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CCAP [Climate Change Action Plan] Implementation [2]

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EPA's Initiatives in the Climate Change Action Plan PROGRAM MILESTONES AND INDICATORS OF PERFORMANCE

Following are program milestones and indicators of performance for each of the initiatives in the U.S. Climate Change Action Plan for which the EPA has responsibility. Each entry briefly describes an initiative, its target for greenhouse (GHG) reductions or sequestration in the year 2000, and its general program plan. For each, a table of program milestones identifies landmark events or activities (for example, the number of partners recruited to participate by a given date). Another table proposes indicators or measures of performance in terms of activities, market penetration, or - most important - GHG emission reductions or sequestration. Program managers will use a larger number of milestones and indicators than those presented here to guide, track and revise their programs. The subset presented here is a practical number for cross-agency monitoring and evaluation, and for reporting to the Congress and the public. Some of these will no doubt be revised as managers learn which indicators are most useful for evaluating their programs. The EPA welcomes comments which might be used to revise these milestones and indicators.

The milestones and indicators are best understood as guideposts or early warning signals, not absolute commitments. EPA's CCAP programs are virtually all new, innovative and represent a different mode of operation than existing regulatory programs. Managers will learn from experience, and will revise some milestones and indicators to provide better measures of performance, and modify the programs based on early program evaluations. Also, the programs are different one from another. Consequently, there are few performance indicators common across the initiatives. The most important is the quantity of GHG emissions estimated to be reduced by the program. Some programs are more amenable than others to direct measurement, easier to corroborate with independent data sets, or more subject to fluctuations in external parameters. Some target emission reductions within the same sector, and interactions among them must be taken into account. EPA's managers will continuously improve the quality of performance data, as well as gather necessary corroborating data.

The performance of the CCAP overall cannot be judged simply by examining the performance of its component initiatives. The estimated quantities of GHG emissions reduced or sequestered by each program will not be additive. Some initiatives interact, and the sum of their achievements estimated individually may be greater or less than their actual effects. Such issues will be resolved by auxiliary modeling, sectoral indicators, and cross-checks with other data sets, such as national GHG inventories, EPA's continuous CO2 monitoring, and others. Moreover, while some initiatives may not perform to the levels originally expected, others will exceed their initial targets. For example, while delays or reductions in funding have slowed early progress of a few initiatives, others had already surpassed by the third quarter of FY94 their initial targets for the entire year. The success of the CCAP will be assessed through an inter-agency monitoring and tracking system and national modeling, lead by EPA and DOE, rather than by the performance of individual programs alone.

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April 12, 1994

Action #1

I. **Title of Action:** **Coordinate DOE Rebuild America & EPA Energy Star Buildings Program**

II. **Office Responsible and Key Contact:**

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OAR/OAP/GCD

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Alternate contact:

Christopher O'Brien

OAR/OAP/GCD

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III. **Brief Description of Program Objectives and Strategy:**

Energy Star Buildings is already under development by EPA with the help of a number of Green Lights Partners. The program is a voluntary, non-regulatory program that builds on the success of the Green Lights. Partners to the Energy Star Buildings programs will be required to:

- Survey all their domestic facilities,
- Upgrade their heating, ventilation and air conditioning systems where profitable, and
- Complete their buildings upgrades within 7 years.

EPA will use marketing and program implementation resources developed for the Green Lights and Energy Star Buildings Programs to expand participation. EPA will also expand "Ally" programs through which partnerships are formed with manufacturers, utilities, distributors, surveyors, and energy service companies.

Rebuild America is a new DOE initiative that will incorporate extensive demonstrations, training, education, performance monitoring and cost-shared energy audits. The EPA and DOE programs will be coordinated.

Expected Date	Program Milestones
June 1994	Enroll 20 Partners in Energy Star Showcase Building initiative
June 1994	Kick off announcement and signing ceremony for Energy Star Showcase Building initiative Partners
July 1995	Announce partial savings realized in Energy Star Showcase Buildings initiative
Sept 1995	Enroll 25 Partners in the Energy Star Buildings Program. Kick-off announcement and signing ceremony.
January 1996	Kick-off announcement and signing ceremony for Ally Programs.
June 1996	Announce total savings realized in Energy Star Showcase Buildings initiative. (also listed below)

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1995 to 2000	Annual Reports for Energy Star Buildings Program (also listed below)
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Performance Indicators	When Feasible to Report
Preliminary analysis of demonstrated savings in Energy Star Showcase Buildings initiative	March 1995
Final analysis of demonstrated savings in Energy Star Showcase Buildings initiative	June 1996
Annual Report on Energy Star Buildings Program participation and GHG Reductions	1995 to 2000

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Action #2

I. Title of Action: **Expand EPA's "Green Lights" Program**

II. Office(s) Responsible and Key Contact: (offices)

Lead contact:

Bob Kwartin

Global Change Division

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Alternate Contact:

Maria Tikoff

Global Change Division

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III. Brief description of Program Objectives and Strategy:

As of October 31, 1993 the Green Lights program had recruited almost 1200 program participants representing almost 3.8 billion square feet. Through the Action Plan, Green Lights will expand its marketing and implementation efforts. Specifically, the goal of the Green Lights program is to add 1.5 billion square feet to the program in FY94. This will be accomplished by: expanding our marketing efforts to more private companies, specialized efforts to recruit hospitals, universities, State and municipal governments, and medium and small sized businesses, and expanding our implementation efforts to current program participants. To meet these goals, the program will work to identify the best and most cost effective mechanisms to attract new Green Lights participants including increased cooperation with utilities, regional marketing efforts, and working with Assist organizations to help recruit program participants.

Expected Date	Program Milestones
May 1994	Over 100 Partners in Energy Star Region
Sept 1994	Over 150 Hospitals recruited
Sept 1994	140 Universities, Colleges, Schools
Dec 1994	2000 Participants in Program

Performance Indicators	When Feasible to Report
Number of New Participants	Quarterly
Square Footage Recruited into Program	Quarterly

Square Footage Surveyed	Quarterly
Square Footage Upgraded	Quarterly
Lbs of CO2 emissions prevented per year from implemented upgrades	Quarterly

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Action #6

I. Title of Action: **Form "Golden Carrot" Market-Pull Partnerships**

II. Office Responsible and Key Contact:

Lead Contact:

Michael L'Ecuyer
OAR/OAP/GCD
233-9127, fax: 233-9578

III. Program Objectives and Strategy:

The President has instructed EPA and DOE launch partnerships through the Consortium for Energy Efficiency (CEE) to overcome the market barriers to large-scale commercialization of advanced, energy-efficient residential appliances and equipment. EPA's approach will be to get large numbers of utilities to coordinate their demand-side management programs as to targeted efficiency levels, timing and program design. By doing this, utilities can bring much greater rationality to the market for energy efficiency, as opposed to the current "crazy quilt" of programs that come and go frequently across the nation. This will provide manufacturers with much clearer and more sustained market signals than they get from utilities today. In addition, EPA and DOE will be closely coordinating these utility partnerships with Federal efforts to influence government agency or publicly-assisted procurements, as well as with the other residential sector options of the CCAP: energy-efficient mortgages, home energy rating systems, homebuilder outreach, and appliance and residential building standards.

Expected Date	Program Milestones
March, 1994	Finalize comprehensive residential sector plan with DOE
Summer 1994	Announce CEE national lighting program coordinated with Green Lights
Summer 1994	Announce CEE Golden Carrot program to Promote Ground Source Heat Pumps
Summer 1994	Finalize marketing to electric, gas and water utilities on CEE Golden Carrot for advanced clothes washers
Summer 1994	CEE adopts Western Utility Consortium design for 1995 refrigerator rebate programs as a national program
Winter 94-95	Design CEE programs for advanced Air Source Heat Pumps and Central Air Conditioners
Fall 1994	Announce CEE program for Advanced Gas HVAC equipment

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Spring 1995	Announce CEE program for ductwork repairs
Summer 1995	Design CEE Golden Carrot for advanced clothes dryers
Summer 1995	Announce Stage 2 of Advanced Residential Lighting Program: Dedicated Compact Fluorescent Lamps
Summer 1995	Announce Pilot Program for Comprehensive Utility Home retrofits
Summer 1995	Announce CEE programs for advanced water heating technologies
Fall 1995 - 2000	Announce additional CEE programs as per analyses indicating opportunities

Performance Indicators	When Feasible to Report
Preliminary Analysis of potential savings-- based on targeted technologies, budgets of participating utilities and other organizations, and anticipated market transformation effects	Upon program announcement
Analysis of direct program effects - Utilities' Measurement and Evaluation	TBD
Analysis of indirect program market transformation effects - Joint EPA/DOE/utility consortia analysis	TBD

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Action #30

I. Title of Action: Launch EPA Energy Star Transformers

II. EPA Office of Atmospheric Program

**Lead Contact: Linda Latham
Global Change Division
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**Alternate: Maria Tikoff
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III. Description of Program Objectives and Strategy

Program is designed to increase the number of high-efficiency distribution transformers purchased by electric utilities. This will entail working with manufacturers to understand current and evolving technologies. In addition, it will be necessary to educate utilities and their regulators about the importance of evaluating supply-side efficiency improvements as part of integrated resource planning. Program success will depend on reponse of electric utilities, and interest on the part of manufacturers in promoting their high-efficiency products. Utilities that have signed the Climate Challenge will hopefully be interested in this program as a way to meet their CO₂ reduction target.

