

**EPA National Center for Environmental Innovation’s State Innovation Grant: Maine’s Pre-Proposal FY 2008**

**I. PROJECT SUMMARY**

**A. Title:**

“Maine Environmental Leader Community Challenge (MELC2)”

**B. Applicant:**

State of Maine Department of Environmental Protection (ME DEP), Office of Innovation (OI).  
With support from the Office of Pollution Prevention & Technical Assistance at the Indiana  
Dept. of Environmental Management (IDEM)

**C. Project Manager:**

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**D. Total Project Cost = \$ 275,000**

**E. Project Period:** October 1, 2008 - September 30, 2011

**F. Project Abstract:**

The project will work with designated communities/municipalities to engage them in the development and implementation of EMS-like “quality of life” action plans. These quality of life plans will follow the concept of the environmental management system (EMS) planning process used in the business sector. This project will be an evolution or “ramping up” of Indiana’s “CLEAN Community Challenge” which is a voluntary recognition program designed to help communities take steps to plan, develop, and implement quality of life plans. Maine will utilize the information learned from Indiana’s efforts in combination with Maine’s active Governor’s Carbon Challenge program to work with participating cities and towns in developing “quality of life” plans. Energy efficiency and the use of alternative clean energy technologies will be a focus of this effort resulting in a predictable and measurable reduction of energy use (and carbon reductions) in the ongoing day-to-day operations of municipalities.

**G. Statutory Authority**

As this project involves implementing EMS/Quality of Life Plans for municipalities, it is expected many statutory authorities apply including: the Clean Air Act, Section 103 (b)(3) (*42 U.S.C. § 7403 (b)(3)*) the Clean Water Act, Section 104 (b)(3) (*33 U.S.C. § 1254 (b)(3)*); the Solid Waste Disposal Act, Section 8001 (*42 U.S.C. §6981*); the Toxics Substances Control Act, Section 10 (*15 U.S.C. §2609*); the Federal Insecticide, Fungicide, and Rodenticide Act, Section 20 (*7 U.S.C. § 136r*); and the Safe Drinking Water Act, Sections 1442 (a) and (c) (*42 U.S.C. § 1(a) and (c)*). Also, see Maine’s EMS authorization legislation – Chapter 562, Sec. 1.38 MRSA Sec. 343-G.

**H. Certification of State Agency Support from the Highest Level:**

Maine DEP Commissioner David Littell and the Governor’s Office are aware of and endorse this proposal. If this pre-proposal is selected, letters of endorsement will be provided with the final work plan.

**II. Pre-proposal Project Narrative:** Many towns and cities throughout Maine are beginning to seek assistance in finding effective mechanisms to cut their operational costs while lowering environmental impacts. Communities are engaged at various levels to design and implement energy and greenhouse gas (GHG) reduction initiatives. Some are just beginning to talk about what they might do while at least one, Portland, is completing an environmental sustainability plan with recommendations. All of these communities are in need of a more robust process to complete and implement such plans and recommendations. One such process mechanism - utilized largely in the business sector to date - is an environmental management system.

An environmental management system (EMS) as defined by the EPA is “a set (or system) of processes and practices that enable an organization to reduce its environmental impacts and increase its operating efficiency.” Communities have not commonly employed EMSs because that mechanism requires extensive and intensive process management oversight and documentation. Most municipalities do not have staff available or trained to develop, implement and maintain a full EMS. Also, thus far the value of utilizing such a mechanism has not been clear to municipal leaders. Developing EMS-like initiatives – also known as “quality of life” plans – and aiding in their implementation in Maine communities is the focus of this proposal. Crafting and customizing such plans for individual communities could be used in case studies and shared with other communities in Maine and beyond.

As aspect of an EMS that must not be overlooked is that an EMS can further the commitment to compliance, legal requirements, and pollution prevention where it is implemented. Great value can be gained by developing and implementing a municipal EMS that better insures the community is complying with all environmental regulations at the onset. Going beyond compliance is the intention of the work ME DEP will undertake with communities once compliance considerations are in place. Some considerations in terms of this aspect of an EMS are:

- To develop and communicate an environmental policy that includes a commitment to compliance;
- To develop and implement a procedure to identify , analyze and have access to environmental laws and regulations;
- To set objectives and targets in line with its environmental policy, which includes a commitment to compliance;
- To establish management processes that achieve objectives;
- To train municipal personnel and communicate relevant EMS requirements to them;
- To establish and implement operational control procedures;
- To establish and implement a procedure for periodically evaluating compliance; and
- To establish and implement a procedure to carry out corrective and preventive actions.

