CLIMATE LEADERS

SETTING THE STANDARD IN GREENHOUSE GAS MANAGEMENT

Setting a Greenhouse Gas Reduction Goal

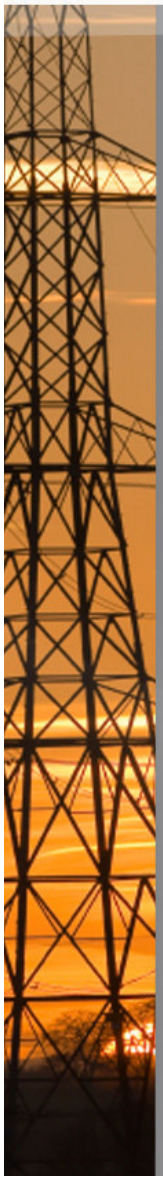
Climate Leaders Monthly Webinar Series

July 2, 2008

CLIMATE LEADERS
U.S. Environmental Protection Agency

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Today's Agenda



1) Intro to Goal-setting

   (*Bella Tonkonogy, Climate Leaders*)

2) Case Study

   (*Jere Zimmerman, Director EHS, Coors Brewing Company)*

3) Guidance on setting a goal at the Upcoming Partners Meeting

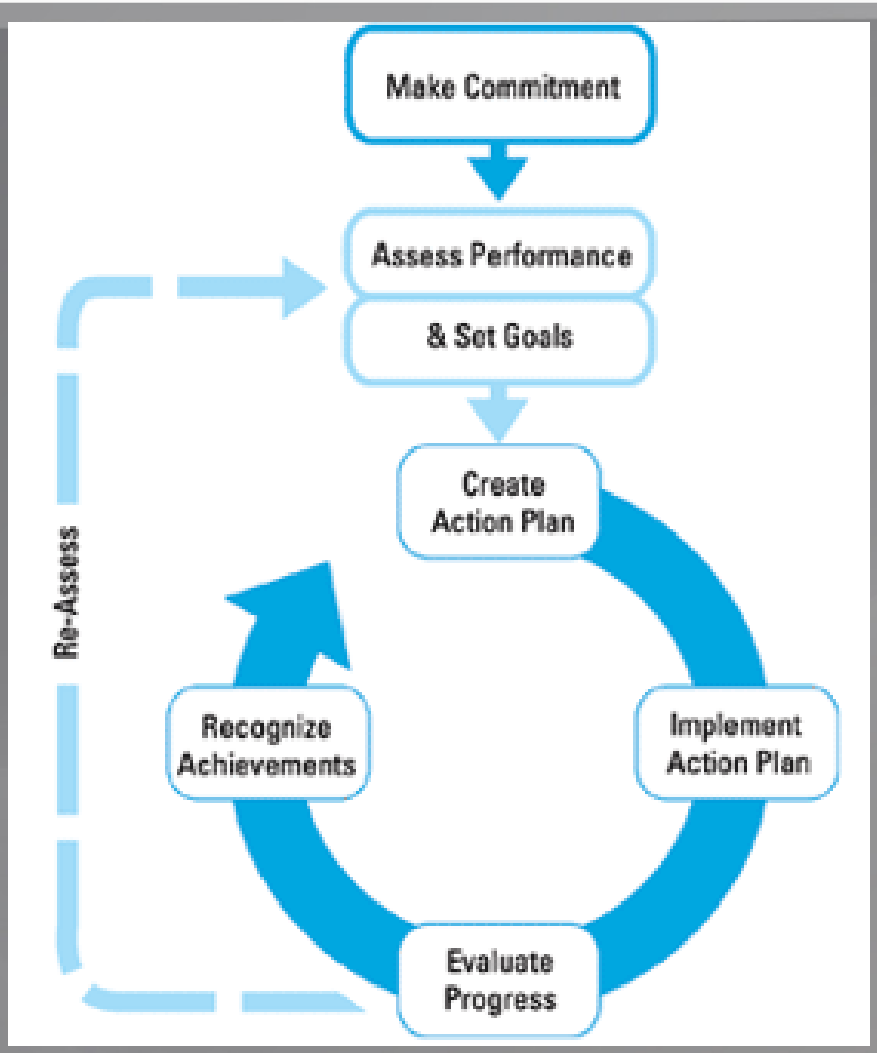
4) Q&A

Credible Climate Strategy

Climate Leaders works with organizations to develop a long-term comprehensive GHG management strategy

