runner replacement	U.S.	Electricity Generation, Transmission, and Distribution
		Diablo Dam turbine runner replacement	U.S.	Electricity Generation, Transmission, and Distribution
		Energy $avings Plan	U.S.	Energy End Use
		Energy Efficient Water Heater Rebate Program	U.S.	Energy End Use
		Energy Smart Design	U.S.	Energy End Use
		Energy Smart Services	U.S.	Energy End Use
		Gorge Dam turbine runner replacement	U.S.	Electricity Generation, Transmission, and Distribution
		Home Water Savers Program	U.S.	Energy End Use
		HomeWise/Low-Income Electric Program	U.S.	Energy End Use
		Multifamily Common Area Lighting Program	U.S.	Energy End Use
		Multifamily Conservation Program: Low-Income	U.S.	Energy End Use
		Multifamily Conservation Program: Standard-Income	U.S.	Energy End Use
		Neighborhood Power Lighting,Weatherization,Warm Home Program	U.S.	Energy End Use
		Retail-Wise Lighting and Appliances	U.S.	Energy End Use
		Ross Dam turbine runner replacement	U.S.	Electricity Generation, Transmission, and Distribution
		South Fork Tolt River hydroelectric project	U.S.	Electricity Generation, Transmission, and Distribution
		Urban Tree Replacement Program	U.S.	Carbon Sequestration
SeaWest WindPower, Inc.	1605	Altech Energy III	U.S.	Electricity Generation, Transmission, and Distribution
		Condon Wind Power, LLC	U.S.	Electricity Generation, Transmission, and Distribution
		Foote Creek I, LLC	U.S.	Electricity Generation, Transmission, and Distribution
		Foote Creek II, LLC	U.S.	Electricity Generation, Transmission, and Distribution
		Foote Creek III, LLC	U.S.	Electricity Generation, Transmission, and Distribution
		Foote Creek IV, LLC	U.S.	Electricity Generation, Transmission, and Distribution
		Mountain View Power Partners II, LLC	U.S.	Electricity Generation, Transmission, and Distribution
		Mountain View Power Partners, LLC	U.S.	Electricity Generation, Transmission, and Distribution
		Rock River I, LLC	U.S.	Electricity Generation, Transmission, and Distribution
		San Gorgonio Westwinds II, LLC	U.S.	Electricity Generation, Transmission, and Distribution
Seminole Electric Cooperative, Inc.	1605EZ	Fly Ash & Bottom Ash Reuse	U.S.	Other Emission Reduction Projects
		Heat Rate Improvement	U.S.	Electricity Generation, Transmission, and Distribution
		Lighting Replacement	U.S.	Energy End Use
		Synthetic Gypsum Production	U.S.	Other Emission Reduction Projects
		Transmission Conductor Optimization	U.S.	Electricity Generation, Transmission, and Distribution
Seneca Energy II, LLC	1605	Seneca Energy - Stage I	U.S.	Waste Treatment and Disposal--Methane
		Seneca Energy - Stage II	U.S.	Waste Treatment and Disposal--Methane

Table B9. Emission Reduction Projects by Entity, Data Year 2004 (Continued)

Reporter	Form Type	Project	Location	Project Type
Seneca Energy II, LLC_Ontario LFGE	1605	Ontario LFGE	U.S.	Waste Treatment and Disposal--Methane
Shenandoah Valley Electric Cooperative	1605	Demand-Side Management Load Control Programs	U.S.	Energy End Use
		System Line Conversions and Reconductoring	U.S.	Electricity Generation, Transmission, and Distribution
		Visual Screening-Tree Planting	U.S.	Carbon Sequestration
Sikorsky Aircraft Corporation	1605	Air Conditioning efficiency improvements	U.S.	Energy End Use
		Chiller Replacement	U.S.	Energy End Use
		Composite trim Dust Collector Improvement.	U.S.	Energy End Use
		Compressed Air Energy Efficiency Improvements	U.S.	Energy End Use
		Lighting Efficiency Improvements	U.S.	Energy End Use
		Process improvement - Vacuum Pump Consolidation	U.S.	Energy End Use
Smithfield Foods, Inc.	1605EZ	Biogas Boiler (JMC - Sioux Falls)	U.S.	Waste Treatment and Disposal--Methane
		Biogas Boiler (MB - Sagebrush)	U.S.	Waste Treatment and Disposal--Methane
		Biogas Boiler (MB - Tumbleweed)	U.S.	Waste Treatment and Disposal--Methane
		Biogas Boiler (MB - Turkey Flat)	U.S.	Waste Treatment and Disposal--Methane
		Biogas Boiler (Packerland - GB)	U.S.	Waste Treatment and Disposal--Methane
		Biogas Boiler (SPC - Tar Heel)	U.S.	Waste Treatment and Disposal--Methane
		Biogas Flare (JMC - Sioux Falls)	U.S.	Waste Treatment and Disposal--Methane
		Biogas Flare (MB - Sagebrush)	U.S.	Waste Treatment and Disposal--Methane
		Biogas Flare (MB - Tumbleweed)	U.S.	Waste Treatment and Disposal--Methane
		Biogas Flare (MB - Turkey Flat)	U.S.	Waste Treatment and Disposal--Methane
		Biogas Flare (Packerland - GB)	U.S.	Waste Treatment and Disposal--Methane
		Biogas Flare (Packerland - Plainwell)	U.S.	Waste Treatment and Disposal--Methane
		Biogas Flare (SPC - Tar Heel)	U.S.	Waste Treatment and Disposal--Methane
		Smithfield Bio-Energy (Yuma)	U.S.	Waste Treatment and Disposal--Methane
South Carolina Electric & Gas Company	1605	Bayou Cocodrie Bottomland Hardwood Forest Restoration	U.S.	Carbon Sequestration
		Coal Ash Utilization Program	U.S.	Other Emission Reduction Projects
		Demand Side Management Technologies	U.S.	Energy End Use
		Forest Management Plan	U.S.	Carbon Sequestration
		Misc. Plant efficiency improvements	U.S.	Electricity Generation, Transmission, and Distribution
		Mississippi River Valley Bottomland Hardwood Restoration	U.S.	Carbon Sequestration
		Overflow Bottomland Hardwood Forest Restoration Project	U.S.	Carbon Sequestration
		Reduced Impact Logging of Natural Forest in Malaysia	Foreign	Carbon Sequestration
		Rio Bravo Carbon Sequestration Pilot Project	Foreign	Carbon Sequestration
		SCANA Participation in STAR program	U.S.	Oil and Natural Gas Systems and Coal Mining--Methane
		SF6 Emission Reduction Partnership	U.S.	Halogenated Substances
		St. Catherine-ESI	U.S.	Carbon Sequestration
		St. Catherine-NFWF	U.S.	Carbon Sequestration
		St. Francis River Carbon Offset Project	U.S.	Carbon Sequestration
		Summer Nuclear Upgrade	U.S.	Electricity Generation, Transmission, and Distribution
		Upper Ouachita River Valley Bottomland Hardwood Restoration	U.S.	Carbon Sequestration
		Urquhart Repowering Project	U.S.	Electricity Generation, Transmission, and Distribution
		Wateree Station heat rate improvement	U.S.	Electricity Generation, Transmission, and Distribution
		Western Oregon Carbon Sequestration Project	U.S.	Carbon Sequestration
		Williams Station improvements	U.S.	Electricity Generation, Transmission, and Distribution
Southeastern Biomass Partners, LP	1605EZ	Biomass Waste to Energy	U.S.	Electricity Generation, Transmission, and Distribution
Southern California Edison Co.	1605	Renewable Energy Purchases - Small Hydro	U.S.	Electricity Generation, Transmission, and Distribution
		Demand Side Management	U.S.	Energy End Use
		Electric Vehicle Program	U.S.	Transportation and Off-Road Vehicles
		ENVEST SCE	U.S.	Energy End Use
		Fly Ash Sales for Concrete Production	U.S.	Other Emission Reduction Projects
		Forestation at Shaver Lake	U.S.	Carbon Sequestration
		Harvesting Timber at Shaver Lake	U.S.	Carbon Sequestration
		Internal Combustion Engine Replacement Program	U.S.	Energy End Use
		Mohave Power Project Heat Rate Improvement Program	U.S.	Electricity Generation, Transmission, and Distribution
		Net Growth of Timber at Shaver Lake	U.S.	Carbon Sequestration
		Palo Verde Availability Improvement	U.S.	Electricity Generation, Transmission, and Distribution
		Renewable Energy Purchases - Biomass	U.S.	Electricity Generation, Transmission, and Distribution
		Renewable Energy Purchases - Geothermal	U.S.	Electricity Generation, Transmission, and Distribution
		Renewable Energy Purchases - Wind	U.S.	Electricity Generation, Transmission, and Distribution
		Repowering of Hydro Generation Units	U.S.	Electricity Generation, Transmission, and Distribution
		San Onofre Availability Improvements	U.S.	Electricity Generation, Transmission, and Distribution
		SCE Waste-Not Program	U.S.	Other Emission Reduction Projects
		SF6 Gas Management Program	U.S.	Halogenated Substances
		Urban Donation of tree seedlings from Shaver Lake nursery	U.S.	Carbon Sequestration
Southern Company	1605	Bayou Cocodrie Bottomland Hardwood Forest Restoration	U.S.	Carbon Sequestration
		Biomass	U.S.	Electricity Generation, Transmission, and Distribution
		Bulk Power Transmission Improvements	U.S.	Electricity Generation, Transmission, and Distribution
		Carbon Sequestration on Company Lands	U.S.	Carbon Sequestration
		Carbon Sequestration on Noncompany Lands	U.S.	Carbon Sequestration
		Carpooling and Mass Transit	U.S.	Transportation and Off-Road Vehicles
		Chevron Cogenerating Plant - Unit 5	U.S.	Cogeneration and Waste Heat Recovery
		Combined-Cycle Units	U.S.	Electricity Generation, Transmission, and Distribution
		Demand-Side Management	U.S.	Energy End Use
		EnviroTech Investments	U.S.	Other Emission Reduction Projects
		Farley Nuclear Plant Availability Improvements	U.S.	Electricity Generation, Transmission, and Distribution
		Farley Nuclear Plant Uprate	U.S.	Electricity Generation, Transmission, and Distribution
		Gas Capability at Watson 4 and 5	U.S.	Electricity Generation, Transmission, and Distribution
		Gas Capability at Plant McDonough	U.S.	Electricity Generation, Transmission, and Distribution
		Gas Capability at Plant Yates	U.S.	Electricity Generation, Transmission, and Distribution
		Hatch Nuclear Plant Availability Improvements	U.S.	Electricity Generation, Transmission, and Distribution
		Hatch Nuclear Plant Capacity Uprate	U.S.	Electricity Generation, Transmission, and Distribution
		Heat Rate Improvement on Coal-Fired Capacity	U.S.	Electricity Generation, Transmission, and Distribution
		Mississippi River Valley Bottomland Hardwood Restoration	U.S.	Carbon Sequestration
		New Combustion Turbines	U.S.	Electricity Generation, Transmission, and Distribution
		Overflow Bottomland Hardwood Forest Restoration Project	U.S.	Carbon Sequestration
		Reduced Impact Logging of Natural Forest in Malaysia	Foreign	Carbon Sequestration
		Rio Bravo Carbon Sequestration Pilot Project	Foreign	Carbon Sequestration
		St. Catherine-ESI	U.S.	Carbon Sequestration
		St. Catherine-NFWF	U.S.	Carbon Sequestration
		St. Francis River Carbon Offset Project	U.S.	Carbon Sequestration
		Sulfur Hexafluoride (SF6) Emissions Reductions	U.S.	Halogenated Substances
		Switchgrass	U.S.	Electricity Generation, Transmission, and Distribution
		Theodore Cogeneration Facility	U.S.	Cogeneration and Waste Heat Recovery
		Transportation Research	U.S.	Transportation and Off-Road Vehicles
		Upper Ouachita River Valley Bottomland Hardwood Restoration	U.S.	Carbon Sequestration
		Vogtle Electric Generating Plant (Nuclear) Capacity Uprate	U.S.	Electricity Generation, Transmission, and Distribution
		Vogtle Electric Generating Plant Availability Improvements	U.S.	Electricity Generation, Transmission, and Distribution

Table B9. Emission Reduction Projects by Entity, Data Year 2004 (Continued)

Reporter	Form Type	Project	Location	Project Type
		Washington County Cogeneration Plant	U.S.	Cogeneration and Waste Heat Recovery
		Western Oregon Carbon Sequestration Project	U.S.	Carbon Sequestration
Southside Electric Cooperative	1605	System Line Conversion and Reconductoring	U.S.	Electricity Generation, Transmission, and Distribution
Springs Industries, Inc.	1605EZ	Recycling - CO2	U.S.	Other Emission Reduction Projects
		Recycling - Methane	U.S.	Other Emission Reduction Projects
		Recycling - Perfluoromethane	U.S.	Other Emission Reduction Projects
Sustainable Development Technology Corporation	1605	RUSAFOR-SAP	Foreign	Carbon Sequestration
Tacoma Power	1605EZ	Afforestation	U.S.	Carbon Sequestration
		Alternative Transportation	U.S.	Transportation and Off-Road Vehicles
		Energy Conservation	U.S.	Energy End Use
		Forest Preservation	U.S.	Carbon Sequestration
		Generator Improvement (Cushman/Nisqually)	U.S.	Electricity Generation, Transmission, and Distribution
		Generator Improvement (Wynoochee)	U.S.	Electricity Generation, Transmission, and Distribution
		Reforestation	U.S.	Carbon Sequestration
Tampa Electric Company	1605	Bayou Cocodrie Bottomland Hardwood Forest Restoration	U.S.	Carbon Sequestration
		Fly Ash Reuse	U.S.	Other Emission Reduction Projects
		Mississippi River Valley Bottomland Hardwood Restoration	U.S.	Carbon Sequestration
		Overflow Bottomland Hardwood Forest Restoration Project	U.S.	Carbon Sequestration
		Reduced Impact Logging of Natural Forest in Malaysia	Foreign	Carbon Sequestration
		Rio Bravo Carbon Sequestration Pilot Project	Foreign	Carbon Sequestration
		St. Catherine-ESI	U.S.	Carbon Sequestration
		St. Catherine-NFWF	U.S.	Carbon Sequestration
		St. Francis River Carbon Offset Project	U.S.	Carbon Sequestration
		Upper Ouachita River Valley Bottomland Hardwood Restoration	U.S.	Carbon Sequestration
		Western Oregon Carbon Sequestration Project	U.S.	Carbon Sequestration
Tennessee Valley Authority	1605	Afforestation On TVA Lands	U.S.	Carbon Sequestration
		Alternate Fuel Vehicles	U.S.	Transportation and Off-Road Vehicles
		Bayou Cocodrie Bottomland Hardwood Forest Restoration	U.S.	Carbon Sequestration
		CFC Management	U.S.	Halogenated Substances
		Comfort Plus Homes	U.S.	Energy End Use
		Flyash Sales To Concrete Industry	U.S.	Other Emission Reduction Projects
		Green Power Switch	U.S.	Electricity Generation, Transmission, and Distribution
		Heat Rate Improvements At TVA Coal Fired Generating Units	U.S.	Electricity Generation, Transmission, and Distribution
		Hydro Unit Modernization	U.S.	Electricity Generation, Transmission, and Distribution
		Landfill Methane Recovery and Power Generation	U.S.	Waste Treatment and Disposal--Methane
		Mississippi River Valley Bottomland Hardwood Restoration	U.S.	Carbon Sequestration
		Outdoor Lighting Replacements By Memphis Light, Gas And Wate	U.S.	Energy End Use
		Overflow Bottomland Hardwood Forest Restoration Project	U.S.	Carbon Sequestration
		Paper Recycling	U.S.	Other Emission Reduction Projects
		Reduced Impact Logging of Natural Forest in Malaysia	Foreign	Carbon Sequestration
		Residential Marketing Program	U.S.	Energy End Use
		Return Browns Ferry Nuclear Units 2 and 3 to Service	U.S.	Electricity Generation, Transmission, and Distribution
		Rio Bravo Carbon Sequestration Pilot Project	Foreign	Carbon Sequestration
		Spanish Lake Carbon Offset Project	U.S.	Carbon Sequestration
		St. Catherine-ESI	U.S.	Carbon Sequestration
		St. Catherine-NFWF	U.S.	Carbon Sequestration
		St. Francis River Carbon Offset Project	U.S.	Carbon Sequestration
		Start Watts Bar Nuclear Unit 1	U.S.	Electricity Generation, Transmission, and Distribution
		Transmission System Efficiency Improvements	U.S.	Electricity Generation, Transmission, and Distribution
		Transportation Fleet Fuel Efficiency Improvement	U.S.	Transportation and Off-Road Vehicles
		Upper Ouachita River Valley Bottomland Hardwood Restoration	U.S.	Carbon Sequestration
		Walsh Lake Carbon Offset Project	U.S.	Carbon Sequestration
		Western Oregon Carbon Sequestration Project	U.S.	Carbon Sequestration
		White River Carbon Offset Project	U.S.	Carbon Sequestration
		Wood Waste Cofiring At Coal Fired Generating Plants	U.S.	Electricity Generation, Transmission, and Distribution
The Empire District Electric Co.	1605	Bayou Cocodrie Bottomland Hardwood Forest Restoration	U.S.	Carbon Sequestration
		Mississippi River Valley Bottomland Hardwood Restoration	U.S.	Carbon Sequestration
		Overflow Bottomland Hardwood Forest Restoration Project	U.S.	Carbon Sequestration
		Reduced Impact Logging of Natural Forest in Malaysia	Foreign	Carbon Sequestration
		Rio Bravo Carbon Sequestration Pilot Project	Foreign	Carbon Sequestration
		St. Catherine-ESI	U.S.	Carbon Sequestration
		St. Catherine-NFWF	U.S.	Carbon Sequestration
		St. Francis River Carbon Offset Project	U.S.	Carbon Sequestration
		Upper Ouachita River Valley Bottomland Hardwood Restoration	U.S.	Carbon Sequestration
		Western Oregon Carbon Sequestration Project	U.S.	Carbon Sequestration
The Estee Lauder Companies	1605	1381 Research Park Lighting Control Sensors	U.S.	Energy End Use
		1392 Octron Lighting JHL	U.S.	Energy End Use
		1522 Melville Occupancy Sensors Offices	U.S.	Energy End Use
		1569 Melville Motor Upgrades	U.S.	Energy End Use
		187 Melville Manufacturing Octron Lighting	U.S.	Energy End Use
		209 Oakland Octron Lighting Upgrade	U.S.	Energy End Use
		229 Trevose Octron Lighting Project	U.S.	Energy End Use
		284 Melville Energy Conservation	U.S.	Energy End Use
		3597c Bristol Energy Conservation Project	U.S.	Energy End Use
		3643 Oakland Warehouse Sensor Installation	U.S.	Energy End Use
		459 Whitman 3 Octron Lighting	U.S.	Energy End Use
		Aveda Air to Air Heat Exchangers	U.S.	Energy End Use
		Aveda Blaine Spirovent	U.S.	Energy End Use
		Aveda Boiler and Burner Replacement	U.S.	Energy End Use
		Aveda Cooling Tower Core Water Savings	U.S.	Energy End Use
		Aveda Cooling Tower Variable Speed Drives	U.S.	Energy End Use
		Aveda Heatex Unit Compounding Line Air to Air Heat Recovery	U.S.	Energy End Use
		Aveda Metal Halide Upgrades	U.S.	Energy End Use
		Aveda Night Setback for Exhaust Fans	U.S.	Energy End Use
		Aveda Night Setback for make-up air heat pumps	U.S.	Energy End Use
		Aveda Octron Lighting Upgrades 1994 - 1999	U.S.	Energy End Use
		Aveda Solar Wall	U.S.	Energy End Use
		Aveda Venmar Unit Pre-Weigh VAV heat exchanger	U.S.	Energy End Use
		Aveda White Roof Upgrade	U.S.	Energy End Use
		Melville DC - Octron Lighting Project	U.S.	Energy End Use
		Melville Steam Trap System Survey and Remediation	U.S.	Energy End Use
		Monitor Management (Million Monitor Drive)	U.S.	Energy End Use
		PADC Motion Sensors in Office	U.S.	Energy End Use
		PADC T-5 Lighting Upgrades	U.S.	Energy End Use
		Research Park Octron Lighting Project	U.S.	Energy End Use
		Whitman 4 Octron Lighting Project	U.S.	Energy End Use

Table B9. Emission Reduction Projects by Entity, Data Year 2004 (Continued)

Reporter	Form Type	Project	Location	Project Type
TXU	1605	Alternative Fuel Vehicle Program	U.S.	Transportation and Off-Road Vehicles
		Bayou Cocodrie Bottomland Hardwood Forest Restoration	U.S.	Carbon Sequestration
		Coal Ash Byproduct Use	U.S.	Other Emission Reduction Projects
		Demand-Side Management Program	U.S.	Energy End Use
		Employee Bus Pass Program	U.S.	Transportation and Off-Road Vehicles
		Employee Carpool Program	U.S.	Transportation and Off-Road Vehicles
		Landfill Methane	U.S.	Waste Treatment and Disposal--Methane
		Lignite and Western Coal Blending	U.S.	Electricity Generation, Transmission, and Distribution
		Mississippi River Valley Bottomland Hardwood Restoration	U.S.	Carbon Sequestration
		Operation of Nuclear Generation Units	U.S.	Electricity Generation, Transmission, and Distribution
		Overflow Bottomland Hardwood Forest Restoration Project	U.S.	Carbon Sequestration
		Paper and Aluminum Recycling	U.S.	Other Emission Reduction Projects
		Power Plant Heat Rate Improvement Projects	U.S.	Electricity Generation, Transmission, and Distribution
		Ranger Exhaust Gas Project	U.S.	Other Emission Reduction Projects
		Reduced Impact Logging of Natural Forest in Malaysia	Foreign	Carbon Sequestration
		Renewable Energy Development Projects	U.S.	Electricity Generation, Transmission, and Distribution
		Rio Bravo Carbon Sequestration Pilot Project	Foreign	Carbon Sequestration
		SF6 Reductions	U.S.	Halogenated Substances
		Spanish Lake Carbon Offset Project	U.S.	Carbon Sequestration
		St. Catherine-ESI	U.S.	Carbon Sequestration
		St. Catherine-NFWF	U.S.	Carbon Sequestration
		St. Francis River Carbon Offset Project	U.S.	Carbon Sequestration
		Texas Reforestation Foundation	U.S.	Carbon Sequestration
		TXU's Participation in the Texas Reforestation Foundation	U.S.	Carbon Sequestration
		Upper Ouachita River Valley Bottomland Hardwood Restoration	U.S.	Carbon Sequestration
		Vehicle Use Reductions	U.S.	Transportation and Off-Road Vehicles
		Walsh Lake Carbon Offset Project	U.S.	Carbon Sequestration
		Western Oregon Carbon Sequestration Project	U.S.	Carbon Sequestration
		White River Carbon Offset Project	U.S.	Carbon Sequestration
Utah Municipal Power Agency	1605EZ	Energy Education Program	U.S.	Other Emission Reduction Projects
		In House Conservation	U.S.	Energy End Use
		Light Replacement Program	U.S.	Energy End Use
		Low Loss Transformers	U.S.	Electricity Generation, Transmission, and Distribution
		Residential Audits	U.S.	Energy End Use
		Tree Planting	U.S.	Carbon Sequestration
		Wind Power	U.S.	Electricity Generation, Transmission, and Distribution
Vermont Public Power Supply Authority	1605	Act 250 New Construction Program	U.S.	Energy End Use
		Equipment Replacement and Remodeling Program	U.S.	Energy End Use
		Farm Efficiency Program	U.S.	Energy End Use
		Large Commercial and Industrial Audit Program	U.S.	Energy End Use
		Residential Appliance Disposal Program	U.S.	Energy End Use
		Residential Low Income Weatherization Piggyback Program	U.S.	Energy End Use
		Residential Mail Order Lighting Program	U.S.	Energy End Use
		Residential Top Ten	U.S.	Energy End Use
		Residential Water Heating and Lighting Efficiency Program	U.S.	Energy End Use
		Small Commercial Retrofit Program	U.S.	Energy End Use
		Street and Area Lighting Efficiency Program	U.S.	Energy End Use
		Swanton Village Hydro Expansion	U.S.	Electricity Generation, Transmission, and Distribution
		Transmission and Distribution System Efficiency Improvements	U.S.	Electricity Generation, Transmission, and Distribution
Waste Management, Inc.	1605	Akron (Hardy Road) MSW Landfill - 1367	U.S.	Waste Treatment and Disposal--Methane
		Akron (Hazel Street) MSW Landfill	U.S.	Waste Treatment and Disposal--Methane
		Alliance MSW Landfill - 154	U.S.	Waste Treatment and Disposal--Methane
		Altamont (Flare) MSW Landfill - 2554	U.S.	Waste Treatment and Disposal--Methane
		Altamont (Power) MSW Landfill - 2554	U.S.	Waste Treatment and Disposal--Methane
		Amelia MSW Landfill - 41	U.S.	Waste Treatment and Disposal--Methane
		American MSW Landfill - 136	U.S.	Waste Treatment and Disposal--Methane
		Arden MSW Landfill - 70	U.S.	Waste Treatment and Disposal--Methane
		Atascocita MSW Landfill - 2158	U.S.	Waste Treatment and Disposal--Methane
		Atlantic Waste Disposal MSW Landfill - 858	U.S.	Waste Treatment and Disposal--Methane
		Austin Community MSW Landfill - 2162	U.S.	Waste Treatment and Disposal--Methane
		Autumn Hills RDF	U.S.	Waste Treatment and Disposal--Methane
		Baytown MSW Landfill - 1129	U.S.	Waste Treatment and Disposal--Methane
		Bethel MSW Landfill - 1306	U.S.	Waste Treatment and Disposal--Methane
		BJ (flare) MSW Landfill	U.S.	Waste Treatment and Disposal--Methane
		BJ (Power) MSW Landfill	U.S.	Waste Treatment and Disposal--Methane
		Bluebonnet MSW Landfill - 1074	U.S.	Waste Treatment and Disposal--Methane
		Bolton Road/SSL MSW Landfill - 76	U.S.	Waste Treatment and Disposal--Methane
		Boundary Road MSW Landfill	U.S.	Waste Treatment and Disposal--Methane
		Bradley MSW (Flare/Sold) Landfill - 2502	U.S.	Waste Treatment and Disposal--Methane
		Bradley MSW Landfill (Power) - 2502	U.S.	Waste Treatment and Disposal--Methane
		Brookfield Sanitary Landfill	U.S.	Waste Treatment and Disposal--Methane
		Burnsville Sanitary MSW Landfill - 291	U.S.	Waste Treatment and Disposal--Methane
		Butterfield MSW Landfill - 2384	U.S.	Waste Treatment and Disposal--Methane
		Button Gwinnett MSW Landfill	U.S.	Waste Treatment and Disposal--Methane
		Cedar Ridge Landfill - 1304	U.S.	Waste Treatment and Disposal--Methane
		Central Disposal Landfill - 496	U.S.	Waste Treatment and Disposal--Methane
		Central Sanitary Landfill (Flare)	U.S.	Waste Treatment and Disposal--Methane
		Central Sanitary Landfill (Power)	U.S.	Waste Treatment and Disposal--Methane
		Cereal City MSW Landfill	U.S.	Waste Treatment and Disposal--Methane
		Chaffee	U.S.	Waste Treatment and Disposal--Methane
		Chain of Rocks MSW Landfill - 2450	U.S.	Waste Treatment and Disposal--Methane
		Charles City - 42	U.S.	Waste Treatment and Disposal--Methane
		Chastang MSW Landfill - 1143	U.S.	Waste Treatment and Disposal--Methane
		Chesser Island Landfill	U.S.	Waste Treatment and Disposal--Methane
		Chestnut Ridge (Flare) MSW Landfill-2115	U.S.	Waste Treatment and Disposal--Methane
		Chestnut Ridge (Power) MSW Landfill - 2115	U.S.	Waste Treatment and Disposal--Methane
		Chicopee MSW Landfill - 444	U.S.	Waste Treatment and Disposal--Methane
		CID Areas 1, 2 and 3 (Flare)	U.S.	Waste Treatment and Disposal--Methane
		CID Areas 1, 2 and 3 (Power) MSW Landfill - 2030	U.S.	Waste Treatment and Disposal--Methane
		Cinnaminson MSW Landfill	U.S.	Waste Treatment and Disposal--Methane
		City Sand MSW Landfill	U.S.	Waste Treatment and Disposal--Methane
		Clearview Landfill	U.S.	Waste Treatment and Disposal--Methane
		Coastal Plains MSW Landfill - 1073	U.S.	Waste Treatment and Disposal--Methane
		Columbia Ridge MSW Landfill - 2588	U.S.	Waste Treatment and Disposal--Methane
		Comal County Landfill	U.S.	Waste Treatment and Disposal--Methane
		Conroe 6 MSW Landfill - 0127	U.S.	Waste Treatment and Disposal--Methane
		Countryside MSW Landfill - 6	U.S.	Waste Treatment and Disposal--Methane
		Covel Gardens MSW Landfill - 2177	U.S.	Waste Treatment and Disposal--Methane

Table B9. Emission Reduction Projects by Entity, Data Year 2004 (Continued)