Expected Date	Program Milestone
Fall 1994	Formal Program Kick-Off, Announce first Participants
Spring 1995	Announce significant utility participation

Performance Indicators	When Feasible to Report
# of Utilities Signed Up	January 1995
# of Transformers Sold, kWh & CO ₂ Savings	December 1995

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Action #32

I. Title of Action: **Expand Natural Gas Star**

II. Office Responsible and Key Contacts: Global Change Division

Lead contact:

Andrea Osborne
Global Change Division
233-9044

Alternate Contact:

Kathleen Hogan
Global Change Division
233-9312

III. Brief Description of Program Objectives and Strategy:

EPA will expand the Natural Gas Star program, which is a public/private partnership that reduces methane emissions by introducing and promoting cost-effective technologies and practices throughout the U.S. natural gas industry. Natural Gas Star provides technical assistance, implementation guidelines, and an information sharing network for gas companies to achieve cost effective emissions reductions. The existing program was launched in March of 1993, and now includes 26 transmission and distribution companies. The expanded program targets production companies, and transmission and distribution companies not currently in the program. It also adds a best management practice to the program which calls for replacement of high-bleed pneumatics, a significant source of methane emissions, after 5 years rather than the current 7 years.

The program has three major objectives for the near term (over the next three years).

- Represent 75 percent of transmission and distribution pipeline by Jan 1997;
- Represent 50 percent of natural gas production by Jan 1997; and
- Achieve reduction of 1 MMT carbon equivalent (note that many partners will be phasing in their implementation plans at this point).

Expected Date	Program Milestones
January 1994	Technical guidance for partner implementation plans and annual reports
June 1994	Finalized best management practices for natural gas producer MOU and begin marketing to producers
March, June, Sept 1994 and continuing quarterly	Natural Gas Star Briefs -- key program and technical information for program partners
Fall 1994, 1995, 1996	Annual Implementation Workshops (in conjunction with industry conferences)
February 1995, 1996, 1997	Annual Program Summaries (based on partner annual reports)

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July 1996	Review of additional best management practices and expansion of MOU as appropriate
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Performance Indicators	When Feasible to Report
Transmission and distribution pipeline miles covered by the program	Beginning February 1995 in Annual Program Summary
Number of services covered by the program	Beginning February 1995 in Annual Program Summary
Production covered by the program	TBD
Number of production wells covered by the program	TBD
Estimated reductions in methane emissions as estimated (and reported) annually	TBD

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Actions #33 and 34

I. Title of Action **Increase Stringency of Landfill Rules and Expand Landfill Outreach Program**

II. Office Responsible and Key Contacts:

Action 33: Office of Air Quality Planning and Standards

Lead contact:

**Mark Najarian
OAQPS
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Alternate Contact:

**Cindy Jacobs
Global Change Division
233-9042
233-9569**

Action 34: Global Change Division

Lead Contact:

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Alternate Contact:

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233-9569**

III. Brief Description of Program Objectives and Strategy:

These actions are highly related and will be tracked together. There are over 6,000 active landfills in the United States. The stringent Landfill Rules being promulgated by EPA will affect a fraction of these landfills, about 10 percent, and provide substantial reductions in methane emissions. Further reductions in greenhouse gas emissions can be achieved by promoting energy recovery by affected landfills rather than the minimum requirement of flaring the landfill gas. The Landfill Outreach Program will be providing necessary information to overcome the barriers to profitable landfill gas recovery. The Outreach Program will target landfills affected by the Rules as well as landfills not affected by the Rule that could profitably recover and utilize the methane they emit. This second landfill group has not installed energy recovery systems because they face a number of barriers, such as disincentives for utility purchases of landfill gas, artificially low prices, lack of information, regulatory constraints, and technological constraints.

The program will include development of outreach materials, such project development handbooks (including case studies and sample RFPs). The program will be targeted at utilities, municipalities, and private landfill owners. It will initially focus on large landfills in areas with the most promising opportunities for recovery of methane and sale of the electricity produced. This program includes all the elements of a successful outreach program (which has many similarities to the voluntary programs developed by the Global Change Division).

The program has three major objectives for the near term (over the next three years). These objectives assume that 600 to 700 landfills will begin implementing the landfill rules by Fall 1996.

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- 150 of the affected landfills will have energy recovery projects rather than flares.
- There will be an additional 25 landfills not affected by the rule with energy recovery projects.
- Achieve reduction of 4.7 MMT carbon equivalent (4.2 MMT from increased stringency of rules and .5 from Outreach Program).

Expected Date	Program Milestones
Summer 1994	Landfill Rules promulgated
Summer 1994	Begin 5 State Outreach Program
Spring 1995	Provide Landfill Rule Compliance Guidance for affected landfills
Summer 1995	State program for implementing Rules in place
Fall 1995	Expand to 15 State Outreach Program
Spring 1996	Expand to National Program
1995, 1996, 1997	Annual Reports

Performance Indicators	When Feasible to Report
Number of landfills affected by the landfill rules	TBD
Number of new energy recovery projects	TBD
Additional kWhs produced through energy recovery projects	TBD
Estimated reductions in methane emissions as derived from reports of recovered landfill gas	TBD

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Action #35

I. Title of Action: **Launch Coalbed Methane Outreach Program**

II. Office Responsible and Key Contacts: **Global Change Division**

Lead contact:

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Alternate Contact:

**Kathleen Hogan
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233-9569**

III. Brief Description of Program Objectives and Strategy:

The outreach program promotes opportunities for profitable emissions reductions with key coal companies and state agencies. It will help ensure that the Energy Policy Act provisions resolving coalbed methane ownership issues in the key states are effectively implemented so that the full range of potential reductions can be achieved. The program includes development of outreach materials (technology descriptions, sample RFPs, cost/benefit analyses, financing information) and performing briefings for companies, states, utilities, and others. The program also includes identifying important demonstration projects and performing prefeasibility analyses. The outreach program would target approximately 50 of the country's gassiest mines. This program will build on existing activities of the EPA Ad-Hoc Working Group on Coalbed Methane.

The program has three major objectives for the near term (over the next three years).

- See property rights issue successfully dealt with in key states by January 1997.
- See 5 to 10 coal mines with profitable methane recovery opportunities take action by January 1997; and
- Achieve reduction of 1 MMT carbon equivalent.

Expected Date	Program Milestones
June 1994	Launch Key State Outreach Program
January 1996	Ownership Issues Addressed in Key States
January 1997	Summaries of Key Demonstration Projects
January 1995, 1996, 1997	Annual Reports

Performance Indicators	When Feasible to Report
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Number of "gassy" mines with methane recovery projects	TBD
Reductions in methane emissions as estimated (or reported) annually	TBD

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Action #38

- I. Title of Action: **Expand Partnership with Livestock Producers**
- II. Office Responsible and Key Contacts: Global Change Division (in cooperation with USDA)

Lead contact:

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Alternate Contact:

Kathleen Hogan
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III. Brief Description of Program Objectives and Strategy:

AgSTAR is a voluntary pollution prevention program with the livestock industry. The AgSTAR program encourage dairy and swine facilities to adopt animal manure best management practices that profitably manage animal manure, protect surface and groundwater, and reduce fertilizer costs. The AgSTAR program overcomes a number of barriers which currently hinder the more widespread use of on-farm energy recovery technologies. These barriers include farmers' lack of information about the profit potential of methane recovery options and their memory of projects launched during the 1970s that failed. Under the program, producers commit to survey their facilities to identify profitable options for capture and use of methane for on-farm power usage.

The program has four major objectives for the near term (over the next three years).

- Develop key demonstration projects in "methane sheds" with large potential for profitable on-farm energy recovery by January 1997.
- Represent 75 percent of the profitable opportunities in the swine industry by January 1997.
- Represent 5 percent of profitable opportunities from the dairy industry by January 1997.
- Achieve reduction of 1 MMT carbon equivalent.