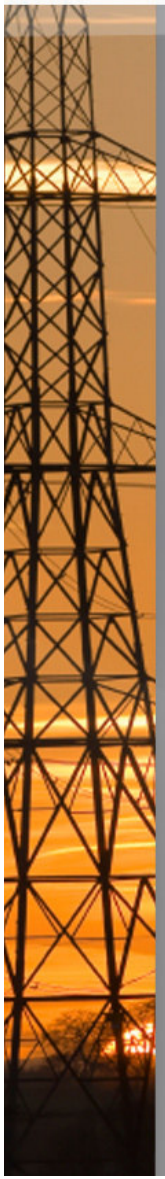
- Road-tested with ~ 200 partners from every major sector across the country, representing 8% U.S. emissions and 10% U.S. GDP
- 3 critical components to credible strategy:
  1) Complete Corporate-Wide GHG Inventory
  2) Develop Inventory Management Plan (IMP)
  3) Set Aggressive Corporate-Wide GHG Reduction Goal
- Annual reporting to EPA creates lasting record of accomplishments and identifies agency as environmental leader
- EPA recognizes and publicizes progress in the program

Steps to Good Energy & Climate Management



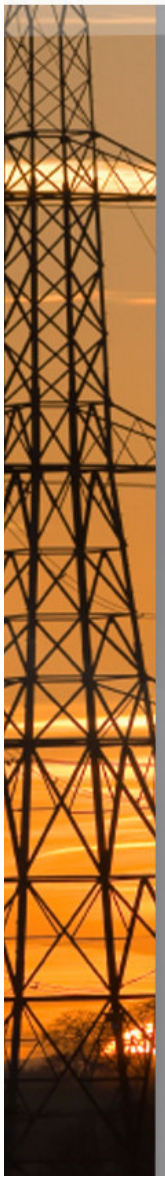
http://www.energystar.gov/index.cfm?c=guidelines.guidelines_index

Benefits of Setting a Goal



- Focus high-level attention on existing and potential reduction activities
- Cut energy costs
- Encourage innovation
- Identify new reduction opportunities
- Employee morale, recruiting, and retention
- Positive stakeholder attention (media, investors)

Ensuring leadership goals

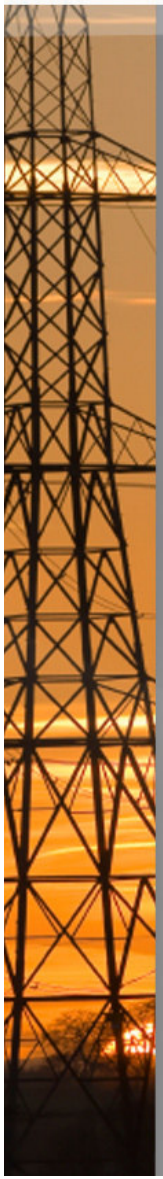


Criteria

- **Corporate-wide**: including at least all U.S. operations
- **Forward-looking**: based on the most recent base year for which data are available
- **Long-term**: achieved over five to 10 years
- **Reduction from baseline emissions**: expressed as an absolute GHG reduction, a decrease in GHG intensity, or as a goal to be "carbon neutral"
- **Aggressive:** in comparison to the projected GHG performance for the Partner's sector

EPA individually negotiates each Climate Leaders goal

Types of GHG Reduction Goals



Absolute

- 3M pledges to reduce total U.S. GHG emissions by 30 percent from 2002 to 2007.

Normalized

- Holcim (US) Inc. pledges to reduce U.S. GHG emissions by 12 percent per ton of cement from 2000 to 2008.

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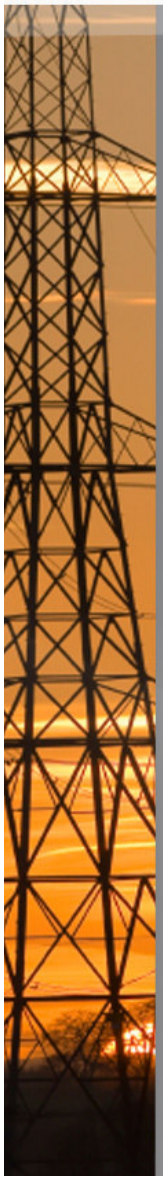
- Ball Corporation pledges to reduce total U.S. GHG emissions by 16 percent per production index from 2002 to 2012.

Net Zero ("Carbon Neutral")

- Melaver, Inc. pledges to achieve net zero U.S. GHG emissions by 2006 and maintain that level through 2009.