Reporter	Form Type	Project	Location	Project Type
		Crossroads	U.S.	Waste Treatment and Disposal--Methane
		Cuyahoga MSW Landfill - 216	U.S.	Waste Treatment and Disposal--Methane
		DADS Landfill	U.S.	Waste Treatment and Disposal--Methane
		Dauphin Meadows MSW Landfill - 63	U.S.	Waste Treatment and Disposal--Methane
		Deer Track Park MSW Landfill - 1704	U.S.	Waste Treatment and Disposal--Methane
		Deercroft (flare) MSW Landfill - 318	U.S.	Waste Treatment and Disposal--Methane
		Deercroft (Power) MSW Landfill - 318	U.S.	Waste Treatment and Disposal--Methane
		DeKalb County RDF MSW Landfill - 2269	U.S.	Waste Treatment and Disposal--Methane
		Des Moines MSW Landfill - 2066	U.S.	Waste Treatment and Disposal--Methane
		DFW (Flare) MSW Landfill	U.S.	Waste Treatment and Disposal--Methane
		DFW (Power) MSW Landfill - 399	U.S.	Waste Treatment and Disposal--Methane
		Douglas County MSW Landfil - 2809	U.S.	Waste Treatment and Disposal--Methane
		DRPI Landfill - 1307	U.S.	Waste Treatment and Disposal--Methane
		Eagle Valley RDF MSW Landfill - 2336	U.S.	Waste Treatment and Disposal--Methane
		Earthmovers MSW Landfill - 17	U.S.	Waste Treatment and Disposal--Methane
		East Oak MSW Landfill	U.S.	Waste Treatment and Disposal--Methane
		East Side	U.S.	Waste Treatment and Disposal--Methane
		El Sobrante (Power) Landfill	U.S.	Waste Treatment and Disposal--Methane
		El Sobrante MSW (Flare) Landfill - 0166	U.S.	Waste Treatment and Disposal--Methane
		ELDA RDF Landfill	U.S.	Waste Treatment and Disposal--Methane
		Elizabethtown MSW Landfill	U.S.	Waste Treatment and Disposal--Methane
		Elk River MSW (Flare) Landfill - 1706	U.S.	Waste Treatment and Disposal--Methane
		Elk River MSW (Power) Landfill - 1706	U.S.	Waste Treatment and Disposal--Methane
		Envirofil of III MSW Landfill - 53	U.S.	Waste Treatment and Disposal--Methane
		Evergreen MSW Landfill	U.S.	Waste Treatment and Disposal--Methane
		Evergreen MSW Landfill - 1314	U.S.	Waste Treatment and Disposal--Methane
		Fitchburg MSW Landfill - 439	U.S.	Waste Treatment and Disposal--Methane
		Five Oaks RDF MSW Landfill - 2271	U.S.	Waste Treatment and Disposal--Methane
		Geneva	U.S.	Waste Treatment and Disposal--Methane
		Glen's Landfill	U.S.	Waste Treatment and Disposal--Methane
		Granby (Holyoke) MSW Landfill - 445	U.S.	Waste Treatment and Disposal--Methane
		Grand Central MSW Landfill - 204	U.S.	Waste Treatment and Disposal--Methane
		Greene Valley (Flare) MSW Landfill	U.S.	Waste Treatment and Disposal--Methane
		Greene Valley (Power) MSW Landfill	U.S.	Waste Treatment and Disposal--Methane
		GROWS MSW Landfill - 2382	U.S.	Waste Treatment and Disposal--Methane
		Guadalupe MSW Landfill - 1543	U.S.	Waste Treatment and Disposal--Methane
		Gulf Coast Landfill (Flare)	U.S.	Waste Treatment and Disposal--Methane
		Hastings MSW Landfill - 1749	U.S.	Waste Treatment and Disposal--Methane
		High Acres (Flare)	U.S.	Waste Treatment and Disposal--Methane
		High Acres (Power) MSW Landfill - 2277	U.S.	Waste Treatment and Disposal--Methane
		Hillsboro MSW Landfill -1515	U.S.	Waste Treatment and Disposal--Methane
		Hillside Landfill	U.S.	Waste Treatment and Disposal--Methane
		HOD Landfill	U.S.	Waste Treatment and Disposal--Methane
		Hunt Road MSW Landfill	U.S.	Waste Treatment and Disposal--Methane
		Iris Glen MSW Landfill - 2570	U.S.	Waste Treatment and Disposal--Methane
		Jay County MSW Landfill - 228	U.S.	Waste Treatment and Disposal--Methane
		John Smith MSW Landfill - 0293	U.S.	Waste Treatment and Disposal--Methane
		Kankakee (Flare)	U.S.	Waste Treatment and Disposal--Methane
		Kankakee (Power) MSW Landfill - 2319	U.S.	Waste Treatment and Disposal--Methane
		Kelly Run MSW Landfill - 841	U.S.	Waste Treatment and Disposal--Methane
		Kennewick/Wenatchee MSW Landfill - 1048	U.S.	Waste Treatment and Disposal--Methane
		King George County MSW Landfill - 1323	U.S.	Waste Treatment and Disposal--Methane
		Kirby Canyon MSW Landfill - 1046	U.S.	Waste Treatment and Disposal--Methane
		Lake (Flare) MSW Landfill	U.S.	Waste Treatment and Disposal--Methane
		Lake (Power) MSW Landfill	U.S.	Waste Treatment and Disposal--Methane
		Lake County MSW Landfill	U.S.	Waste Treatment and Disposal--Methane
		Lake View (Power) MSW Landfill - 2387	U.S.	Waste Treatment and Disposal--Methane
		Lake View MSW Landfill (Flare) - 2387	U.S.	Waste Treatment and Disposal--Methane
		Lancaster MSW Landfill - 2508	U.S.	Waste Treatment and Disposal--Methane
		Land & Development (L&D) (Power)	U.S.	Waste Treatment and Disposal--Methane
		Land and Development (L&D) (Flare)	U.S.	Waste Treatment and Disposal--Methane
		Laraway	U.S.	Waste Treatment and Disposal--Methane
		Laurel Highlands MSW Landfill - 65	U.S.	Waste Treatment and Disposal--Methane
		Laurel Ridge Landfill (Flare/Sold)	U.S.	Waste Treatment and Disposal--Methane
		LCS Services	U.S.	Waste Treatment and Disposal--Methane
		Liberty MSW Landfill - 22	U.S.	Waste Treatment and Disposal--Methane
		Live Oak MSW Landfill - 2138	U.S.	Waste Treatment and Disposal--Methane
		Magnolia MSW Landfill - 151	U.S.	Waste Treatment and Disposal--Methane
		Mahoning Landfill	U.S.	Waste Treatment and Disposal--Methane
		Martone (Barre) MSW Landfill - 1760	U.S.	Waste Treatment and Disposal--Methane
		Medley Landfill & Recycling Center (Flare)	U.S.	Waste Treatment and Disposal--Methane
		Metro MSW Landfill-2742	U.S.	Waste Treatment and Disposal--Methane
		MIddle Pennisula MSW Landfill - 2497	U.S.	Waste Treatment and Disposal--Methane
		Milam MSW Landfill (Flare) 2056	U.S.	Waste Treatment and Disposal--Methane
		Milam MSW Landfill (Power) - 2056	U.S.	Waste Treatment and Disposal--Methane
		Mill Seat Landfill	U.S.	Waste Treatment and Disposal--Methane
		Mohawk Valley MSW Landfill - 2167	U.S.	Waste Treatment and Disposal--Methane
		Monroe-Livingston (flare) MSW Landfill - 2403	U.S.	Waste Treatment and Disposal--Methane
		Monroe-Livingston (Power) MSW Landfill - 2403	U.S.	Waste Treatment and Disposal--Methane
		Monroeville MSW Landfill - 69	U.S.	Waste Treatment and Disposal--Methane
		Mountain View MSW Landfill - 2086	U.S.	Waste Treatment and Disposal--Methane
		Naples Sanitary Landfill	U.S.	Waste Treatment and Disposal--Methane
		New Boston	U.S.	Waste Treatment and Disposal--Methane
		New Milford (flare) MSW Landfill	U.S.	Waste Treatment and Disposal--Methane
		New Milford (Power) MSW Landfill	U.S.	Waste Treatment and Disposal--Methane
		Northern Oaks Landfill - 2867	U.S.	Waste Treatment and Disposal--Methane
		Northwest MSW Landfill - 2636	U.S.	Waste Treatment and Disposal--Methane
		Oak Ridge RDF (Flare) MSW Landfill - 319	U.S.	Waste Treatment and Disposal--Methane
		Oak Ridge RDF (Power) MSW Landfill - 319	U.S.	Waste Treatment and Disposal--Methane
		Oakridge MSW Landfill - 49	U.S.	Waste Treatment and Disposal--Methane
		Okeechobee MSW Landfill - 46	U.S.	Waste Treatment and Disposal--Methane
		Olympic View MSW Landfill - 0030	U.S.	Waste Treatment and Disposal--Methane
		Orchard Ridge/Omega Hills/ Parkview MSW Landfill - 2286	U.S.	Waste Treatment and Disposal--Methane
		Outer Loop MSW Landfill - 2482	U.S.	Waste Treatment and Disposal--Methane
		Oyster Bay Regional Park Landfill	U.S.	Waste Treatment and Disposal--Methane

Table B9. Emission Reduction Projects by Entity, Data Year 2004 (Continued)

Reporter	Form Type	Project	Location	Project Type
		Palmetto MSW Landfill - 2106	U.S.	Waste Treatment and Disposal--Methane
		Paris - 1562	U.S.	Waste Treatment and Disposal--Methane
		Parklands MSW Landfill	U.S.	Waste Treatment and Disposal--Methane
		Pecan Grove MSW Landfill - 2135	U.S.	Waste Treatment and Disposal--Methane
		Peoples MSW Landfill - 1736	U.S.	Waste Treatment and Disposal--Methane
		Pheasant Run (flare) MSW Landfill - 2290	U.S.	Waste Treatment and Disposal--Methane
		Pheasant Run (Power) MSW Landfill - 2290	U.S.	Waste Treatment and Disposal--Methane
		Piedmont MSW Landfill - 2120	U.S.	Waste Treatment and Disposal--Methane
		Pine Bluff MSW Landfill - 1308	U.S.	Waste Treatment and Disposal--Methane
		Pine Grove MSW Landfill - 835	U.S.	Waste Treatment and Disposal--Methane
		Pine Ridge RDF	U.S.	Waste Treatment and Disposal--Methane
		Pine Tree Acres MSW Landfill - 1733	U.S.	Waste Treatment and Disposal--Methane
		Pinnacle Road MSW Landfill	U.S.	Waste Treatment and Disposal--Methane
		Pottstown MSW Landfill (Flare) - 2393	U.S.	Waste Treatment and Disposal--Methane
		Pottstown MSW Landfill (Power) - 2393	U.S.	Waste Treatment and Disposal--Methane
		Powell Road MSW Landfill	U.S.	Waste Treatment and Disposal--Methane
		Prairie View (flare) MSW Landfill - 316	U.S.	Waste Treatment and Disposal--Methane
		Prairie View (Power) MSW Landfill - 316	U.S.	Waste Treatment and Disposal--Methane
		Prarie Bluff Landfill - 2513	U.S.	Waste Treatment and Disposal--Methane
		Quail Hollow MSW Landfill - 1305	U.S.	Waste Treatment and Disposal--Methane
		Quarry MSW Landfill - 2185	U.S.	Waste Treatment and Disposal--Methane
		R & B Landfill (Flare)	U.S.	Waste Treatment and Disposal--Methane
		Redwood MSW Landfill - 1507	U.S.	Waste Treatment and Disposal--Methane
		Richland MSW Landfill - 82	U.S.	Waste Treatment and Disposal--Methane
		Ridgeview (Flare) MSW Landfill - 2289	U.S.	Waste Treatment and Disposal--Methane
		Ridgeview (Power) MSW Landfill	U.S.	Waste Treatment and Disposal--Methane
		Riverbend MSW Landfill - 1509	U.S.	Waste Treatment and Disposal--Methane
		Rolling Hills MSW Landfill	U.S.	Waste Treatment and Disposal--Methane
		Rolling Meadows RDF MSW Landfill - 2040	U.S.	Waste Treatment and Disposal--Methane
		Rumble Landfill 1	U.S.	Waste Treatment and Disposal--Methane
		Rumble Landfill 2	U.S.	Waste Treatment and Disposal--Methane
		S&S Landfill	U.S.	Waste Treatment and Disposal--Methane
		Salem - 2573	U.S.	Waste Treatment and Disposal--Methane
		Sandy Hill	U.S.	Waste Treatment and Disposal--Methane
		Security MSW Landfill - 1017	U.S.	Waste Treatment and Disposal--Methane
		Serif Road MSW Landfill	U.S.	Waste Treatment and Disposal--Methane
		Settler's Hill (Flare) Landfill - 2384	U.S.	Waste Treatment and Disposal--Methane
		Settler's Hill (Power) MSW Landfill - 2041	U.S.	Waste Treatment and Disposal--Methane
		Seymour Road Landfill	U.S.	Waste Treatment and Disposal--Methane
		Shade (RCC) MSW Landfill - 231	U.S.	Waste Treatment and Disposal--Methane
		Simi Valley (Flare) MSW Landfill - 2510	U.S.	Waste Treatment and Disposal--Methane
		Simi Valley (Power) Landfill	U.S.	Waste Treatment and Disposal--Methane
		Skyline MSW Landfill - 1003	U.S.	Waste Treatment and Disposal--Methane
		South Hills (Arnoni) MSW Landfill - 185	U.S.	Waste Treatment and Disposal--Methane
		Southern Alleghenies MSW Landfill - 64	U.S.	Waste Treatment and Disposal--Methane
		Southern Sanitation Landfill	U.S.	Waste Treatment and Disposal--Methane
		Springhill MSW Landfill North - 2248	U.S.	Waste Treatment and Disposal--Methane
		Springhill MSW Landfill South - 2248	U.S.	Waste Treatment and Disposal--Methane
		Spruce Ridge MSW Landfill - 1702	U.S.	Waste Treatment and Disposal--Methane
		Statewide MSW Landfill	U.S.	Waste Treatment and Disposal--Methane
		Stone Ridge Landfill	U.S.	Waste Treatment and Disposal--Methane
		Stony Hollow MSW Landfill - 2672	U.S.	Waste Treatment and Disposal--Methane
		Suburban MSW Landfill - 2363	U.S.	Waste Treatment and Disposal--Methane
		Superior MSW Landfill - 2117	U.S.	Waste Treatment and Disposal--Methane
		Taunton Landfill	U.S.	Waste Treatment and Disposal--Methane
		Tazewell (Power) MSW Landfill - 2899	U.S.	Waste Treatment and Disposal--Methane
		Tazewell MSW Landfill (flare) - 2899	U.S.	Waste Treatment and Disposal--Methane
		Timberline	U.S.	Waste Treatment and Disposal--Methane
		Tonitown MSW Landfill - 0087	U.S.	Waste Treatment and Disposal--Methane
		Trail Ridge	U.S.	Waste Treatment and Disposal--Methane
		Tri Cities MSW Landfill - 1045	U.S.	Waste Treatment and Disposal--Methane
		Tri-City RDF	U.S.	Waste Treatment and Disposal--Methane
		Tullytown MSW Landfill - 2382	U.S.	Waste Treatment and Disposal--Methane
		Turnkey (flare) MSW Landfill - 2159	U.S.	Waste Treatment and Disposal--Methane
		Turnkey (Power) MSW Landfill - 2159	U.S.	Waste Treatment and Disposal--Methane
		Twin Bridges (flare) MSW Landfill - 317	U.S.	Waste Treatment and Disposal--Methane
		Twin Bridges (Power) MSW Landfill - 317	U.S.	Waste Treatment and Disposal--Methane
		Two Pine MSW Landfill - 2181	U.S.	Waste Treatment and Disposal--Methane
		Valley MSW Landfill - 232	U.S.	Waste Treatment and Disposal--Methane
		Valley Trail MSW Landfill - 2293	U.S.	Waste Treatment and Disposal--Methane
		Valley View MSW Landfill	U.S.	Waste Treatment and Disposal--Methane
		Venice Park (Flare) MSW Landfill	U.S.	Waste Treatment and Disposal--Methane
		Venice Park (Power) MSW Landfill - 2616	U.S.	Waste Treatment and Disposal--Methane
		Waters Landfill - 1722	U.S.	Waste Treatment and Disposal--Methane
		West Camden MSW Landfill - 2087	U.S.	Waste Treatment and Disposal--Methane
		Westside (Ft. Worth) MSW Landfill - 1004	U.S.	Waste Treatment and Disposal--Methane
		Westside MSW Landfill - 2894	U.S.	Waste Treatment and Disposal--Methane
		Wheatland Prairie RDF	U.S.	Waste Treatment and Disposal--Methane
		Wheeler RDF MSW Landfill (Flare)	U.S.	Waste Treatment and Disposal--Methane
		Wheeler RDF MSW Landfill (Power)	U.S.	Waste Treatment and Disposal--Methane
		White Lake MSW Landfill	U.S.	Waste Treatment and Disposal--Methane
		Woodland (flare) MSW Landfill - 2043	U.S.	Waste Treatment and Disposal--Methane
		Woodland (Power) MSW Landfill - 2043	U.S.	Waste Treatment and Disposal--Methane
		Woodland Meadows RDF MSW Landfill - 2337	U.S.	Waste Treatment and Disposal--Methane
		Woodside Landfill - 2169	U.S.	Waste Treatment and Disposal--Methane
Waverly Gas Producers, LLC	1605	Waverly Landfill	U.S.	Waste Treatment and Disposal--Methane
Waverly Light & Power Company	1605	Distribution System Upgrade (Project 3)	U.S.	Electricity Generation, Transmission, and Distribution
		Electric Vehicle (Project 4.1)	U.S.	Transportation and Off-Road Vehicles
		Energy End-Use Programs (Project 3.1)	U.S.	Energy End Use
		Energy Savings Due to Trees Forever (Project 3.3)	U.S.	Energy End Use
		High-Pressure Sodium Lights (Project 3.2)	U.S.	Energy End Use
		Hydro (Project 2)	U.S.	Electricity Generation, Transmission, and Distribution
		Low-Loss Transformers (Project 4)	U.S.	Electricity Generation, Transmission, and Distribution
		Trees Forever (Project 8.1)	U.S.	Carbon Sequestration
		Wind Turbine (Project 1)	U.S.	Electricity Generation, Transmission, and Distribution

Table B9. Emission Reduction Projects by Entity, Data Year 2004 (Continued)

Reporter	Form Type	Project	Location	Project Type
We Energies	1605	CFC-12 Recovery from Appliance Turn-In Program	U.S.	Halogenated Substances
		Ag Biomass Generation	U.S.	Electricity Generation, Transmission, and Distribution
		Badger Windpower Purchases	U.S.	Electricity Generation, Transmission, and Distribution
		Bayou Cocodrie Bottomland Hardwood Forest Restoration	U.S.	Carbon Sequestration
		Beneficial use of landfill methane	U.S.	Waste Treatment and Disposal--Methane
		Demand-side management energy efficiency programs	U.S.	Energy End Use
		Energy for Tomorrow(TM) Renewable Energy Program	U.S.	Electricity Generation, Transmission, and Distribution
		Fly ash substitution program	U.S.	Other Emission Reduction Projects
		Fossil plant heat rate improvements	U.S.	Electricity Generation, Transmission, and Distribution
		Fuel switching at Bynov Plant in Decin, Czech Republic	Foreign	Cogeneration and Waste Heat Recovery
		Hydro plant improvements and additions	U.S.	Electricity Generation, Transmission, and Distribution
		Increased Nuclear Capacity at Point Beach Nuclear Plant	U.S.	Electricity Generation, Transmission, and Distribution
		Mississippi River Valley Bottomland Hardwood Restoration	U.S.	Carbon Sequestration
		Overflow Bottomland Hardwood Forest Restoration Project	U.S.	Carbon Sequestration
		Reduced Impact Logging of Natural Forest in Malaysia	Foreign	Carbon Sequestration
		Rio Bravo Carbon Sequestration Pilot Project	Foreign	Carbon Sequestration
		Rio Bravo Carbon Sequestration Pilot Project (Full Share)	Foreign	Carbon Sequestration
		Rio Bravo Carbon Sequestration Pilot Project Expansion	Foreign	Carbon Sequestration
		Spanish Lake Carbon Offset Project	U.S.	Carbon Sequestration
		St. Catherine-ESI	U.S.	Carbon Sequestration
		St. Catherine-NFWF	U.S.	Carbon Sequestration
		St. Francis River Carbon Offset Project	U.S.	Carbon Sequestration
		Transmission & distribution system loss reductions	U.S.	Electricity Generation, Transmission, and Distribution
		Upper Ouachita River Valley Bottomland Hardwood Restoration	U.S.	Carbon Sequestration
		Vehicle conversion to dual fuel capability	U.S.	Transportation and Off-Road Vehicles
		Walsh Lake Carbon Offset Project	U.S.	Carbon Sequestration
		Western Oregon Carbon Sequestration Project	U.S.	Carbon Sequestration
		White River Carbon Offset Project	U.S.	Carbon Sequestration
Wisconsin Public Power Inc.	1605EZ	Apartment & Condo Efficiency Service: CFLs	U.S.	Energy End Use
		Apartment & Condo Efficiency Service: Common Area T8 Lighting	U.S.	Energy End Use
		Apartment & Condo Efficiency Service: Fixtures	U.S.	Energy End Use
		Apartment & Condo Efficiency Service: High Pressure Sodium Li	U.S.	Energy End Use
		Apartment & Condo Efficiency Service: LED Exit Signs & Retrof	U.S.	Energy End Use
		Apartment & Condo Efficiency Service: Outdoor Lighting	U.S.	Energy End Use
		Appliance Turn-In Reward: Refrig., Freezers, Room AC, Dehumid	U.S.	Energy End Use
		Central AC Tune-Up Discount: Professional AC services	U.S.	Energy End Use
		Efficiency Improvement Incentive Program: C&I Efficiency Proj	U.S.	Energy End Use
		Efficient Heating & Cooling Initiative: 12, 13,14,15,16,17,18	U.S.	Energy End Use
		Efficient Heating & Cooling Initiative: Furnace Fuel Switch	U.S.	Energy End Use
		Efficient Heating & Cooling Initiative: Furnace w/ ECM	U.S.	Energy End Use
		Efficient Heating & Cooling Initiative: Water Heater Fuel Swi	U.S.	Energy End Use
		Energy Star Bulb Giveaway: 15W, 20W, 25W	U.S.	Energy End Use
		Energy Star Homes: 12 and 13+ SEER AC	U.S.	Energy End Use
		Energy Star Homes: Ceiling Fan	U.S.	Energy End Use
		Energy Star Homes: CFLs & Fixtures	U.S.	Energy End Use
		Energy Star Homes: Clothes Dryer Gas, Washer, Dishwasher	U.S.	Energy End Use
		Energy Star Homes: Furnace w/ ECM	U.S.	Energy End Use
		Energy Star Homes: Refrigerator	U.S.	Energy End Use
		Energy Star Homes: WESH Home Status	U.S.	Energy End Use
		Energy Star Partners: CFLs	U.S.	Energy End Use
		Energy Star Partners: Clothes Washers, Dehumidifiers, Dishwas	U.S.	Energy End Use
		Energy Star Partners: Halogin Torchiere Turn-in & Fixtures	U.S.	Energy End Use
		Energy Star Partners: Refrigerators	U.S.	Energy End Use
		Energy Star Partners: Torchieres	U.S.	Energy End Use
		Home Energy Check-Up: 20W, 23W, 40W CFLs	U.S.	Energy End Use
		Home Energy Check-Up: HE Showerheads & Faucet Aerators	U.S.	Energy End Use
		Home Energy Check-Up: Water Heater Wrap & Pipe Insulation	U.S.	Energy End Use
		LED Exit Signs: Replacement Signs/Retrofit Kits	U.S.	Energy End Use
		Misc, Appliance & Weatherization Measures: Ceiling Fans	U.S.	Energy End Use
		Misc. Appliance & Weatherization Measures: 12,13,14,15 SEER A	U.S.	Energy End Use
		Misc. Appliance & Weatherization Measures: CFLs	U.S.	Energy End Use
		Misc. Appliance & Weatherization Measures: Faucet Aerators	U.S.	Energy End Use
		Misc. Appliance & Weatherization Measures: Fixtures	U.S.	Energy End Use
		Misc. Appliance & Weatherization Measures: Furnace (94+ AFUE)	U.S.	Energy End Use
		Misc. Appliance & Weatherization Measures: High Effic. Shower	U.S.	Energy End Use
		Misc. Appliance & Weatherization Measures: Pipe Insulation	U.S.	Energy End Use
		Misc. Appliance & Weatherization Measures: Programmable Therm	U.S.	Energy End Use
		Misc. Appliance & Weatherization Measures: Refrigerators	U.S.	Energy End Use
		Misc. Appliance & Weatherization Measures: Room AC	U.S.	Energy End Use
		Misc. Appliance & Weatherization Measures: Torchieres	U.S.	Energy End Use
		Misc. Appliance & Weatherization Measures: Water Heater Fuel	U.S.	Energy End Use
		Misc. Appliance & Weatherization Measures: Water Heater Wraps	U.S.	Energy End Use
		Misc. Appliance & Weatherization Measures: Windows	U.S.	Energy End Use
		Misc. Appliances: Washer, Dehumid. Dishwashers, Water Heaters	U.S.	Energy End Use
		Previous Year Projects Continuing Impacts	U.S.	Energy End Use
		Refrigerator Replacement - Low Income: Refrigerators	U.S.	Energy End Use
		Residential Loan Program: 13 SEER AC	U.S.	Energy End Use
		Residential Loan Program: Windows	U.S.	Energy End Use
		Targeted Home Performance: Attic Insulation	U.S.	Energy End Use
		Targeted Home Performance: CFLs	U.S.	Energy End Use
		Tree Power! Cash Rebate: Sequestration	U.S.	Carbon Sequestration
		Tree Power! Cash Rebate: Shade Trees	U.S.	Energy End Use
Wyeth Vaccines	1605EZ	Boiler replacement with Low NOx burner	U.S.	Energy End Use
		Employee Car Pool Program	U.S.	Transportation and Off-Road Vehicles
Xcel Energy	1605	Appliance Recycling	U.S.	Halogenated Substances
		Buffalo Ridge 1--NSP	U.S.	Electricity Generation, Transmission, and Distribution
		Buffalo Ridge 2--NSP	U.S.	Electricity Generation, Transmission, and Distribution
		Buffalo Ridge 3--NSP	U.S.	Electricity Generation, Transmission, and Distribution
		Chanarambie Windfarm - NSP	U.S.	Electricity Generation, Transmission, and Distribution
		Chippewa Falls Hydro expansion--NSP	U.S.	Electricity Generation, Transmission, and Distribution
		Coal ash utilization-NSP	U.S.	Other Emission Reduction Projects
		Coal Ash Utilization-PSCo	U.S.	Other Emission Reduction Projects
		Coal Ash Utilization-SPS	U.S.	Other Emission Reduction Projects
		Demand side management (electric)--NSP	U.S.	Energy End Use
		Demand Side Management (electric)--PSCo	U.S.	Energy End Use
		Foote Creek (Wind Power)--PSCo	U.S.	Electricity Generation, Transmission, and Distribution
		Ft. Lupton 230 kV Transmission System Tie-In Project	U.S.	Electricity Generation, Transmission, and Distribution
		Green Lights	U.S.	Energy End Use
		Jack River Wind Farm - NSP	U.S.	Electricity Generation, Transmission, and Distribution
		Lakota Ridge (Wind Power)-- NSP	U.S.	Electricity Generation, Transmission, and Distribution

Table B9. Emission Reduction Projects by Entity, Data Year 2004 (Continued)

Reporter	Form Type	Project	Location	Project Type
		Lamar Wind Farm (Colorado Green) -- PSCo	U.S.	Electricity Generation, Transmission, and Distribution
		Landfill Gas Purchase--NSP	U.S.	Electricity Generation, Transmission, and Distribution
		Low Income Refrigerator Replacement	U.S.	Halogenated Substances
		Moraine Wind - NSP	U.S.	Electricity Generation, Transmission, and Distribution
		New Mexico (Wind Power)--SPS	U.S.	Electricity Generation, Transmission, and Distribution
		Nuclear Capacity Increase - Rerated--NMC	U.S.	Electricity Generation, Transmission, and Distribution
		Nuclear capacity increase 2--NMC	U.S.	Electricity Generation, Transmission, and Distribution
		Nuclear Capacity Increase 3--NMC	U.S.	Electricity Generation, Transmission, and Distribution
		Nuclear capacity increase--NMC	U.S.	Electricity Generation, Transmission, and Distribution
		Nuclear capacity restoration--NMC	U.S.	Electricity Generation, Transmission, and Distribution
		Peetz Wind Farm (Wind Power)--PSCo	U.S.	Electricity Generation, Transmission, and Distribution
		Ponnequin (Wind Power)--PSCo	U.S.	Electricity Generation, Transmission, and Distribution
		Recycling program-NSP	U.S.	Other Emission Reduction Projects
		Recycling Program--PSCo	U.S.	Other Emission Reduction Projects
		Recycling Program--SPS	U.S.	Other Emission Reduction Projects
		Refuse-derived fuel-NSP	U.S.	Waste Treatment and Disposal--Methane
		Remaining Wind Projects--NSP	U.S.	Electricity Generation, Transmission, and Distribution
		Retirement of Arapahoe Units #1 and 2	U.S.	Electricity Generation, Transmission, and Distribution
		Shaokatan Hills (Wind Power)--NSP	U.S.	Electricity Generation, Transmission, and Distribution
		Sioux Falls area transmission upgrades--NSP	U.S.	Electricity Generation, Transmission, and Distribution
		Spanish Lake Carbon Offset Project	U.S.	Carbon Sequestration
		Texas - Whitedeer (wind power)--SPS	U.S.	Electricity Generation, Transmission, and Distribution
		Transformer Changeout --- Denver Terminal Substation	U.S.	Electricity Generation, Transmission, and Distribution
		Transmission upgrade 2--NSP	U.S.	Electricity Generation, Transmission, and Distribution
		Transmission Upgrade for hydro capacity--NSP	U.S.	Electricity Generation, Transmission, and Distribution
		Transmission upgrade--NSP	U.S.	Electricity Generation, Transmission, and Distribution
		Walsh Lake Carbon Offset Project	U.S.	Carbon Sequestration
		Wheaton Plant conversion--NSP-WI	U.S.	Electricity Generation, Transmission, and Distribution
		White River Carbon Offset Project	U.S.	Carbon Sequestration
		White River Dome Compressor Station Closure	U.S.	Oil and Natural Gas Systems and Coal Mining--Methane
		Wind power--NSP	U.S.	Electricity Generation, Transmission, and Distribution
		Woodstock Windfarms (Wind Power)--NSP	U.S.	Electricity Generation, Transmission, and Distribution
Xenon Specialty Gas	1605	SF6 Recovery & Reclamation	U.S.	Halogenated Substances
Zeeland Board of Public Works	1605EZ	General Trans & Dist	U.S.	Electricity Generation, Transmission, and Distribution
		Other Trans and Dist Improvements	U.S.	Electricity Generation, Transmission, and Distribution
		Urban Forestry	U.S.	Carbon Sequestration

Note: This table excludes data reported as confidential.
Source: Energy Information Administration, Forms 1605 and 1605EZ

Table B10. Emission Reduction Projects Reported by Project Type, Data Year 2004

Project Section & Reporter Name	Form Type	Project	Location
Electricity Generation, Transmission, and Distribution			
A&N Electric Cooperative	1605	Transmission and Distribution Efficiency Improvements	U.S.
Alabama Biomass Partners, Ltd	1605EZ	Biomass Waste to Energy	U.S.
Allegheny Energy, Inc.	1605	Adjustable Speed Drives for PA Fans - Hatfield's Ferry P.S.	U.S.
		Albright Unit #3 Generation with Wood Based Biomass	U.S.
		Application of Capacitors	U.S.
		Armstrong Boiler No. 1 Emissions Reduction Project	U.S.
		Armstrong Boiler No. 2 Emissions Reduction Project	U.S.
		Armstrong Unit 1 - Boiler Controls Replacement	U.S.
		Armstrong Unit 2 - Boiler Controls Replacement	U.S.
		Auxiliary Fuel Switching	U.S.
		Conversion to Higher Voltage Distribution	U.S.
		Economic Conductor Selection	U.S.
		Efficient Distribution Transformers	U.S.
		Energy Star Transformer Program	U.S.
		Harrison Unit #2 Boiler Controls Replacement	U.S.
		Harrison Unit #3 Boiler Controls Replacement	U.S.
		Harrison Unit #3 HP Turbine Rotor Replacement	U.S.
		Hatfield's Ferry Unit 1 - HP/IP Turbine Rotor Replacement	U.S.
		Hatfield's Ferry Unit 1 - LP Turbine Rotor Replacement	U.S.
		Hatfield's Ferry Unit 2 - HP/IP Turbine Rotor Replacement	U.S.
		Hatfield's Ferry Unit 2 LP Turbine Rotor Replacement	U.S.
		Hatfield's Ferry Unit 3 - LP Turbine Rotor Replacement	U.S.
		Lake Lynn Hydro Electric Station Relicensing	U.S.
		Performance Monitoring Systems	U.S.
		Pleasants Unit 2 - Boiler Controls Replacement	U.S.
		Potomac Edison 138/500 kV System Split	U.S.
		R. P. Smith Unit 4 - Boiler Controls Replacement	U.S.
		Replace Small Primary Conductors	U.S.
		Rivesville Unit 6 - High Pressure Turbine Rotor Replacement	U.S.
		Rivesville Unit No. 6 - Boiler Controls Replacement	U.S.
		Small Hydroelectric Station Relicensing	U.S.
		Small Run-of-River Hydroelectric Station Relicensing	U.S.
		Willow Island Unit #2 Biomass Project	U.S.
		Willow Island Unit #2 Tire Derived Fuel Project	U.S.
		Willow Island Unit 1- Low Pressure Turbine Rotor Replacement	U.S.
		Willow Island Unit 2 Boiler Controls Replacement	U.S.
		Wire Replacement on Transmission Lines	U.S.
Alliant Energy	1605	Ameresco Landfill	U.S.
		Berlin Landfill	U.S.
		Biomass - IA	U.S.
		Cedar Rapids Landfill (IES)	U.S.
		Columbia 1&2 Turbine Efficiency	U.S.
		Deer Ridge Dairy	U.S.
		Double S Dairy	U.S.
		Hydro - IA	U.S.
		Hydro - WI	U.S.
		Mallard Ridge Landfill	U.S.
		Minergy Waste Generation	U.S.
		Onyx Glacier Ridge Landfill	U.S.
		Sauk County Landfill	U.S.
		SFDL Fuel Switching	U.S.
		Switchgrass Cofiring	U.S.
		Tire Derived Fuel Generation	U.S.
		Transmission line improvements	U.S.
		Verona Landfill	U.S.
		Wind Power-Iowa	U.S.
		Wind Power-Wisconsin	U.S.
Ameren Corporation (formerly UE, CIPS, and CILCO)	1605	Conversion to a dry flyash handling system.	U.S.
		Grand Tower Repowering	U.S.
		Increased Nuclear generation	U.S.
		Install adjustible speed fan drives replacing fixed speed	U.S.
		Keokuk Upgrades	U.S.
		Meramec Power Plant Control Upgrade	U.S.
		Replaced motor-generator exciters with static exciter system	U.S.
		Sioux Plant Control Upgrade	U.S.
		Subtransmission Reconductoring	U.S.
		Tire Burning	U.S.
		Transformer Replacement	U.S.
		Waste Oil Heat Recovery	U.S.