Expected Date	Program Milestones
March 1994	Expand Marketing and Implementation Support to Swine Producers
Fall 1994, Spring 1995, and continuing semiannually	AgSTAR Newsletters and Promotional/Training Materials
June 1994	USDA Interim Technical Specifications
Aug and Nov 1994, March 1995	AgSTAR Technical Information Sheets
July 1996	Expand Program to Dairy Industry
January 1995, 1996, 1997	Annual Reports (based on partner annual reports)

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Performance Indicators	When Feasible to Report
Number of participating farms	TBD
Number of animals represented	TBD
Total energy savings for dairy and swine producers	TBD
Reductions in methane emissions as estimated (or reported) annually	TBD

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Action #40

I. Title of Action: **Narrow Use of High GWP Chemicals Using the Clean Air Act and Product Stewardship to Reduce Emissions**

II. Office Responsible and Key Contact:

Lead Contact:

Jean Lupinacci

Global Change Division/EPA

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Alternate Contact:

Drusilla Hufford

Stratospheric Protection/EPA

(202) 233-9101; (202) 233-9579 Fax

III. Brief description of Program Objective and Strategy:

This program will restrict the use and emission of high GWP chemicals by encouraging product stewardship for long-lived gases and using Section 612 of the Clean Air Act Amendments of 1990 to narrow uses of high GWP CFC substitutes, such as HFCs and PFCs, based on an overall risk assessment.

EPA will create a partnership program with manufacturers of long-lived HFCs and PFCs. Under the partnership program companies will commit to not selling those chemicals for emissive uses and to ensuring that users of long lived gases handle the material in an environmentally responsible manner--by capturing and destroying the gas rather than emitting it into the atmosphere. The objectives of the program are:

- * To avoid introduction of high GWP chemicals as CFC substitutes.
- * To conduct environmental impact analysis on CFC substitutes.
- * Use voluntary measures to limit substitution of high GWP chemicals.
- * Achieve 5 MMTCE by 2000.

Expected Date	Program Milestones
June 1994	Quarterly Updates to SNAP list begin
Jan 1995	Assess possible candidates for stewardship programs and initiate industry contact.
Jan 1996	Finalize stewardship program approach
Jan 1996	HFC refrigerant recycling rules final
June 1996	Signed Agreements on Stewardship programs

Performance Indicators	When Feasible to Report
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Percent of application controlled	TBD
Number of chemicals voluntarily withdrawn by manufacturers	TBD
Percent of emissions reductions/equipment	TBD
Percent of potential reductions represented by the program	TBD
Estimated reductions in emissions	TBD

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Action #41

I. Title of Action: **Create Partnerships with Manufacturers of HCFC-22 to Eliminate HFC-23 Emissions**

II. Office Responsible and Key Contact:

Lead Contact:

Jean Lupinacci
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Alternate Contact:

Cindy Jacobs
Global Change Division
(202) 233-9042/202 233-9579

III. Brief Description of Program Objectives and Strategy:

This program is a partnership program with manufacturers of HCFC-22 to develop and implement processing practices or technologies to reduce HFC-23 as a by-product of HCFC-22 production where it is technically feasible and cost-effective. Currently 2-4% of the HCFC-22 production is released as HFC-23, a potent greenhouse gas. Participating manufacturers agree to reduce emissions of HFC-23 to 50% of 1990 emissions.

There are three main objectives and strategies over the next three years:

- Refined baseline- accurate estimates of the total HFC-23 emissions
- Examination of the costs and technical feasibility associated with various levels of HFC-23 reductions
- Achieve 50% reductions in emissions (5 MMTCE)

Expected Date	Program Milestones
May 1994	Current emissions data collected from HCFC-22 manufacturers worldwide
Jan 1995	Baseline Report and estimate of reductions made since 1990
Jan 1996	Technical and Cost Options report

Performance Indicators	When Feasible to Report
Percent of HCFC-22 production represented by the program	TBD
Number of plants represented by the program	TBD
Percent of potential reductions represented by the program	TBD

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Estimated reductions in emissions	TBD
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Action #42

I. Title of Action: Launch Partnership with Aluminum Producers

II. Office Responsible and Key Contacts: Global Change Division

Lead contact:

Cindy Jacobs
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233-9042
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Alternate Contact:

Kathleen Hogan
Global Change Division
233-9312
233-9569

III. Brief Description of Program Objectives and Strategy:

This program will encourage aluminum producing companies to reduce emission of CF₄ and C₂F₆ where technically feasible and cost-effective. Because the factors that cause these emissions result in an efficiency loss, a reduction in these emissions will improve smelter efficiency. Emissions of CF₄ and C₂F₆ may be reduced by 30 to 60% through voluntary efforts of the aluminum industry, including management and technological reforms. This option includes support of research efforts, such as developing a better understanding of emissions and control options.

The program has three major objectives for the near term (over the next three years).

- Refined analysis of potential for reductions on a plant by plant basis by January 1996.
- 70 percent of production capacity represented by December 1996;
- Achieved 30 percent reductions in emissions (1.2 MMT) by December 1996.

Expected Date	Program Milestones
January 1994	Formation and initial meeting of Working Groups to develop Phase I and Phase II programs
Summer 1994	Implement Phase I Program
Fall 1994	Industry Workshop
Summer 1995	Complete Measurement Component of Phase II Program
Winter 1996	Define and Implement Phase II of the Program
March 1995, 1996, 1997	Annual Reports (based on partner annual reports)

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Performance Indicators	When Feasible to Report
Percent of aluminum production represented by the program	TBD
Number of plants represented by the program	TBD
Percent of potential reductions represented by the program	TBD
Estimated reductions in emissions	TBD

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Foundation Action

I. Title of Action: **Climate Wise Companies**

II. Office(s) Responsible and Key Contact: (offices)

Lead contact:

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Alternate Contact:

Name: Alex Cristofaro
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III. Brief Description of Program Objectives and Strategy

ClimateWise is a joint EPA/DOE initiative designed to encourage voluntary reductions of greenhouse gas emissions by publicly recognizing organizations that achieve significant reductions. ClimateWise is based on the premise that government can spur environmental action and innovation by establishing performance goals, providing technical assistance, and letting individual organizations identify the most cost effective ways to achieve them.

As a foundation action in the Plan, ClimateWise will encourage organizations to participate in the full range of action plan initiatives by providing information on the over 50 actions and helping organizations to determine the best "fit." In addition, ClimateWise will encourage organizations to undertake innovative emission reduction measures beyond those identified in the Plan. ClimateWise will provide public recognition for reduction achievements, a technical assistance clearinghouse, and information on the Energy Policy Act Section 1605(b) Voluntary Reporting System to enhance reporting of emission reduction activities.

Many of the Action Plan initiatives target and encourage the use of specific greenhouse gas reduction technologies -- such as energy efficient lighting, computers, and building technologies. Through Climate-Wise, organizations will be encouraged to undertake a number of actions and will be recognized for the results they achieve. Such measures may include technological advances -- such as lighting and motor advances described in the action -- as well as process improvements, fuel switching and raw material substitutions, improved housekeeping and accounting practices, and other innovative approaches that the federal government may not even have considered.

Climate-Wise will build on strengthen existing technical assistance programs to cost-effectively reduce information barriers inhibiting the adoption of promising emission reduction strategies. The Energy Policy Act Section 1605(b) Voluntary Reporting System will be the primary vehicle for reporting emission reductions for ClimateWise recognition. In this way, ClimateWise strengthens statutory mandates by providing a public recognition incentive for reporting.

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Expected Date	Program Milestones
December 17, 1994	Public Workshop on Climate-Wise Program Design Options -- Invited participants include industry, trade association, environmental leaders (completed)
February - May, 1994	Draft final program proposal for public comment and hold additional meetings around the country to solicit input (underway)
February 1994	Launch <i>ClimateWise Pledge</i> program in conjunction with the White House Conference on Climate Action to spur participation in the Action Plan prior to the Conference scheduled for April 1994
April 1994	Conduct White House sponsored conference on Climate Action to discuss implementation progress with potential participants, launch new programs initiated under the Plan, and showcase early successes
April 1995	Conduct National Climate-Wise Recognition Ceremony -- Combine with future White House Climate Change Conferences or encourage other forms of White House participation (to be conducted annually)
June 1994	Conduct Climate-Wise Technical Transfer Showcase Conference to promote emerging technologies, process improvements, and innovative emission reduction programs (to be held annually)

Performance Indicators	When Feasible to Report
Positive response to program in design and early recruitment stages and peer review of program benefits and cost effectiveness and to followup annual and real time participant surveys	April 1994 and June 1994 and annually thereafter
Number of organizations reaching established goals, or other criteria still to be determined, and an increasing percentage of reductions reported/recognized each year	June 1996 and annually thereafter
Number of organizations achieving significant reductions reported through the program	April 1996 and annually thereafter
Number of organizations participating in the Pledge program and 1605(b) reporting system and technical assistance and public education programs	June 1994 and annually thereafter

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Action #16

I. **Title of Action:** **Accelerate Source Reduction, Pollution Prevention, and Recycling**

II. **Offices Responsible and Key Contacts:** OPPE and OSW

EPA is responsible for implementing the expansion of federal partnership programs. Other federal agencies also have significant roles in implementing parts of this initiative. The Forest Service will expand research into pulp and paper technologies, and DOE will expand its NICE³ industrial grants program.