The ME DEP has formed partnerships with other state agencies (internal and external to Maine) and with environmental organizations such as the EPA Region 1, the Sierra Club, International Council for Local Environmental Initiatives (ICLEI), and Maine’s Cool Communities to outreach and educate communities statewide on the value of implementing energy efficiency and carbon reduction initiatives – of going green. Discussions and partnership options are under investigation by the ME DEP with EPA’s Community Energy Challenge program and with ICLEI in the northeast region. These valuable efforts hold promise for those Maine’s communities that need substantial support in their efforts to improve their day-to-day environmental operations. The question becomes how best and most effectively to bring communities the necessary tools and resources in a focused and coordinated manner. This effort must also target those communities that have shown leadership interest in moving

forward to develop and maintain mechanisms like an EMS plan to insure the most enduring result of such an investment of time and resources.

Other states have done some preliminary work in this area. Pennsylvania's Department of Environmental Protection recently published a guidebook entitled: "Environmental Management Systems: A Guidebook for Improving Energy and Environmental Performance in Local Government." Indiana has recently completed an EPA funded project called: "Indiana CLEAN Community Challenge." This last project is a voluntary recognition program that proposes to help communities take steps to plan, develop, and implement quality of life plans.

Maine also has a leg up in terms of its experience working with governmental and non-governmental entities to develop EMS plans over the last several years. The EMS Incentive Program was developed under a law that became effective August 11, 2000, called an "Act to Encourage Environmental Management Systems" and designed to assist in greater EMS implementation in the state. Staff in the ME DEP's Office of Innovation have worked with: Lyman Morse (boatbuilder), Sunday River Ski – American Ski Corporation, NorDx (medical service supplier), Bowdoin College, Central Maine Community College, and Kenway Corporation (composites manufacturer). This is an ongoing program that will serve the project well as we roll out this capability to include communities currently involved as participants in ME DEP's Governor's Carbon Challenge. See: [www.maine.dep/innovation/gcc](http://www.maine.dep/innovation/gcc)

Maine will utilize the knowledge and expertise gleaned from these early efforts in combination with its active Governor's Carbon Challenge program to work with its participating cities and towns in developing EMS-like "quality of life" plans. Energy efficiency and the use of alternative clean energy technologies will be a focus of this effort resulting in a measurable reduction of energy use in the ongoing day-to-day operations of communities. EPA's recently published National Action Plan for Energy Efficiency offers a rich array of options demonstrating cost-effective energy efficiency measures. Find this call to action plan at: [www.epa.gov/solar/actionplan/eeactionplan.htm](http://www.epa.gov/solar/actionplan/eeactionplan.htm)

In 2003, Maine became the first state in the nation to set into statute a carbon reduction initiative, the Governor's Carbon Challenge (see: [www.maine.gov/dep/gcc](http://www.maine.gov/dep/gcc)). This initiative followed from the 2001 New England Governors and Eastern Canadian Premiers Climate Change Agreement (see: <http://www.negc.org/documents/NEG-ECP%20CCAP.PDF>) to reduce greenhouse gases. The goals set by this regional agreement calls for specific reductions to reach 1990 levels by 2010, and to reach a goal of 10% below 1990 levels by 2020. Overall reductions of 75% to 80% from 2003 levels of greenhouse gases are to be achieved in outlying years. Part of Maine's Climate Change law directs the Maine Department of Environmental Protection to develop agreements with businesses, communities, institutions, and other organizations to accomplish these goals under the Governor's Carbon Challenge (GCC).