Table B10. Emission Reduction Projects Reported by Project Type, Data Year 2004 (Continued)

Project Section & Reporter Name	Form Type	Project	Location
American Electric Power, Inc.	1605	ClearChoice(sm) Green Pricing Initiative: AEP-West	U.S.
		Distribution System Equipment Improvements	U.S.
		Fuel Switch Coal to Natural Gas (Conesville Unit 1-3)	U.S.
		Heat Rate Improvement (Due to improved load optimization)	U.S.
		Heat Rate Improvement Projects (Oper. and Equip. Changes)	U.S.
		Hydroelectric Facility Improvements: AEP-East	U.S.
		Nuclear Plant Improved Utilization	U.S.
		Open-Loop Transmission Groundwire Resistive Loss Reduction	U.S.
		Renewable Generation - Solar	U.S.
		Renewable Generation - Wind: AEP-East	U.S.
		Renewable Generation - Wind: AEP-West	U.S.
		Southwest Mesa Wind Farm	U.S.
		Transmission Efficiency Improvements: AEP-West	U.S.
		Transmission System Reinforcements	U.S.
		Watts on Schools	U.S.
American Municipal Power - Ohio	1605EZ	AMP-Ohio Member Communities: Reconductoring	U.S.
		AMP-Ohio: Landfill Gas	U.S.
		AMP-Ohio: OMEGA JV5 Belleville Hydro Plant	U.S.
		AMP-Ohio: Wind Turbines	U.S.
		Bryan: Auglaize Hydro	U.S.
		Orrville: Voltage Conversion	U.S.
BARC Electric Cooperative	1605	System Line Conversions and Reconductoring	U.S.
Berkshire Power LLC	1605	Natural gas fired electric generation	U.S.
Biomass Partners, LP	1605EZ	Biomass Waste to Energy	U.S.
Blue Source, LLC	1605	Bucksport - Fuel Switching Project	U.S.
Bountiful City Light & Power	1605	Air fuel ratio controller installed in dual fuel engine	U.S.
		Capacitor bank installation - increasing system efficiency	U.S.
		Hydroelectric plant operations	U.S.
BP America	1605	Petroleum Marketing Power Generation	U.S.
Bristol-Myers Squibb Company	1605	On-site Renewable Energy - Solar	U.S.
Carolina Power & Light Company	1605	Nuclear Capacity Improvement	U.S.
Choptank Electric Cooperative	1605	System Line Conversions and Reconductoring	U.S.
Cinergy Corp.	1605	Cayuga Heat Rate Improvements	U.S.
		Gibson Performance Maximization Program	U.S.
		Merger Dispatch Savings	U.S.
		Noblesville repowering	U.S.
		Wabash River Heat Rate Improvement	U.S.
City of Austin Electric Utility (Austin Energy)	1605EZ	Hydro Power Purchase	U.S.
		SF-6 Leak Reduction Project	U.S.
		South Texas Project	U.S.
		Transmission Improvement Project	U.S.
		West Texas Wind Power Purchase	U.S.
City Public Service	1605	Desert Sky Wind Turbine Power Purchase	U.S.
		South Texas Project Nuclear Operating Company	U.S.
CMS Energy	1605	Increased Nuclear Availibility (Consumers)	U.S.
		Karn 3 and Aux Boiler Fuel Switch	U.S.
		Karn 4 Fuel Switch (Consumers)	U.S.
		NPS-Biomass Electric Generation	Foreign
		Toledo Power Efficiency Improvements	Foreign
		US Biomass Electric Generation	U.S.
		Wind Power	U.S.
Community Electric Cooperative	1605	System Line Conversion and Reconductoring	U.S.
Consolidated Edison Company of New York, Inc.	1605	Arthur Kill - Fuel Switching to Natural Gas	U.S.
Constellation Energy	1605	Baltimore RESCO Waste-to-Energy MWh Purchases	U.S.
		Brandon Shores Generating Station Heat Rate Improvement	U.S.
		C.P. Crane Generating Station Heat Rate Improvements	U.S.
		Calvert Cliffs Nuclear Power Plant Generation Increases	U.S.
		H.A. Wagner Generating Station Heat Rate Improvements	U.S.
		Hydroelectric Generation Improvements	U.S.
		Nine Mile Pt Nuclear Generating Improvements	U.S.
		Transmission / Distribution Improvements	U.S.
Delaware Electric Cooperative	1605	System Line Conversions & Reconductoring	U.S.
Dominion Generation	1605	Increased Nuclear Generation at North Anna Nuclear Power St.	U.S.
		Increased Nuclear Generation at Surry Power Station	U.S.
DTE Energy/ Detroit Edison	1605	Distribution Improvements	U.S.
		Greenwood Energy Center Fuel Switching	U.S.
		Increased Nuclear Utilization	U.S.
		Plant Efficiency Improvements	U.S.
		Solar Power - California	U.S.
		Solar Power - Michigan	U.S.
Duke Energy Corporation	1605	Improved Efficiency an Nantahala Hydro	U.S.
		Improved Efficiency at Cedar Creek Hydro	U.S.
		Improved Hydro Efficiency at Dearborn Hydro	U.S.
		Improved Hydro Efficiency at Fishing Creek Hydro	U.S.
		Improved Hydro Efficiency at Lookout Shoals Hydro	U.S.
		Improved Hydro Efficiency at Oxford Hydro	U.S.
		Improved Hydro Efficiency at Wateree Hydro	U.S.
		Improved Hydro Efficiency at Wylie Hydro	U.S.
		Increased Nuclear Generation at Catawba Nuclear Station	U.S.
		Increased Nuclear Generation at McGuire Nuclear Station	U.S.
		Increased Nuclear Generation at Oconee Nuclear Station	U.S.

Table B10. Emission Reduction Projects Reported by Project Type, Data Year 2004 (Continued)

Project Section & Reporter Name	Form Type	Project	Location
Dynegy, Inc.	1605	Add Turbine Shell Heaters on Wood River 4	U.S.
		Baldwin 2 Turbine H.E.L.P. Blades Installation	U.S.
		Baldwin 3 Heat Rate Improvement	U.S.
		Burn Waste Oil at Baldwin 3	U.S.
		Cofire Plastic at Baldwin	U.S.
		Combustion of used lubricating oil	U.S.
		Convert Vermilion Units 1 And 2 To Natural Gas	U.S.
		Fuel Switch To Natural Gas at Hennepin	U.S.
		Fuel Switch To Natural Gas at Wood River	U.S.
		Havana 6 Cooling Tower Upgrade	U.S.
		Hennepin Boiler Optimizer	U.S.
		Hennepin Feedwater Heater Orifice Replacements	U.S.
		Hennepin Gas Reburn Project	U.S.
		Hennepin I Turbine Steam Path Upgrade	U.S.
		Hennepin Orimulsion Reburn	U.S.
		Install Natural Gas Fired Aux. Boiler at Havana	U.S.
		New Boiler Controls at Hennepin	U.S.
		Reduce Number of Plant Start-ups	U.S.
		Tire-Derived Fuel Cofiring at Baldwin	U.S.
		Vermilion 1 Heat Rate Improvements	U.S.
		Vermilion 2 Heat Rate Improvements	U.S.
		Wood River 4 Turbine Rotor Replacement	U.S.
Energy Developments, Inc.	1605	Carbon-Limestone Power Station	U.S.
		Lorain Power Station	U.S.
		Middle Point Power Station	U.S.
		Model Power Station	U.S.
		Ottawa County Power Station	U.S.
		Roberts Road Power Station	U.S.
		Taylor County Power Station	U.S.
		Tessman Road Power Station	U.S.
		Zion Power Station	U.S.
Energy Management Partners, LP	1605EZ	Biomass Waste to Energy	U.S.
Entergy Services, Inc.	1605	Baxter WIlson 1 - Condenser Vacuum Pump Replacement	U.S.
		Baxter Wilson 1- Air Preheater & By Pass Seal Replacement	U.S.
		Baxter Wilson 2 - Air Preheater Seal Replacement	U.S.
		Baxter Wilson 2 - Burner Management System	U.S.
		Grand Gulf Nuclear Station Turbine Upgrade	U.S.
		Independence 1 Burner Tilt Upgrade	U.S.
		Independence 2 APH Basket & Turbine Refurbish	U.S.
		Independence Unit 1 Feedwater Heater Replacement	U.S.
		ISES 2 HP Turbine Upgrade	U.S.
		ISES 2 Neural Network	U.S.
		Lake Catherine Unit 4 Efficiency Improvement Project	U.S.
		Lewis Creek 1 - Minimum Load Reduction	U.S.
		Lewis Creek 1 - Retube Condenser	U.S.
		Lewis Creek 2 - Lower Minimum Load	U.S.
		Lewis Creek Combustion Control	U.S.
		Little Gypsy 2 - Minimum Load Reduction	U.S.
		Little Gypsy 3 - Optimized Temperature Control	U.S.
		Little Gypsy Unit 3 #6LP Feedwater Heater Replacement	U.S.
		Louisiana Station 1 Repowering and Unit Upgrade	U.S.
		Michoud 3 - Boiler Feedwater Control System	U.S.
		Michoud 3 - Fuel Gas Control Upgrade	U.S.
		Michoud Unit 3 Efficiency Improvement Project	U.S.
		Nelson 6 - Neural Net Installation and Analog Boiler Control	U.S.
		Nelson 6 - Preheat Basket Replacement	U.S.
		Ninemile 4 - Cold End Pre-Heater Basket Replacement	U.S.
		Ninemile 4 - RheoVac Air In-Leakage Monitoring	U.S.
		Ninemile 5 - Cold End Pre-heater Basket Replacement	U.S.
		Ninemile 5 - Neural Network Installation	U.S.
		Ninemile 5 - RheoVac Air In-Leakage Monitoring	U.S.
		Ninemile Turbine Retrofit	U.S.
		Raise Nuclear Unit Targets on Annual Capacity Factor	U.S.
		Rex Brown 4 - Replace Boiler Feed Pump	U.S.
		Ritchie 1, No. 1 Condenser Retubing	U.S.
		Sabine 1 - Install New Design Condenser Tube Plugs	U.S.
		Sabine 1 - Install New Drip Pump & Bypass Line	U.S.
		Sabine 2 - Install New Design Condenser Tube Plugs	U.S.
		Sabine 2 - Install New Drip Pump & Bypass Line	U.S.
		Sabine 2 Furnace Membrane	U.S.
		Sabine 3 - Control Valve Repair and Replacement	U.S.
		Sabine 3 - Install New Design Condenser Tube Plugs	U.S.
		Sabine 3 - Install RheoVac Air In-Leakage Monitor	U.S.
		Sabine 4 - 4C & 4D Condneser Retubing	U.S.
		Sabine 4 - Control Valve Repair and Replacement	U.S.
		Sabine 4 - Install New Air Preheater Seals	U.S.
		Sabine 4 - Install New Design Condenser Tube Plugs	U.S.
		Sabine 4 - Install New Reheat Spray Valves	U.S.
		Sabine 4 - Install RheoVac Air In-Leakage Monitor	U.S.
		Sabine 5 - Install Condensate Filtration System	U.S.

Table B10. Emission Reduction Projects Reported by Project Type, Data Year 2004 (Continued)

Project Section & Reporter Name	Form Type	Project	Location
		Sabine 5 - Install New Design Condenser Tube Plugs	U.S.
		Sabine 5 - Install RheoVac Air In-Leakage Monitor	U.S.
		SAbine 5 - New Boiler & Feedwaqter Controls	U.S.
		Sabine Unit 2 Feedwater Heater Replacement	U.S.
		Transmission and Distribution Efficiency	U.S.
		Vidalia Hydroelectric Station	U.S.
		White Bluff 1 - Install RheoVac Air In-Leakage Monitor	U.S.
		White Bluff 1 - Install the Control Values ASV-4 & ASV-6	U.S.
		White Bluff 1 - Replacement of Perimeter Fill in Cooling	U.S.
		White Bluff 2 - Install Rheo Vac Air In-Leakage Monitor	U.S.
		White Bluff 2 - Install the Control Valves ASV-4 & ASV-6	U.S.
		White Bluff 2 - Replacement of Perimeter Fill in Cooling	U.S.
		White Bluff 2 Aux Fuel Air Dampers	U.S.
		White Bluff Unit 1 Feedwater Heater Replacement	U.S.
		White Bluff Unit 2 Feedwater Heaters Replacement	U.S.
		Willow Glen Unit 3 #2B Feedwater Heater Replacment	U.S.
		Willow Glen Unit 5 Air Heater Replacement Project	U.S.
		Willow Glen Unit 5 Kidney Trap Replacement	U.S.
Exelon Corporation	1605	Chicago Photovoltaic Initiative	U.S.
		Chicago Public School Solar Partnership	U.S.
		ComEd North Commercial Center - Solar Panels	U.S.
		ComEd Solar Schools Program	U.S.
		ComEd South Commercial Center - Solar Panels	U.S.
		High Efficiency Transformers	U.S.
		International Brotherhood of Electrical Workers Solar Panels	U.S.
		Overhaul of Conowingo Unit 10	U.S.
		Overhaul of Conowingo Unit 5	U.S.
		Overhaul of Conowingo Unit 8	U.S.
		Overhaul of Conowingo Unit 9	U.S.
		Overhaul of Muddy Run Units 5-8	U.S.
		Rerate of Peach Bottom Unit 2	U.S.
		Rerate of Braidwood Unit 1	U.S.
		Rerate of Braidwood Unit 2	U.S.
		Rerate of Byron Unit 1	U.S.
		Rerate of Byron Unit 2	U.S.
		Rerate of Lasalle Unit 1	U.S.
		Rerate of Lasalle Unit 2	U.S.
		Rerate of Limerick Unit 1	U.S.
		Rerate of Limerick Unit 2	U.S.
		Rerate of Peach Bottom Unit 3	U.S.
		Rerate of Quad Cities Unit 2	U.S.
		Wind and Photovoltaic Generation Pricing Experiment	U.S.
		Wind Power Marketing in Pennsylvania	U.S.
		Zion Power House Windmill	U.S.
FirstEnergy Corporation	1605	Fuel Switching	U.S.
		Heat Rate Improvement	U.S.
		Increased Generation at Beaver Valley Nuclear Power Station	U.S.
		Increased Generation at Davis-Besse Nuclear Power Station	U.S.
		Increased Generation at Perry Nuclear Power Plant	U.S.
		Shunt Capacitor Program	U.S.
		T & D System Improvements	U.S.
		Transformer Loss Evaluation Program	U.S.
		Yards Creek Pumped Storage Upgrade	U.S.
FPL Group	1605	Cape Canaveral Boiler Enhansements and Controls Upgrades	U.S.
		Fort Myers LP Turbine Improvements	U.S.
		FPL Energy Renewable Projects - Hydro	U.S.
		FPLE East Mesa Geothermal Projects	U.S.
		FPLE Renewable Projects - Wind	U.S.
		Gas Expansion Project	U.S.
		Manatee Plant Low NOx Burners	U.S.
		Martin Plant LP turbine Improvements	U.S.
		Nuclear Generation Improvement	U.S.
		Port Everglades Unit 4 Efficiency Improvement Project	U.S.
		Putnam Plant Unit 1-2 HRSG replacement	U.S.
		Radio Controlled Capacitor System (RCCS)	U.S.
		Riviera Plant Boiler Enhancements, Controls Upgrade, LP Turb	U.S.
		Sanford Plant Blr & Controls Upgrades, LP Turbine	U.S.
		Sanford Power Plant Fuel Switching	U.S.
		SEGS VIII & IX - solar	U.S.
		Turkey Point Fossil Power Plt Blr, Controls, Turbine Improve	U.S.
Golden Valley Electric Association, Inc	1605EZ	Use of Hydropower	U.S.
JEA	1605EZ	Fuel Switching	U.S.
		Fuel Switching	U.S.
		Photovoltaic Systems	U.S.
Johnson & Johnson	1605	On-site Renewable Energy - Solar	U.S.
		Zero/low emitting power purchase (Green Power)	U.S.
Kansas City Power & Light Company	1605	Improve heat rate	U.S.
		New Transmission Line & Reconductoring	U.S.
		Nuclear Unit Uprate	U.S.

Table B10. Emission Reduction Projects Reported by Project Type, Data Year 2004 (Continued)

Project Section & Reporter Name	Form Type	Project	Location
Los Angeles Department of Water and Power	1605	Energy Efficient Transformers	U.S.
		Fuel Switching (Fuel Oil #6 to Natural Gas)	U.S.
		Solar Power	U.S.
Lower Colorado River Authority	1605	Hydroelectric Dam Modernization	U.S.
		Neural-Network Technology	U.S.
		Supply-Side Efficiency Improvements	U.S.
		Wind Power Project	U.S.
Mecklenburg Electric Cooperative	1605	System Line Conversion and Reconductoring	U.S.
Minnesota Power	1605	Expanded Generation from Existing Hydro Electric Resources	U.S.
		Heat Rate Improvements, Boswell Energy Center	U.S.
		Mud Lake Substation - Reduced Transmission Losses	U.S.
		Wind Sense Wind Energy Program	U.S.
Mirant Kendall, L.L.C.	1605	Kendall Square Station Upgrade	U.S.
Municipal Electric Auth of Georgia (MEAG Power)	1605	Nuclear Generation Utilization	U.S.
Mystic Development, LLC	1605	Gas-fired electric generation	U.S.
Nashville Electric Service	1605EZ	Distribution Voltage Upgrade	U.S.
		High-efficiency Transformers	U.S.
National Grid	1605	Amorphous Metal Core Transformers	U.S.
		Cowley Ridge Windplant	Foreign
		Distribution Reconductoring	U.S.
		Distribution Voltage Upgrade	U.S.
		Installation & Operation of Photovoltaic Energy Systems - NY	U.S.
		Installation and Operation of Wind Turbines	U.S.
		Nuclear Generation Capacity Improvements	U.S.
		Nuclear Generation Performance Improvements	U.S.
		Partial Conversion of Oil-Fired Plant to Natural Gas	U.S.
		Photovoltaic - New England	U.S.
		Transmission Reconductoring	U.S.
Nebraska Public Power District	1605EZ	1994-1996 Distribution Improvements	U.S.
		1994-1997 Transformer Changeouts	U.S.
		Loss On Ignition Reduction Project	U.S.
		Nuclear Plant Improved Utilization	U.S.
		Plant Efficiency Improvements	U.S.
		Voltage Conversions 2004	U.S.
		Wind Turbines	U.S.
NiSource/NIPSCO	1605	Biomass Initiative	U.S.
		Capacitor Additions	U.S.
		Low Loss Transformers	U.S.
North Carolina Biomass Partners	1605EZ	Biomass Waste to Energy	U.S.
North Carolina Electric Membership Corporation	1605EZ	Switch Away from Fossil Fuel Generated Power Purchases	U.S.
Northern Neck Electric Cooperative	1605	System Line Conversion and Reconductoring	U.S.
Northern Virginia Electric Cooperative	1605	System Line Conversions and Reconductoring	U.S.
Omaha Public Power District	1605EZ	Coal Heat Rate Improvement	U.S.
		Nuclear Capacity Factor Improvement	U.S.
		T&D Capacitor Installation	U.S.
Orlando Utilities Commission (OUC)	1605EZ	Landfill Gas to Energy	U.S.
Pepco Holdings Inc	1605	Deepwater Natural Gas Usage	U.S.
		Edge Moor Fuel Substitution	U.S.
		Edge Moor Landfill Gas Use	U.S.
		Hay Road Combined Cycle	U.S.
		Peach Bottom Nuclear Units #2 & #3 Uprate Program	U.S.
		T&D Loss Reduction	U.S.
PG&E Corporation	1605	Natural Gas Substitution for Residual Oil	U.S.
Portland General Electric Co.	1605	1995 Colstrip Units 3&4 Ruggedizing	U.S.
		Beaver Efficiency Improvements	U.S.
		Beaver Efficiency Improvements 2003	U.S.
		Boardman Efficiency Improvements	U.S.
		Boardman Upgrade 2004	U.S.
		Building Rooftop Photovoltaic Systems	U.S.
		Bull Run Turbine Runner Replacements	U.S.
		Cal-Gon Farms Biogas Pilot	U.S.
		Coyote Springs Efficiency Improvements	U.S.
		Coyote Springs Improvements 2003	U.S.
		Faraday Efficiency Improvements 2002	U.S.
		Faraday Units 4&5 1994	U.S.
		North Fork Hydro Improvements	U.S.
		Oak Grove Turbine Runner Replacements - 1991 - Units 1&2	U.S.
		River Mill Efficiency Improvements	U.S.
		Round Butte	U.S.
		Sullivan turbine rebuilds	U.S.
		Sullivan Upgrade 2004	U.S.
		T&D: Power Factor Correction Capacitors	U.S.
		Transformer Efficiency Improvements	U.S.
		Vansycle Ridge Wind Generation	U.S.
Prince George Electric Cooperative	1605	Transmission and Dist. Efficiency Improvements	U.S.
Public Service Company of New Mexico	1605	Heat Rate Improvements at San Juan Generating Station	U.S.
		New Mexico Wind Energy	U.S.
		Palo Verde Generation Increase	U.S.

Table B10. Emission Reduction Projects Reported by Project Type, Data Year 2004 (Continued)

Project Section & Reporter Name	Form Type	Project	Location
Public Service Enterprise Group	1605	Electric Generation from Landfill Gas	U.S.
		Hydro Projects - United States	U.S.
Public Utility District No. 1 of Snohomish County	1605	Conservation Voltage Reduction	U.S.
		Transmission Networking and Reconductoring	U.S.
Rappahannock Electric Cooperative	1605	System Line Conversions and Reconductoring	U.S.
Sacramento Municipal Utility District	1605	PV Pioneer	U.S.
Salt River Project	1605EZ	AZ Falls Generation Facility	U.S.
		Cooperative Photovoltaic Power Plants	U.S.
		Geothermal Energy Power Purchase	U.S.
		Heat Rate Improvements	U.S.
		Palo Verde Nuclear Station Capacity Factor Increase	U.S.
		Palo Verde Nuclear Station Capacity Increases	U.S.
		Wind Energy Power Purchase	U.S.
Santee Cooper	1605	Cross Unit 1 Turbine Retrofit	U.S.
		Cross Unit 2 Retrofit	U.S.
		Summer Nuclear Upgrade	U.S.
		Winyah Unit 1 Turbine Retrofit	U.S.
		Winyah Unit 2 Turbine Retrofit	U.S.
		Winyah Unit 3 Turbine Retrofit	U.S.
		Winyah Unit 4 Turbine Retrofit	U.S.
Seattle City Light	1605	4kV to 26kV Distribution System Conversion	U.S.
		Cedar Falls turbine runner replacement	U.S.
		Diablo Dam turbine runner replacement	U.S.
		Gorge Dam turbine runner replacement	U.S.
		Ross Dam turbine runner replacement	U.S.
		South Fork Tolt River hydroelectric project	U.S.
SeaWest WindPower, Inc.	1605	Altech Energy III	U.S.
		Condon Wind Power, LLC	U.S.
		Foote Creek I, LLC	U.S.
		Foote Creek II, LLC	U.S.
		Foote Creek III, LLC	U.S.
		Foote Creek IV, LLC	U.S.
		Mountain View Power Partners II, LLC	U.S.
		Mountain View Power Partners, LLC	U.S.
		Rock River I, LLC	U.S.
		San Gorgonio Westwinds II, LLC	U.S.
Seminole Electric Cooperative, Inc.	1605EZ	Heat Rate Improvement	U.S.
		Transmission Conductor Optimization	U.S.
Shenandoah Valley Electric Cooperative	1605	System Line Conversions and Reconductoring	U.S.
South Carolina Electric & Gas Company	1605	Misc. Plant efficiency improvements	U.S.
		Summer Nuclear Upgrade	U.S.
		Urquhart Repowering Project	U.S.
		Wateree Station heat rate improvement	U.S.
		Williams Station improvements	U.S.
Southeastern Biomass Partners, LP	1605EZ	Biomass Waste to Energy	U.S.
Southern California Edison Co.	1605	Renewable Energy Purchases - Small Hydro	U.S.
		Mohave Power Project Heat Rate Improvement Program	U.S.
		Palo Verde Availability Improvement	U.S.
		Renewable Energy Purchases - Biomass	U.S.
		Renewable Energy Purchases - Geothermal	U.S.
		Renewable Energy Purchases - Wind	U.S.
		Repowering of Hydro Generation Units	U.S.
		San Onofre Availability Improvements	U.S.
Southern Company	1605	Biomass	U.S.
		Bulk Power Transmission Improvements	U.S.
		Combined-Cycle Units	U.S.
		Farley Nuclear Plant Availability Improvements	U.S.
		Farley Nuclear Plant Uprate	U.S.
		Gas Capability at Watson 4 and 5	U.S.
		Gas Capability at Plant McDonough	U.S.
		Gas Capability at Plant Yates	U.S.
		Hatch Nuclear Plant Availability Improvements	U.S.
		Hatch Nuclear Plant Capacity Uprate	U.S.
		Heat Rate Improvement on Coal-Fired Capacity	U.S.
		New Combustion Turbines	U.S.
		Switchgrass	U.S.
		Vogtle Electric Generating Plant (Nuclear) Capacity Uprate	U.S.
		Vogtle Electric Generating Plant Availability Improvements	U.S.
Southside Electric Cooperative	1605	System Line Conversion and Reconductoring	U.S.
Tacoma Power	1605EZ	Generator Improvement (Cushman/Nisqually)	U.S.
		Generator Improvement (Wynoochee)	U.S.
Tennessee Valley Authority	1605	Green Power Switch	U.S.
		Heat Rate Improvements At TVA Coal Fired Generating Units	U.S.
		Hydro Unit Modernization	U.S.
		Return Browns Ferry Nuclear Units 2 and 3 to Service	U.S.
		Start Watts Bar Nuclear Unit 1	U.S.
		Transmission System Efficiency Improvements	U.S.
		Wood Waste Cofiring At Coal Fired Generating Plants	U.S.

Table B10. Emission Reduction Projects Reported by Project Type, Data Year 2004 (Continued)

Project Section & Reporter Name	Form Type	Project	Location
TXU	1605	Lignite and Western Coal Blending	U.S.
		Operation of Nuclear Generation Units	U.S.
		Power Plant Heat Rate Improvement Projects	U.S.
		Renewable Energy Development Projects	U.S.
Utah Municipal Power Agency	1605EZ	Low Loss Transformers	U.S.
		Wind Power	U.S.
Vermont Public Power Supply Authority	1605	Swanton Village Hydro Expansion	U.S.
		Transmission and Distribution System Efficiency Improvements	U.S.
Waverly Light & Power Company	1605	Distribution System Upgrade (Project 3)	U.S.
		Hydro (Project 2)	U.S.
		Low-Loss Transformers (Project 4)	U.S.
		Wind Turbine (Project 1)	U.S.
We Energies	1605	Ag Biomass Generation	U.S.
		Badger Windpower Purchases	U.S.
		Energy for Tomorrow(TM) Renewable Energy Program	U.S.
		Fossil plant heat rate improvements	U.S.
		Hydro plant improvements and additions	U.S.
		Increased Nuclear Capacity at Point Beach Nuclear Plant	U.S.
		Transmission & distribution system loss reductions	U.S.
Xcel Energy	1605	Buffalo Ridge 1--NSP	U.S.
		Buffalo Ridge 2--NSP	U.S.
		Buffalo Ridge 3--NSP	U.S.
		Chanarambie Windfarm - NSP	U.S.
		Chippewa Falls Hydro expansion--NSP	U.S.
		Foote Creek (Wind Power)--PSCo	U.S.
		Ft. Lupton 230 kV Transmission System Tie-In Project	U.S.
		Jack River Wind Farm - NSP	U.S.
		Lakota Ridge (Wind Power)-- NSP	U.S.
		Lamar Wind Farm (Colorado Green) -- PSCo	U.S.
		Landfill Gas Purchase--NSP	U.S.
		Moraine Wind - NSP	U.S.
		New Mexico (Wind Power)--SPS	U.S.
		Nuclear Capacity Increase - Rerated--NMC	U.S.
		Nuclear capacity increase 2--NMC	U.S.
		Nuclear Capacity Increase 3--NMC	U.S.
		Nuclear capacity increase--NMC	U.S.
		Nuclear capacity restoration--NMC	U.S.
		Peetz Wind Farm (Wind Power)--PSCo	U.S.
		Ponnequin (Wind Power)--PSCo	U.S.
		Remaining Wind Projects--NSP	U.S.
		Retirement of Arapahoe Units #1 and 2	U.S.
		Shaokatan Hills (Wind Power)--NSP	U.S.
		Sioux Falls area transmission upgrades--NSP	U.S.
		Texas - Whitedeer (wind power)--SPS	U.S.
		Transformer Changeout --- Denver Terminal Substation	U.S.
		Transmission upgrade 2--NSP	U.S.
		Transmission Upgrade for hydro capacity--NSP	U.S.
		Transmission upgrade--NSP	U.S.
		Wheaton Plant conversion--NSP-WI	U.S.
		Wind power--NSP	U.S.
		Woodstock Windfarms (Wind Power)--NSP	U.S.
Zeeland Board of Public Works	1605EZ	General Trans & Dist	U.S.
		Other Trans and Dist Improvements	U.S.
Cogeneration and Waste Heat Recovery			
Allergan, Inc.	1605	Irvine Microturbine/Waste Heat Recovery Project	U.S.
Bountiful City Light & Power	1605	District heating	U.S.
BP America	1605	Thermal Process Efficiency Improvements	U.S.
Exelon Corporation	1605	Fuel Switching at Bynov Plant in Decin, Czech Republic	Foreign
Johnson & Johnson	1605	Fuel Cell	U.S.
Minnesota Power	1605	Cloquet Energy Center Turbine Generation 5 (Sappi Ltd)	U.S.
NiSource/NIPSCO	1605	Fuel Switching at Bynov Plant in Decin, Czech Republic	Foreign
		Inland Steel -Northlake Energy	U.S.
		Ispat/Inland - Cokenergy	U.S.
		National Steel- Portside Energy	U.S.
		US Steel - Lakeside Energy	U.S.
		Whiting Clean Energy	U.S.
PEI Power Corp	1605	PEI Power Corp	U.S.
Rolls-Royce Corporation	1605	Co-Gen	U.S.
Southern Company	1605	Chevron Cogenerating Plant - Unit 5	U.S.
		Theodore Cogeneration Facility	U.S.
		Washington County Cogeneration Plant	U.S.
We Energies	1605	Fuel switching at Bynov Plant in Decin, Czech Republic	Foreign
Energy End Use			
A&N Electric Cooperative	1605	Demand-Side Management Load Control Program	U.S.
Advanced Micro Devices, Inc.	1605EZ	Controls Upgrade for Chiller and Air Handlers	U.S.
		Lighting Replacement	U.S.
		Process Vacuum Loop Improvement	U.S.
		Replace Chiller for Process Cooling Water Loop	U.S.
		Replacement of Chiller with New Efficient Chiller	U.S.
		VFD Installation for Cooling Towers	U.S.