Tracking your Progress



- Always track your absolute emissions
- For normalized goals:
  - Determine an appropriate production metric
    - Should correlate closely to GHG emissions to measure accurately improvements in efficiency
    - Examples: tons of production, MWh power generated
      - Partners with emissions primarily from office space should use square footage of space; Energy Star Portfolio Manager is a great tool for evaluating building efficiency
    - If you acquire or divest a facility, make sure to adjust for production metric as well as emissions

Tracking Your Progress- Absolute Goal

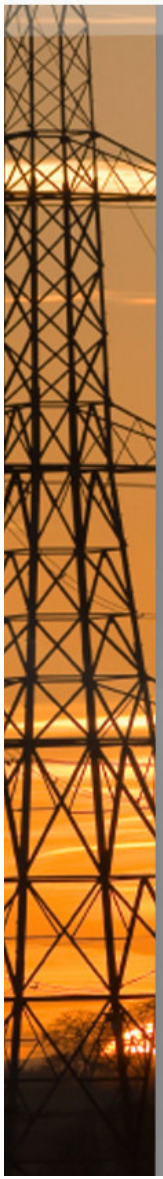
Partner Base Year:	2007
Partner Goal Year:	2011
Goal Emissions Tracking "Absolute" or "Normalized":	Absolute
Goal Year Emissions Target:	10%
(expressed as a percent decrease from base year)	
Specify Normalization Factor (NF) Units:	
(only if tracking normalized emissions for goal)	

Corporate Goal Tracking	Base Year	Year 2		Year 3		Year 4		Year 5 Goal Year	
Year	2007	2008		2009		2010		2011	
ABSOLUTE EMISSIONS GOAL TRACKING									
	CO_2-eq. (metric tons)	CO_2-eq. (metric tons)	% change from base yr	CO_2-eq. (metric tons)	% change from base yr	CO_2-eq. (metric tons)	% change from base yr	CO_2-eq. (metric tons)	% change from base yr
Total U.S. Emissions	5,000	4,900	-2.0%	5,050	1.0%	4,700	-6.0%	4,400	-12.0%
Total Non-U.S. Emissions	--	--	--	--	--	--	--	--	--
Total Absolute Emissions	5,000	4,900	-2.0%	5,050	1.0%	4,700	-6.0%	4,400	-12.0%
	CO_2-eq. (metric tons)	CO_2-eq. (metric tons)	% change from base yr	CO_2-eq. (metric tons)	% change from base yr	CO_2-eq. (metric tons)	% change from base yr	CO_2-eq. (metric tons)	% change from base yr
Goal Year Absolute Emissions Target	N/A	--	--	--	--	--	--	**4,500**	**-10.0%**

Tracking your Progress- Normalized Goal

Corporate Goal Tracking	Base Year	Year 2		Year 3		Year 4		Year 5 Goal Year	
Year	2007	2008		2009		2010		2011	
NORMALIZED EMISSIONS GOAL TRACKING									
	CO_2-eq. (metric tons)	CO_2-eq. (metric tons)	% change from base yr	CO_2-eq. (metric tons)	% change from base yr	CO_2-eq. (metric tons)	% change from base yr	CO_2-eq. (metric tons)	% change from base yr
Total U.S. Emissions	5,000	5,500	10.0%	5,600	12.0%	5,650	13.0%	5,700	14.0%
Total Non-U.S. Emissions	--	--	--	--	--	--	--	--	--
Total Absolute Emissions	5,000	5,500	10.0%	5,600	12.0%	5,650	13.0%	5,700	14.0%
	tons of production	tons of production	% change from base yr	tons of production	% change from base yr	tons of production	% change from base yr	tons of production	% change from base yr
Total U.S. Normalization Factor Value	10,000	9,950	-0.5%	12,000	20.0%	12,250	22.5%	13,000	30.0%
Total Non-U.S. Normalization Factor Value			--		--		--		--
Total Normalization Factor Value	10,000	9,950	-0.5%	12,000	20.0%	12,250	22.5%	13,000	30.0%
	CO_2-eq. / NF Units	CO_2-eq. / NF Units	% change from base yr	CO_2-eq. / NF Units	% change from base yr	CO_2-eq. / NF Units	% change from base yr	CO_2-eq. / NF Units	% change from base yr
Total U.S. Normalized Emissions	0.50	0.55	10.6%	0.47	-6.7%	0.46	-7.8%	0.44	-12.3%
Total Non-U.S. Normalized Emissions	--	--	--	--	--	--	--	--	--
Total Normalized Emissions	0.50	0.55	10.6%	0.47	-6.7%	0.46	-7.8%	0.44	-12.3%
	CO_2-eq. / NF Units	CO_2-eq. / NF Units	% change from base yr	CO_2-eq. / NF Units	% change from base yr	CO_2-eq. / NF Units	% change from base yr	CO_2-eq. / NF Units	% change from base yr
Goal Year Normalized Emissions Target	N/A	--	--	--	--	--	--	**0.45**	**-10.0%**

Case Study: Coors



Jere Zimmerman, Director EHS, Coors Brewing Company

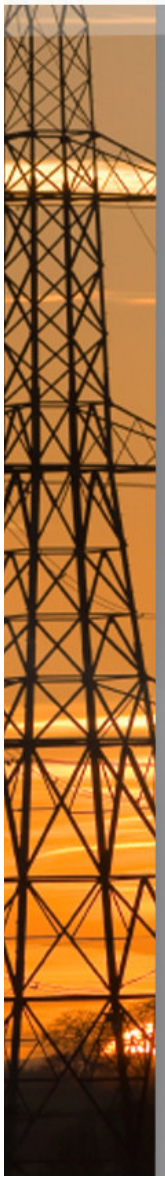
How can a company set an aggressive, yet achievable target?