At present there are seven communities signed onto the GCC in Maine among a total of seventy-four participants. These communities include: City of Portland (largest city in the state with a population of approximately 64,000), City of Saco (population of approximately 15,800), Gardiner, Augusta, Hallowell, Camden, and Yarmouth. The communities of Manchester, Lewiston/Auburn, and Ogunquit are in the process of signing agreements. These communities are a subset of the overall participation in the GCC program. There are over seventy-four active participants in the program to date including businesses large and small, universities/colleges/municipal schools, institutions such as hospitals and state government, and not-for-profits throughout the state.

Please note the letters of interest from city leaders in Portland and Saco. Portland and Saco have formally expressed great interest in having ME DEP work with them to develop EMS-like plans. Portland actually has recently completed its own sustainability plan with participation by ME DEP staff. This plan specifically recommends the city institute an EMS plan to carry out the sustainability plan recommendations. The ME DEP has been actively engaged with a smaller community effort by Ogunquit who wishes to become the “greenest town in Maine.” The town of Ogunquit (population 1226) has developed a plan (see attached) to work with ME DEP’s Office of Innovation to join the GCC and develop its own community-based Environmental Leadership initiative with guidance from ME DEP staff.

A letter of support from Indiana/CLEAN program is also attached as part of this pre-proposal. ME DEP staff has been in regular communication with the staff at the Indiana Department of Environmental Management’s Office of Pollution Prevention & Technical Assistance and Indiana has expressed a strong desire to work with us on this project. We have copies of the database program developed by the CLEAN Community Challenge program and are reviewing it for adoptability to our program use in advance of needed resources to actually utilize it. We have invited the staff from the CLEAN program to travel to Maine to help with the initial set up of “Maine’s Environmental Leader Community Challenge (MELC2)” initiative and to impart their experience and lessons learned from their previous work developing quality of life plans for communities in Indiana. The CLEAN staff has expressed an interest in traveling to Maine if resources are made available.

An outcome of the project will be at least six (6) quality of life action plans completed for select municipalities that are members of – or may join - the GCC program over the life of the award. As energy and carbon baselines are developed and verified by ME DEP in partnership with the communities, the reductions and environmental improvements will be recorded and verified as goals are attained. An ongoing continuous improvement process (EMS plan) will be institutionalized so that improvements are an integral part of the communities’ day-to-day operations. The results – the show how – will be shared with other states who wish to implement a similar initiative.

All software tools related to the energy or environmental operation of communities/municipalities - created by EPA, Clear Air-Cool Planet, ICLEI, and others - will be reviewed and employed as appropriate. The knowledge and expertise gained over the years implementing EMS plans by the staff of ME DEP will be employed as well. Again, this is seen as a next step in actually implementing much of the forgoing work around community quality of life planning both in Maine and outside of Maine.

All of the activities represented here will come under an overarching program within the ME DEP’s Office of Innovation known as the Environmental Leaders Program. This program has been developed to recognize various entities that choose to operate as certified green operations. These entities to date include:

- Governor’s Carbon Challenge participants who achieve their reduction goals;
- Green certified lodging and restaurants in our green business certification program;
- **Maine Smart Tracks for Exceptional Performers and Upward Performers (STEP-UP)** companies including: Fairchild Semiconductor, Bath Iron Works, CYRO Industries, Poland Spring Bottling, National Semiconductor, NorDx, Pratt & Whitney, ZF Lemforder Corp., and others; and
- Environmental Results Program participants including auto body operations and businesses to be involved in the current stormwater ERP.

The Maine Environmental Leaders Program has been recognized within the state and the country as an example of a rigorous and effective volunteer recognition program. The Governor and the DEP Commissioner are strong proponents of this recognition giving out annual awards to those who successfully complete their commitments to not only meet their compliance requirements but go beyond them. Participants receive Environmental Leadership flags, use of the Environmental Leadership logo on advertising materials, award plaques, media recognition, and conference presentation opportunities. A mentoring program is being developed among the leadership of the Office of Innovation STEP-UP program to work more closely with small to medium businesses and non-business entities as part of the ME DEP Environmental Leaders Program.

**A. Problem (Issue) Statement.** Maine communities, towns and cities are struggling to manage the complexities of energy and environmental demands given their limited staff and resources. Many of these communities have environmental regulatory requirements and need a formal mechanism to organize, rank and implement solutions. Traditional regulatory approaches have not worked well for many municipalities given their numerous and varied facilities managed by operations' managers with varying technical skills and knowledge. The Office of Innovation is capable of assisting communities large and small with its existing knowledge and experience developing EMS facilitated plans yet is lacking the financial resources to do so.