Table B10. Emission Reduction Projects Reported by Project Type, Data Year 2004 (Continued)

Project Section & Reporter Name	Form Type	Project	Location
Allegheny Energy, Inc.	1605	Adjustable Speed Drives-Plastic Injection Molding Machines	U.S.
		Demand-Side Management Programs	U.S.
		Green Lights Utility Ally Program	U.S.
		High Pressure Sodium Vapor Streetlight Replacement Program	U.S.
Allergan, Inc.	1605	Acetone Catalytic Oxidizer Improvement	Foreign
		Add Variable Frequency Drive to Existing Chiller	U.S.
		Air Compressor System Upgrade	U.S.
		Air Compressor System Upgrade	Foreign
		Allergan America Facility Closure	U.S.
		Allergan Brazil Building Management System Installation	Foreign
		Allergan Facility Divestiture	U.S.
		Allergan Italy Facility Closure	Foreign
		Allergan LOK Brazil Operation Consolidation	Foreign
		Allergan Medical Plastics Energy Managment System Upgrade	U.S.
		AMO Facility Closure	U.S.
		Botox Core Three Air Compressor Upgrade	Foreign
		Botox Core Three Chiller Upgrade	Foreign
		Botox Core Three Motor Upgrades	Foreign
		Chilled Water Decouple Loop	U.S.
		Chiller Replacement	U.S.
		Classified Area Lighting Upgrade	Foreign
		Compressed Air Leak Repair	Foreign
		Compressor Replacement	U.S.
		Curtail Weekend Energy Usage	Foreign
		Direct Expansion Cooler Unit Redesign	U.S.
		Downsize Boiler to Meet Requirements	Foreign
		Elimination of Catalytic Thermal Oxidizer	U.S.
		Floor Fan Elimination	U.S.
		HID Lighting Upgrade	Foreign
		Install Bi-Level Lighting Controls on HID Lighting	U.S.
		Install High Efficiency T8 Fixtures in Office Areas	U.S.
		Install Higher Efficiency Chiller	U.S.
		Install Higher Efficiency Motors	U.S.
		Install Occupancy Sensors	U.S.
		Install On/Off Controller on Hot/Cold Water Pumps	U.S.
		Install Photoelectric Sensor on Grinder and Blowers	U.S.
		Install VSD Air Handler Fan #20	U.S.
		Install VSD on 40 HP Cooling Water Pump	U.S.
		Install VSD on 50 HP Water Pump	U.S.
		Install VSDs on Hot Water Pumps	U.S.
		Install Wattman Controller in parking structure	U.S.
		Insulate Process Lines	Foreign
		Lighting Retrofits and Upgrades	U.S.
		Lighting Upgrade at Allergan Irvine	U.S.
		Motor Replacement Project	Foreign
		RD III Building Startup in Irvine, CA	U.S.
		Reduce Air Compressor Discharge Pressure	U.S.
		Reduction in Operating Time for Blowmolding Equipment	Foreign
		Replace Existing Hot Water Boiler with Heat Exchanger	U.S.
		Replace Mercury Vapor Lamps with Fluorescent Lamps	Foreign
Alliant Energy	1605	Energy End Use - Electric IES	U.S.
		Energy End Use - Electric IPC	U.S.
		Energy End Use - Gas IES	U.S.
		Energy End Use - Gas IPC	U.S.
		Energy end use-Electric WP&L	U.S.
		Energy end use-Gas WP&L	U.S.
		Urban Forestry IES	U.S.
		Urban Forestry IPC	U.S.
		WP&L Green Lights Projects	U.S.
Ameren Corporation (formerly UE, CIPS, and CILCO)	1605	CILCO Demand Side Management	U.S.
		Demand Side Management Projects	U.S.
		EnviroTech Fund - Foreign	Foreign
		EnviroTech Fund - US	U.S.
		Meramec Power Plant Lighting Upgrade	U.S.
		Street Light Conversion	U.S.
American Electric Power, Inc.	1605	Commercial/Industrial DSM Programs: AEP-East	U.S.
		Demand Side Management Activities: AEP-West	U.S.
		Green Lights	U.S.
		Residential Demand Side Management Programs: AEP-East	U.S.
American Municipal Power - Ohio	1605EZ	AMP-Ohio Member Communities: Lighting Improvements	U.S.
		Wadsworth: Lighting Improvements (Traffic Lights)	U.S.
Anoka Municipal Utility	1605EZ	Central A/C Replacement	U.S.
		Demand Management	U.S.
		Lighting Replacement	U.S.

Table B10. Emission Reduction Projects Reported by Project Type, Data Year 2004 (Continued)

Project Section & Reporter Name	Form Type	Project	Location
Arizona Portland Cement Co.	1605	Bulk Load Bin Filling	U.S.
		CM7 High Efficiency Separator	U.S.
		D2 Finish Mill Conversion with High Efficiency Separator	U.S.
		D3 Finish Grind System Improvements	U.S.
		Lighting Program	U.S.
		New Vertical Roller Mill	U.S.
		Optimize AC Raw Mill Systems DISCONTUNED in 2001	U.S.
		Optimize Compressed Air System	U.S.
		PGNA Analyzer	U.S.
		Rimod 3000	U.S.
		Upgrade the D2 Raw Mill System DISCONTINUED	U.S.
AT&T	1605	Electricity Use Reduction Program	U.S.
BARC Electric Cooperative	1605	Demand-Side Management Load Control Programs	U.S.
Blue Source, LLC	1605	Energy Conservation Management	U.S.
BMW US Holding Corp.	1605	BMW Landfill Gas Project	U.S.
Bountiful City Light & Power	1605	Residential compact fluorescent lighting program	U.S.
		Street lighting replacement	U.S.
BP America	1605	Crude production and exploration process improvements	U.S.
		Petroleum Refining and Chemicals process modifications	U.S.
Branson Ultrasonics Corporation	1605	Electrical Energy Consumption	U.S.
Bristol-Myers Squibb Company	1605	Coal-Fired Boilers Replaced with Nat Gas/Oil Fired Boilers	U.S.
		Compressed Air System Renovation & Leak Survey/Repair	U.S.
California Portland Cement Co. - Colton Plant	1605	Energy Conservation in Office, Lab, Garage and Shop Areas	U.S.
		Finish Mill System Optimization	U.S.
		Install New Gravity Blend Homogenizing Silo	U.S.
		Install New Raw Material Transport System	U.S.
		Kiln Systems Optimization	U.S.
		Optimize High Pressure Air System	U.S.
		Raw Grinding System Improvements	U.S.
		Reduce Plant Water Consumption	U.S.
California Portland Cement Co. - Mojave Plant	1605	New D3-1/FM6 Finish Mill System	U.S.
		Optimize the D3-1 Finish Mill System DISCONTINUED in 1996	U.S.
		Plant High Pressure Air System Improvements	U.S.
		Pyro System Optimization	U.S.
		Raw Mill Energy Efficiency Improvements	U.S.
Cinergy Corp.	1605	Commercial Audit/Incentive Program	U.S.
		Commercial Direct Lighting	U.S.
		Commercial/Industrial Adjustable Speed Drive Plan	U.S.
		Commercial/Industrial High Efficiency Motors Plan	U.S.
		Commercial/Industrial Lighting Rebate Program	U.S.
		Commercial/Industrial Peak Reduction Program	U.S.
		Green Lights Program	U.S.
		Home Energy House Call	U.S.
		Industrial Efficiency Improvement & Energy Awareness Program	U.S.
		Photovoltaic systems	U.S.
		Planergy	U.S.
		Renewable energy projects	U.S.
		Residential Energy Efficient Lighting Program	U.S.
		Residential Seal-Up & Low-Income Efficiency Program	U.S.
		Residential Smart $aver & Heat Pump Savings Programs	U.S.
		Residential Wrap-Up Program	U.S.
		Thermal Energy (Cool) Storage Program	U.S.
City of Austin Electric Utility (Austin Energy)	1605EZ	Demand Side Management	U.S.
City Public Service	1605	Mow Down Smog	U.S.
		Streetlight Replacements	U.S.
		Wash Right Rebates	U.S.
CMS Energy	1605	CMS VIRON	U.S.
Constellation Energy	1605	Brandon Shores Station Auxiliary-Load Reductions	U.S.
		Demand Side Management Programs	U.S.
		Energy Star Buildings/Green Lights Program Participation	U.S.
DaimlerChrysler Corporation	1605	Facility Energy Reduction Projects	U.S.
		Powerhouse Conversion Projects	U.S.
DeBourgh Manufacturing Company	1605EZ	Motor & Motor Drive	U.S.
DTE Energy/ Detroit Edison	1605	Energy Partnerships	U.S.
		Geothermal Projects	U.S.
Entergy Services, Inc.	1605	Energy Efficiency Programs at Entergy Gulf States, Inc.	U.S.
		Entergy Integrated Solutions, Inc. (Entergy SASI Lighting)	U.S.
		Tennessee Gas Compressor Replacement	U.S.
Exelon Corporation	1605	Low Income Usage Reduction Program - Solar hot water	U.S.
		Change the Light Change the World	U.S.
		Clothes Washer Rebate Program	U.S.
		Energy Cooperative & Demand Side Management Activities	U.S.
		Exelon Energy Delivery Internal Energy Efficiency Initiative	U.S.
		Exelon Nuclear Internal Energy Efficiency Initiative	U.S.
FirstEnergy Corporation	1605	Audit/Infiltration Single and Multi-Family	U.S.
		Compressed Air Solution	U.S.
		Efficient Lighting (Industrial and Commercial)	U.S.
		Efficient Lighting (Residential)	U.S.
		Efficient Motors	U.S.

Table B10. Emission Reduction Projects Reported by Project Type, Data Year 2004 (Continued)

Project Section & Reporter Name	Form Type	Project	Location
		Energy Efficient Geothermal System	U.S.
		Energy Star	U.S.
		Food Service Conservation	U.S.
		Good Cents New Home Program	U.S.
		GPU Service Lighting & Building Energy Efficiency Project	U.S.
		Heat Pump Maintenance Check	U.S.
		High Efficiency Heat Pump Rebates	U.S.
		Hot Water Conservation	U.S.
		Information Services - Green Computers	U.S.
		JCP&L DSM, Efficiency & Electrotechnology Program	U.S.
		Met-Ed Lighting & Building Energy Consumption Reduction Prog	U.S.
		Met-Ed/Penelec DSM, Efficiency & Electrotechnology Program	U.S.
		Refrigerator Recycling Program	U.S.
		Thermal Energy Storage - Cooling	U.S.
		Water Heater Efficiency Improvements	U.S.
		Water Heating - Conservation	U.S.
Ford Motor Company	1605	1998 - 2004 Performance Projects	U.S.
		1998 - 2004 Plant Energy Efficiency Programs	U.S.
		Process Upgrades	U.S.
General Motors Corporation	1605	1991-2004 GM Annual Energy Competition & Projects	U.S.
		1991-2004 Powerhouse Conversions	U.S.
		1993 - 1997 Mich. Demand Side Mgt and Energy Partner Program	U.S.
Golden Valley Electric Association, Inc	1605EZ	Energy Sense DSM Program	U.S.
Green Mountain Energy Company	1605	All Other GMEC Customers	U.S.
		GMEC energy purchases for corporate offices	U.S.
		Kinko's	U.S.
Hollomon Family	1605EZ	High Efficiency Air-Conditioner Replacement	U.S.
JEA	1605EZ	Variable Speed Fan Drives	U.S.
Johnson & Johnson	1605	Building Shell	U.S.
		Equipment & Appliances	U.S.
		Fuel Switching	U.S.
		HVAC	U.S.
		Installation of Energy Efficient Systems	U.S.
		Installation of Timer Controls and Shutdowns	U.S.
		Lighting & Lighting Controls	U.S.
		Load Control	U.S.
		Motor & Motor Drives	U.S.
		Process Improvements	U.S.
Kansas City Power & Light Company	1605	DSM - AC upgrade	U.S.
		EPA's Green Lights	U.S.
Lehigh Cement Co. (fmrly Lehigh Portland Cement Co	1605	Project 1. Evansville, PA - Waste Tire Burning	U.S.
		Project 1. York, PA - Waste Oil Burning	U.S.
		Project 1: Leeds, AL - Waste Tire Burning	U.S.
		Project 1: Cementon, NY - Plant Shutdown	U.S.
		Project 1: Lehigh Cement Company - Lighting Retrofit	U.S.
		Project 1: Union Bridge, MD - Waste Tire Burning	U.S.
		Project 1: Mason City, IA - Seed Burning	U.S.
		Project 1: Mitchell, IN - Kiln Modernization	U.S.
		Project 2. Leeds, AL - Ash Burning	U.S.
		Project 2: Lehigh Cement Company - Motor retrofit	U.S.
		Project 2: Mason City, IA - Ash Burning	U.S.
		Project 2: Union Bridge, MD - Plant Modernization	U.S.
		Project 3: Union Bridge, MD - Ash Burning	U.S.
Lehigh Cement Co. (formerly Calaveras Cement Co.)	1605	Project 1. Plant Modernization	U.S.
		Project 1. Waste Tire Burning & Rice Hull Burning	U.S.
		Project 2: Nut Shell Burning	U.S.
Los Angeles Department of Water and Power	1605	Chiller Replacement / Efficiency Program	U.S.
		Commercial Lighting Program	U.S.
		Consumer Rebate Program	U.S.
		Cool Roofs Program	U.S.
		Cool Schools Urban Forestry - Energy Efficiency Effects	U.S.
		Energy Star Office Equipment	U.S.
		High Efficiency Clothes Washers	U.S.
		HVAC Replacement Program	U.S.
		HVAC Tune-up	U.S.
		JFB Lighting Retrofit	U.S.
		NBRS ("Neighborhood Bill Reduction Service") Program	U.S.
		Reflective Window Film Rebate Program	U.S.
		Refrigeration Tune-Up Program	U.S.
		Refrigerator Replacement Program	U.S.
		Refrigerator Turn-In and Recycle Program (RETIRE)	U.S.
		Trees For a Green LA Urban Forestry - Energy Efficiency	U.S.
		Water Conservation Program	U.S.
Lower Colorado River Authority	1605	Residential & Commercial DSM Program	U.S.
Lucent Technologies Inc.	1605	LRE #1	U.S.
		ME - #1	U.S.
		ME - #2	U.S.
		ME - #3	U.S.
		ME - #4	U.S.
		ME - #5	U.S.
		ME - #6	U.S.

Table B10. Emission Reduction Projects Reported by Project Type, Data Year 2004 (Continued)

Project Section & Reporter Name	Form Type	Project	Location
		ME - #7	U.S.
		ME - #8	U.S.
		OFS - #1	U.S.
		OFS - #2	U.S.
		OFS - #3	U.S.
		OFS - #4	U.S.
		OFS - Addition of VDFs	U.S.
		OFS - Eliminate fan	U.S.
		OFS - Light Switch	U.S.
		OFS - Light Timer	U.S.
		ONG - #1	U.S.
		ONG - #2	U.S.
		WNG - #1	U.S.
		WNG - #2	U.S.
		WNG - #3	U.S.
		WNG - #4	U.S.
Michael Paul Taylor	1605	Personal Home Electricity Reduction Program	U.S.
		Personal Home Natural Gas Use Reduction	U.S.
Minnesota Power	1605	Demand Side Mgmt., Conservation and Efficiency Improvements	U.S.
		Expanded Use of Renewable Biomass (wood waste)	U.S.
National Grid	1605	Demand-Side Management (DSM) Programs - New England	U.S.
		Energy Efficiency and Conservation Programs (DSM) - NY	U.S.
Nebraska Public Power District	1605EZ	Electric Heat Pump Program, 1998-2004	U.S.
		Lighting Replacement	U.S.
Northern Neck Electric Cooperative	1605	Demand-Side Management Programs	U.S.
Northern Virginia Electric Cooperative	1605	Demand-side Management Load Control Programs	U.S.
Old Dominion Electric Cooperative	1605	Green Lights	U.S.
Omaha Public Power District	1605EZ	Commercial & Industrial Audits	U.S.
		Heat Pump Program (RECP)	U.S.
		Right Lights	U.S.
		Street Light Replacement	U.S.
Pepco Holdings Inc	1605	Delmarva Power Facility Energy Saving	U.S.
		Demand Side Management	U.S.
Pfizer Pharmaceuticals LLC - Arecibo	1605EZ	Chilled Water Plant Shutdown	U.S.
		Chilled Water Plant Shutdown	U.S.
		Chilled Water Plant Shutdown	U.S.
		Cooling Tower Pump Shutdown	U.S.
		Cooling Tower Pump Shutdown	U.S.
		Cooling Tower Pump Shutdown	U.S.
		Electrical System Improvements	U.S.
		Electrical System Improvements	U.S.
		Electrical System Improvements	U.S.
		Steam Systems Improvement	U.S.
PG&E Corporation	1605	Electrical Energy Conservation Savings	U.S.
		Natural Gas Energy Conservation Savings	U.S.
Portland General Electric Co.	1605	Demand-Side Management Projects	U.S.
		Energy Management Systems	U.S.
		Gas Lawnmower Turn In Rebate	U.S.
		Green Lights Programs	U.S.
		Heat Pump Rebate	U.S.
		Photoelectric Streetlight Controls	U.S.
Public Service Enterprise Group	1605	Demand Side Management	U.S.
Public Utility District No. 1 of Snohomish County	1605	Demand Side Management	U.S.
Rappahannock Electric Cooperative	1605	Demand-Side Management Load Control Programs	U.S.
Rolls-Royce Corporation	1605	Boiler Conversion from Coal to Landfill/Natural Gas	U.S.
		Peak Saving Project	U.S.
Sacramento Municipal Utility District	1605	Energy Efficiency Programs	U.S.
Salt River Project	1605EZ	AC Photovoltaic Residential System	U.S.
		Cesar Chavez HS Photovoltaic System	U.S.
		Home with PV System for Demonstration (Chandler House)	U.S.
		Mesa Library Photovoltaic System	U.S.
		Phoenix Park and Ride PV System	U.S.
		Replace Gasoline Lawnmowers with Electric Lawnmowers	U.S.
		Scottsdale CC PV System	U.S.
		South Mountain CC Solar	U.S.
		SRP Credit Union Photovoltaic System	U.S.
		Tempe Warehouse Photovoltaic System	U.S.
Santee Cooper	1605	Demand Side Management Programs	U.S.
Seattle City Light	1605	$mart Business Rebates	U.S.
		Built Smart/Long-Term Super Good Cents Program	U.S.
		Energy $avings Plan	U.S.
		Energy Efficient Water Heater Rebate Program	U.S.
		Energy Smart Design	U.S.
		Energy Smart Services	U.S.
		Home Water Savers Program	U.S.
		HomeWise/Low-Income Electric Program	U.S.
		Multifamily Common Area Lighting Program	U.S.
		Multifamily Conservation Program: Low-Income	U.S.

Table B10. Emission Reduction Projects Reported by Project Type, Data Year 2004 (Continued)

Project Section & Reporter Name	Form Type	Project	Location
		Multifamily Conservation Program: Standard-Income	U.S.
		Neighborhood Power Lighting,Weatherization,Warm Home Program	U.S.
		Retail-Wise Lighting and Appliances	U.S.
Seminole Electric Cooperative, Inc.	1605EZ	Lighting Replacement	U.S.
Shenandoah Valley Electric Cooperative	1605	Demand-Side Management Load Control Programs	U.S.
Sikorsky Aircraft Corporation	1605	Air Conditioning efficiency improvements	U.S.
		Chiller Replacement	U.S.
		Composite trim Dust Collector Improvement.	U.S.
		Compressed Air Energy Efficiency Improvements	U.S.
		Lighting Efficiency Improvements	U.S.
		Process improvement - Vacuum Pump Consolidation	U.S.
South Carolina Electric & Gas Company	1605	Demand Side Management Technologies	U.S.
Southern California Edison Co.	1605	Demand Side Management	U.S.
		ENVEST SCE	U.S.
		Internal Combustion Engine Replacement Program	U.S.
Southern Company	1605	Demand-Side Management	U.S.
Tacoma Power	1605EZ	Energy Conservation	U.S.
Tennessee Valley Authority	1605	Comfort Plus Homes	U.S.
		Outdoor Lighting Replacements By Memphis Light, Gas And Wate	U.S.
		Residential Marketing Program	U.S.
The Estee Lauder Companies	1605	1381 Research Park Lighting Control Sensors	U.S.
		1392 Octron Lighting JHL	U.S.
		1522 Melville Occupancy Sensors Offices	U.S.
		1569 Melville Motor Upgrades	U.S.
		187 Melville Manufacturing Octron Lighting	U.S.
		209 Oakland Octron Lighting Upgrade	U.S.
		229 Trevose Octron Lighting Project	U.S.
		284 Melville Energy Conservation	U.S.
		3597c Bristol Energy Conservation Project	U.S.
		3643 Oakland Warehouse Sensor Installation	U.S.
		459 Whitman 3 Octron Lighting	U.S.
		Aveda Air to Air Heat Exchangers	U.S.
		Aveda Blaine Spirovent	U.S.
		Aveda Boiler and Burner Replacement	U.S.
		Aveda Cooling Tower Core Water Savings	U.S.
		Aveda Cooling Tower Variable Speed Drives	U.S.
		Aveda Heatex Unit Compounding Line Air to Air Heat Recovery	U.S.
		Aveda Metal Halide Upgrades	U.S.
		Aveda Night Setback for Exhaust Fans	U.S.
		Aveda Night Setback for make-up air heat pumps	U.S.
		Aveda Octron Lighting Upgrades 1994 - 1999	U.S.
		Aveda Solar Wall	U.S.
		Aveda Venmar Unit Pre-Weigh VAV heat exchanger	U.S.
		Aveda White Roof Upgrade	U.S.
		Melville DC - Octron Lighting Project	U.S.
		Melville Steam Trap System Survey and Remediation	U.S.
		Monitor Management (Million Monitor Drive)	U.S.
		PADC Motion Sensors in Office	U.S.
		PADC T-5 Lighting Upgrades	U.S.
		Research Park Octron Lighting Project	U.S.
		Whitman 4 Octron Lighting Project	U.S.
TXU	1605	Demand-Side Management Program	U.S.
Utah Municipal Power Agency	1605EZ	In House Conservation	U.S.
		Light Replacement Program	U.S.
		Residential Audits	U.S.
Vermont Public Power Supply Authority	1605	Act 250 New Construction Program	U.S.
		Equipment Replacement and Remodeling Program	U.S.
		Farm Efficiency Program	U.S.
		Large Commercial and Industrial Audit Program	U.S.
		Residential Appliance Disposal Program	U.S.
		Residential Low Income Weatherization Piggyback Program	U.S.
		Residential Mail Order Lighting Program	U.S.
		Residential Top Ten	U.S.
		Residential Water Heating and Lighting Efficiency Program	U.S.
		Small Commercial Retrofit Program	U.S.
		Street and Area Lighting Efficiency Program	U.S.
Waverly Light & Power Company	1605	Energy End-Use Programs (Project 3.1)	U.S.
		Energy Savings Due to Trees Forever (Project 3.3)	U.S.
		High-Pressure Sodium Lights (Project 3.2)	U.S.
We Energies	1605	Demand-side management energy efficiency programs	U.S.
Wisconsin Public Power Inc.	1605EZ	Apartment & Condo Efficiency Service: CFLs	U.S.
		Apartment & Condo Efficiency Service: Common Area T8 Lighting	U.S.
		Apartment & Condo Efficiency Service: Fixtures	U.S.
		Apartment & Condo Efficiency Service: High Pressure Sodium Li	U.S.
		Apartment & Condo Efficiency Service: LED Exit Signs & Retrof	U.S.
		Apartment & Condo Efficiency Service: Outdoor Lighting	U.S.
		Appliance Turn-In Reward: Refrig., Freezers, Room AC, Dehumid	U.S.
		Central AC Tune-Up Discount: Professional AC services	U.S.
		Efficiency Improvement Incentive Program: C&I Efficiency Proj	U.S.
		Efficient Heating & Cooling Initiative: 12, 13,14,15,16,17,18	U.S.

Table B10. Emission Reduction Projects Reported by Project Type, Data Year 2004 (Continued)

Project Section & Reporter Name	Form Type	Project	Location
		Efficient Heating & Cooling Initiative: Furnace Fuel Switch	U.S.
		Efficient Heating & Cooling Initiative: Furnace w/ ECM	U.S.
		Efficient Heating & Cooling Initiative: Water Heater Fuel Swi	U.S.
		Energy Star Bulb Giveaway: 15W, 20W, 25W	U.S.
		Energy Star Homes: 12 and 13+ SEER AC	U.S.
		Energy Star Homes: Ceiling Fan	U.S.
		Energy Star Homes: CFLs & Fixtures	U.S.
		Energy Star Homes: Clothes Dryer Gas, Washer, Dishwasher	U.S.
		Energy Star Homes: Furnace w/ ECM	U.S.
		Energy Star Homes: Refrigerator	U.S.
		Energy Star Homes: WESH Home Status	U.S.
		Energy Star Partners: CFLs	U.S.
		Energy Star Partners: Clothes Washers, Dehumidifiers, Dishwas	U.S.
		Energy Star Partners: Halogin Torchiere Turn-in & Fixtures	U.S.
		Energy Star Partners: Refrigerators	U.S.
		Energy Star Partners: Torchieres	U.S.
		Home Energy Check-Up: 20W, 23W, 40W CFLs	U.S.
		Home Energy Check-Up: HE Showerheads & Faucet Aerators	U.S.
		Home Energy Check-Up: Water Heater Wrap & Pipe Insulation	U.S.
		LED Exit Signs: Replacement Signs/Retrofit Kits	U.S.
		Misc, Appliance & Weatherization Measures: Ceiling Fans	U.S.
		Misc. Appliance & Weatherization Measures: 12,13,14,15 SEER A	U.S.
		Misc. Appliance & Weatherization Measures: CFLs	U.S.
		Misc. Appliance & Weatherization Measures: Faucet Aerators	U.S.
		Misc. Appliance & Weatherization Measures: Fixtures	U.S.
		Misc. Appliance & Weatherization Measures: Furnace (94+ AFUE)	U.S.
		Misc. Appliance & Weatherization Measures: High Effic. Shower	U.S.
		Misc. Appliance & Weatherization Measures: Pipe Insulation	U.S.
		Misc. Appliance & Weatherization Measures: Programmable Therm	U.S.
		Misc. Appliance & Weatherization Measures: Refrigerators	U.S.
		Misc. Appliance & Weatherization Measures: Room AC	U.S.
		Misc. Appliance & Weatherization Measures: Torchieres	U.S.
		Misc. Appliance & Weatherization Measures: Water Heater Fuel	U.S.
		Misc. Appliance & Weatherization Measures: Water Heater Wraps	U.S.
		Misc. Appliance & Weatherization Measures: Windows	U.S.
		Misc. Appliances: Washer, Dehumid. Dishwashers, Water Heaters	U.S.
		Previous Year Projects Continuing Impacts	U.S.
		Refrigerator Replacement - Low Income: Refrigerators	U.S.
		Residential Loan Program: 13 SEER AC	U.S.
		Residential Loan Program: Windows	U.S.
		Targeted Home Performance: Attic Insulation	U.S.
		Targeted Home Performance: CFLs	U.S.
		Tree Power! Cash Rebate: Shade Trees	U.S.
Wyeth Vaccines	1605EZ	Boiler replacement with Low NOx burner	U.S.
Xcel Energy	1605	Demand side management (electric)--NSP	U.S.
		Demand Side Management (electric)--PSCo	U.S.
		Green Lights	U.S.
Transportation and Off-Road Vehicles			
Allegheny Energy, Inc.	1605	Carryall Vehicle Program	U.S.
Ameren Corporation (formerly UE, CIPS, and CILCO)	1605	Carpooling	U.S.
		Purchase of Light Weight Rail Cars	U.S.
Arizona Portland Cement Co.	1605	100 Ton Haul Trucks	U.S.
AT&T	1605	Fleet Cost Reduction Program	U.S.
		Telecommuting	U.S.
Blue Source, LLC	1605	Empty Mile Reduction Project	U.S.
		Idling Reduction Bonus Program Project	U.S.
		Intermodal Transport Project	U.S.
BNSF Railway Company	1605	Locomotive GHG reduction	U.S.
Cinergy Corp.	1605	Fleet Alternative Fuels	U.S.
Consolidated Edison Company of New York, Inc.	1605	Alternative Fuel Vehicles - Bio diesel	U.S.
		Alternative Fuel Vehicles - CNG	U.S.
Constellation Energy	1605	Alternatively Fueled Vehicles	U.S.
		Employee Commute Options	U.S.
DTE Energy/ Detroit Edison	1605	Electric Vehicle Demonstration Project	U.S.
Entergy Services, Inc.	1605	Natural Gas Vehicle Program	U.S.
Exelon Corporation	1605	Alternative Fuel Vehicles - ComEd Fleet	U.S.
		Alternative Fuel Vehicles - Consolidated Corporate Fleet	U.S.
		Operation of CNG Vehicles - PECO Fleet	U.S.
FirstEnergy Corporation	1605	Electric Vehicles and Employee Trip Reduction Program	U.S.
		Video-Conferencing	U.S.
JEA	1605EZ	Biodiesel	U.S.
Kansas City Power & Light Company	1605	Aluminum Coal Cars	U.S.
Los Angeles Department of Water and Power	1605	Electric Vehicles	U.S.
		LADWP Rideshare Program	U.S.
Michael Paul Taylor	1605	Personal Vehicle Energy Reduction	U.S.
National Grid	1605	Alternative Fuel Vehicles	U.S.
		Carpool	U.S.
		Electric Vehicles	U.S.

Table B10. Emission Reduction Projects Reported by Project Type, Data Year 2004 (Continued)

Project Section & Reporter Name	Form Type	Project	Location
Nebraska Public Power District	1605EZ	Video Conferencing	U.S.
NiSource/NIPSCO	1605	Electric Vehicles	U.S.
		Employee Commute Options	U.S.
		Natural Gas Vehicles	U.S.
Pepco Holdings Inc	1605	CNG Vehicles	U.S.
		Delmarva & Atlantic City Electric Employee Van Pooling	U.S.
		Mass Transit to DC & Wilmington	U.S.
		PHI Employee Telecommuting	U.S.
		PHI Hybrid Vehicles	U.S.
		Soy Usage on Company Vehicles	U.S.
PG&E Corporation	1605	Electric Vehicles	U.S.
		Natural Gas Vehicles - PG&E Customers	U.S.
		Natural Gas Vehicles - PG&E Fleet	U.S.
		Natural Gas Vehicles Pre-1999	U.S.
Portland General Electric Co.	1605	Electric Fleet Vehicles	U.S.
		Hunt Turtle Technology	U.S.
		Natural Gas Fleet Vehicles	U.S.
Public Service Company of New Mexico	1605	CNG Vehicles	U.S.
Public Service Enterprise Group	1605	Biodiesel Purchases	U.S.
Public Utility District No. 1 of Snohomish County	1605	Battery and Solar Powered Boat Races	U.S.
		Bicycles for Meter Readers	U.S.
		Commute Reduction Program	U.S.
		Electric Car Race	U.S.
Sacramento Municipal Utility District	1605	Employee Commute Program	U.S.
		Meter Reading - Bicycles	U.S.
		Ride Electric	U.S.
Salt River Project	1605EZ	Alternate Work Week Schedule	U.S.
		Bike/Bus/Walk	U.S.
		Carpooling/Vapooling	U.S.
		Electric Vehicles Demonstration and Business Use	U.S.
		Telecommuting	U.S.
Southern California Edison Co.	1605	Electric Vehicle Program	U.S.
Southern Company	1605	Carpooling and Mass Transit	U.S.
		Transportation Research	U.S.
Tacoma Power	1605EZ	Alternative Transportation	U.S.
Tennessee Valley Authority	1605	Alternate Fuel Vehicles	U.S.
		Transportation Fleet Fuel Efficiency Improvement	U.S.
TXU	1605	Alternative Fuel Vehicle Program	U.S.
		Employee Bus Pass Program	U.S.
		Employee Carpool Program	U.S.
		Vehicle Use Reductions	U.S.
Waverly Light & Power Company	1605	Electric Vehicle (Project 4.1)	U.S.
We Energies	1605	Vehicle conversion to dual fuel capability	U.S.
Wyeth Vaccines	1605EZ	Employee Car Pool Program	U.S.
Waste Treatment and Disposal--Methane			
Algonquin Power - Cambrian Pacific Genco LLC	1605	Balefill Landfill Gas Utilization Project	U.S.
		Bordeaux Landfill Gas Utilization Project	U.S.
		Flying Cloud Landfill Gas Utilization Project	U.S.
		Four Hills Landfill Gas Utilization Project	U.S.
		Kingsland Landfill Gas Utilization Project	U.S.
		Kraemer Landfill Gas Utilization Project	U.S.
		Prima Deshecha Landfill Gas Utilization Project	U.S.
		San Bernadino Landfill Gas Utilization Project	U.S.
		Tajiguas Landfill Gas Utilization Project	U.S.
Ameren Corporation (formerly UE, CIPS, and CILCO)	1605	CILCO Landfill Gas Purchase	U.S.
		Milam Landfill Methane Recovery	U.S.
Asheville Landfill Gas, LLC	1605	Buncombe County Landfill	U.S.
Blue Source, LLC	1605	Methane Capture and Flare at Wastewater Treatment Facilities	U.S.
Burlington County Board of Chosen Freeholders	1605	Demonstration Greenhouse Boiler (Gas to Heat Conversion)	U.S.
		Landfill Gas Flaring	U.S.
Cambrian Energy Development LLC	1605	Fort Smith Landfill Gas Utilization Project	U.S.
Catawba Landfill Gas, LLC	1605	Blackburn Landfill	U.S.
Cinergy Corp.	1605	Danville, IN Electric Generation	U.S.
		Rumpke Landfill Gas Recovery	U.S.
City of Austin Electric Utility (Austin Energy)	1605EZ	Landfill Gas Generation	U.S.
City of Springfield	1605	Springfield Sanitary Landfill	U.S.
CommonWealth Bethlehem Energy, LLC	1605	North Country Landfill Gas Utilization Facility	U.S.
County Sanitation Districts of Los Angeles County	1605	Solid Waste Management	U.S.
		Wastewater Treatment Plants	U.S.
DADS Landfill / Dept. Of Env. Health	1605	Landfill methane flaring	U.S.
DeBourgh Manufacturing Company	1605EZ	Powder Reclaimers	U.S.
DTE Energy/ Detroit Edison	1605	Landfill Energy Purchases, non-DTE Projects	U.S.
		Landfill Gas Recovery Projects	U.S.
		LFG Recovery & Energy Gen - DTE Proj outside Service Area	U.S.
		LFG Recovery & Energy Gen - DTE Projects in Service Area	U.S.
Duke Energy Corporation	1605	White Street Landfill Gas Recovery Project	U.S.
ENCAP	1605	Kingsland Landfill	U.S.
Exelon Corporation	1605	Fairless Hills LFG to Energy Operation	U.S.
		Landfill Gas Power Purchases	U.S.
		Pennsbury LFG to Energy Operation	U.S.