- What is the process?
- What are the considerations? (technical, communications)
- How should uncertainty be addressed?

Upcoming Partners Meeting

- October 6-8, 2008 at Drake Hotel in Chicago
  - Recognition luncheon to be held on October 8
  - All new goals will be recognized by a Senior EPA Official and included in the EPA press release issued at the meeting
  - Many Partners choose to issue own press release as well
    - work with Deb Berlin, berlin.deb@epa.gov, for template and quote

Working with a 3rd Party

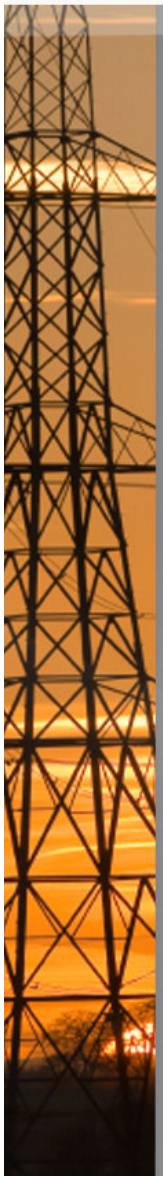


EPA process

1) Partner submits an initial goal proposal to EPA (based on inventory and internal analysis)
2) EPA completes performance benchmark analysis- evaluates sector "business-as-usual" GHG intensity projected performance
3) Partner and EPA negotiate a mutually agreeable goal- "aggressive yet achievable"
4) EPA publicly announces the goal and provides recognition for company's efforts

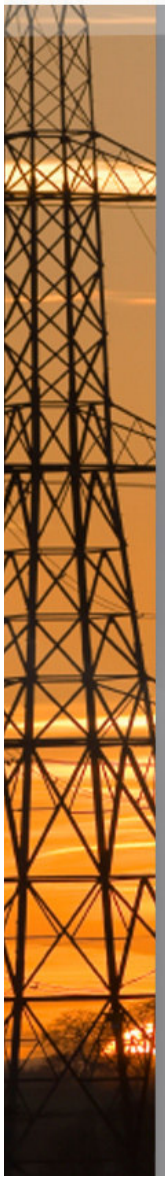
Working with a 3rd party to set a goal can add credibility to your effort

Logistics



- Goal proposals should be submitted in August
  - Goal does not need to be final on your end
  - Gives us time to evaluate, ask questions, and get approval through our senior management
  - New template for this (will email to all Partners on webinar)

General GHG Reduction Methods

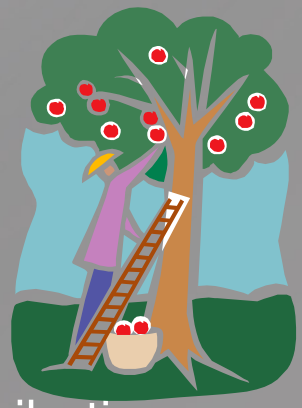


"Low Hanging Fruit"

- Lighting Projects (sensors, CFL and high efficiency lights)
- Upgrade Cooling Systems (high efficiency units, system balance)
- Reduce Plug Load (high efficiency equipment)
- Variable Speed Systems for Air Handling and Product Distribution
- Mobile Sources (reduce idling, encourage public transit, increase video-conferencing)

"Higher Hanging Fruit"

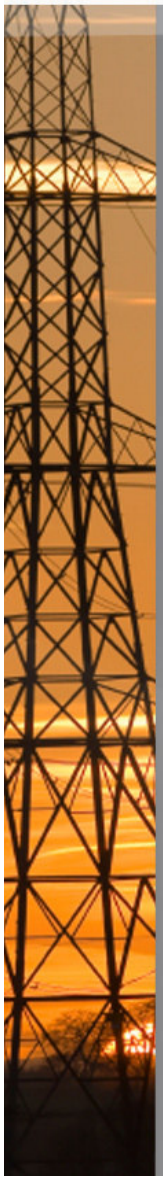
- Combined Heat and Power (CHP)
- Landfill Gas Recovery
- Install Green Power (solar panels, micro turbines)



Innovative Projects

- New Heating/Cooling Systems (ice, under floor distribution, solar and wind building exposure)
- Green Roofs

To set your goal in October, please contact me at:



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Thank you!