**B. Background.** A technical assistance compliance program is currently not available to Maine's municipalities. The Office of Innovation has a unique opportunity to provide comprehensive assistance to municipalities through the Maine Environmental Leader Community Challenge.

A number of communities signed on to the Governor's Carbon Challenge have set reduction goals and are in need of formalized plans to deliver results. With the resources provided through this grant, ME DEP will better serve Maine communities in terms their energy reduction plans and, in addition, will be able to assist them with a more comprehensive and formal plan to reduce their environmental impacts through the facilitation of EMS/Quality of Life Plans.

An outcome of the project will be six (6) quality of life action plans for the municipalities that are members of – or may join - the Governor's Carbon Challenge. As baselines are developed and verified by ME DEP in partnership with the communities, the reductions and environmental improvements will be recorded and verified as goals are attained. An ongoing continuous improvement process (EMS plan) will be institutionalized through municipal and community leadership so that improvements are an integral part of the communities' operations. The results will be shared with other communities and other states who wish to implement a similar initiative.

Expertise, software tools, and databases related to the energy or environmental operation of communities/municipalities - created by the Indiana CLEAN program, EPA, Clear Air-Cool Planet, ICLEI, and others - will be reviewed and employed as appropriate. The knowledge and expertise gained over the years implementing EMS plans by the staff of ME DEP will be employed as well. This will be a next step towards actually implementing much of the forgoing work around community quality of life planning.

Maine's Office of Innovation will utilize this opportunity to further advance innovation in permitting which we have done in previous work including piloting ERP. Potential permitting within the scope of this grant could include air toxics work among other regulatory media identified during the project.

Maine's Environmental Leader Community Challenge will be directly linked to at least four of EPA's 5 Strategic Goals including:

- Goal 1 - Clean Air and Global Climate Change;
- Goal 2 - Clean and Safe Water;
- Goal 4 – Healthy Communities and Ecosystems, and
- Goal 5 - Compliance and Environmental Stewardship as further described in the timelines and milestone, logic model under program guidelines, eligibility and selection criteria.

Program Guidelines and Eligibility Requirements. This community-based EMS and Carbon Reduction Implementation for Municipalities: *Maine Environmental Leader Community Challenge*, meets each of the guidelines for the specific purposes of this assistance agreement program as follows:

- Strengthens EPA's innovation partnership formation with states by directly working with Indiana and other states who sign on to be learning states;
- Focuses on priority environmental issues such as reducing greenhouse gases;
- Diversifies environmental protection tools and approaches by increasing GHG and toxics reduction information resources and environmental technology, providing environmental leader branding, and implementing results-based goals and measures through the Governor's Carbon Challenge; and
- Fosters more "innovation-friendly" systems and organizational cultures by implementing an EMS model states and municipalities can build on to achieve greater environmental gains through better communication and systems which support it within the agency.

**C. Project Objectives:** Provide greater technical assistance and communication to local government through the ME DEP's Office of Innovation to assist in improving environmental performance through:

- Assessment and cataloging of existing resources such as the ICLEA software, Clean Air-Cool Planet's software, EPA's Community Energy Challenge, Sierra Club's Cool Communities' resources, and CLEAN Indiana's database tool and expertise;
- Innovation staff will work with the targeted communities to identify leadership within the community to carry out the plan development and integration of a continuous day-to-day environmental improvement process;
- Innovation staff will encourage and facilitate community development and implementation of EMS/Quality of Life plans;
- Municipalities will be assisted in joining the Governor's Carbon Challenge committing to meaningful, measureable and verifiable energy and carbon reduction goals;
- Innovation staff will assist communities in establishing baseline carbon data and environmental data to track measured reductions and environmental improvements which will result in greater cataloging, tracking, and understanding of municipalities' environmental aspects, impacts and reduction opportunities.
- Expand the Office of Innovation's Environmental Leaders Program to better include communities in its Environmental Leader branding and recognition.