Table B10. Emission Reduction Projects Reported by Project Type, Data Year 2004 (Continued)

Project Section & Reporter Name	Form Type	Project	Location
FirstEnergy Corporation	1605	Corry	U.S.
		Hamm's Landfill NUG	U.S.
		Lake View Landfill	U.S.
		Manchester Renewable	U.S.
		Modern Landfill NUG	U.S.
		Monmouth County Reclamation Center NUG	U.S.
FPL Group	1605	Aroostook Valley Electric Company	U.S.
		Montenay Power Plant	U.S.
		Multitrade Power Plant	U.S.
Gas Recovery Systems	1605	Arbor Hills Electric	U.S.
		C&C Electric	U.S.
		Charlotte Motor Speedway	U.S.
		Chicopee Electric	U.S.
		East Bridgewater	U.S.
		Fall River	U.S.
		GRS American Canyon Landfill	U.S.
		GRS Coyote Canyon	U.S.
		Guadalupe	U.S.
		Halifax	U.S.
		Kapaa	U.S.
		LGP Orange County, New York	U.S.
		Lyon Electric	U.S.
		Mallard Lake	U.S.
		Menlo Park	U.S.
		Newby Island 3	U.S.
		Newby Island Landfill	U.S.
		Pine Bend	U.S.
		Quad Cities Electric	U.S.
		Randolph	U.S.
		Richmond Electric	U.S.
		Rockford Electric	U.S.
		Sacramento	U.S.
		San Marcos	U.S.
		Santa Cruz	U.S.
		South Barrington	U.S.
		Sunset Farms	U.S.
		Sycamore	U.S.
		Vienna Junction	U.S.
Granger Electric Company	1605	Brent Run Landfill Generating Station	U.S.
		Grand Blanc Landfill Generating Station	U.S.
		Granger #1 Generating Station - Wood Road Landfill	U.S.
		Granger #2 Generating Station - Grand River Avenue Landfill	U.S.
		Granger MotorWheel Facility	U.S.
		Ottawa County Farms Landfill Generating Station	U.S.
		Seymour Road Landfill Generating Station	U.S.
Granger Energy, LLC	1605	Indianapolis/South Side Landfill Gas Project	U.S.
		Lake County Landfill Gas Project	U.S.
Greater New Bedford Regional Refuse Mgt District	1605	Crapo Hill Landfill Gas Control Project	U.S.
Integrated Waste Services Association	1605	Waste-to-Energy - Waste Diversion	U.S.
Iredell Landfill Gas, LLC	1605	Iredell County Landfil	U.S.
Kern County Waste Management Department	1605	Arvin Sanitary Landfill	U.S.
		BENA Sanitary Landfill	U.S.
		China Grade Sanitary Landfill	U.S.
		Kern Valley Sanitary Landfill	U.S.
		McFarland-Delano Sanitary Landfill	U.S.
		Ridgecrest Sanitary Landfill	U.S.
Klickitat County Public Utility District No. 1	1605	H.W. Hill Landfill Gas Power Plant	U.S.
Landfill Energy Systems	1605	Adrian	U.S.
		Ann Arbor	U.S.
		Carleton Farms	U.S.
		I-95 Phase I	U.S.
		I-95 Phase II	U.S.
		MRPC	U.S.
		MRPC Flare	U.S.
		Pine Tree	U.S.
		Riverview	U.S.
		Salem	U.S.
		Salem Flare	U.S.
		Sumpter	U.S.
		Sunshine Canyon	U.S.
		Wichita	U.S.
Los Angeles Department of Water and Power	1605	Lopez Canyon Microturbines - Landfill Gas-to-Energy Project	U.S.
		Scattergood - Digester Gas Displacement of Natural Gas	U.S.
Lynchburg Gas Producers, LLC	1605	Lynchburg Landfill	U.S.
Michigan CAT	1605	Lower Potomac	U.S.
		Sacramento	U.S.

Table B10. Emission Reduction Projects Reported by Project Type, Data Year 2004 (Continued)

Project Section & Reporter Name	Form Type	Project	Location
Middlesex Generating Company, LLC	1605	MCUA Landfill Gas Utilization Project - Edison Landfill	U.S.
		MCUA Landfill Gas Utilization Project - ILR Landfill	U.S.
		MCUA Landfill Gas Utilization Project - MCUA Landfill	U.S.
Model City Energy, LLC	1605	Model City Energy Facility	U.S.
Montauk Energy Capital	1605	Attleboro (MASS Energy, LLC)	U.S.
		Bowerman Landfill Gas Recovery Plant	U.S.
		Chautauqua (COP, LLC)	U.S.
		Colebrookdale (COP, LLC)	U.S.
		Dade County (Monteco)	U.S.
		Davis Street Landfill Gas Recovery Plant	U.S.
		Edison (COP, LLC)	U.S.
		El Dorado (COP, LLC)	U.S.
		Fresh Kills Landfill Gas Recovery Plant	U.S.
		Glacier Ridge (Glacier Ridge LFG, LLC)	U.S.
		ILR (COP, LLC)	U.S.
		Kearny Landfill Gas Recovery Plant	U.S.
		McCarty Road Landfill Gas Recovery Plant	U.S.
		McCommas Bluff (Monteco)	U.S.
		MCUA (COP, LLC)	U.S.
		Monmouth Landfill Gas Recovery Plant	U.S.
		Mountaingate Landfill Gas Recovery Plant	U.S.
		Nelson Gardens (Monteco)	U.S.
		North Country (CRMC Bethlehem, LLC)	U.S.
		Oaks (COP, LLC)	U.S.
		Olinda Landfill Gas Recovery Plant	U.S.
		Pigeon Point LFG, Inc (COP, LLC)	U.S.
		Roosevelt (Roosevelt Landfill Gas Recovery, LLC)	U.S.
		Rosenberg (Monteco)	U.S.
		Rumpke Landfill Gas Recovery Plant	U.S.
		Virginia Beach (VB LFG, LLC)	U.S.
		Zion (Zion LFG, LLC)	U.S.
Natural Power, Inc.	1605	Wilder's Grove Landfill Gas Project	U.S.
NC Muni Landfill Gas Partners, LLC	1605	Henderson County Landfill	U.S.
New Jersey Meadowlands Commission	1605	MSLA 1-D Landfill	U.S.
		NJMC 1-A Landfill	U.S.
		NJMC 1-C Landfill	U.S.
		NJMC Balefill	U.S.
Newton Landfill Gas, LLC	1605	Newton Landfill	U.S.
NiSource/NIPSCO	1605	Landfill Methane Recovery - Deercroft	U.S.
		Landfill Methane Recovery - Wheeler	U.S.
		Landfill Methane Recovery-Prairie View	U.S.
Ocean County Landfill Corporation	1605	Flare Control of Landfill Gas	U.S.
		Supplying Landfill Gas for Energy Recovery	U.S.
Palmer Capital Corporation	1605	Brookhaven Landfill Gas Limited Partnership	U.S.
		Central Gas Limited Partnership	U.S.
		Janes LFG Corporation	U.S.
		Lancaster Landfill Gas Corporation	U.S.
		Lebanon Landfill Gas Corporation	U.S.
		LKD Los Angeles L.P.	U.S.
		Portland LFG Joint Venture	U.S.
		Raleigh Landfill Gas Corporation	U.S.
		Scholl Canyon LFG Limited Partnership	U.S.
		Sun LFG Corporation	U.S.
Pitt Landfill Gas, LLC	1605	Pitt County Landfill	U.S.
Public Service Enterprise Group	1605	Municipal Solid Waste Generators	U.S.
Rolls-Royce Corporation	1605	Use of Landfill Gas	U.S.
Salt River Project	1605EZ	Landfill Gas Flaring (CH4 Avoided)	U.S.
		Landfill Gas Flaring (CO2 Increase)	U.S.
		Tri-Cities Landfill Gas Generation Facility	U.S.
Santee Cooper	1605	Santee Cooper - Horry County Landfill Site	U.S.
Seneca Energy II, LLC	1605	Seneca Energy - Stage I	U.S.
		Seneca Energy - Stage II	U.S.
Seneca Energy II, LLC_Ontario LFGE	1605	Ontario LFGE	U.S.
Smithfield Foods, Inc.	1605EZ	Biogas Boiler (JMC - Sioux Falls)	U.S.
		Biogas Boiler (MB - Sagebrush)	U.S.
		Biogas Boiler (MB - Tumbleweed)	U.S.
		Biogas Boiler (MB - Turkey Flat)	U.S.
		Biogas Boiler (Packerland - GB)	U.S.
		Biogas Boiler (SPC - Tar Heel)	U.S.
		Biogas Flare (JMC - Sioux Falls)	U.S.
		Biogas Flare (MB - Sagebrush)	U.S.
		Biogas Flare (MB - Tumbleweed)	U.S.
		Biogas Flare (MB - Turkey Flat)	U.S.
		Biogas Flare (Packerland - GB)	U.S.
		Biogas Flare (Packerland - Plainwell)	U.S.
		Biogas Flare (SPC - Tar Heel)	U.S.
		Smithfield Bio-Energy (Yuma)	U.S.
Tennessee Valley Authority	1605	Landfill Methane Recovery and Power Generation	U.S.
TXU	1605	Landfill Methane	U.S.

Table B10. Emission Reduction Projects Reported by Project Type, Data Year 2004 (Continued)

Project Section & Reporter Name	Form Type	Project	Location
Waste Management, Inc.	1605	Akron (Hardy Road) MSW Landfill - 1367	U.S.
		Akron (Hazel Street) MSW Landfill	U.S.
		Alliance MSW Landfill - 154	U.S.
		Altamont (Flare) MSW Landfill - 2554	U.S.
		Altamont (Power) MSW Landfill - 2554	U.S.
		Amelia MSW Landfill - 41	U.S.
		American MSW Landfill - 136	U.S.
		Arden MSW Landfill - 70	U.S.
		Atascocita MSW Landfill - 2158	U.S.
		Atlantic Waste Disposal MSW Landfill - 858	U.S.
		Austin Community MSW Landfill - 2162	U.S.
		Autumn Hills RDF	U.S.
		Baytown MSW Landfill - 1129	U.S.
		Bethel MSW Landfill - 1306	U.S.
		BJ (flare) MSW Landfill	U.S.
		BJ (Power) MSW Landfill	U.S.
		Bluebonnet MSW Landfill - 1074	U.S.
		Bolton Road/SSL MSW Landfill - 76	U.S.
		Boundary Road MSW Landfill	U.S.
		Bradley MSW (Flare/Sold) Landfill - 2502	U.S.
		Bradley MSW Landfill (Power) - 2502	U.S.
		Brookfield Sanitary Landfill	U.S.
		Burnsville Sanitary MSW Landfill - 291	U.S.
		Butterfield MSW Landfill - 2384	U.S.
		Button Gwinnett MSW Landfill	U.S.
		Cedar Ridge Landfill - 1304	U.S.
		Central Disposal Landfill - 496	U.S.
		Central Sanitary Landfill (Flare)	U.S.
		Central Sanitary Landfill (Power)	U.S.
		Cereal City MSW Landfill	U.S.
		Chaffee	U.S.
		Chain of Rocks MSW Landfill - 2450	U.S.
		Charles City - 42	U.S.
		Chastang MSW Landfill - 1143	U.S.
		Chesser Island Landfill	U.S.
		Chestnut Ridge (Flare) MSW Landfill-2115	U.S.
		Chestnut Ridge (Power) MSW Landfill - 2115	U.S.
		Chicopee MSW Landfill - 444	U.S.
		CID Areas 1, 2 and 3 (Flare)	U.S.
		CID Areas 1, 2 and 3 (Power) MSW Landfill - 2030	U.S.
		Cinnaminson MSW Landfill	U.S.
		City Sand MSW Landfill	U.S.
		Clearview Landfill	U.S.
		Coastal Plains MSW Landfill - 1073	U.S.
		Columbia Ridge MSW Landfill - 2588	U.S.
		Comal County Landfill	U.S.
		Conroe 6 MSW Landfill - 0127	U.S.
		Countryside MSW Landfill - 6	U.S.
		Covel Gardens MSW Landfill - 2177	U.S.
		Crossroads	U.S.
		Cuyahoga MSW Landfill - 216	U.S.
		DADS Landfill	U.S.
		Dauphin Meadows MSW Landfill - 63	U.S.
		Deer Track Park MSW Landfill - 1704	U.S.
		Deercroft (flare) MSW Landfill - 318	U.S.
		Deercroft (Power) MSW Landfill - 318	U.S.
		DeKalb County RDF MSW Landfill - 2269	U.S.
		Des Moines MSW Landfill - 2066	U.S.
		DFW (Flare) MSW Landfill	U.S.
		DFW (Power) MSW Landfill - 399	U.S.
		Douglas County MSW Landfil - 2809	U.S.
		DRPI Landfill - 1307	U.S.
		Eagle Valley RDF MSW Landfill - 2336	U.S.
		Earthmovers MSW Landfill - 17	U.S.
		East Oak MSW Landfill	U.S.
		East Side	U.S.
		El Sobrante (Power) Landfill	U.S.
		El Sobrante MSW (Flare) Landfill - 0166	U.S.
		ELDA RDF Landfill	U.S.
		Elizabethtown MSW Landfill	U.S.
		Elk River MSW (Flare) Landfill - 1706	U.S.
		Elk River MSW (Power) Landfill - 1706	U.S.
		Envirofil of III MSW Landfill - 53	U.S.
		Evergreen MSW Landfill	U.S.
		Evergreen MSW Landfill - 1314	U.S.
		Fitchburg MSW Landfill - 439	U.S.
		Five Oaks RDF MSW Landfill - 2271	U.S.
		Geneva	U.S.
		Glen's Landfill	U.S.
		Granby (Holyoke) MSW Landfill - 445	U.S.

Table B10. Emission Reduction Projects Reported by Project Type, Data Year 2004 (Continued)

Project Section & Reporter Name	Form Type	Project	Location
		Grand Central MSW Landfill - 204	U.S.
		Greene Valley (Flare) MSW Landfill	U.S.
		Greene Valley (Power) MSW Landfill	U.S.
		GROWS MSW Landfill - 2382	U.S.
		Guadalupe MSW Landfill - 1543	U.S.
		Gulf Coast Landfill (Flare)	U.S.
		Hastings MSW Landfill - 1749	U.S.
		High Acres (Flare)	U.S.
		High Acres (Power) MSW Landfill - 2277	U.S.
		Hillsboro MSW Landfill -1515	U.S.
		Hillside Landfill	U.S.
		HOD Landfill	U.S.
		Hunt Road MSW Landfill	U.S.
		Iris Glen MSW Landfill - 2570	U.S.
		Jay County MSW Landfill - 228	U.S.
		John Smith MSW Landfill - 0293	U.S.
		Kankakee (Flare)	U.S.
		Kankakee (Power) MSW Landfill - 2319	U.S.
		Kelly Run MSW Landfill - 841	U.S.
		Kennewick/Wenatchee MSW Landfill - 1048	U.S.
		King George County MSW Landfill - 1323	U.S.
		Kirby Canyon MSW Landfill - 1046	U.S.
		Lake (Flare) MSW Landfill	U.S.
		Lake (Power) MSW Landfill	U.S.
		Lake County MSW Landfill	U.S.
		Lake View (Power) MSW Landfill - 2387	U.S.
		Lake View MSW Landfill (Flare) - 2387	U.S.
		Lancaster MSW Landfill - 2508	U.S.
		Land & Development (L&D) (Power)	U.S.
		Land and Development (L&D) (Flare)	U.S.
		Laraway	U.S.
		Laurel Highlands MSW Landfill - 65	U.S.
		Laurel Ridge Landfill (Flare/Sold)	U.S.
		LCS Services	U.S.
		Liberty MSW Landfill - 22	U.S.
		Live Oak MSW Landfill - 2138	U.S.
		Magnolia MSW Landfill - 151	U.S.
		Mahoning Landfill	U.S.
		Martone (Barre) MSW Landfill - 1760	U.S.
		Medley Landfill & Recycling Center (Flare)	U.S.
		Metro MSW Landfill-2742	U.S.
		MIddle Pennisula MSW Landfill - 2497	U.S.
		Milam MSW Landfill (Flare) 2056	U.S.
		Milam MSW Landfill (Power) - 2056	U.S.
		Mill Seat Landfill	U.S.
		Mohawk Valley MSW Landfill - 2167	U.S.
		Monroe-Livingston (flare) MSW Landfill - 2403	U.S.
		Monroe-Livingston (Power) MSW Landfill - 2403	U.S.
		Monroeville MSW Landfill - 69	U.S.
		Mountain View MSW Landfill - 2086	U.S.
		Naples Sanitary Landfill	U.S.
		New Boston	U.S.
		New Milford (flare) MSW Landfill	U.S.
		New Milford (Power) MSW Landfill	U.S.
		Northern Oaks Landfill - 2867	U.S.
		Northwest MSW Landfill - 2636	U.S.
		Oak Ridge RDF (Flare) MSW Landfill - 319	U.S.
		Oak Ridge RDF (Power) MSW Landfill - 319	U.S.
		Oakridge MSW Landfill - 49	U.S.
		Okeechobee MSW Landfill - 46	U.S.
		Olympic View MSW Landfill - 0030	U.S.
		Orchard Ridge/Omega Hills/ Parkview MSW Landfill - 2286	U.S.
		Outer Loop MSW Landfill - 2482	U.S.
		Oyster Bay Regional Park Landfill	U.S.
		Palmetto MSW Landfill - 2106	U.S.
		Paris - 1562	U.S.
		Parklands MSW Landfill	U.S.
		Pecan Grove MSW Landfill - 2135	U.S.
		Peoples MSW Landfill - 1736	U.S.
		Pheasant Run (flare) MSW Landfill - 2290	U.S.
		Pheasant Run (Power) MSW Landfill - 2290	U.S.
		Piedmont MSW Landfill - 2120	U.S.
		Pine Bluff MSW Landfill - 1308	U.S.
		Pine Grove MSW Landfill - 835	U.S.
		Pine Ridge RDF	U.S.
		Pine Tree Acres MSW Landfill - 1733	U.S.
		Pinnacle Road MSW Landfill	U.S.
		Pottstown MSW Landfill (Flare) - 2393	U.S.
		Pottstown MSW Landfill (Power) - 2393	U.S.

Table B10. Emission Reduction Projects Reported by Project Type, Data Year 2004 (Continued)

Project Section & Reporter Name	Form Type	Project	Location
		Powell Road MSW Landfill	U.S.
		Prairie View (flare) MSW Landfill - 316	U.S.
		Prairie View (Power) MSW Landfill - 316	U.S.
		Prarie Bluff Landfill - 2513	U.S.
		Quail Hollow MSW Landfill - 1305	U.S.
		Quarry MSW Landfill - 2185	U.S.
		R & B Landfill (Flare)	U.S.
		Redwood MSW Landfill - 1507	U.S.
		Richland MSW Landfill - 82	U.S.
		Ridgeview (Flare) MSW Landfill - 2289	U.S.
		Ridgeview (Power) MSW Landfill	U.S.
		Riverbend MSW Landfill - 1509	U.S.
		Rolling Hills MSW Landfill	U.S.
		Rolling Meadows RDF MSW Landfill - 2040	U.S.
		Rumble Landfill 1	U.S.
		Rumble Landfill 2	U.S.
		S&S Landfill	U.S.
		Salem - 2573	U.S.
		Sandy Hill	U.S.
		Security MSW Landfill - 1017	U.S.
		Serif Road MSW Landfill	U.S.
		Settler's Hill (Flare) Landfill - 2384	U.S.
		Settler's Hill (Power) MSW Landfill - 2041	U.S.
		Seymour Road Landfill	U.S.
		Shade (RCC) MSW Landfill - 231	U.S.
		Simi Valley (Flare) MSW Landfill - 2510	U.S.
		Simi Valley (Power) Landfill	U.S.
		Skyline MSW Landfill - 1003	U.S.
		South Hills (Arnoni) MSW Landfill - 185	U.S.
		Southern Alleghenies MSW Landfill - 64	U.S.
		Southern Sanitation Landfill	U.S.
		Springhill MSW Landfill North - 2248	U.S.
		Springhill MSW Landfill South - 2248	U.S.
		Spruce Ridge MSW Landfill - 1702	U.S.
		Statewide MSW Landfill	U.S.
		Stone Ridge Landfill	U.S.
		Stony Hollow MSW Landfill - 2672	U.S.
		Suburban MSW Landfill - 2363	U.S.
		Superior MSW Landfill - 2117	U.S.
		Taunton Landfill	U.S.
		Tazewell (Power) MSW Landfill - 2899	U.S.
		Tazewell MSW Landfill (flare) - 2899	U.S.
		Timberline	U.S.
		Tonitown MSW Landfill - 0087	U.S.
		Trail Ridge	U.S.
		Tri Cities MSW Landfill - 1045	U.S.
		Tri-City RDF	U.S.
		Tullytown MSW Landfill - 2382	U.S.
		Turnkey (flare) MSW Landfill - 2159	U.S.
		Turnkey (Power) MSW Landfill - 2159	U.S.
		Twin Bridges (flare) MSW Landfill - 317	U.S.
		Twin Bridges (Power) MSW Landfill - 317	U.S.
		Two Pine MSW Landfill - 2181	U.S.
		Valley MSW Landfill - 232	U.S.
		Valley Trail MSW Landfill - 2293	U.S.
		Valley View MSW Landfill	U.S.
		Venice Park (Flare) MSW Landfill	U.S.
		Venice Park (Power) MSW Landfill - 2616	U.S.
		Waters Landfill - 1722	U.S.
		West Camden MSW Landfill - 2087	U.S.
		Westside (Ft. Worth) MSW Landfill - 1004	U.S.
		Westside MSW Landfill - 2894	U.S.
		Wheatland Prairie RDF	U.S.
		Wheeler RDF MSW Landfill (Flare)	U.S.
		Wheeler RDF MSW Landfill (Power)	U.S.
		White Lake MSW Landfill	U.S.
		Woodland (flare) MSW Landfill - 2043	U.S.
		Woodland (Power) MSW Landfill - 2043	U.S.
		Woodland Meadows RDF MSW Landfill - 2337	U.S.
		Woodside Landfill - 2169	U.S.
Waverly Gas Producers, LLC	1605	Waverly Landfill	U.S.
We Energies	1605	Beneficial use of landfill methane	U.S.
Xcel Energy	1605	Refuse-derived fuel-NSP	U.S.
Agriculture--Methane and Nitrous Oxide			
AES Warrior Run, LLC	1605	Indian Dairy Poject	Foreign
FirstEnergy Corporation	1605	Mason Dixon Farms, Inc.	U.S.

Table B10. Emission Reduction Projects Reported by Project Type, Data Year 2004 (Continued)

Project Section & Reporter Name	Form Type	Project	Location
Oil and Natural Gas Systems and Coal Mining--Methane			
Ameren Corporation (formerly UE, CIPS, and CILCO)	1605	CIPS Mine Gas to Energy	U.S.
BP America	1605	Oil and Gas Methane Reduction-from Equipment Upgrade	U.S.
		Oil and Gas Methane Reduction-Reduced Vent with Flaring	U.S.
		Oil and Gas Methane Reductions-Reduced Venting with Recovery	U.S.
CDX Gas, LLC	1605	Arkoma Mine Coalbed Methane Recovery	U.S.
		Pinnacle Mine Coalbed Methane Recovery	U.S.
Cinergy Corp.	1605	Natural Gas Star Program	U.S.
CMS Energy	1605	Natural Gas Star Program (Consumers)	U.S.
CMV Joint Venture	1605	Oak Grove Coalbed Methane Recovery Project	U.S.
		White Oak Creek Coalbed Methane Recovery	U.S.
Consolidated Edison Company of New York, Inc.	1605	Natural Gas STAR Best Management Practices	U.S.
Constellation Energy	1605	Gas Systems O & M (Natural Gas Star Partnership)	U.S.
Duke Energy Corporation	1605	Natural Gas Star - Emergency Shutdowm Practices	U.S.
		Natural Gas Star - Pipeline Pull Downs	U.S.
		Natural Gas Star - Sleeve Repairs	U.S.
		Natural Gas Star - Use of Hot Taps for New Connections	U.S.
Entergy Services, Inc.	1605	Natural Gas Pipeline Leak Repairs	U.S.
Exelon Corporation	1605	Natural Gas STAR Best Management Practices	U.S.
Greene Energy, LLC	1605EZ	Methane Recovery	U.S.
Jim Walter Resources, Inc.	1605	Gobwell Degasification Program	U.S.
		Horizontal Degasification Program	U.S.
		Nitrogen Rejection Plant Program (LQG)	U.S.
		Standard Degasification Well Program	U.S.
National Grid	1605	Identify & Rehabilitate Leaky Gas Distribution Pipe	U.S.
NiSource/NIPSCO	1605	NG Star - Columbia Gas of Kentucky	U.S.
		NG Star - Columbia Gas of Ohio	U.S.
		NG Star - Columbia Gas of Pennsylvania and Maryland	U.S.
		NG Star - Columbia Gas of Virginia	U.S.
		NG Star - Columbia Gas Transmission Company	U.S.
		NG Star - Columbia Gulf Transmission Company	U.S.
		NG Star - NIPSCO	U.S.
		NG Star Bay State Gas	U.S.
		North Trenton Pipeline Replacement	U.S.
Peabody Energy	1605	Coal Bed Methane Utilization	U.S.
		Coal Mine Methane Utilization	U.S.
PG&E Corporation	1605	Natural Gas Star Program - PG&E California	U.S.
Public Service Company of New Mexico	1605	Natural Gas Leak Surveying and Replacement	U.S.
South Carolina Electric & Gas Company	1605	SCANA Participation in STAR program	U.S.
Xcel Energy	1605	White River Dome Compressor Station Closure	U.S.
Carbon Sequestration			
AES Hawaii, Inc.	1605	Mbaracayu Conservation	Foreign
AES Shady Point, LLC	1605	OXFAM America Amazon	Foreign
AES Thames, LLC	1605	CARE Agroforestry	Foreign
Allegheny Energy, Inc.	1605	Bayou Cocodrie Bottomland Hardwood Forest Restoration	U.S.
		Mississippi River Valley Bottomland Hardwood Restoration	U.S.
		Overflow Bottomland Hardwood Forest Restoration Project	U.S.
		Reduced Impact Logging of Natural Forest in Malaysia	Foreign
		Rio Bravo Carbon Sequestration Pilot Project	Foreign
		St. Catherine-ESI	U.S.
		St. Catherine-NFWF	U.S.
		St. Francis River Carbon Offset Project	U.S.
		Upper Ouachita River Valley Bottomland Hardwood Restoration	U.S.
		Western Oregon Carbon Sequestration Project	U.S.
Alliant Energy	1605	Afforestation	U.S.
		Bayou Cocodrie Bottomland Hardwood Forest Restoration	U.S.
		Conservation tillage	U.S.
		Forest preservation	U.S.
		Habitat Restoration	U.S.
		Mississippi River Valley Bottomland Hardwood Restoration	U.S.
		Overflow Bottomland Hardwood Forest Restoration Project	U.S.
		Reduced Impact Logging of Natural Forest in Malaysia	Foreign
		Rio Bravo Carbon Sequestration Pilot Project	Foreign
		St. Catherine-ESI	U.S.
		St. Catherine-NFWF	U.S.
		St. Francis River Carbon Offset Project	U.S.
		Upper Ouachita River Valley Bottomland Hardwood Restoration	U.S.
		Urban Forestry IP&L	U.S.
		Western Oregon Carbon Sequestration Project	U.S.
Ameren Corporation (formerly UE, CIPS, and CILCO)	1605	Bayou Cocodrie Bottomland Hardwood Forest Restoration	U.S.
		Green Leaf Project	U.S.
		Mississippi River Valley Bottomland Hardwood Restoration	U.S.
		Overflow Bottomland Hardwood Forest Restoration Project	U.S.
		Reduced Impact Logging of Natural Forest in Malaysia	Foreign
		Rio Bravo Carbon Sequestration Pilot Project	Foreign
		Spanish Lake Carbon Offset Project	U.S.
		St. Catherine-ESI	U.S.