EPA Lead Contact:

William G. Hohenstein

OPPE/OPA/CCD

Phone: 260-7019 FAX: 260-6405

EPA Alternate Contact:

George Garland

OSWER/OSW/MISWD

Phone: 260-7413 FAX: 260-4196

III. **Brief Description of Program Objectives and Strategy:**

EPA's goals under this program are to increase the aggregate recycling rate by 5% over the rates currently projected for the year 2000, and to reduce per capita waste generation rates to 1990 levels through source reduction. This will decrease energy related greenhouse gas emissions and increase carbon sequestration. In order to meet these ambitious goals, the program will need to prepare and implement a well structured plan, utilize existing EPA resources and infrastructure effectively and build on current programs to the extent possible.

The initiative is organized as a set of inter-related projects and will enhance existing Office of Solid Waste programs. It will be managed cooperatively through OPPE and OSW, with OSW leading EPA efforts on outreach and implementation projects, and OPPE evaluating communities' potential responses to waste problems, assessing tradeoffs between strategies, and considering other environmental issues affected by waste management. In the first year, analyses will target materials, processes, and practices that can most effectively reduce greenhouse gas emissions. FY95 programs will promote changes to the specific waste streams and processes identified to have large potential greenhouse gas benefits.

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Expected Date	Program Milestone
April 94	Formally kick-off program at White House Conference on Climate Action
May 94	Establish monitoring and tracking system to quantify greenhouse gas emissions reductions and assess progress toward goals
Sept 94	Complete five-year plan identifying key waste streams with high potential to reduce greenhouse gas emissions to target for action (establish post-1994 milestones)
Sept 94	Enroll at least 15 communities in the Keep America Beautiful "Buy Recycled" program
Sept 94	Enroll at least 50 companies in the WasteWiSe program

Performance Indicators	When Feasible to Report
Estimated net GHG reductions (carbon dioxide offset, methane from landfills, and forest sink enhancement)	1996-1997
Total waste generation (aggregate and by material)	1994
Total amount recycled and percent recycled (by material)	1994
Number of companies in the WasteWiSe program	1994
Number of communities in the Keep America Beautiful "Buy Recycled" program	1994
Percent of federal wastepaper recycled, and percent of federal paper procurement from recycled stock	1994
Percent of communities and municipalities with Unit Pricing programs	1995

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- I. Title of Action: U.S. Initiative on Joint Implementation (USIJI)
- II. Key Agency Contacts: DOS - Lead Agency; EPA - Co-chairs Evaluation Panel

Lead Agency Contact:

Jonathan Pershing
Office of Global Change
U.S. Department of State
202-647-4069
202-647-0191

EPA Contact:

Dennis Eoff
Climate Change Division/OPPE
U.S. Environmental Protection Agency
202-260-6922
202-260-6405

III. Brief Description of Program and Anticipated Milestones:

The USIJI will demonstrate the benefits of joint implementation and create a "model" program to reduce greenhouse gas emissions. The program will develop domestic guidance for joint implementation and accelerate the development of international criteria by the Conference of the Parties (COP) using real project experience. The USIJI will assist U.S. entities and foreign governments seeking to jointly reduce greenhouse gas emissions. The CCAP will achieve its goal without counting joint implementation reductions.

The Department of State oversees the program, in consultation with other agencies. Individual projects will be approved by an interagency Evaluation Panel, co-chaired by EPA and the Department of Energy (DOE). EPA and DOE have primary responsibility for implementation.

EPA's preliminary strategy is to:

1. Assure that accounting for GHG emissions reductions is transparent and highly credible;
2. Provide industry with guidance and technical information to encourage applications;
3. Create opportunities to participate in USIJI for NGOs and state and local governments.

Expected Date	Program Milestones
January 1994	Publish draft guidelines in <i>Federal Register</i> for public comment
April 21, 1994	Announce the final groundrules for the program Announce the members of the Evaluation Panel
June 1, 1994	Begin accepting project submissions
March 1995	Conference of the Parties will take decisions regarding criteria for joint implementation at its first session.

Performance Indicator	When Feasible to Report
Tons of anticipated GHG emissions reductions	Late 1994
Number of companies and countries participating	Late 1994
Number of tons of GHG emissions reductions verified	1997?

SECRET

I. Title of Action: State and Local Climate Change Program**1. Office(s) Responsible and Key Contact: OPPE lead with Regional office support****Lead contact:**

Katherine Sibold
EPA/OPPE/OPA/CCD
(202)260-4314
(202)260-6405 FAX

Alternate Contact:

Dennis Eoff
EPA/OPPE/OPA/CCD
(202)260-6922
(202)260-6405 FAX

III. Brief Description of Program Objectives and Strategy:

The State and Local Program assists states and localities to build capacity to address climate change issues and provides funds to demonstrate and transfer innovative GHG reduction measures. The objective is to create model state programs in every EPA Region which will reduce GHG emissions. The program provides technical assistance in the form of workshops, guidance documents, software packages and grants to targeted agencies or organizations. The strategy emphasizes laying the foundation for actions by completing state GHG inventories and action plans. Once an action plan has identified priorities, EPA's program provides limited funds to demonstrate promising new initiatives and policy options. In addition, a national results conference will be held to showcase and publicize the results of the most successful projects in order to scale the projects up to a national level.

Expected Date	Program Milestones
April 1994	Hold national CCAP kickoff conference including state and local partners
September 1994, 1995, 1996	Establish climate action programs in 10 states
September 1995	Develop preliminary report on successful projects and potential for scaling up to national level
October 1995	Hold national results conference on successful State GHG reduction projects

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Performance Indicators	When Feasible to Report
Number of states or municipal strategies in progress or completed	December 1994
Tons of GHG reduction planned in strategies	November 1995
Number of innovative demonstrations funded	November 1995
Net GHG reductions by demonstration projects	December 1995
Number of demonstrations scaled up to national level	December 1996
Estimated net GHG reductions resulting from total program efforts	June 1997

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I. **Title of Action:** Reform the Federal Tax Subsidy for Employer-Provided Parking - Parking Cash Out

II. **Office(s) Responsible and Key Contact:** (offices)

Lead contact:

Jon Kessler

OPPE/OPA

260-3761, 260-0512

Alternate Contact:

Alex Cristofaro

OPPE/OPA

260-5503, 260-0512

III. **Brief Description of Program Objectives and Strategy:**

Cash Out transforms an existing tax subsidy narrowly targeted at employer-paid parking into a powerful reward for commuters to ride transit, carpool, or find other ways to get to work. Employees given free parking at work will have the option of retaining the parking space or accepting a cash allowance equal to the cost of the parking space to the employer. The cash reward will be considered taxable income, but the option of a tax-free transit pass is also available. Cash Out will be accomplished through a legislative change in the Tax Code. The change will, as a condition of the special tax status of employee parking, require employers who offer tax-exempt parking to their employees and lease the parking from a third party to offer also the choice of an equivalent cash payment or tax-free transit pass.

Expected Date	Program Milestones
January 1994	The President's budget is announced, it includes Cash Out
January 1994	EPA, DOT, OMB, Treasury complete formal legislative language, seek input Hill staff
December 1994	Cash Out legislation passed by Congress
January 1995	Implementation begins

Performance Indicators	When Feasible to Report
15% of employees offered Cash Out take it	1995
10% of all employees are offered Cash Out	1997
20% of all employees are offered Cash Out	2000

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TRANSPORTATION EFFICIENCY: MOBILITY PARTNER PROJECT

Issue: Recognize and propagate innovative programs for maximizing mobility and minimizing emissions.

Offices responsible and key contact: EPA OPPE, 2126: Will Schroser, 202.260.1126, or Alex Cristofaro, 202.260.5503.

Goals and Intended Results: This project will establish a service bureau for states and cities seeking help meeting their mobility and air quality goals. The service bureau will recognize and disseminate the results of successful projects, and will help states and cities develop new, innovative projects, using the principles of efficient transportation and environmental policy.