**D. Methodology or Technical Approach.** The methodology, technical approach milestones and timelines are outlined and described both in the below table and the attached logic model. Further detailed breakdown of each of the milestones will be incorporated in the final proposal.

<b>Milestones</b>	<b>Begin Timeline</b>	<b>End Timeline</b>
Receive EPA grant funding award	October 2008	October 2008
Develop and complete a QAPP including a finalized logic model	October 2008	December 2008
Staff assigned to project begin coordinating with targeted communities involved in the Governor's Carbon Challenge to identify and involve appropriate community leadership	October 2008	November 2008
Coordinate and implement planning meetings among Innovation staff, Indiana and Maine communities	October 2008	October 2008
Identify and enlist communities not already in the GCC who are good targets for the EMS project	October 2008	November 2008
Analysis and catalog all available software and database tools	November 2008	December 2008
Update staff in assessed software, EMS facilitation....	November 2008	December 2008
Develop a Gantt chart detailing flow of work and timelines	November 2008	December 2008
Develop a Quality of Life Action Plan framework/template for Municipalities	January 2009	February 2009
Finalize list of municipalities	February 2009	March 2009
Develop Performance Measures	February 2009	March 2009
Work with Municipalities providing technical assistance to facilitate and assist with Carbon Challenge goals and Quality of Life Plans	March 2009	July/Augusta 2011
Work with EPA and other States including Indiana on workshops and outreach to replicate efforts in other States	January 2010	April 2010
Host workshops and stakeholder groups inviting EPA, municipalities, interested parties and States	Summer 2011	
Complete and submit quarterly and annual progress reports to EPA	January 2009	September 2011

Addressing Selection Criteria – This project will build on our existing knowledge of innovative approaches including the application of Environmental Management Systems/Quality of Life Plans as identified in the Evaluation Criteria disclosed in Section V, Part B, and geographic diversity, strategic values to the national programs and Maine's past excellent prior performance in past SIG competitions as stated in the Qualitative Selection Factors in Section V, Part B.3.

Collaborations or Partnerships – Significant collaboration and partnerships will include Maine municipalities and associates, ICLEI, EPA, interested learning states and most importantly states including Indiana who have a platform EMS municipality program that Maine can build on and improve. For further details please refer to the milestones and timelines tables as well as the logic model.

Public Involvement - The Maine Environmental Leader Community Challenge including the Office of Innovation and participants are committed to involving the public as clearly laid out in the milestones and logic model. We will work with our existing public advisory committees and will seek partnerships with interested advocates such as the Maine Municipality Association, community energy groups and

**Project Narrative information in excess of six pages was removed. It is to not be considered by the review panel.**



3. Pre-proposal Budget Summary – The following table identifies the proposed partnerships and/ or stakeholder groups that will be involved in the proposed project, each of their roles in the project staffing, and the budgetary estimation for the roles including in-kind or leveraged funding:

*Financial Information removed by EPA as confidential business information.*

**4. Environmental Results Past Performance** – ME DEP Department of Environmental Protection (ME DEP) was awarded the 2004 State Innovation Grant to conduct an auto body ERP. ME DEP began an Auto Body ERP in October 2004 and concluded the project in March 2007. We focused the ERP on the air quality non-attainment areas in Southern ME DEP (York, Cumberland and Sagadahoc counties). The ME DEP has been awarded pollution prevention grants annually to undertake significant pollution prevention projects that have included source reductions in various business sectors including toxic and hazardous waste reductions, green house gas reductions, and have provided structured incentives through an established environmental leader program.

**5. Programmatic Capability** - The following is a selected list of federally funded agreements similar in size, scope and relevance to the proposed project that ME DEP has performed within the last three (3-5) years: FY04-06 EPA Network Implementation Grant (\$1.1Million) EPA's State Innovation Grant FY04-06 (199K), EPA's Pollution Prevention (FY07 annually \$80,000), Performance Partnership Agreement FY07 7,167,975, EPA's State Innovation Grant FY07-11 \$ 300,000, TSCA (PBT) Grant FY 03 (500K), Department of Defense and State MOA 1.6 million FY 06-07, Coastal Zone Management 543,320 FY07, and FY04-06 EPA Network Implementation Grant (\$1.1Million).