Table B10. Emission Reduction Projects Reported by Project Type, Data Year 2004 (Continued)

Project Section & Reporter Name	Form Type	Project	Location
		St. Catherine-NFWF	U.S.
		St. Francis River Carbon Offset Project	U.S.
		Upper Ouachita River Valley Bottomland Hardwood Restoration	U.S.
		Walsh Lake Carbon Offset Project	U.S.
		Western Oregon Carbon Sequestration Project	U.S.
		White River Carbon Offset Project	U.S.
American Electric Power, Inc.	1605	AEP-AGCROP-2002	U.S.
		AEP-AGSPOIL-1992	U.S.
		AEP-AGSPOIL-1993	U.S.
		AEP-AGSPOIL-1994	U.S.
		AEP-AGSPOIL-1995	U.S.
		AEP-AGSPOIL-1996	U.S.
		AEP-AGSPOIL-1997	U.S.
		AEP-AGSPOIL-1998	U.S.
		AEP-AGSPOIL-1999	U.S.
		AEP-AGSPOIL-2000	U.S.
		AEP-AGSPOIL-2001	U.S.
		AEP-AGSPOIL-2002	U.S.
		AEP-AGSPOIL-2003	U.S.
		AEP-Fernwood-2001	U.S.
		AEP-FM-1991	U.S.
		AEP-FM-1992	U.S.
		AEP-FM-1993	U.S.
		AEP-FM-1994	U.S.
		AEP-FM-1995	U.S.
		AEP-FM-1996	U.S.
		AEP-FM-1997	U.S.
		AEP-FM-1998	U.S.
		AEP-FM-1999	U.S.
		AEP-FM-2000	U.S.
		AEP-FM-2001	U.S.
		AEP-FM-2002	U.S.
		AEP-FM-2003	U.S.
		AEP-MARAG- 1992	U.S.
		AEP-MARAG-1991	U.S.
		AEP-MARAG-1993	U.S.
		AEP-MARAG-1993-2	U.S.
		AEP-MARAG-1994	U.S.
		AEP-MARAG-1994-2	U.S.
		AEP-MARAG-1995	U.S.
		AEP-MARAG-1996	U.S.
		AEP-MARAG-1997	U.S.
		AEP-MARAG-1998	U.S.
		AEP-MARAG-1999	U.S.
		AEP-MARAG-2000	U.S.
		AEP-Private lands-2001	U.S.
		AEP-Private Lands-2002	U.S.
		AEP-Private Lands-2003	U.S.
		AEP-West Land Management	U.S.
		Bayou Cocodrie Bottomland Hardwood Forest Restoration	U.S.
		Catahoula Reforestation Project-2001	U.S.
		Catahoula-Reforestation Project-2002	U.S.
		Dan Tabberer Carbon Sequestration Project	U.S.
		DUNDAS-AGSPOIL-1998	U.S.
		DUNDAS-MARAG-1998	U.S.
		ECCF-AGSPOIL-1995	U.S.
		ECCF-AGSPOIL-1997	U.S.
		ECCF-AGSPOIL-1998	U.S.
		ECCF-AGSPOIL-2000	U.S.
		ECCF-MARAG-1991	U.S.
		ECCF-MARAG-1992	U.S.
		ECCF-MARAG-1993	U.S.
		ECCF-MARAG-1995	U.S.
		ECCF-MARAG-1996	U.S.
		ECCF-MARAG-1997	U.S.
		ECCF-MARAG-1998	U.S.
		ECCF-MARAG-1999	U.S.
		ECCF-MARAG-2000	U.S.
		Green River State Forest Carbon Project	U.S.
		Guaraquecaba Climate Action Project	Foreign
		Mississippi River Valley Bottomland Hardwood Restoration	U.S.
		Morgan County Improvement Corporation Forest Management Proj	U.S.
		Noel Kempff Mercado Climate Action Project	Foreign
		Ohio Central Station Site-MARAG-1996	U.S.
		Overflow Bottomland Hardwood Forest Restoration Project	U.S.
		Reduced Impact Logging of Natural Forest in Malaysia	Foreign
		Rio Bravo Carbon Sequestration Pilot Project	Foreign
		Simon Kenton Council Forest Management Project	U.S.
		Spanish Lake Carbon Offset Project	U.S.
		St. Catherine-ESI	U.S.

Table B10. Emission Reduction Projects Reported by Project Type, Data Year 2004 (Continued)

Project Section & Reporter Name	Form Type	Project	Location
		St. Catherine-NFWF	U.S.
		St. Francis River Carbon Offset Project	U.S.
		Upper Ouachita River Valley Bottomland Hardwood Restoration	U.S.
		USFWS Catahoula Reforestation Project-2002	U.S.
		Walsh Lake Carbon Offset Project	U.S.
		WCFGPL-MARAG-1996	U.S.
		WCFGPL-MARAG-2000	U.S.
		Western Oregon Carbon Sequestration Project	U.S.
		White River Carbon Offset Project	U.S.
		Wilderness Center Carbon Sequestration Project	U.S.
		WILDS PROJECT-MARAG-1998	U.S.
American Municipal Power - Ohio	1605EZ	AMP-Ohio Member Communities: Urban Forestry - Tree City USA	U.S.
Anoka Municipal Utility	1605EZ	Urban Foresttry	U.S.
Arizona Portland Cement Co.	1605	Tree Planting	U.S.
Arizona Public Service Company	1605	Spanish Lake Carbon Offset Project	U.S.
		Walsh Lake Carbon Offset Project	U.S.
		White River Carbon Offset Project	U.S.
Bountiful City Light & Power	1605	Tree planting	U.S.
BP America	1605	Noel Kempff Mercado Climate Action Project	Foreign
Carolina Power & Light Company	1605	Spanish Lake Carbon Offset Project	U.S.
		Walsh Lake Carbon Offset Project	U.S.
		White River Carbon Offset Project	U.S.
Chevron Corporation	1605EZ	Chevron Lower Mississippi River Valley Reforestation	U.S.
Cinergy Corp.	1605	Bayou Cocodrie Bottomland Hardwood Forest Restoration	U.S.
		Cinergy Corp. Ducks Unlimited Bottomland Hardwood Reforest.	U.S.
		Cinergy Corp. The Nature Conservancy Reforestation and Bio.	U.S.
		Cinergy Corp. Wild Turkey Federation Operation Big Sky.	U.S.
		Facility Tree Planting Program	U.S.
		Hendricks County McCloud Park Project	U.S.
		Mississippi River Valley Bottomland Hardwood Restoration	U.S.
		NICHES project	U.S.
		Overflow Bottomland Hardwood Forest Restoration Project	U.S.
		Reduced Impact Logging of Natural Forest in Malaysia	Foreign
		Rio Bravo Carbon Sequestration Pilot Project	Foreign
		Rio Bravo Carbon Sequestration Pilot Project (Full Share)	Foreign
		Spanish Lake Carbon Offset Project	U.S.
		St. Catherine-ESI	U.S.
		St. Catherine-NFWF	U.S.
		St. Francis River Carbon Offset Project	U.S.
		Sycamore Land Trust	U.S.
		Upper Ouachita River Valley Bottomland Hardwood Restoration	U.S.
		Walsh Lake Carbon Offset Project	U.S.
		Western Oregon Carbon Sequestration Project	U.S.
		White River Carbon Offset Project	U.S.
		WRP Tree Planting Program	U.S.
City Public Service	1605	Tree Planting	U.S.
Cleco Corporation	1605	Bayou Cocodrie Bottomland Hardwood Forest Restoration	U.S.
		Bayou Jean de Jean Reforestation	U.S.
		Maknockanut Lake Plantation Carbon Unit #1	U.S.
		Maknockanut Lake Plantation Carbon Unit #2	U.S.
		Mississippi River Valley Bottomland Hardwood Restoration	U.S.
		Overflow Bottomland Hardwood Forest Restoration Project	U.S.
		Reduced Impact Logging of Natural Forest in Malaysia	Foreign
		Rio Bravo Carbon Sequestration Pilot Project	Foreign
		Spanish Lake Carbon Offset Project	U.S.
		St. Catherine-ESI	U.S.
		St. Catherine-NFWF	U.S.
		St. Francis River Carbon Offset Project	U.S.
		Upper Ouachita River Valley Bottomland Hardwood Restoration	U.S.
		Walsh Lake Carbon Offset Project	U.S.
		Western Oregon Carbon Sequestration Project	U.S.
		White River Carbon Offset Project	U.S.
Common Purpose Institute	1605EZ	Energy Crop Tree Farm	U.S.
Constellation Energy	1605	Bayou Cocodrie Bottomland Hardwood Forest Restoration	U.S.
Constellation Energy	1605	Mississippi River Valley Bottomland Hardwood Restoration	U.S.
		Overflow Bottomland Hardwood Forest Restoration Project	U.S.
		Reduced Impact Logging of Natural Forest in Malaysia	Foreign
		Rio Bravo Carbon Sequestration Pilot Project	Foreign
		St. Catherine-ESI	U.S.
		St. Catherine-NFWF	U.S.
		St. Francis River Carbon Offset Project	U.S.
		Upper Ouachita River Valley Bottomland Hardwood Restoration	U.S.
		Western Oregon Carbon Sequestration Project	U.S.
Dominion Generation	1605	Spanish Lake Carbon Offset Project	U.S.
		Walsh Lake Carbon Offset Project	U.S.
		White River Carbon Offset Project	U.S.

Table B10. Emission Reduction Projects Reported by Project Type, Data Year 2004 (Continued)

Project Section & Reporter Name	Form Type	Project	Location
DTE Energy/ Detroit Edison	1605	Bayou Cocodrie Bottomland Hardwood Forest Restoration	U.S.
		Forest Land Management	U.S.
		Miscellaneous Tree Plantings - 1999	U.S.
		Miscellaneous Tree Plantings - 1995	U.S.
		Miscellaneous Tree Plantings - 1996	U.S.
		Miscellaneous Tree Plantings - 1997	U.S.
		Miscellaneous Tree Plantings - 1998	U.S.
		Miscellaneous Tree Plantings - 2000	U.S.
		Miscellaneous Tree Plantings - 2001	U.S.
		Miscellaneous Tree Plantings - 2002	U.S.
		Miscellaneous Tree Plantings - 2003	U.S.
		Mississippi River Valley Bottomland Hardwood Restoration	U.S.
		Overflow Bottomland Hardwood Forest Restoration Project	U.S.
		Reduced Impact Logging of Natural Forest in Malaysia	Foreign
		Rio Bravo Carbon Sequestration Pilot Project	Foreign
		Rio Bravo Carbon Sequestration Pilot Project (Full Share)	Foreign
		Six Lakes - 2002	U.S.
		Southeast Michigan Afforestation - 1996	U.S.
		Southeast Michigan Afforestation - 1997	U.S.
		Southeastern Michigan Afforestation - 1995	U.S.
		Spanish Lake Carbon Offset Project	U.S.
		St. Catherine-ESI	U.S.
		St. Catherine-NFWF	U.S.
		St. Francis River Carbon Offset Project	U.S.
		State Forest Land Afforestation - 1996	U.S.
		State Forest Land Afforestation - 1997	U.S.
		State Forest Land Afforestation - 1998	U.S.
		State Forest Land Afforestation - 1999	U.S.
		State Forest Land Afforestation - 2000	U.S.
		State Forest Land Afforestation - 2001	U.S.
		State Forest Land Afforestation - 2002	U.S.
		Upper Ouachita River Valley Bottomland Hardwood Restoration	U.S.
		Walsh Lake Carbon Offset Project	U.S.
		Western Oregon Carbon Sequestration Project	U.S.
		White River Carbon Offset Project	U.S.
Duke Energy Corporation	1605	Bayou Cocodrie Bottomland Hardwood Forest Restoration	U.S.
		Mississippi River Valley Bottomland Hardwood Restoration	U.S.
		Overflow Bottomland Hardwood Forest Restoration Project	U.S.
		Reduced Impact Logging of Natural Forest in Malaysia	Foreign
		Rio Bravo Carbon Sequestration Pilot Project	Foreign
		Spanish Lake Carbon Offset Project	U.S.
		St. Catherine-ESI	U.S.
		St. Catherine-NFWF	U.S.
		St. Francis River Carbon Offset Project	U.S.
		Upper Ouachita River Valley Bottomland Hardwood Restoration	U.S.
		Walsh Lake Carbon Offset Project	U.S.
		Western Oregon Carbon Sequestration Project	U.S.
		White River Carbon Offset Project	U.S.
Dynegy, Inc.	1605	Bayou Cocodrie Bottomland Hardwood Forest Restoration	U.S.
		Dynegy Mississippi River Valley Reforestation Project	U.S.
		IDNR Tree Planting Partnership	U.S.
		Mississippi River Valley Bottomland Hardwood Restoration	U.S.
		Overflow Bottomland Hardwood Forest Restoration Project	U.S.
		Reduced Impact Logging of Natural Forest in Malaysia	Foreign
		Rio Bravo Carbon Sequestration Pilot Project	Foreign
		St. Catherine-ESI	U.S.
		St. Catherine-NFWF	U.S.
		St. Francis River Carbon Offset Project	U.S.
		Upper Ouachita River Valley Bottomland Hardwood Restoration	U.S.
		Western Oregon Carbon Sequestration Project	U.S.
Entergy Services, Inc.	1605	Bayou Cocodrie Bottomland Hardwood Forest Restoration	U.S.
		Entergy Forestry Projects	U.S.
		Little Gypsy Plant Reforestation	U.S.
		Mississippi River Valley Bottomland Hardwood Restoration	U.S.
		Overflow Bottomland Hardwood Forest Restoration Project	U.S.
		Reduced Impact Logging of Natural Forest in Malaysia	Foreign
		Rio Bravo Carbon Sequestration Pilot Project	Foreign
		Spanish Lake Carbon Offset Project	U.S.
		St. Catherine-ESI	U.S.
		St. Catherine-NFWF	U.S.
		St. Francis River Carbon Offset Project	U.S.
		Upper Ouachita River Valley Bottomland Hardwood Restoration	U.S.
		Walsh Lake Carbon Offset Project	U.S.
		Western Oregon Carbon Sequestration Project	U.S.
		Wetlands and Carbon Sequestration - Southeast LA & TX	U.S.
		White River Carbon Offset Project	U.S.
		Willow Glen Plant - Reforestation	U.S.
Environmental Synergy, Inc.	1605	ESI Bottomland Hardwood Restoration Project	U.S.
		ESI Florida Longleaf Pine Restoration	U.S.

Table B10. Emission Reduction Projects Reported by Project Type, Data Year 2004 (Continued)

Project Section & Reporter Name	Form Type	Project	Location
Exelon Corporation	1605	Afforestation	U.S.
		Illinois Prairie Grass Plantings	U.S.
		Spanish Lake Carbon Offset Project	U.S.
		The Municipal Tree Restoration Program	U.S.
		Urban Tree Planting	U.S.
		Utility Pole Reuse	U.S.
		Walsh Lake Carbon Offset Project	U.S.
		White River Carbon Offset Project	U.S.
FirstEnergy Corporation	1605	Bayou Cocodrie Bottomland Hardwood Forest Restoration	U.S.
		Mississippi River Valley Bottomland Hardwood Restoration	U.S.
		Municipal Tree Replacement	U.S.
		Overflow Bottomland Hardwood Forest Restoration Project	U.S.
		Reduced Impact Logging of Natural Forest in Malaysia	Foreign
		Rio Bravo Carbon Sequestration Pilot Project	Foreign
		Spanish Lake Carbon Offset Project	U.S.
		St. Catherine-ESI	U.S.
		St. Catherine-NFWF	U.S.
		St. Francis River Carbon Offset Project	U.S.
		Tree Source	U.S.
		Upper Ouachita River Valley Bottomland Hardwood Restoration	U.S.
		Walsh Lake Carbon Offset Project	U.S.
		Western Oregon Carbon Sequestration Project	U.S.
		White River Carbon Offset Project	U.S.
Florida Power Corporation	1605	Spanish Lake Carbon Offset Project	U.S.
		Walsh Lake Carbon Offset Project	U.S.
		White River Carbon Offset Project	U.S.
FPL Group	1605	Bayou Cocodrie Bottomland Hardwood Forest Restoration	U.S.
		Mississippi River Valley Bottomland Hardwood Restoration	U.S.
		Overflow Bottomland Hardwood Forest Restoration Project	U.S.
		Reduced Impact Logging of Natural Forest in Malaysia	Foreign
		Rio Bravo Carbon Sequestration Pilot Project	Foreign
		St. Catherine-ESI	U.S.
		St. Catherine-NFWF	U.S.
		St. Francis River Carbon Offset Project	U.S.
		Upper Ouachita River Valley Bottomland Hardwood Restoration	U.S.
		Western Oregon Carbon Sequestration Project	U.S.
Golden Valley Electric Association, Inc	1605EZ	Tree Give-Away for planting under power lines	U.S.
JEA	1605EZ	Urban Forestry	U.S.
Kansas City Power & Light Company	1605	Bayou Cocodrie Bottomland Hardwood Forest Restoration	U.S.
		Mississippi River Valley Bottomland Hardwood Restoration	U.S.
		Overflow Bottomland Hardwood Forest Restoration Project	U.S.
		Reduced Impact Logging of Natural Forest in Malaysia	Foreign
		Rio Bravo Carbon Sequestration Pilot Project	Foreign
		Spanish Lake Carbon Offset Project	U.S.
		St. Catherine-ESI	U.S.
		St. Catherine-NFWF	U.S.
		St. Francis River Carbon Offset Project	U.S.
		Upper Ouachita River Valley Bottomland Hardwood Restoration	U.S.
		Walsh Lake Carbon Offset Project	U.S.
		Western Oregon Carbon Sequestration Project	U.S.
		White River Carbon Offset Project	U.S.
Los Angeles Department of Water and Power	1605	Cool Schools Urban Forestry Project	U.S.
		Mountain Reforestation Project	U.S.
		Trees for a Green LA	U.S.
Minnesota Power	1605	Short Rotation Woody Crop Establishment	U.S.
Nashville Electric Service	1605EZ	Ongoing Urban Forestry (tree planting)	U.S.
Nebraska Public Power District	1605EZ	Tree planting	U.S.
NiSource/NIPSCO	1605	Bayou Cocodrie Bottomland Hardwood Forest Restoration	U.S.
		Mississippi River Valley Bottomland Hardwood Restoration	U.S.
		Overflow Bottomland Hardwood Forest Restoration Project	U.S.
		Reduced Impact Logging of Natural Forest in Malaysia	Foreign
		Rio Bravo Carbon Sequestration Pilot Project	Foreign
		Rural Tree Planting	U.S.
		St. Catherine-ESI	U.S.
		St. Catherine-NFWF	U.S.
		St. Francis River Carbon Offset Project	U.S.
		Upper Ouachita River Valley Bottomland Hardwood Restoration	U.S.
		Urban Tree Planting	U.S.
		Western Oregon Carbon Sequestration Project	U.S.
Oglethorpe Power Corporation	1605	Spanish Lake Carbon Offset Project	U.S.
		Walsh Lake Carbon Offset Project	U.S.
		White River Carbon Offset Project	U.S.
Oklahoma Gas & Electric Co.	1605	Spanish Lake Carbon Offset Project	U.S.
		Walsh Lake Carbon Offset Project	U.S.
		White River Carbon Offset Project	U.S.
Old Dominion Electric Cooperative	1605	Carbon Sequestration from Tree Plantings	U.S.
		Reforestation	U.S.
Omaha Public Power District	1605EZ	Tree Planting	U.S.

Table B10. Emission Reduction Projects Reported by Project Type, Data Year 2004 (Continued)

Project Section & Reporter Name	Form Type	Project	Location
Pepco Holdings Inc	1605	Bayou Cocodrie Bottomland Hardwood Forest Restoration	U.S.
		Mississippi River Valley Bottomland Hardwood Restoration	U.S.
		Overflow Bottomland Hardwood Forest Restoration Project	U.S.
		Reduced Impact Logging of Natural Forest in Malaysia	Foreign
		Rio Bravo Carbon Sequestration Pilot Project	Foreign
		Spanish Lake Carbon Offset Project	U.S.
		St. Catherine-ESI	U.S.
		St. Catherine-NFWF	U.S.
		St. Francis River Carbon Offset Project	U.S.
		Upper Ouachita River Valley Bottomland Hardwood Restoration	U.S.
		Urban Tree Planting - Atlantic City Electric	U.S.
		Urban Tree Planting - Delmarva	U.S.
		Walsh Lake Carbon Offset Project	U.S.
		Western Oregon Carbon Sequestration Project	U.S.
		Wetlands Reclamation Project - ACE	U.S.
		White River Carbon Offset Project	U.S.
Portland General Electric Co.	1605	Friends of Trees	U.S.
Public Service Company of New Mexico	1605	Spanish Lake Carbon Offset Project	U.S.
		Walsh Lake Carbon Offset Project	U.S.
		White River Carbon Offset Project	U.S.
Public Service Enterprise Group	1605	Bayou Cocodrie Bottomland Hardwood Forest Restoration	U.S.
		Mississippi River Valley Bottomland Hardwood Restoration	U.S.
		Overflow Bottomland Hardwood Forest Restoration Project	U.S.
		Reduced Impact Logging of Natural Forest in Malaysia	Foreign
		Rio Bravo Carbon Sequestration Pilot Project	Foreign
		Spanish Lake Carbon Offset Project	U.S.
		St. Catherine-ESI	U.S.
		St. Catherine-NFWF	U.S.
		St. Francis River Carbon Offset Project	U.S.
		Upper Ouachita River Valley Bottomland Hardwood Restoration	U.S.
		Walsh Lake Carbon Offset Project	U.S.
		Western Oregon Carbon Sequestration Project	U.S.
		White River Carbon Offset Project	U.S.
Rappahannock Electric Cooperative	1605	Tree Planting	U.S.
Reliant Energy, Inc.	1605	Reliant Old Sabine Bottom Restoration	U.S.
		Spanish Lake Carbon Offset Project	U.S.
		Walsh Lake Carbon Offset Project	U.S.
		White River Carbon Offset Project	U.S.
Sacramento Municipal Utility District	1605	Shade Tree Program	U.S.
Santee Cooper	1605	Afforestation/Reforestation	U.S.
Seattle City Light	1605	Urban Tree Replacement Program	U.S.
Shenandoah Valley Electric Cooperative	1605	Visual Screening-Tree Planting	U.S.
South Carolina Electric & Gas Company	1605	Bayou Cocodrie Bottomland Hardwood Forest Restoration	U.S.
		Forest Management Plan	U.S.
		Mississippi River Valley Bottomland Hardwood Restoration	U.S.
		Overflow Bottomland Hardwood Forest Restoration Project	U.S.
		Reduced Impact Logging of Natural Forest in Malaysia	Foreign
		Rio Bravo Carbon Sequestration Pilot Project	Foreign
		St. Catherine-ESI	U.S.
		St. Catherine-NFWF	U.S.
		St. Francis River Carbon Offset Project	U.S.
		Upper Ouachita River Valley Bottomland Hardwood Restoration	U.S.
		Western Oregon Carbon Sequestration Project	U.S.
Southern California Edison Co.	1605	Forestation at Shaver Lake	U.S.
		Harvesting Timber at Shaver Lake	U.S.
		Net Growth of Timber at Shaver Lake	U.S.
		Urban Donation of tree seedlings from Shaver Lake nursery	U.S.
Southern Company	1605	Bayou Cocodrie Bottomland Hardwood Forest Restoration	U.S.
		Carbon Sequestration on Company Lands	U.S.
		Carbon Sequestration on Noncompany Lands	U.S.
		Mississippi River Valley Bottomland Hardwood Restoration	U.S.
		Overflow Bottomland Hardwood Forest Restoration Project	U.S.
		Reduced Impact Logging of Natural Forest in Malaysia	Foreign
		Rio Bravo Carbon Sequestration Pilot Project	Foreign
		St. Catherine-ESI	U.S.
		St. Catherine-NFWF	U.S.
		St. Francis River Carbon Offset Project	U.S.
		Upper Ouachita River Valley Bottomland Hardwood Restoration	U.S.
		Western Oregon Carbon Sequestration Project	U.S.
Sustainable Development Technology Corporation	1605	RUSAFOR-SAP	Foreign
Tacoma Power	1605EZ	Afforestation	U.S.
		Forest Preservation	U.S.
		Reforestation	U.S.
Tampa Electric Company	1605	Bayou Cocodrie Bottomland Hardwood Forest Restoration	U.S.
		Mississippi River Valley Bottomland Hardwood Restoration	U.S.
		Overflow Bottomland Hardwood Forest Restoration Project	U.S.
		Reduced Impact Logging of Natural Forest in Malaysia	Foreign
		Rio Bravo Carbon Sequestration Pilot Project	Foreign

Table B10. Emission Reduction Projects Reported by Project Type, Data Year 2004 (Continued)

Project Section & Reporter Name	Form Type	Project	Location
		St. Catherine-ESI	U.S.
		St. Catherine-NFWF	U.S.
		St. Francis River Carbon Offset Project	U.S.
		Upper Ouachita River Valley Bottomland Hardwood Restoration	U.S.
		Western Oregon Carbon Sequestration Project	U.S.
Tennessee Valley Authority	1605	Afforestation On TVA Lands	U.S.
		Bayou Cocodrie Bottomland Hardwood Forest Restoration	U.S.
		Mississippi River Valley Bottomland Hardwood Restoration	U.S.
		Overflow Bottomland Hardwood Forest Restoration Project	U.S.
		Reduced Impact Logging of Natural Forest in Malaysia	Foreign
		Rio Bravo Carbon Sequestration Pilot Project	Foreign
		Spanish Lake Carbon Offset Project	U.S.
		St. Catherine-ESI	U.S.
		St. Catherine-NFWF	U.S.
		St. Francis River Carbon Offset Project	U.S.
		Upper Ouachita River Valley Bottomland Hardwood Restoration	U.S.
		Walsh Lake Carbon Offset Project	U.S.
		Western Oregon Carbon Sequestration Project	U.S.
		White River Carbon Offset Project	U.S.
The Empire District Electric Co.	1605	Bayou Cocodrie Bottomland Hardwood Forest Restoration	U.S.
		Mississippi River Valley Bottomland Hardwood Restoration	U.S.
		Overflow Bottomland Hardwood Forest Restoration Project	U.S.
		Reduced Impact Logging of Natural Forest in Malaysia	Foreign
		Rio Bravo Carbon Sequestration Pilot Project	Foreign
		St. Catherine-ESI	U.S.
		St. Catherine-NFWF	U.S.
		St. Francis River Carbon Offset Project	U.S.
		Upper Ouachita River Valley Bottomland Hardwood Restoration	U.S.
		Western Oregon Carbon Sequestration Project	U.S.
TXU	1605	Bayou Cocodrie Bottomland Hardwood Forest Restoration	U.S.
		Mississippi River Valley Bottomland Hardwood Restoration	U.S.
		Overflow Bottomland Hardwood Forest Restoration Project	U.S.
		Reduced Impact Logging of Natural Forest in Malaysia	Foreign
		Rio Bravo Carbon Sequestration Pilot Project	Foreign
		Spanish Lake Carbon Offset Project	U.S.
		St. Catherine-ESI	U.S.
		St. Catherine-NFWF	U.S.
		St. Francis River Carbon Offset Project	U.S.
		Texas Reforestation Foundation	U.S.
		TXU's Participation in the Texas Reforestation Foundation	U.S.
		Upper Ouachita River Valley Bottomland Hardwood Restoration	U.S.
		Walsh Lake Carbon Offset Project	U.S.
		Western Oregon Carbon Sequestration Project	U.S.
		White River Carbon Offset Project	U.S.
Utah Municipal Power Agency	1605EZ	Tree Planting	U.S.
Waverly Light & Power Company	1605	Trees Forever (Project 8.1)	U.S.
We Energies	1605	Bayou Cocodrie Bottomland Hardwood Forest Restoration	U.S.
		Mississippi River Valley Bottomland Hardwood Restoration	U.S.
		Overflow Bottomland Hardwood Forest Restoration Project	U.S.
		Reduced Impact Logging of Natural Forest in Malaysia	Foreign
		Rio Bravo Carbon Sequestration Pilot Project	Foreign
		Rio Bravo Carbon Sequestration Pilot Project (Full Share)	Foreign
		Rio Bravo Carbon Sequestration Pilot Project Expansion	Foreign
		Spanish Lake Carbon Offset Project	U.S.
		St. Catherine-ESI	U.S.
		St. Catherine-NFWF	U.S.
		St. Francis River Carbon Offset Project	U.S.
		Upper Ouachita River Valley Bottomland Hardwood Restoration	U.S.
		Walsh Lake Carbon Offset Project	U.S.
		Western Oregon Carbon Sequestration Project	U.S.
		White River Carbon Offset Project	U.S.
Wisconsin Public Power Inc.	1605EZ	Tree Power! Cash Rebate: Sequestration	U.S.
Xcel Energy	1605	Spanish Lake Carbon Offset Project	U.S.
		Walsh Lake Carbon Offset Project	U.S.
		White River Carbon Offset Project	U.S.
Zeeland Board of Public Works	1605EZ	Urban Forestry	U.S.
Halogenated Substances			
Alcan Primary Products Corporation, Sebree Works	1605	PFC Reduction Project	U.S.
Allergan, Inc.	1605	CFC Substitution with Chiller Replacement	U.S.
		Elimination of CFCs at Farnborough, UK	Foreign
		Elimination of CFCs at U.S. Plants	U.S.
American Electric Power, Inc.	1605	Sulfur Hexafluoride Gas Reduction	U.S.
Cinergy Corp.	1605	SF6 Emission Reduction Partnership	U.S.
City Public Service	1605	SF6 Inventory	U.S.
Consolidated Edison Company of New York, Inc.	1605	SF6 Best Management Practices	U.S.
Constellation Energy	1605	Refrigerant/Solvent Recycling and Reduction	U.S.
		SF6 Handling Procedures in Electric Distribution	U.S.
Duke Energy Corporation	1605	Transmission Breaker Repairs	U.S.
Entergy Services, Inc.	1605	ANO - SF6 Breaker Replacement	U.S.
		SF6 Reductions	U.S.

Table B10. Emission Reduction Projects Reported by Project Type, Data Year 2004 (Continued)

Project Section & Reporter Name	Form Type	Project	Location
FirstEnergy Corporation	1605	Refrigerator Recycling	U.S.
		SF6 Emissions Reduction	U.S.
		Various CFC Replacements	U.S.
FPL Group	1605	SF6 Reductions	U.S.
Lower Colorado River Authority	1605	SF6 Management and Circuit Breaker Replacement Project	U.S.
Lucent Technologies Inc.	1605	Replacement of TCE in Circuit Board Cleaning Operation	U.S.
Minnesota Power	1605	Electricity Substation, SF6 Breaker Replacement	U.S.
National Grid	1605	Appliance Removal Program, Residential DSM Programs	U.S.
		Refrigerator Roundup	U.S.
		SF6 Emission Reductions - New England	U.S.
		SF6 Emission Reductions - New York	U.S.
		SF6 Emissions Reductions - National Grid	U.S.
NiSource/NIPSCO	1605	Ozone Depleting Chemicals	U.S.
		SF6 Reductions	U.S.
Noranda Aluminum Inc.	1605	PFC Emission Reduction via Reductions in Anode Effects	U.S.
Pfizer Pharmaceuticals LLC - Arecibo	1605EZ	Recovery and Destruction of CFC-11	U.S.
PG&E Corporation	1605	SF6 Emission Reduction Partnership	U.S.
Polar Refrigerant Technology, LLC	1605	Recycle / Reclaim Operation	U.S.
Sacramento Municipal Utility District	1605	Sulfur Hexaflouride Inventory	U.S.
South Carolina Electric & Gas Company	1605	SF6 Emission Reduction Partnership	U.S.
Southern California Edison Co.	1605	SF6 Gas Management Program	U.S.
Southern Company	1605	Sulfur Hexafluoride (SF6) Emissions Reductions	U.S.
Tennessee Valley Authority	1605	CFC Management	U.S.
TXU	1605	SF6 Reductions	U.S.
We Energies	1605	CFC-12 Recovery from Appliance Turn-In Program	U.S.
Xcel Energy	1605	Appliance Recycling	U.S.
		Low Income Refrigerator Replacement	U.S.
Xenon Specialty Gas	1605	SF6 Recovery & Reclamation	U.S.
Other Emission Reduction Projects			
AES Warrior Run, LLC	1605	Carbon Dioxide Plant	U.S.
		EnviroTech Fund - Domestic Activities	U.S.
		EnviroTech Fund - Foreign Activities	Foreign
		Fly Ash Use asReplacement for Cement	U.S.
Alliant Energy	1605	Fly Ash Utilization	U.S.
		Recycling Activities	U.S.
Ameren Corporation (formerly UE, CIPS, and CILCO)	1605	Flyash substitution for cement	U.S.
American Electric Power, Inc.	1605	Enviro Tech Investment Fund I Limited Partnership - US	U.S.
		Enviro Tech Investment Funds - Foreign	Foreign
		Fly Ash Utilization Program (Cement Replacement)	U.S.
Arizona Portland Cement Co.	1605	ASTM C-150 Specification Revision	U.S.
AT&T	1605	Recycling/Takeback/Reuse Projects	U.S.
Blue Source, LLC	1605	Mississippi EOR	U.S.
		West Texas CO2 Pipeline-EOR	U.S.
		West Texas EOR-A	U.S.
		Wyoming EOR	U.S.
BP America	1605	Crude Production Emission Reduction	U.S.
		Non-VOCs for Upstream	U.S.
		Petroleum refining + Chemical plant emission control project	U.S.
		Petroleum refining and Chemical Plant VOC control projects	U.S.
Burlington County Board of Chosen Freeholders	1605	Burlington County Regional Recycling Program	U.S.
California Portland Cement Co. - Colton Plant	1605	ASTM C-150 Specification Revision	U.S.
California Portland Cement Co. - Mojave Plant	1605	Finish Grinding Process Addition	U.S.
Cinergy Corp.	1605	Benificial Use of Coal Fly Ash	U.S.
		Recycling Programs	U.S.
City of Austin Electric Utility (Austin Energy)	1605EZ	Coal Combustion Byproduct Reutilization	U.S.
		NOx Reduction at Coal Fired Power Plant	U.S.
City Public Service	1605	All Other Recycling	U.S.
		Flyash Sales	U.S.
CMS Energy	1605	Antrim CO2 Sequestration	U.S.
		Fly Ash Sales	U.S.
		Jorf Lasfar	Foreign
Constellation Energy	1605	Coal Ash Substitution for Portland Cement	U.S.
		Solid Waste Recycling and Source Reduction	U.S.
DTE Energy/ Detroit Edison	1605	Coal Ash Reuse - Canada	Foreign
		Coal Ash Reuse - U.S.	U.S.
Duke Energy Corporation	1605	Recycling Flyash	U.S.
Dynegy, Inc.	1605	Flyash Sales	U.S.
Dynegy, Inc.	1605	Flyash Sales (Baldwin, Havana, Hennepin, Vermilion, Wd Rvr)	U.S.
Entergy Services, Inc.	1605	Fly Ash use as replacement for cement	U.S.
Exelon Corporation	1605	Investment Recovery/Life Cycle Management/Recycling	U.S.
		Utilization of Coal Combustion and Scrubber Products	U.S.
FirstEnergy Corporation	1605	Recycling Program	U.S.
		Substitution of Fly Ash for Portland Cement in Concrete	U.S.
FPL Group	1605	FPL Corporate Recycling	U.S.
General Motors Corporation	1605	Resource Management Programs i.e. EPA WasteWise	U.S.
Johnson & Johnson	1605	Green Tag Purchase	U.S.
Kansas City Power & Light Company	1605	Coal Fly Ash Recycling	U.S.
		ENVIROTECH Fund	U.S.
Los Angeles Department of Water and Power	1605	LADWP Recycling Program	U.S.
Lower Colorado River Authority	1605	Coal Combustion By-Product Recycling	U.S.