The project will result in better transportation policy and lower GHG and criteria emissions. It will help meet state and local needs for information and assistance in meeting Clean Air Act and ISTEA requirements, and in doing so will produce GHG reductions. Finally, in giving national recognition to innovative and successful programs, the project will encourage creative local thinking.

Noteworthy Concerns or Highlights: 1) Close cooperation with local agencies presents some challenges, as do the 2) evaluation methodologies for states and cities without good models, and 3) methods for evaluating novel programs.

<i>Milestones</i>	<i>Completion Dates</i>	<i>Current Status</i>
1. Establish Cooperative Agreement with NGO with strong state and local government ties.	January 31, 1994	In negotiations with NGOs
2. Establish service bureau jointly with NGO.	March 31, 1994	In negotiations with NGOs
3. Establish assistance principles, guidelines for program evaluation and recognition.	March 31, 1994	Drafting guidelines internally
4. Begin outreach to state and local governments	No later than April 31, 1994	Not begun
5. Establish and begin distributing case studies	No later than June 31, 1994	Not begun

DRAFT

December 15, 1993

IV. Title of Action: Establish a Transportation System Efficiency Strategy - Travel Model Improvement Program**V. Office(s) Responsible and Key Contact: (offices)****Lead contact:**

Jon Kessler

OPPE/OPA

260-3761, 260-0512

Alternate Contact:

Will Schroeder

OPPE/OPA

260-3761, 260-0512

VI. Brief Description of Program Objectives and Strategy:

The analytic tools used by state and local government to set transportation policy and determine capacity needs were developed 30 years ago, when the important question was how much road to build. Today's challenges require broader thinking. This program will improve the tools used by state and local governments to evaluate travel demand management efforts, Clean Air Act Transportation Control Measures, as well as infrastructure decisions, including their impacts on air quality and greenhouse gas emissions. The program will aim to better inform local decision-making in this area, adding to the understanding of such issues as the 'induced demand' for travel resulting from new roads and other behavioral impacts. The program has four tracks:

Track A: Outreach effort to make potential users (state and local govts, environmental groups, etc) aware of the program. Create a network to disseminate results.

Track B: Develop near-term improvements to existing analytic tools.

Track C: Develop a completely new set of travel forecasting tools (w/ Los Alamos National Lab).

Track D: Data analysis to validate new and existing tools.

Expected Date	Program Milestones
Begin	Begin Track A efforts
December 1995	Complete dissemination of first Track B products
1998	Complete Track C - development of a totally redesigned travel model process

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TRANSPORTATION EFFICIENCY: GUIDANCE DOCUMENTS

Issue: Encourage state and local market-based emissions-reduction policies by providing official EPA guidance.

Lead Agency and Contact: EPA OPPE, 2126: Will Schroeder, 202.260.1126, or Alex Cristofaro, 202.260.1126.

Goals and Intended Results: This project will write and distribute official EPA guidance on how to obtain CAAA State Implementation Plan credits for criteria emissions reductions through the use of market-based emissions-reduction policies. Guidance will be issued through standard Agency work group process, using the principles of efficient market-based transportation and environmental policy.

The project will result not only in criteria emissions reductions, but also in better transportation policy and lower GHG emissions. It will meet state and local needs for information and assistance in meeting Clean Air Act requirements, and in doing so will produce GHG reductions.

Noteworthy Concerns or Highlights: Some policies likely to be recommended as creditable may not have yet been tried in the United States.

Milestones	Completion Dates	Current Status
1. Contract for technical modeling support.	October 31, 1993	Complete
2. Develop base documents in preparation for beginning of work group.	March 31, 1994	Begun
3. Establish Agency work group.	April 31, 1994	Begun
4. Complete Agency work group and issue guidance.	August 31, 1994	Not begun
5. Distribute to state and local governments	No later than April 31, 1994	Not begun

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**Transportation Efficiency: Transportation Control Measure
Implementation Guidance**

Issues: Provide guidance to state and local governments on effective implementation strategies for market based TCMS and Employee Commute Options programs.

Lead Agency and Contact: EPA/Office of Mobile Sources, Robin Miles-McLean (313) 741-7890

Goals and Intended Results:

Market-based TCMS are innovative and unfamiliar to local governments and citizens. While they hold great promise for equitable and effective reform of transportation systems to enable more efficient access of people and goods, market-based TCMS can be expected to meet with considerable skepticism and resistance initially. This guidance would lay out comprehensive, detailed approaches for areas to put in place needed regulations and institutional changes and bring together transportation stakeholders. ECO programs are already being implemented, additional guidance would provide implementation flexibility and options and encourage voluntary programs.

<u>Milestones</u>	<u>Completion</u>	<u>Status</u>
Meet w/ State air officials to identify ECO issues	Spring 1994	Completed
Grant to National Association of Regional Councils	Spring 1994	Underway
Hire EPA intern to work on Guidance	Spring 1994	Completed
Contract for Technical Support	Spring 1994	To do
Establish review groups with DOT and review guidance	Summer 1994	To do
Finalize documents	Summer 1994	To do
Distribute to State and Local governments	Fall 1994	To do

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Transportation Efficiency: Review of the Congestion Mitigation Air Quality Program

Issue: Review the CMAQ funding program under the Intermodal Surface Transportation Efficiency Act and make recommendations for a more effective CMAQ programs

Offices Responsible: EPA/Office of Mobile Sources, Jane Armstrong, (313) 668-4471; EPA/Office of Policy Analysis, John Kessler, (202) 260-3761

Goals and Intended Results:

Review in detail with DOT and major stakeholders how CMAQ program is being implemented in urban nonattainment areas. Review with local officials what projects are being funded, their likely impacts on vehicle travel over the short and long term, and suggestions for facilitating greater support for truly innovative transportation efficiency improvements.

Noteworthy Concerns:

CMAQ, which was first established in the 1991 ISTEA, has been under utilized in many States and has been used in others for projects with questionable long-term impacts on overall vehicle travel.

<u>Milestone</u>	<u>Completion Date</u>	<u>Status</u>
Concur on DOT notice announcing process	Spring 1994	Completed
Establish review group	Spring 1994	Underway
Hire EPA intern to coordinate	Spring 1994	Completed
Visit metropolitan planning organizations	Summer 1994	To do
Draft Recommendations	Fall 1994	To do
Finalize and Distribute Recommendations	Fall 1994	To do

DRAFT

Transportation Efficiency: Transportation Conformity

Issue: The Transportation Conformity became final on November 24, 1993. State and local air quality and transportation planners are struggling with implementation.

Lead Agency and Contact: EPA/Office of Mobile Sources, Robin Miles-McLean, 313-741-7890.

Goals and Intended Results:

Transportation conformity rule requires transportation planning to explicitly, quantitatively address the air quality/transportation interaction. Thoughtful, careful implementation of the transportation conformity rule will require metropolitan planning organizations (MPOs) to face issues of land use planning, ever-expanding road construction and the resulting VMT and emission increases in Green house gases (GHG) and criteria air pollutants.

<u>Milestones</u>	<u>Completed Date</u>	<u>Status</u>
10 Regional Workshops for Regions, States and Locals	Dec. 1993 - Feb. 1994	Completed.
Grant to STAPPA to write model conformity SIP	April 1994	Underway
Participate in STAPPA process - offer Technical Review	April - June 1994	Underway
Grant to National Association of Regional Council for MPO Education	March 1994	To do
STAPPA Releases Final Conformity SIP on disk to States	June 1994	To do
MPO educational materials available	Sep. 1994	To do

LAST OF

36 PAGES

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NASEO *National Association of State Energy Officials*

FOR IMMEDIATE RELEASE

For additional information contact:

Dave Rinebolt, NASEO, 202/548-2200

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ENERGY, SUSTAINABLE BUSINESS, AND STATE GROUPS URGE CONGRESS TO SUPPORT VOLUNTARY CLIMATE PLAN PROGRAMS

Washington, DC (April 20, 1994) – A coalition of states, energy and business groups today voiced strong support for the Department of Energy's efforts to implement the Administration's *Climate Change Action Plan*. The Department is currently involved in a collaborative effort with utilities and others in the private sector, state and local governments, and energy policy groups to develop voluntary programs to make American businesses more competitive and save energy while reducing greenhouse gas emissions. The Administration has requested an additional \$340 million in funding for energy efficiency and renewable energy programs in support of this effort and to implement the Energy Policy Act.