Table B10. Emission Reduction Projects Reported by Project Type, Data Year 2004 (Continued)

Project Section & Reporter Name	Form Type	Project	Location
Lucent Technologies Inc.	1605	LU - #1 (US only)	U.S.
		LU - #2 (International)	Foreign
Minnesota Power	1605	Waste Paper Recycling Development	U.S.
National Grid	1605	Coal Ash Utilization	U.S.
		Investment Recovery Program (Recycling)	U.S.
Nebraska Public Power District	1605EZ	CH4 Reductions from Coal Ash Reuse	U.S.
		CH4 Reductions from Material Recycling	U.S.
		Coal Ash Reuse	U.S.
		Materials Recycling	U.S.
NiSource/NIPSCO	1605	Coal Combustion Byproduct Utilization	U.S.
		Employee Training	U.S.
		Recycling program	U.S.
Omaha Public Power District	1605EZ	Recycling Fly Ash	U.S.
		Recycling Programs	U.S.
Pepco Holdings Inc	1605	Ash Reuse	U.S.
Portland General Electric Co.	1605	Fly Ash Reuse Program	U.S.
		PGE Corporate Recycling Program	U.S.
Public Service Enterprise Group	1605	Resource Recovery Coal Ash Management Program	U.S.
		WasteWise	U.S.
Public Utility District No. 1 of Snohomish County	1605	Scrap Metals Recycling	U.S.
		We-cycle Office Wastepaper (WOW) Program	U.S.
Rangely Weber Sand Unit	1605	Rangely CO2 Injection Project	U.S.
Salt River Project	1605EZ	Fly Ash Sales	U.S.
		Recycling (CH4 Reductions)	U.S.
		Recycling (CO2 Reduction)	U.S.
Santee Cooper	1605	Fly Ash Used in Concrete Manufacture	U.S.
		Recycling Program	U.S.
Seminole Electric Cooperative, Inc.	1605EZ	Fly Ash & Bottom Ash Reuse	U.S.
		Synthetic Gypsum Production	U.S.
South Carolina Electric & Gas Company	1605	Coal Ash Utilization Program	U.S.
Southern California Edison Co.	1605	Fly Ash Sales for Concrete Production	U.S.
		SCE Waste-Not Program	U.S.
Southern Company	1605	EnviroTech Investments	U.S.
Springs Industries, Inc.	1605EZ	Recycling - CO2	U.S.
		Recycling - Methane	U.S.
		Recycling - Perfluoromethane	U.S.
Tampa Electric Company	1605	Fly Ash Reuse	U.S.
Tennessee Valley Authority	1605	Flyash Sales To Concrete Industry	U.S.
		Paper Recycling	U.S.
TXU	1605	Coal Ash Byproduct Use	U.S.
		Paper and Aluminum Recycling	U.S.
		Ranger Exhaust Gas Project	U.S.
Utah Municipal Power Agency	1605EZ	Energy Education Program	U.S.
We Energies	1605	Fly ash substitution program	U.S.
Xcel Energy	1605	Coal ash utilization-NSP	U.S.
		Coal Ash Utilization-PSCo	U.S.
		Coal Ash Utilization-SPS	U.S.
		Recycling program-NSP	U.S.
		Recycling Program--PSCo	U.S.
		Recycling Program--SPS	U.S.

Note: The total number of reporters is smaller than the sum of the number of reporters for each project type because most reporters provided information on projects of more than one type. This table excludes data reported as confidential.

Source: Energy Information Administration, Forms EIA-1605 and EIA-1605EZ.

Table B11. Reporting Entities and Sectors, Years Reported and Form Type, Data Years 1994-2004

Reporter	Sector	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
8309 Tujunga Avenue Corporation	Alternative Energy							1605	1605			
A&N Electric Cooperative	Electric Providers		1605	1605	1605	1605	1605	1605	1605	1605	1605	1605
Abe Krasne Home Furnishings, Inc.	Services and Retail					1605	1605	1605		1605	1605	1605
Advanced Micro Devices, Inc.	Industrial				1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ
ADVANE Heli-Welders	Industrial					1605EZ						
AES Hawaii, Inc.	Electric Providers			1605	1605	1605	1605	1605	1605	1605	1605	1605
AES Shady Point, LLC	Electric Providers			1605	1605	1605	1605	1605	1605	1605	1605	1605
AES Thames, LLC	Electric Providers			1605	1605	1605	1605	1605	1605	1605	1605	1605
AES Warrior Run, LLC	Electric Providers							1605	1605	1605	1605	1605
Agilent Technologies	Industrial								1605			
Air Exchange, Inc.	Services and Retail					1605						
Ajinomoto Aminoscience LLC	Industrial							1605	1605	1605	1605	1605
Alabama Biomass Partners, Ltd	Alternative Energy					1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ
Alcan Primary Products Corporation, Sebree Works	Industrial	1605	1605	1605	1605	1605	1605	1605	1605	1605	1605	1605
Algonquin Power - Cambrian Pacific Genco LLC	Electric Providers											1605
Allegheny Energy, Inc.	Electric Providers	1605	1605	1605	1605	1605	1605	1605		1605	1605	1605
Allergan, Inc.	Industrial					1605	1605	1605	1605	1605	1605	1605
Alliant Energy	Electric Providers	1605	1605	1605	1605	1605	1605	1605	1605	1605	1605	1605
Ameren Corporation (formerly UE, CIPS, and CILCO)	Electric Providers					1605	1605	1605	1605	1605	1605	1605
AmerenCIPS	Electric Providers	1605	1605	1605	1605							
American Electric Power, Inc.	Electric Providers	1605	1605	1605	1605	1605	1605	1605	1605	1605	1605	1605
American Forests	Agricultural		1605	1605	1605	1605	1605	1605				
American Municipal Power - Ohio	Electric Providers			1605	1605	1605	1605	1605	1605			1605EZ
AMERICAN SOILS	Industrial					1605EZ						
Anoka Municipal Utility	Electric Providers	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ
Arizona Electric Power Cooperative, Inc.	Electric Providers	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	
Arizona Portland Cement Co.	Industrial				1605	1605	1605	1605	1605	1605	1605	1605
Arizona Public Service Company	Electric Providers	1605	1605	1605	1605	1605	1605	1605	1605	1605	1605	1605
Arthur Rypinski & Jacquelyn Porth	Other (Households)	1605	1605	1605	1605	1605	1605	1605	1605			
Asheville Landfill Gas, LLC	Alternative Energy				1605	1605	1605	1605	1605	1605	1605	1605
AT&T	Industrial						1605			1605	1605	1605
Atlas Paper Mills	Industrial						1605	1605				
Audros Corporation	Industrial					1605EZ						
Austin Parks & Rec. Dept.- Urban Forestry Program	Other (Households)							1605				
Austin Quality Foods, Inc.	Industrial							1605				
Avista Utilities	Electric Providers						1605	1605				
Azdel, Inc	Industrial							1605	1605	1605	1605	1605
BARC Electric Cooperative	Electric Providers		1605	1605	1605	1605	1605	1605	1605	1605	1605	1605
Baxter Healthcare Inc.	Industrial							1605	1605	1605	1605	1605
BAYER Corporation	Industrial					1605						
Berkeley Electric Cooperative	Electric Providers	1605EZ	1605EZ	1605EZ	1605EZ							
Berkshire Power LLC	Electric Providers								1605	1605	1605	1605
Bethlehem Steel Corporation	Industrial					1605	1605	1605	1605	1605		
Biomass Partners, LP	Alternative Energy					1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ
Black Beauty Coal Company, c/o Peabody Energy	Alternative Energy									1605		
Blue Earth Light & Water	Electric Providers		1605									
Blue Source, LLC	Industrial									1605	1605	1605
BMW US Holding Corp.	Industrial									1605	1605	1605
BNSF Railway Company	Services and Retail										1605	1605
Bountiful City Light & Power	Electric Providers	1605EZ	1605	1605	1605	1605	1605		1605	1605	1605	1605
BP America	Industrial				1605	1605		1605			1605	1605
Branson Ultrasonics Corporation	Industrial							1605		1605	1605	1605
Bristol-Myers Squibb Company	Industrial										1605	1605
Brooklyn Union	Industrial	1605EZ	1605EZ	1605EZ								
Buckeye Power Incorporated	Electric Providers	1605	1605EZ		1605							
Burlington County Board of Chosen Freeholders	Services and Retail				1605	1605	1605	1605	1605	1605	1605	1605
California Portland Cement Co. - Colton Plant	Industrial				1605	1605	1605	1605	1605	1605	1605	1605
California Portland Cement Co. - Mojave Plant	Industrial				1605	1605	1605	1605	1605	1605	1605	1605
Cambrian Energy Development LLC	Electric Providers											1605
Cargill, Inc. - Oil Seeds Division	Industrial							1605	1605	1605	1605	1605
Carolina Power & Light Company	Electric Providers	1605	1605	1605	1605	1605	1605	1605	1605	1605	1605	1605
Carter H. Lewis, III	Other (Households)	1605EZ										
Catawba Landfill Gas, LLC	Alternative Energy					1605	1605	1605	1605	1605	1605	1605

Table B11. Reporting Entities and Sectors, Years Reported and Form Type, Data Years 1994-2004 (Continued)

Reporter	Sector	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
CDX Gas, LLC	Alternative Energy					1605	1605	1605	1605	1605	1605	1605
Cedar Falls Utilities	Electric Providers	1605	1605	1605	1605	1605	1605	1605	1605			
Centerior Energy Corporation	Electric Providers	1605	1605	1605	1605							
Central and South West Corporation	Electric Providers				1605	1605	1605					
Central Hudson Gas & Electric Corporation	Electric Providers	1605	1605	1605	1605	1605	1605	1605				
Central Illinois Light Company	Electric Providers	1605	1605	1605	1605							
Cereza Energy, Inc.	Alternative Energy					1605						
Chevron Corporation	Industrial							1605EZ	1605EZ	1605EZ	1605EZ	1605EZ
Choptank Electric Cooperative	Electric Providers		1605	1605	1605	1605	1605	1605	1605	1605	1605	1605
Cinergy Corp.	Electric Providers	1605	1605	1605	1605	1605		1605	1605	1605	1605	1605
City of Austin Electric Utility (Austin Energy)	Electric Providers	1605	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ
City of Edmond, Oklahoma, Electric Department	Electric Providers	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	
City of Fairfield Wastewater Division	Services and Retail				1605EZ	1605EZ						
City of Klamath Falls- Cogen	Electric Providers								1605	1605	1605	
City of Palo Alto Utilities	Electric Providers	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	
City of Sherrill Power & Light	Electric Providers	1605EZ	1605EZ	1605EZ	1605EZ							
City of Springfield	Services and Retail										1605	1605
City of Wayne	Electric Providers	1605EZ	1605EZ									
City Public Service	Electric Providers								1605	1605	1605	1605
City Utilities of Springfield	Electric Providers	1605	1605	1605	1605	1605	1605	1605	1605	1605	1605	
Clairol	Industrial						1605					
CLE Resources	Industrial			1605	1605	1605	1605	1605	1605	1605	1605	
Cleco Corporation	Electric Providers	1605	1605	1605	1605	1605	1605	1605	1605	1605	1605	1605
CMS Energy	Electric Providers						1605	1605	1605			1605
CMV Joint Venture	Alternative Energy					1605	1605		1605	1605	1605	1605
Columbia Falls Aluminum Company, LLC	Industrial			1605	1605	1605	1605	1605	1605			
COM/Electric	Electric Providers		1605EZ	1605EZ	1605EZ	1605EZ						
Common Purpose Institute	Agricultural										1605EZ	1605EZ
CommonWealth Bethlehem Energy, LLC	Alternative Energy					1605	1605	1605			1605	1605
Commonwealth Edison Company (ComEd)	Electric Providers	1605	1605	1605	1605	1605	1605	1605				
COMMSCOPE CATAWBA PLANT	Industrial							1605	1605	1605	1605	1605
COMMSCOPE CLAREMONT PLANT	Industrial								1605	1605	1605	1605
COMMSCOPE CONOVER REEL RECYCLING	Industrial								1605	1605	1605	1605
COMMSCOPE Headquarters- Hickory	Industrial									1605	1605	1605
COMMSCOPE NEWTON PLANT	Industrial								1605	1605	1605	1605
COMMSCOPE SCOTTSBORO PLANT	Industrial								1605	1605	1605	1605
CommScope Solutions (1111 Digital Dr)	Industrial										1605	1605
CommScope Solutions (1300 E. Lookout Dr)	Industrial										1605	1605
COMMSCOPE SPARKS PLANT	Industrial								1605	1605	1605	1605
COMMSCOPE STATESVILLE PLANT	Industrial								1605	1605	1605	1605
Community Electric Cooperative	Electric Providers		1605	1605	1605	1605	1605	1605	1605	1605	1605	1605
Conectiv Atlantic Generation (CAG)	Electric Providers	1605	1605	1605	1605	1605	1605	1605	1605	1605	1605	
Conectiv Delmarva Generation	Electric Providers	1605	1605	1605	1605	1605	1605	1605	1605	1605	1605	
CONNECTIVITY SOLUTONS MANUFACTURING Inc.	Industrial										1605	1605
Consol Coal Group	Industrial		1605	1605		1605	1605	1605	1605	1605	1605	1605
Consolidated Edison Company of New York, Inc.	Electric Providers							1605	1605	1605	1605	1605
Constellation Energy	Electric Providers	1605	1605	1605	1605	1605	1605	1605	1605	1605	1605	1605
Cooperative Power Association	Electric Providers	1605	1605	1605	1605	1605						
County Sanitation Districts of Los Angeles County	Alternative Energy					1605	1605	1605	1605	1605	1605	1605
Dade Behring, Inc.	Industrial					1605						
DADS Landfill / Dept. Of Env. Health	Alternative Energy										1605	1605
DaimlerChrysler Corporation	Industrial								1605	1605	1605	1605
Dakota Gasification Company	Industrial									1605	1605	1605
Danaher Controls	Industrial							1605	1605	1605	1605	1605
DeBourgh Manufacturing Company	Industrial		1605	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ
Delaware Electric Cooperative	Electric Providers		1605	1605	1605	1605	1605	1605	1605	1605	1605	1605
Delaware Solid Waste Authority	Alternative Energy						1605	1605	1605	1605	1605	
Delta Electric Power Association	Electric Providers	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ				
Deptford Electric Company, LLC	Alternative Energy							1605				
Dominion Energy, L.P.	Alternative Energy					1605						
Dominion Generation	Electric Providers							1605	1605	1605	1605	1605
Doxey Furniture Corporation	Industrial							1605	1605	1605		
Dragon Products Company, Inc.	Industrial			1605		1605						

Table B11. Reporting Entities and Sectors, Years Reported and Form Type, Data Years 1994-2004 (Continued)

Reporter	Sector	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Drummond Company, Inc.	Industrial							1605	1605	1605		
DTE Energy/ Detroit Edison	Electric Providers	1605	1605	1605	1605	1605	1605	1605	1605	1605	1605	1605
Duke Energy Corporation	Electric Providers					1605	1605	1605	1605	1605	1605	1605
Duke Engineering and Services	Alternative Energy			1605EZ	1605EZ							
Duke Power Company	Electric Providers	1605	1605	1605	1605							
DuPont Company	Industrial		1605		1605	1605		1605		1605		
Duquesne Light Company	Electric Providers		1605	1605	1605	1605						
Dynegy, Inc.	Electric Providers	1605	1605	1605	1605	1605	1605	1605	1605	1605	1605	1605
East River Electric Power Cooperative, Inc.	Electric Providers	1605EZ	1605EZ	1605EZ								
Eaton Corporation - Vehicle Controls Business Unit	Industrial							1605	1605		1605	
Ecogas Corporation	Alternative Energy					1605	1605					
El Paso Production Company	Alternative Energy						1605	1605	1605	1605	1605	
ENCAP	Electric Providers											1605
Energy Developments, Inc.	Alternative Energy										1605	1605
Energy Management Partners, LP	Alternative Energy					1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ
Energy Northwest	Electric Providers							1605EZ				
Engelhard	Industrial					1605						
Enron Renewable Energy Corporation	Alternative Energy			1605EZ								
Entergy Services, Inc.	Electric Providers	1605	1605	1605	1605	1605	1605	1605	1605	1605	1605	1605
EnviroGas Limited Partnership	Alternative Energy		1605									
Environmental Synergy, Inc.	Agricultural						1605EZ	1605EZ		1605	1605	1605
Environmentally Correct Concepts, Inc.	Agricultural				1605							
Essential Foods, Inc.	Industrial					1605	1605					
Essroc Cement Corp. -- Bessemer, Pa Plant	Industrial					1605	1605					
Essroc Cement Corp. -- Essexville, MI Plant	Industrial					1605	1605					
Essroc Cement Corp. -- Frederick, MD Plant	Industrial					1605	1605					
Essroc Cement Corp. -- Logansport, IN Plant	Industrial					1605	1605					
Essroc Cement Corp. -- PA Operations	Industrial					1605	1605					
Essroc Cement Corp. -- San Juan, PR Plant	Industrial					1605	1605					
Essroc Cement Corp. - Speed, IN Plant	Industrial					1605	1605					
Exelon Corporation	Electric Providers								1605	1605	1605	1605
Fayetteville Gas Company, LLC.	Alternative Energy			1605	1605							
Fidelity Exploration & Production Company	Alternative Energy							1605	1605			
FirstEnergy Corporation	Electric Providers					1605	1605	1605	1605	1605	1605	1605
Fisher Scientific Company L.L.C.	Industrial									1605	1605	1605
Flint Electric Membership Corporation	Electric Providers	1605EZ	1605EZ									
Florida Power Corporation	Electric Providers		1605	1605	1605	1605	1605	1605	1605	1605	1605	1605
Florida Transport 82	Industrial						1605	1605				
Ford Motor Company	Industrial								1605	1605	1605	1605
FPL Group	Electric Providers	1605	1605	1605	1605	1605	1605	1605	1605	1605	1605	1605
Fred Weber, Inc.	Alternative Energy					1605EZ	1605EZ					
Gas Recovery Systems	Alternative Energy						1605		1605	1605	1605	1605
General Electric Company	Industrial										1605	1605
General Motors Corporation	Industrial	1605	1605	1605	1605	1605	1605	1605	1605	1605	1605	1605
Generating Resource Recovery Partners, L.P.	Electric Providers							1605	1605			
GeoMet Inc.	Alternative Energy					1605	1605	1605	1605	1605		
Gilead Sciences	Industrial				1605EZ	1605EZ	1605EZ					
Golden Valley Electric Association, Inc	Electric Providers	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ
GPU, Inc.	Electric Providers	1605	1605	1605	1605	1605	1605	1605				
Granger Electric Company	Alternative Energy			1605	1605	1605	1605	1605	1605	1605	1605	1605
Granger Energy, LLC	Alternative Energy								1605	1605	1605	1605
Grayson Hill Farms	Agricultural					1605EZ						
Great River Energy	Electric Providers										1605	
Greater Caribbean Energy & Environment Foundation	Agricultural						1605EZ	1605EZ				
Greater New Bedford Regional Refuse Mgt District	Alternative Energy							1605	1605	1605	1605	1605
Green Mountain Energy Company	Electric Providers									1605	1605	1605
Greene Energy, LLC	Alternative Energy								1605EZ	1605EZ	1605EZ	1605EZ
GSF Energy, LLC	Alternative Energy			1605	1605	1605						
Hanes Dye and Finishing, Butner Plant	Industrial									1605	1605	1605
Hanes Dye and Finishing, Winston-Salem Plant	Industrial							1605	1605	1605	1605	
Hawaiian Electric Company, Inc.	Electric Providers					1605	1605	1605	1605	1605	1605	
Highland Industries, Inc.Kernersville Finishing Pt	Industrial							1605	1605	1605	1605	1605
Hollomon Family	Other (Households)									1605EZ	1605EZ	1605EZ

Table B11. Reporting Entities and Sectors, Years Reported and Form Type, Data Years 1994-2004 (Continued)

Reporter	Sector	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Hopkinsville Electric System	Electric Providers	1605EZ	1605EZ		1605EZ							
IBM	Industrial	1605	1605	1605	1605	1605	1605	1605	1605	1605	1605	1605
Imperial Plating	Industrial					1605						
Indiana Association of SWCDs	Agricultural								1605			
Industrial Equipment and Supplies	Industrial					1605						
Integrated Waste Services Association	Alternative Energy		1605	1605	1605	1605	1605	1605	1605	1605	1605	1605
International Truck and Engine Corporation	Industrial					1605	1605	1605	1605	1605	1605	1605
Iredell Landfill Gas, LLC	Alternative Energy				1605	1605	1605	1605	1605	1605	1605	1605
J.M. Gilmer and Company, Inc.	Agricultural		1605	1605	1605	1605	1605	1605	1605	1605		
JEA	Electric Providers		1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ
Jim Walter Resources, Inc.	Alternative Energy					1605	1605	1605	1605	1605	1605	1605
Johnson & Johnson	Industrial	1605	1605	1605	1605	1605	1605	1605	1605	1605	1605	1605
Kansas City Power & Light Company	Electric Providers	1605	1605	1605	1605	1605	1605	1605	1605	1605	1605	1605
Kern County Waste Management Department	Services and Retail											1605
KeySpan Energy Corporation	Electric Providers						1605	1605	1605	1605	1605	1605
Klickitat County Public Utility District No. 1	Electric Providers								1605	1605	1605	1605
L`OREAL USA - Florence Manufacturing	Industrial							1605				
Lafarge U.S. Cementitious	Industrial							1605				
LAHD Energy, Inc.	Alternative Energy			1605EZ	1605EZ	1605EZ	1605EZ					
Landfill Energy Systems	Alternative Energy							1605	1605	1605	1605	1605
Lehigh Cement Co. (fmrly Lehigh Portland Cement Co	Industrial						1605	1605	1605	1605	1605	1605
Lehigh Cement Co. (formerly Calaveras Cement Co.)	Industrial						1605	1605	1605	1605	1605	1605
LFG Energy, Inc.	Alternative Energy		1605EZ	1605EZ		1605	1605	1605	1605	1605	1605	
Lockheed Martin	Industrial		1605									
Long Island Lighting Company	Electric Providers	1605	1605	1605	1605							
Long Island Power Authority & KeySpan Energy	Electric Providers					1605						
Los Angeles Department of Water and Power	Electric Providers	1605	1605	1605	1605	1605	1605	1605	1605	1605	1605	1605
Lower Colorado River Authority	Electric Providers	1605	1605	1605	1605	1605	1605	1605	1605	1605	1605	1605
Lucent Technologies Inc.	Industrial			1605	1605	1605	1605	1605	1605	1605	1605	1605
Lynchburg Gas Producers, LLC	Alternative Energy							1605	1605	1605	1605	1605
M. J. SOFFE COMPANY - Maxton	Industrial								1605	1605	1605	1605
M. J. SOFFE COMPANY - Bladenboro	Industrial								1605	1605	1605	1605
M. J. SOFFE COMPANY Fayettville	Industrial							1605	1605	1605	1605	1605
M. J. SOFFE COMPANY Rowland	Industrial								1605	1605	1605	1605
Madison County Depart. of Solid Waste & Sanitation	Alternative Energy						1605	1605	1605	1605		
Majestic Metals, Inc.	Industrial		1605EZ					1605EZ				
Mallinckrodt, Inc.	Industrial							1605	1605	1605	1605	1605
Maple Springs Laundry	Services and Retail							1605	1605	1605	1605	1605
McMinnville Electric System	Electric Providers	1605EZ	1605EZ								1605	
McNeil Generating Station	Electric Providers					1605	1605	1605	1605	1605	1605	1605
MCNIC Oil & Gas Co.	Alternative Energy			1605	1605	1605						
Mead Johnson Nutls./Bristol-Myers Squibb	Industrial							1605	1605	1605	1605	
Mecklenburg Electric Cooperative	Electric Providers		1605	1605	1605	1605	1605	1605	1605	1605	1605	1605
Michael Paul Taylor	Other (Households)											1605
Michigan CAT	Industrial							1605	1605	1605	1605	1605
Middlesex Generating Company, LLC	Alternative Energy							1605		1605	1605	1605
Miller Brewing Company	Industrial							1605	1605	1605	1605	
Minnesota Power	Electric Providers	1605	1605	1605	1605	1605	1605	1605	1605	1605	1605	1605
Minnesota Resource Recovery Association (MRRA)	Other (Households)			1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	
Mirant Kendall, L.L.C.	Electric Providers										1605	1605
Missouri River Energy Services	Electric Providers	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ					
Mitsubishi Motors North America, Inc.	Industrial										1605	1605
Model City Energy, LLC	Alternative Energy								1605	1605	1605	1605
Montana Power Company	Electric Providers	1605	1605	1605	1605	1605						
Montauk Energy Capital	Alternative Energy									1605	1605	1605
Monteco Gas, LLC	Alternative Energy			1605EZ	1605EZ	1605						
Moorhead Public Service	Electric Providers	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605			
Mora Municipal Utilities	Electric Providers	1605EZ	1605EZ									
Motorola Austin	Industrial				1605	1605	1605	1605	1605	1605		
Municipal Electric Auth of Georgia (MEAG Power)	Electric Providers	1605	1605	1605	1605	1605			1605	1605	1605	1605
Mystic Development, LLC	Alternative Energy										1605	1605
N.W. Electric Power Cooperative, Inc.	Electric Providers		1605EZ									
Nashville Electric Service	Electric Providers	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ
National By-Products Inc	Industrial							1605	1605	1605	1605	

Table B11. Reporting Entities and Sectors, Years Reported and Form Type, Data Years 1994-2004 (Continued)

Reporter	Sector	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
National Grid	Electric Providers						1605	1605	1605	1605	1605	1605
National Spinning Co. Alamance Yarn Plant	Industrial										1605	1605
National Spinning Co. Alamance Dye Plant	Industrial										1605	1605
National Spinning Co., Inc. Washington	Industrial							1605	1605	1605	1605	1605
National Spinning Inc. Beulaville	Industrial								1605	1605	1605	1605
National Spinning Inc. Warsaw	Industrial								1605	1605	1605	1605
National Spinning Inc. Whiteville	Industrial								1605	1605	1605	1605
Natural Power, Inc.	Alternative Energy						1605	1605	1605	1605	1605	1605
Naval Air Engineering Station Lakehurst	Industrial							1605				
NC Muni Landfill Gas Partners, LLC	Alternative Energy			1605	1605	1605	1605	1605	1605	1605	1605	1605
Nebraska Public Power District	Electric Providers	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ
NEGT	Electric Providers										1605	
NEO Corporation	Alternative Energy						1605	1605	1605	1605	1605	
Nevada Power Company	Electric Providers				1605EZ	1605EZ						
New England Electric System (NEES) Company	Electric Providers	1605	1605	1605	1605							
New Jersey Meadowlands Commission	Alternative Energy							1605	1605	1605	1605	1605
New York Power Authority	Electric Providers	1605	1605		1605	1605		1605	1605	1605	1605	1605
Newton Landfill Gas, LLC	Alternative Energy			1605	1605	1605	1605	1605	1605	1605	1605	1605
Niagara Mohawk Power Corporation	Electric Providers	1605	1605	1605	1605	1605	1605	1605	1605			
NiSource/NIPSCO	Electric Providers	1605	1605	1605	1605	1605	1605	1605	1605	1605	1605	1605
Nissan North America, Inc.	Industrial									1605	1605	1605
Noranda Aluminum Inc.	Industrial	1605	1605	1605	1605	1605	1605	1605	1605	1605	1605	1605
Norbord Mississippi Inc.	Industrial										1605	
North American Carbon, Inc.	Alternative Energy			1605	1605	1605	1605	1605	1605	1605		
North Carolina Biomass Partners	Alternative Energy					1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ
North Carolina Electric Membership Corporation	Electric Providers	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ
Northeast Utilities	Electric Providers	1605	1605	1605	1605	1605	1605					
Northern Neck Electric Cooperative	Electric Providers		1605	1605	1605	1605	1605	1605	1605	1605	1605	1605
Northern Virginia Electric Cooperative	Electric Providers		1605	1605	1605	1605	1605	1605	1605	1605	1605	1605
Northrop Grumman Poly-Scientific	Industrial							1605	1605	1605		
Northwest Fuel Development, Inc.	Alternative Energy	1605	1605	1605	1605	1605	1605	1605	1605	1605		
NRG Energy Inc	Electric Providers							1605				
Oak Creek Energy Systems Inc.	Alternative Energy						1605	1605	1605			
Ocean County Landfill Corporation	Alternative Energy							1605	1605	1605	1605	1605
Oglethorpe Power Corporation	Electric Providers											1605
Ohio Edison Company	Electric Providers	1605	1605	1605	1605							
Oklahoma Gas & Electric Co.	Electric Providers											1605
Old Dominion Electric Cooperative	Electric Providers		1605	1605	1605	1605	1605	1605	1605	1605	1605	1605
Omaha Public Power District	Electric Providers	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ
Oregon State University (State of Oregon)	Services and Retail	1605	1605	1605	1605		1605					
Orlando Utilities Commission (OUC)	Alternative Energy									1605EZ	1605EZ	1605EZ
Osage Municipal Utilities	Electric Providers	1605	1605	1605								
Pacific Energy Operating Group, LLP	Electric Providers							1605	1605			
Pacific Gas and Electric Company	Electric Providers	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ						
Pacific Natural Energy, LLC	Alternative Energy							1605	1605			
Pacific Recovery Corporation	Alternative Energy							1605	1605			
PacifiCorp	Electric Providers	1605	1605	1605	1605	1605	1605	1605	1605	1605	1605	
Pak-Lite, Inc. - Mebane Plant	Industrial							1605	1605	1605	1605	1605
Palmer Capital Corporation	Alternative Energy						1605	1605	1605	1605	1605	1605
Pan American Hospital	Services and Retail					1605						
Peabody Energy	Industrial	1605	1605	1605	1605	1605			1605	1605	1605	1605
PECO Energy Company	Electric Providers					1605EZ	1605	1605				
PEI Power Corp	Alternative Energy						1605	1605	1605	1605	1605	1605
Penn Compression Moulding, Inc.	Industrial							1605	1605	1605	1605	1605
Pepco Holdings Inc	Electric Providers											1605
Pfizer Pharmaceuticals LLC - Arecibo	Industrial						1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ
PG&E Corporation	Electric Providers						1605	1605	1605	1605	1605	1605
Pine Mountain Oil and Gas, Inc.	Alternative Energy						1605EZ					
Pintexs	Industrial					1605						
Pitt Landfill Gas, LLC	Alternative Energy					1605	1605	1605	1605	1605	1605	1605
Platte River Power Authority & 4 Owner Cities	Electric Providers				1605	1605	1605	1605		1605	1605	
Polar Refrigerant Technology, LLC	Industrial										1605	1605
Portland General Electric Co.	Electric Providers	1605	1605	1605	1605	1605	1605	1605	1605	1605	1605	1605