"Programs implementing the *Climate Change Action Plan* will result in economic development in the form of new jobs and new industries producing and deploying renewable energy and energy efficiency technologies," according to Doug Culbreth, Director of the North Carolina Energy Office and NASEO Chairman. "It is important that we implement the programs authorized in the Energy Policy Act and the new Climate Change programs because they will help all businesses compete internationally and grow by reducing energy costs in the private sector."

"The emissions reductions achieved through the Climate Challenge agreements between DOE and utilities are not part of the original assumptions underlying the *Climate Change Action Plan*. Therefore, we are convinced that reductions in certain areas of the plan will be greater than anticipated," added Ned Helme, Director of the Center for Clean Air Policy, a Washington-based environmental group. "In addition, the Joint Implementation Pilot Program, a voluntary effort which has U.S. companies working with public and private sector partners outside the U.S., can provide an insurance policy to ensure the emissions reductions goals are met." Last week, the Center, along with Energy Secretary O'Leary, and CEOs from Wisconsin Electric, NIPSCO Industries and

(MORE)

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Page 2

Edison Development announced a first-of-its kind joint implementation project in the Czech Republic. The utilities plan to submit this project under the U.S. Joint Implementation Pilot Program and their Climate Challenge commitments.

Bill Wood, Chairman and CEO of Pacific Enterprises and Chair of the Business Council for a Sustainable Energy Future, also voiced support for the Department of Energy initiatives. "Utilities which control over 80 percent of this country's installed electric generation capacity have agreed to work voluntarily with the Department of Energy under the Climate Challenge program to control and reduce their greenhouse gas emissions. Business has stepped up to the plate and contributed manpower and resources to achieve the goals of the President's plan. We know voluntary efforts can work and are willing partners in this process. Now it is important for Congress to adequately fund the programs they approved with bipartisan support in the Energy Policy Act which we have helped develop."

Scott Sklar, Executive Director of the Solar Energy Industries Association stated, "It is critical to move forward and implement the Climate Change and Energy Policy Act initiatives which are designed collaboratively between the public and private sectors to insure significant contributions by renewable energy. The Administration's budget request includes the bulk of the funding needed to start this process."

"The new generation of wind turbines, and other forms of renewable energy, are cost competitive with traditional forms of electricity generation," explained Randall Swisher, Executive Director of the American Wind Energy Association. "The advantage of adding renewables to our generation mix is that they do not produce greenhouse gas emissions. These new Department of Energy initiatives are effective in helping utilities increase the use of these new technologies."

"Changing the way we use and generate energy will create new jobs and new businesses, while reducing greenhouse gas emissions," concluded Bill Wood, on behalf of the groups. "Working with the Department of Energy to develop voluntary programs to increase the deployment of sustainable technologies will accelerate the process of achieving those goals without the high costs associated with command and control regulations."

(MORE)

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Page 3

Organizations supporting the Department of Energy's efforts to implement the *Climate Change Action Plan* include:

National Association of State Energy Officials
Carson D. Culbreth, Chairman
Dave Rinebolt, Director of Programs
202/548-2200

Center for Clean Air Policy
Ned Helme, Executive Director
202/624-5833

Business Council for a Sustainable Energy Future
Bill Wood, Chairman
John Hemphill, Executive Director
202/785-0507

Solar Energy Industries Association
National Wood Energy Association
Scott Sklar, Executive Director
202/383-2800

American Wind Energy Association
Randall Swisher, Executive Director
Michael Marvin, Director of Governmental and Public Affairs
202/383-2500

FY95 Interior Budget Request

- Total FY95 Interior Budget Request for the Department of Energy is \$1.5 Billion
- Total FY95 Interior Budget Request for Energy Efficiency is \$978 Million
- Energy Efficiency's Request Represents a 42% Increase over the FY94 Appropriation

Climate Change Action Plan

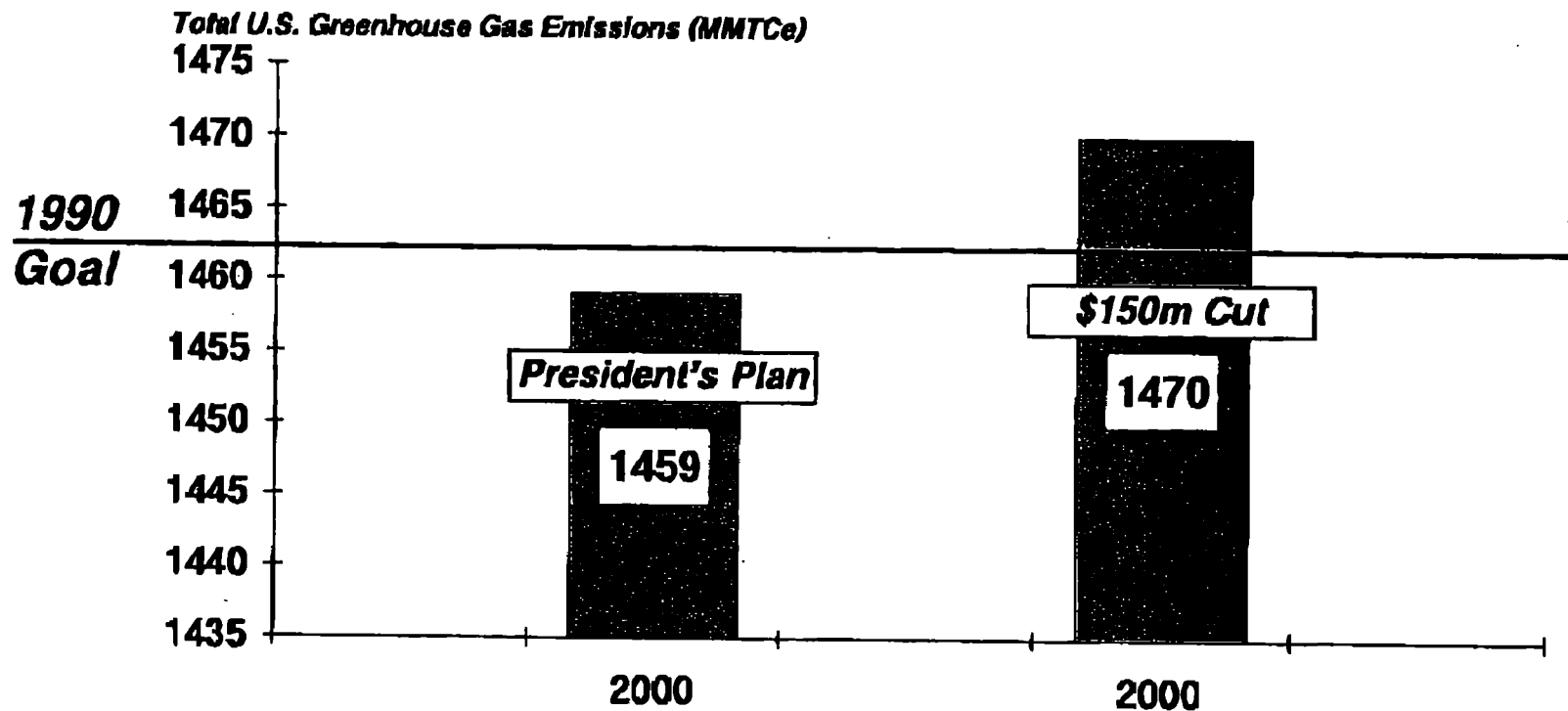
- Total FY95 Energy Efficiency/Climate Change Action Plan Request is \$119 Million
- These Energy Efficiency/Climate Change Action Plan Programs
 - Account for 32 MMT carbon reductions in the year 2000 (50% of all energy-related reductions in the President's plan)
 - Will save \$11.3 billion in energy costs in the year 2000
 - Will create 146,000 jobs in the year 2000

Impacts of a \$150 Million Reduction

Under a \$150 Million Interior Budget Request Reduction, based on an analysis of all essential programs, we would:

- Propose a \$57 Million Reduction in Climate Change Action Plan Initiatives
- Propose a \$92 Million Reduction in Other Energy Efficiency Programs, Including:
 - Energy Policy Act Implementation
 - Weatherization
 - Federal Energy Management Program
 - Federal Fleets
 - Clean Car

Impact of Limited EE Budget on the Climate Change Action Plan Goals

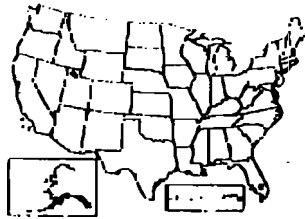


A \$150 million cut in the Energy Efficiency budget places the President's commitment to stabilize Greenhouse Gas emissions at risk.

Who loses if our Interior request is reduced ?



The steel industry loses \$10 million.



State Governments lose \$34 million.