Table B11. Reporting Entities and Sectors, Years Reported and Form Type, Data Years 1994-2004 (Continued)

Reporter	Sector	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Potomac Electric Power Company	Electric Providers	1605	1605	1605	1605							
PPL CORPORATION	Electric Providers	1605	1605	1605	1605	1605	1605	1605				
Pratt & Whitney North Berwick	Industrial						1605	1605				
Pratt & Whitney, Middletown	Industrial							1605	1605			
Prince George Electric Cooperative	Electric Providers		1605	1605	1605	1605	1605	1605	1605	1605	1605	1605
Public Service Company of New Mexico	Electric Providers			1605	1605	1605	1605	1605	1605	1605	1605	1605
Public Service Enterprise Group	Electric Providers	1605	1605	1605	1605	1605	1605	1605	1605	1605	1605	1605
Public Utility District No. 1 of Snohomish County	Electric Providers	1605	1605	1605	1605	1605	1605	1605	1605	1605	1605	1605
Puget Sound Energy, Inc.	Electric Providers	1605	1605	1605EZ								
Quad/Graphics, Inc.	Industrial		1605		1605		1605	1605				
Rangely Weber Sand Unit	Industrial						1605	1605		1605		1605
Rappahannock Electric Cooperative	Electric Providers		1605	1605	1605	1605	1605	1605	1605	1605	1605	1605
Redstone Gas Partners LLC	Alternative Energy						1605					
Reliant Energy - HL&P	Electric Providers	1605	1605	1605	1605	1605	1605	1605	1605			
Reliant Energy, Inc.	Electric Providers										1605	1605
Republic Metals Corporation	Industrial						1605	1605	1605	1605	1605	1605
Rochester Gas and Electric Corporation	Electric Providers							1605	1605	1605	1605	
Rochester Institute of Technology	Services and Retail		1605	1605	1605		1605					
Rolls-Royce Corporation	Industrial						1605	1605	1605	1605	1605	1605
Rosewood Resources, Inc.	Alternative Energy						1605					
Sacramento Municipal Utility District	Electric Providers			1605	1605	1605	1605	1605	1605	1605	1605	1605
Salt River Project	Electric Providers	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ
Santee Cooper	Electric Providers	1605	1605	1605	1605	1605	1605	1605	1605	1605	1605	1605
Science Applications International Corporation	Services and Retail			1605EZ								
Seattle City Light	Electric Providers	1605	1605	1605	1605	1605	1605	1605	1605	1605	1605	1605
SeaWest WindPower, Inc.	Alternative Energy					1605	1605	1605	1605	1605	1605	1605
Seminole Electric Cooperative, Inc.	Electric Providers	1605EZ	1605EZ		1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ
Seneca Energy II, LLC	Alternative Energy		1605EZ	1605EZ		1605	1605	1605	1605	1605	1605	1605
Seneca Energy II, LLC, Ontario LFGE	Alternative Energy											1605
Seneca Meadows, Inc.	Alternative Energy		1605EZ									
Separation Technologies, Inc	Industrial			1605EZ	1605EZ	1605EZ	1605EZ	1605EZ				
Shenandoah Valley Electric Cooperative	Electric Providers		1605	1605	1605	1605	1605	1605	1605	1605	1605	1605
Sherry Manufacturing	Industrial						1605	1605				
Shih Family	Other (Households)									1605EZ		
Shrewsbury Electric Light Plant	Electric Providers	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ		
Siemens Power Transmission & Distribution, Inc.	Industrial							1605	1605	1605		
Sierra Pacific Power Company	Electric Providers	1605	1605	1605								
Sikorsky Aircraft Corporation	Industrial							1605	1605	1605	1605	1605
Smithfield Foods, Inc.	Industrial											1605EZ
SONAT Exploration Company	Alternative Energy					1605						
South Carolina Electric & Gas Company	Electric Providers				1605	1605	1605	1605	1605	1605	1605	1605
Southeastern Biomass Partners, LP	Alternative Energy					1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ
Southern California Edison Co.	Electric Providers	1605	1605	1605	1605	1605	1605	1605	1605	1605	1605	1605
Southern Company	Electric Providers	1605	1605	1605	1605	1605	1605	1605	1605	1605	1605	1605
Southside Electric Cooperative	Electric Providers		1605	1605	1605	1605	1605	1605	1605	1605	1605	1605
Springs Industries, Inc.	Industrial								1605EZ	1605EZ	1605EZ	1605EZ
State Farm Mutual Automobile Insurance Co.	Services and Retail										1605	1605
Steuben Rural Electric Co-op	Electric Providers	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	
Sunoco, Inc.	Industrial						1605	1605	1605	1605	1605	1605
Sustainable Development Technology Corporation	Agricultural											1605
SWEENEY Furniture	Services and Retail					1605EZ						
Tacoma Power	Electric Providers	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ
Tampa Electric Company	Electric Providers		1605	1605	1605	1605	1605	1605	1605	1605	1605	1605
Taunton Municipal Lighting Plant	Electric Providers	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ						
Tennessee Valley Authority	Electric Providers	1605	1605	1605	1605	1605	1605	1605	1605	1605	1605	1605
Texas Genco, LP	Electric Providers									1605		
The Bentech Group of Delaware, Inc.	Alternative Energy						1605	1605	1605			
The Dow Chemical Company	Industrial		1605	1605	1605	1605	1605	1605	1605	1605	1605	1605
The Empire District Electric Co.	Electric Providers							1605	1605	1605	1605	1605
The Estee Lauder Companies	Industrial					1605	1605			1605	1605	1605
The Forest Bird Society	Other (Households)									1605		
The Gillette Company	Industrial					1605	1605					
The Pacific Forest Trust, Inc.	Agricultural						1605EZ					

Table B11. Reporting Entities and Sectors, Years Reported and Form Type, Data Years 1994-2004 (Continued)

Reporter	Sector	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
The Virkler Company	Industrial							1605	1605			
Town of Colonie Solid Waste Management Facility	Alternative Energy						1605					
Toyota Motor North America, Inc.	Industrial									1605	1605	1605
Trees for the Future	Agricultural	1605	1605									
TS Designs, Inc.	Industrial									1605	1605	1605
Tucson Electric Power Company	Electric Providers		1605		1605	1605		1605	1605	1605	1605	
TXU	Electric Providers	1605	1605	1605	1605	1605	1605	1605	1605	1605	1605	1605
U. S. Steel Mining Company, LLC	Alternative Energy					1605	1605	1605	1605	1605		
U.S. Department of Energy - Energy Management	Services and Retail						1605		1605	1605	1605	
U.S. Department of Energy- Office of Solar	Services and Retail					1605	1605	1605	1605			
Union Electric Company	Electric Providers	1605	1605	1605	1605							
United Power Association	Electric Providers	1605	1605	1605	1605	1605						
Unocal Corporation	Industrial							1605	1605			
Urban Forestry Alliance	Agricultural					1605EZ						
US Energy Biogas Corp.	Alternative Energy	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	
USGen New England, Inc.	Electric Providers					1605						
USX Corporation	Alternative Energy					1605	1605					
Utah Municipal Power Agency	Electric Providers	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ
Utility Board of Key West, FL	Electric Providers	1605EZ										
Valdese Manufacturing Company	Industrial							1605	1605	1605	1605	1605
VANALCO, INC. - (Primary Aluminum Reduction Plant)	Industrial			1605	1605	1605	1605					
Vermont Public Power Supply Authority	Electric Providers	1605	1605	1605	1605	1605	1605	1605	1605	1605	1605	1605
Vermont Yankee Nuclear Power Corp.	Electric Providers							1605	1605			
Volvo Cars of North America, Inc.	Industrial			1605EZ	1605EZ	1605EZ	1605EZ					
Waste Management, Inc.	Alternative Energy							1605	1605	1605	1605	1605
Waverly Gas Producers, LLC	Alternative Energy											1605
Waverly Light & Power Company	Electric Providers	1605	1605	1605	1605	1605	1605	1605	1605	1605	1605	1605
We Energies	Electric Providers	1605	1605	1605	1605	1605	1605	1605	1605	1605	1605	1605
Western Resources, Inc.	Electric Providers	1605	1605	1605	1605	1605	1605	1605				
Whatcom Land Trust	Agricultural					1605	1605					
Wisconsin Public Power Inc.	Electric Providers	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ
Wisconsin Public Service Corporation	Electric Providers	1605	1605	1605	1605	1605	1605					
World Parks Endowment	Agricultural					1605	1605					
World Wood Co.	Industrial							1605	1605			
Wyeth Vaccines	Industrial							1605	1605	1605	1605EZ	1605EZ
Xcel Energy	Electric Providers	1605	1605	1605	1605	1605	1605	1605	1605	1605	1605	1605
Xenon Specialty Gas	Industrial										1605	1605
Zeeland Board of Public Works	Electric Providers	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ	1605EZ

Source: Energy Information Administration, Forms EIA-1605 and EIA-1605EZ

Table B12. Project-Level Reductions by Entity Sector, Data Years 1994-2004

(Metric Tons Carbon Dioxide Equivalent)

Sector and Reduction Type	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003 (R)	2004
Agriculture & Forestry											
Direct	--	--	--	-0.6	--	--	--	--	--	--	2,078.0
Indirect	--	6.8	6.8	--	--	--	--	--	--	--	--
Sequestration	356,558.8	234,702.2	35,198.7	39,527.2	2,046,934.5	431,291.1	112,746.8	2,749.9	7,398.1	3,031.8	8,014.9
Unspecified (EZ)	--	--	--	--	36,222.2	68,195.8	0.5	--	--	3,760.0	51,152.0
Alternative Energy											
Direct	261,496.0	25,769.5	-14,859,969.8	-15,366,381.4	22,577,221.3	26,000,314.4	47,805,594.6	49,931,904.0	59,208,508.1	54,279,212.4	42,751,456.4
Indirect	1,270.1	43,859,155.5	39,754,203.2	22,580,777.7	20,789,485.1	23,609,470.2	23,310,071.1	25,847,099.0	27,467,706.6	29,593,297.5	37,157,525.7
Sequestration	--	--	--	--	--	--	--	--	--	--	--
Unspecified (EZ)	560,913.9	1,146,892.6	1,273,056.8	1,343,821.2	2,499,685.6	3,051,879.0	2,913,611.0	3,768,992.9	7,277,366.7	7,264,521.2	5,427,995.0
Electric Providers											
Direct	59,004,436.5	85,222,962.8	100,982,856.3	105,172,388.1	118,256,785.1	124,424,203.4	155,776,659.5	191,759,783.9	198,759,086.8	194,132,201.1	202,582,024.3
Indirect	5,092,842.9	8,450,945.3	13,518,927.8	14,619,760.1	20,210,012.2	30,681,524.2	32,175,606.4	41,022,811.7	44,152,322.1	43,072,467.7	46,086,010.6
Sequestration	389,701.8	955,767.6	8,640,540.8	9,736,746.8	10,341,012.6	9,184,547.0	8,795,381.3	7,954,073.4	7,289,115.7	7,625,314.1	7,125,122.4
Unspecified (EZ)	3,721,044.1	4,969,791.4	4,332,595.8	6,568,087.6	15,472,773.5	8,247,572.5	7,829,631.3	9,729,782.1	8,394,708.6	7,650,640.4	8,182,755.6
Industrial											
Direct	3,347,075.1	3,074,795.4	3,756,581.1	5,013,299.1	6,882,518.5	4,819,723.6	7,013,834.7	5,600,719.2	6,898,137.5	19,696,074.8	30,050,703.6
Indirect	263,267.7	167,400.2	161,265.7	382,016.8	1,197,425.5	2,195,718.9	6,553,197.9	4,737,824.9	8,486,507.8	8,756,406.2	8,408,879.6
Sequestration	--	--	--	68,707.8	102,980.2	--	102,980.0	--	2.0	102,982.6	102,983.2
Unspecified (EZ)	3,107.7	5,433.4	61,265.9	234,112.7	235,606.2	261,546.5	337,981.3	38,666.9	219,473.7	39,478.6	128,886.3
Other											
Direct	4.5	4.5	4.4	4.5	4.4	4.4	4.4	4.4	--	--	4.5
Indirect	0.7	150.4	0.5	0.7	0.7	1.0	1.1	0.9	--	--	2.0
Sequestration	--	--	--	--	--	--	8.6	--	--	--	--
Unspecified (EZ)	3.3	--	2.5	490,150.5	1,173,295.7	1,256,894.9	1,192,787.5	1,302,259.2	1,365,015.7	1,439,271.8	0.1
Services and Retail											
Direct	188.9	378.0	567.0	77,514.2	279,796.2	197,735.2	201,092.5	199,531.7	202,986.9	1,434,602.7	1,635,915.9
Indirect	284.1	1,259.0	1,494.1	2,985.4	1,036,350.8	51,157.3	30,495.9	53,357.2	61,574.4	66,019.9	89,214.7
Sequestration	--	284.0	851.9	4,825.2	--	7,760.5	--	--	--	--	--
Unspecified (EZ)	--	--	1,776.3	435.8	661.7	--	--	--	--	--	--

(R) = Revised

Notes: This table excludes data reported as confidential; a negative reduction represents an increase in emissions.

Source: Energy Information Administration, Forms EIA-1605 and EIA-1605EZ

Table B13. Project-Level Reductions by Location of Project, Data Years 1994-2004

(Metric Tons Carbon Dioxide Equivalent)

Geographic Scope and Reduction Type	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003 (R)	2004
Foreign											
Direct	189	378	803	6,169	1,994	49,795	-208,275	-32,443	4,399	2,222	2,848
Indirect	23,127	48,734	61,562	403,367	59,106	339,397	4,035,671	3,730,587	139,099	4,609	24,927
Sequestration	356,843	758,944	8,426,200	9,472,230	11,352,314	8,958,450	8,284,743	7,279,384	6,500,172	6,898,658	6,347,831
Unspecified (EZ)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
U.S.											
Direct	62,613,012	88,323,532	89,879,236	94,890,655	147,994,331	155,392,186	211,005,460	247,524,387	265,064,320	269,539,869	277,019,335
Indirect	5,334,255	52,430,183	53,374,336	37,182,173	43,174,169	56,198,475	58,033,701	67,930,507	80,029,012	81,483,582	91,716,706
Sequestration	389,702	431,810	250,391	377,577	1,138,613	665,148	726,373	677,440	796,344	832,671	888,290
Unspecified (EZ)	4,285,069	6,122,117	5,668,697	8,636,608	19,418,245	12,886,089	12,274,012	14,839,701	17,256,565	16,397,672	13,790,789

(R) = Revised. NA = not applicable.

Notes: Form EIA-1604EZ does not allow for reporting on foreign projects. This table excludes data reported as confidential. A negative reduction represents an increase in emissions.

Source: Energy Information Administration, Forms EIA-1605 and EIA-1605EZ.

Table B14. Reporting Entities by Type of Form and Organization, Data Years 1994-2004

Type of Reporting Entity	Reports Received										
	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003(R)	2004
	Form EIA-1605										
Individual or Family	**1**	**1**	**1**	**1**	**1**	**1**	**2**	**2**	**0**	**0**	**1**
Partnership	**--**	**1**	**1**	**2**	**3**	**2**	**2**	**2**	**1**	**0**	**0**
Corporation	**56**	**67**	**74**	**83**	**112**	**114**	**142**	**139**	**139**	**140**	**129**
Non-Profit	5	4	5	6	5	3	1	2	2	2	2
Privately Held	4	9	11	14	35	38	48	56	52	41	38
Publicly Traded	41	48	44	49	59	60	67	63	67	78	72
Subsidary	6	6	14	14	21	21	27	19	19	18	
Government	**12**	**13**	**11**	**12**	**13**	**17**	**18**	**21**	**18**	**20**	**17**
Federal	1	1	1	1	2	3	3	3	2	2	1
Local	7	8	8	7	8	10	9	12	10	12	10
Regional	1	1	--	1	1	1	2	2	2	2	2
State	3	3	2	3	2	3	4	4	4	4	4
Joint Venture	**--**	**--**	**--**	**1**	**1**	**2**	**2**	**0**	**2**	**1**	**1**
Limited Liability Company	**--**	**--**	**--**	**--**	**5**	**7**	**11**	**13**	**16**	**20**	**22**
Other	**4**	**18**	**21**	**22**	**23**	**22**	**21**	**22**	**22**	**24**	**24**
Trade Association		**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
Total Form EIA-1605	**73**	**101**	**109**	**122**	**159**	**166**	**199**	**200**	**199**	**206**	**195**
	Form EIA-1605EZ										
Individual	1	--	--	--	--	--	--	--	1	1	1
Company	7	14	17	15	26	19	17	14	14	13	13
Limited Liability Company	--	--	--	--	--	--	--	--	--	**2**	2
Government	20	18	17	19	16	14	14	13	14	13	11
Non-Profit Organization	4	6	5	4	4	6	5	4	4	5	4
Other	3	3	2	2	2	2	1	1	2	1	0
Total Form EIA-1605EZ	**35**	**41**	**41**	**40**	**48**	**41**	**37**	**32**	**35**	**35**	**31**

Type of Reporting Entity	Percent of Total										
	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003(R)	2004
	Form EIA-1605										
Individual or Family	**1.4**	**1.0**	**0.9**	**0.8**	**0.6**	**0.6**	**1.0**	**1.0**	**--**	**--**	**0.5**
Partnership	**--**	**1.0**	**0.9**	**1.6**	**1.9**	**1.2**	**1.0**	**1.0**	**0.5**	**--**	**--**
Corporation	**76.7**	**66.3**	**67.9**	**68.0**	**70.4**	**68.7**	**71.4**	**69.5**	**69.8**	**68.0**	**66.2**
Non-Profit	6.8	4.0	4.6	4.9	3.1	1.8	0.5	1.0	1.0	1.0	1.0
Privately Held	5.5	8.9	10.1	11.5	22.0	22.9	24.1	28.0	26.1	19.9	19.5
Publicly Traded	56.2	47.5	40.4	40.2	37.1	36.1	33.7	31.5	33.7	37.9	36.9
Subsidary	8.2	5.9	12.8	11.5	13.2	12.7	13.6	9.5	9.5	8.7	0.0
Government	**16.4**	**12.9**	**10.1**	**9.8**	**8.2**	**10.2**	**9.0**	**10.5**	**9.0**	**9.7**	**8.7**
Federal	1.4	1.0	0.9	0.8	1.3	1.8	1.5	1.5	1.0	1.0	0.5
Local	9.6	7.9	7.3	5.7	5.0	6.0	4.5	6.0	5.0	5.8	5.1
Regional	1.4	1.0	--	0.8	0.6	0.6	1.0	1.0	1.0	1.0	1.0
State	4.1	3.0	1.8	2.5	1.3	1.8	2.0	2.0	2.0	1.9	2.1
Joint Venture	--	--	--	0.8	0.6	1.2	1.0	--	1.0	0.5	0.5
Limited Liability Company	--	--	--	--	3.1	4.2	5.5	6.5	8.0	9.7	11.3
Other	5.5	17.8	19.3	18.0	14.5	13.3	10.6	11.0	11.1	11.7	12.3
Trade Association	0.0	1.0	0.9	0.8	0.6	0.6	0.5	0.5	0.5	0.5	0.5
Total Form EIA-1605	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
	Form EIA-1605EZ										
Individual	2.9	--	--	--	--	--	--	--	2.9	2.9	3.2
Company	20.0	34.1	41.5	37.5	54.2	46.3	45.9	43.8	40.0	37.1	41.9
Limited Liability Company	--	--	--	--	--	--	--	--	--	5.7	6.5
Government	57.1	43.9	41.5	47.5	33.3	34.1	37.8	40.6	40.0	37.1	35.5
Non-Profit Organization	11.4	14.6	12.2	10.0	8.3	14.6	13.5	12.5	11.4	14.3	12.9
Other	8.6	7.3	4.9	5.0	4.2	4.9	2.7	3.1	5.7	2.9	0.0
Total Form EIA-1605EZ	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

(R) = Revised

Notes: The total number of corporations is less than the sum of the subtypes for some years, because one entity is listed both as publicly traded and as a subsidary, and because each of the seven Essroc Cement Corp. plants is listed both as privately held and as a subsidary.

Source: Energy Information Administration, Forms EIA-1605 and EIA-1605EZ.

Table B15. Summary of Reports Received by Schedule, Data Years 1994-2004

Form and Year	Number of Reports			
	With Emission Reduction Projects (Schedule II)	WIth Entity-Wide Emissions or Reductions (Schedule III)	With Commitments to Reduce Future Emissions (Schedule IV)	Total
Form EIA-1605				
1994	63	39	44	**73**
1995	88	50	61	**101**
1996	99	55	64	**109**
1997	110	60	72	**122**
1998	144	76	72	**159**
1999	148	83	66	**166**
2000	158	109	70	**199**
2001	150	109	87	**200**
2002	140	119	83	**199**
2003(R)	146	130	93	**206**
2004	144	122	86	**195**
Form EIA-1605EZ				
1994	35	--	--	**35**
1995	41	--	--	**41**
1996	41	--	--	**41**
1997	40	--	--	**40**
1998	48	--	--	**48**
1999	41	--	--	**41**
2000	37	--	--	**37**
2001	32	--	--	**32**
2002	35	--	--	**35**
2003(R)	35	--	--	**35**
2004	31	--	--	**31**
Total				
1994	98	39	44	**108**
1995	129	50	61	**142**
1996	140	55	64	**150**
1997	150	60	72	**162**
1998	192	76	72	**207**
1999	189	83	66	**207**
2000	195	109	70	**236**
2001	182	114	87	**232**
2002	175	119	83	**234**
2003(R)	181	130	93	**241**
2004	175	122	86	**226**

(R) = Revised
Note: Excludes Form EIA-1605 Schedule data for reports classified as confidential.
Source: Energy Information Administration, Forms EIA-1605 and EIA-1605EZ.

Table B16. Distribution of Projects Reported by Form and Project Type, Data Years 1994-2004

Project Type	Number of Reporters											Number of Projects										
	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003(R)	2004	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003(R)	2004
Form EIA-1605																						
Electricity Generation, Transmission and Distribution	47	62	67	71	69	68	72	72	65	70	65	186	248	281	323	369	382	416	373	398	469	469
Cogeneration	4	7	8	12	11	10	12	11	11	13	11	4	10	11	18	17	17	18	18	19	21	18
Energy End Use	51	63	62	67	79	80	77	68	65	68	64	160	221	214	249	308	330	382	338	339	390	345
Transportation	21	28	31	34	39	39	40	31	33	36	31	26	40	47	55	58	62	64	53	61	67	65
Waste Treatment and Disposal - Methane	11	16	22	25	36	43	57	55	52	55	52	17	23	44	53	90	153	350	391	404	426	403
Agriculture (Methane and Nitrous Oxide)	2	2	2	2	3	3	4	3	3	3	2	3	3	3	3	4	4	5	3	3	4	2
Oil and Natural Gas Systems and Coal Mining (Methane)	7	9	11	13	20	20	20	20	20	22	19	8	11	13	15	28	28	28	35	39	41	38
Carbon Sequestration	23	44	51	56	57	53	53	51	51	53	54	58	175	175	279	321	401	468	369	413	448	478
Halogenated Substances	12	17	17	20	23	27	28	27	29	29	28	13	21	22	29	35	36	43	39	42	43	40
Other Emission Reductions	29	35	36	42	45	46	50	40	47	48	46	34	44	51	63	67	71	86	68	84	87	84
All Project Types	**63**	**88**	**99**	**110**	**144**	**148**	**158**	**150**	**140**	**146**	**144**	**509**	**796**	**861**	**1,087**	**1,297**	**1,484**	**1,860**	**1,687**	**1,802**	**1,996**	**1,942**
Did Not Report Projects	8	12	9	12	15	18	41	49	59	61	51	--	--	--	--	--	--	--	--	--	--	--
Total, All 1605 Reporters	**71**	**100**	**108**	**122**	**159**	**166**	**199**	**199**	**199**	**207**	**195**	**509**	**796**	**861**	**1,087**	**1,297**	**1,484**	**1,860**	**1,687**	**1,802**	**1,996**	**1,942**
Form EIA-1605EZ																						
Electricity Generation, Transmission and Distribution	22	24	21	21	27	24	25	23	25	24	19	35	44	44	46	59	53	55	50	58	52	49
Cogeneration	--	1	2	2	2	--	--	--	1	--	--	--	1	2	2	2	--	--	--	1	--	--
Energy End Use	24	27	23	25	28	20	20	18	20	21	17	44	50	53	60	66	56	61	64	97	79	101
Transportation	4	5	6	5	6	4	5	6	5	6	5	5	8	11	9	14	11	12	13	9	10	9
Waste Treatment and Disposal - Methane	1	4	7	6	8	5	4	4	5	5	4	10	16	21	28	39	42	43	45	49	42	19
Agriculture (Methane and Nitrous Oxide)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Oil and Natural Gas Systems and Coal Mining (Methane)	1	1	3	2	2	1	1	2	2	2	1	5	5	9	4	2	3	1	2	2	2	1
Carbon Sequestration	17	18	16	19	16	17	16	12	11	13	13	20	24	23	30	34	41	35	14	14	15	15
Halogenated Substances	1	1	1	1	--	--	2	2	2	1	1	2	1	1	1	--	--	2	3	2	1	1
Other Emission Reductions	4	10	11	12	16	11	9	9	10	11	7	4	15	15	21	36	31	20	19	21	25	17
All Project Types	**34**	**40**	**41**	**40**	**47**	**39**	**36**	**32**	**35**	**35**	**31**	**125**	**164**	**179**	**201**	**252**	**237**	**229**	**210**	**253**	**226**	**212**
Did Not Report Projects	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--
Total, All 1605EZ Reporters	**34**	**40**	**41**	**40**	**47**	**39**	**36**	**32**	**35**	**34**	**31**	**125**	**164**	**179**	**201**	**252**	**237**	**229**	**210**	**253**	**226**	**212**
Totals																						
Electricity Generation, Transmission and Distribution	69	86	88	92	96	92	97	95	90	94	84	221	292	325	369	428	435	471	423	456	521	518
Cogeneration	4	8	10	14	13	10	12	11	12	13	11	4	11	13	20	19	17	18	18	20	21	18
Energy End Use	75	90	85	92	107	100	97	86	85	89	81	204	271	267	309	374	386	443	402	436	469	446
Transportation	25	33	37	39	45	43	45	37	38	42	36	31	48	58	64	72	73	76	66	70	77	74
Waste Treatment and Disposal - Methane	12	20	29	31	44	48	61	59	57	60	56	27	39	65	81	129	195	393	436	452	468	422
Agriculture (Methane and Nitrous Oxide)	2	2	2	2	3	3	4	3	3	3	2	3	3	3	3	4	4	5	3	3	4	2
Oil and Natural Gas Systems and Coal Mining (Methane)	8	10	14	15	22	21	21	22	22	24	20	13	16	22	19	30	31	29	37	41	43	39
Carbon Sequestration	40	62	67	75	73	70	69	63	62	66	67	78	199	198	309	355	442	503	383	427	463	493
Halogenated Substances	13	18	18	21	23	27	30	29	31	30	29	15	22	23	30	35	36	45	42	44	44	41
Other Emission Reductions	33	45	47	54	61	57	59	49	56	59	53	38	59	66	84	103	102	106	87	105	112	101
All Project Types	**97**	**128**	**140**	**150**	**191**	**187**	**194**	**182**	**175**	**181**	**175**	**634**	**960**	**1,040**	**1,288**	**1,549**	**1,721**	**2,089**	**1,897**	**2,054**	**2,222**	**2,154**
Did Not Report Projects	8	12	9	12	15	18	41	49	59	60	51	--	--	--	--	--	--	--	--	--	--	--
Total, All Reporters	**108**	**142**	**150**	**162**	**207**	**207**	**236**	**231**	**234**	**241**	**226**	**634**	**960**	**1,040**	**1,288**	**1,549**	**1,721**	**2,089**	**1,897**	**2,055**	**2,222**	**2,154**

(R) = Revised

Notes: The total numbers of reporters are smaller than the sums of the numbers of reporters for each project type because most reporters provide information on projects of more than one type. Excludes data for reports classified as confidential.

Source: Energy Information Administration, Forms EIA-1605 and EIA-1605EZ.

Table B17. Affiliation of Reporting Entities with Voluntary Programs, Data Years 1994-2004

Voluntary Program	Number of Reporters										
	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003(R)	2004
AgSTAR	--	3	1	1	--	--	--	--	--	--	--
Climate Challenge	85	106	100	109	103	91	88	85	80	81	72
Climate Leaders	--	--	--	--	--	--	--	--	--	--	4
Climate Wise Recognition Program	--	7	5	16	35	33	30	17	12	43	38
Coalbed Methane Outreach Program	1	1	2	2	8	8	6	7	6	4	3
Compressed Air Challenge	--	--	--	--	--	1	2	3	3	3	3
Cool Communities Program	1	3	2	2	2	1	2	1	2	2	1
Energy Analysis and Diagnostic Centers	--	1	--	--	--	--	1	--	--	--	--
Energy Efficiency and Renewable Energy Information and Training	--	--	--	--	--	--	--	--	1	1	1
Energy Star Building Program	1	1	1	3	3	6	5	6	8	9	7
Energy Star Computers Program	2	1	1	1	1	1	2	2	1	1	2
Energy Star Transformers	2	5	6	6	7	7	7	6	7	7	7
Green Lights Program	15	20	20	20	20	18	18	15	16	15	14
Industrial Combined Heat and Power Initiative	--	--	--	--	--	--	--	--	--	--	1
Landfill Methane Outreach Program	5	6	12	13	23	25	39	38	35	39	36
Methane Recovery Systems Landfills	--	3	--	--	--	--	--	--	--	--	--
Motor Challenge Program	--	3	2	4	3	5	4	4	4	4	4
Natural Gas STAR	3	5	5	4	4	7	7	7	8	11	12
Not applicable	2	1	7	7	9	16	14	21	19	26	24
Other Energy Star Programs	--	--	2	2		2	3	2	7	9	10
Other Federal, state and local programs	9	7	8	7	5	9	10	8	8	14	11
Partnerships for Technology Introduction	--	--	--	--	--	--	--	--	1	--	--
Rebuild America	--	--	--	--	--	1	1	1	1	1	1
Renewable Energy Commercialization	--	--	--	--	--	--	--	--	--	1	--
SmartWay Transport Partnership	--	--	--	--	--	--	--	--	--	--	1
Steam Challenge	--	--	--	--	--	--	--	1	--	--	--
Sulfur Hexafluoride Emissions Reduction Partnership	--	--	--	--	--	1	6	9	9	10	11
United States Initiative on Joint Implementation	3	17	23	29	29	25	33	28	29	30	27
Voluntary Aluminum Industrial Partnership	2	2	3	3	3	3	2	2	2	2	2
Waste Wise Program	1	4	3	3	3	4	5	5	6	8	7

(R) = Revised.
Source: Energy Information Administration, Forms EIA-1605 and EIA-1605EZ.