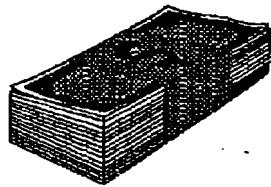


The construction and buildings industry loses \$12 million.



Automakers lose \$20 million.

A \$150 million reduction in our FY95 Interior request will...



Increase energy costs by \$3.4 billion in the year 2000.



Lose 45,000 jobs for Americans in the year 2000.



Increase carbon emissions by more than 9 million metric tons.

Summary of Climate Change Action Plan Priorities

		Benefits - Year 2000			
		FY95 Request	Emissions Reductions	Energy Savings	Jobs
		\$Million	MMTCE	\$Billion	
Tier 1	Highest Priority (Must Protect)				
Tier 2	Medium Priority	29	6.2	2.2	28,000
Tier 3	Low Priority	28	1.2	0.4	5,500
All Tiers	Total FY 95 Interior Request: Climate Programs	119	32	11.3	146,500

Climate Change Action Plan Priorities - FY95 Interior Budget

Tier 1: Highest Priority

- By 2000, Tier 1 programs below will:
- Produce energy savings of: \$8.7 Billion
 - Create 113,000 jobs
 - Reduce climate emissions by: 24.6 MMTCE

S millions	
Item	FY95 Request
#1 - Rebuild America	12.0
#4 - Commercial Market Pull	4.0
#6 - Residential Market Pull	6.0
#8 - Home Energy Rating Systems/Energy Efficiency Mortgages	1.5
#9 - Cool Communities	1.2
#10 - Building Standards	8.0
#11 - Residential Efficiency	2.8
#12 - Motor Challenge	3.5
#13 - Industrial Market Pull	2.0
#14 - Industrial Process Efficiency	3.8
#15 - Expand EADC	1.5
#16 - NICE3	5.5
#27 - Expand IRP	6.0
#29 - Energy Star Transformers	0.5
Climate Wise	4.0
TOTAL	62.3

Climate Change Action Plan Priorities - FY95 Interior Budget Tier 2: Medium Priority

- By 2000, Tier 2 programs below will:
- Produce energy savings of: \$2.2 Billion
 - Create 28,000 jobs
 - Reduce climate emissions by: 6.2 MMTCE

\$ millions	
Item	FY95 Request
Action #14 - Industrial Process Technologies (Expanded)	4.7
Action #15 - Expand EADC (Expanded)	2.0
Climate Wise	2.0
Action #1 - Rebuild America (Expanded)	8.0
Action #4 - Commercial Market Pull (Expanded)	2.0
Action #6 - Residential Market Pull (Expanded)	3.0
Action #11 - Residential Efficiency Programs (Expanded)	4.0
Action #5 - Efficiency Information Training	3.4
TOTAL	29.1

Climate Change Action Plan Priorities - FY 95 Interior Budget

Tier 3: Low Priority

- By 2000, Tier 3 programs below will:
- Produce energy savings of: \$425 Million
 - Create 5,500 jobs
 - Reduce climate emissions by: 1.2 MMTCE

Item	\$ millions FY95 Request
Action #4 - Commercial Market Pull (Expanded)	4.0
Action #6 - Residential Market Pull (Expanded)	6.0
Action #9 - Cool Communities (Expanded)	1.0
Action #10 - Building Standards (Expanded)	6.0
Action #3 - State Revolving Loan Fund	11.0
TOTAL	28.0

A \$150 Million Reduction Would Also Impact Many Other Congressional and Presidential Priorities

	FY95		Year 2000 Impacts		
	Request	Possible Reductions	Emissions Increase	Energy Cost Increase	Jobs Lost
Non-CCAP Interior Programs	\$538 million	\$92 million	2.0 MMTCE	\$820 Million	11,500

A \$150 Million Interior Reduction Would Also Impact Many Other Congressional and Presidential Priorities

In 2000, the programs below will:

- Produce energy cost savings of: \$820 Million
- Create 11,500 jobs
- Reduce emissions by: 2.0 MMTCE

Priority*	Item	Request FY95	Potential Reduction
1	Hybrid vehicles - propulsion systems development	\$37,138	\$2,000
2	Federal Fleets	\$30,000	\$4,000
3	Advanced Battery Development	\$26,500	\$3,000
4	Clean Car Materials R&D	\$15,000	\$4,000
5	Outreach and international market development	\$7,147	\$1,800
6	Industrial pollution prevention	\$3,776	\$1,000
7	Long term building R&D	\$24,955	\$2,500
8	Aluminum Spray Forming Pilot Plant	\$6,700	\$5,000
9	Industrial efficiency R&D	\$20,400	\$6,400
10	Near-term transportation R&D	\$16,400	\$5,000
11	Buildings R&D	\$15,115	\$4,250
12	Federal Energy Management Program	\$37,090	\$8,000
13	Integrated Resource Planning	\$13,000	\$2,000
14	Alternative fuel utilization for state and private fleets	\$15,730	\$5,000
15	Industrial manufacturing and materials	\$9,500	\$9,500
16	Weatherization Assistance	\$249,800	\$19,000
17	Steel making commercial demonstration	\$9,809	\$9,809
TOTAL		\$538,060	\$92,259

* Priorities arranged in reverse order of budget reduction (priority 1 would be the last reduction)

Priority-Setting Guidelines for Climate Change Programs

- Fully Fund Highest Payoff Programs
 - Largest carbon reductions
 - Stakeholders ready - large commitment potential
 - Most likely near-term results
- Cut Lower Payoff Programs
 - Smallest carbon reduction
 - Most congressional resistance
 - Least stakeholder support
 - Least ready to execute

Priority-Setting Guidelines for Other Interior Programs

- Recognize Congressional Priorities
- Minimize Reductions in Presidential and Departmental Initiatives
 - Weatherization
 - Federal Energy Management Program
 - Federal Fleets
 - Clean Car
 - Pollution Prevention
- Support Programs Having High Co-funding
- Support Highest Priority Energy Policy Act Programs
- Preserve R&D with Highest Payoff to Economy

***"What-If Scenarios" To Address
Funding Shortfalls in the President's
Climate Change Action Plan***

***Office of Energy Efficiency and Renewable Energy
U.S. Department of Energy***

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For
am

***Preserve the distinction between I-and
EW-funded programs throughout this an
The way we have chosen to do this is to
produce separate analysis and rankings
each subcommittee.***

***We can therefore look at a "90% Interior
Scenario" along with a "10% EW Scenario
and so on.***

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ANALYSIS

**Draft
4-19-94**

- 1. Each CCAP Action now has a detailed Implementation Plan**
- 2. With each Implementation Plan we now have a "Mini-Spend-Plan" (MSP)**
- 3. Every outlay in these MSP's can be placed in the following categories**

Insert Categories

A

B

C

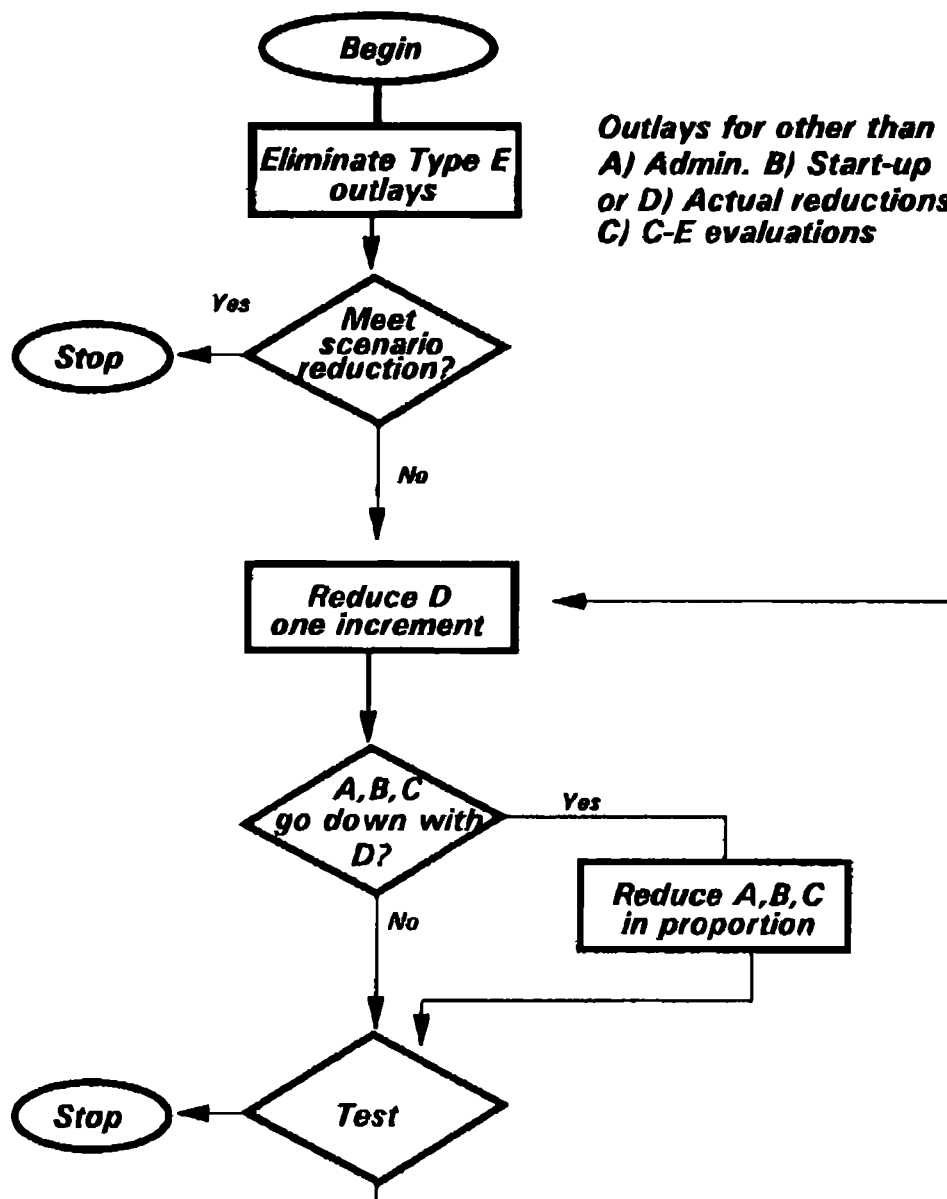
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Activity Types in the CCAP Programs

The mini-spend plans for each CCAP program describe in detail the individual activities and estimated budget for each activity. In order to more effectively evaluate budget reductions in the CCAP programs, we have grouped the activities in 5 main categories:

- A Fixed Costs- May include one-time start-up costs or foundational activities.
- B Annual Administration- On-going costs of planning and supporting the program.
- C Evaluation- On-going activities associated with monitoring and verifying results of the programs.
- D Principal Activities- The main actions in the programs that will save energy and carbon.
- E Optional Activities- Other activities that are planned that will enhance the effectiveness of the program in saving carbon.

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4-19-94**



CCAP Programs	Activity Type	Performer	CCAP Program Funding (\$000)				
			Full	90%	80%	70%	60%
14b. Strengthening State Gov. Coordination of EE Services to Industry			<u>\$ 7,000</u>	<u>\$ 6,031</u>	<u>\$ 5,385</u>	<u>\$ 5,385</u>	<u>\$ 3,769</u>
a. Grants to States for pilot projects providing EE and poll prevent. services	D	DOE/Supp. Office	\$ 6,500	\$ 5,600	\$ 5,000	\$ 5,000	\$ 3,500
10-15 awards totaling 6.5 million							
b. Evaluation and transfer of results to other States	C	TBD	\$ 500	\$ 431	\$ 385	\$ 385	\$ 269
15. Expand Energy Analysis and Diagnostic Centers			<u>\$ 3,500</u>	<u>\$ 2,386</u>	<u>\$ 1,468</u>	<u>\$ 1,468</u>	<u>\$ 950</u>
a. Addtl. 4 EADCs- cost share for year 1	D	Universities	\$ 400	\$ 400	\$ 400	\$ 400	\$ 400
b. Workshops- 30 EADCs @ \$20K per center	D	EADCs	\$ 600	\$ 300	\$ 300	\$ 100	\$ -
c. Modify EADC database	A	Rutgers	\$ 50	\$ 50	\$ 50	\$ 50	\$ 40
d. Best practice manuals- facilities not covered by EADCs	E	TBD	\$ 300	\$ -	\$ -	\$ -	\$ -
e. Data collection and verification/assessment	E	EADCs	\$ 960	\$ 500	\$ -	\$ -	\$ -
f. Awards program	D	TBD	\$ 300	\$ 300	\$ 200	\$ 200	\$ 100
g. Service center- supporting analysis and data on EADC activities	C	Rutgers	\$ 250	\$ 203	\$ 188	\$ 188	\$ 120
h. Life cycle cost manual	D	TBD	\$ 200	\$ 200	\$ 200	\$ 200	\$ 170
i. Industrial consultants	E	TBD	\$ 300	\$ 300	\$ -	\$ -	\$ -
j. Special studies	D	TBD	\$ 100	\$ 100	\$ 100	\$ 100	\$ 100
k. Program development- travel invitations for Stakeholders for CCAP meetings	B	DOE	\$ 40	\$ 33	\$ 30	\$ 30	\$ 19
B. Pollution Prevention			<u>\$ 5,500</u>	<u>\$ 5,500</u>	<u>\$ 5,500</u>	<u>\$ 4,448</u>	<u>\$ 3,006</u>
16. NICE3 Program- expansion			<u>\$ 5,500</u>	<u>\$ 5,500</u>	<u>\$ 5,500</u>	<u>\$ 4,448</u>	<u>\$ 3,006</u>
a. Competitive awards- 20 to 30 awards @ ~300K per award	D	DOE, EPA	\$ 5,120	\$ 5,120	\$ 5,120	\$ 4,120	\$ 2,750
b. Project monitoring and reporting of project activities	C	Golden Oper. Off.	\$ 160	\$ 160	\$ 160	\$ 129	\$ 87
c. Materials and distribution	A	DOE	\$ 50	\$ 50	\$ 50	\$ 50	\$ 50
d. Workshops to assist in tech. transfer	D	TBD	\$ 60	\$ 60	\$ 60	\$ 60	\$ 60
e. Administration- travel for site visits and selection panels	B	TBD	\$ 60	\$ 60	\$ 60	\$ 48	\$ 33
f. NEPA programmatic environmental assessment	C	TBD	\$ 50	\$ 50	\$ 50	\$ 40	\$ 27
IV. Energy Supply							
A. Enhanced Renewable Commercialization			<u>\$ 6,000</u>	<u>\$ 6,000</u>	<u>\$ 5,500</u>	<u>\$ 4,500</u>	<u>\$ 4,500</u>
27. Promote Integrated Resource Planning			<u>\$ 6,000</u>	<u>\$ 6,000</u>	<u>\$ 5,500</u>	<u>\$ 4,500</u>	<u>\$ 4,500</u>
a. Financial assistance to States	D	States	\$ 3,000	\$ 3,000	\$ 2,500	\$ 2,000	\$ 2,000
b. Providing support for IRP education- for regulators and utilities	D	TBD	\$ 3,000	\$ 3,000	\$ 3,000	\$ 2,500	\$ 2,500
B. Improved Energy Efficiency			<u>\$ 500</u>	<u>\$ 500</u>	<u>\$ 500</u>	<u>\$ 500</u>	<u>\$ 500</u>
29. Efficiency Standards for Electric Transformers (funded from base)			<u>\$ 500</u>	<u>\$ 500</u>	<u>\$ 500</u>	<u>\$ 500</u>	<u>\$ 500</u>
a. ORNL will provide engineering analysis for action #29 and #30	D	ORNL	\$ 100	\$ 100	\$ 100	\$ 100	\$ 100
b. ORNL study to determine whether standards are needed- req'd by EPCA	D	ORNL	\$ 400	\$ 400	\$ 400	\$ 400	\$ 400

CCAP Programs	Activity Type	Performer	CCAP Program Funding (\$000)					
			Full	90%	80%	70%	60%	
V. Methane Reduction Actions								
37. Expanded RD&D for Methane Recovery from Landfills			\$ 1,500	\$ 1,500	\$ 1,152	\$ 1,152	\$ 1,152	
\$400K in FY95 budget, \$1.1 Mill from prior year funding								
a. Lab and field research cost-shared with Unocal and California			A	Argonne	\$ 250	\$ 250	\$ 250	\$ 250
b. Program administration			B	NREL	\$ 150	\$ 150	\$ 109	\$ 109
c. Solid Waste Mgmt. Assoc. of North America (SWANA)- expert support			D	SWANA	\$ 200	\$ 200	\$ 200	\$ 200
d. Landfill demonstration/R&D projects- cost shared, 3 projects @ \$300K			D	TBD	\$ 900	\$ 900	\$ 600	\$ 600
Foundation Actions								
Climate Wise (EPA co-funding addtl \$4.6 M)			\$ 6,000	\$ 5,000	\$ 5,000	\$ 3,500	\$ 1,900	
a. Program development and implementation support			A	Support Service	\$ 1,500	\$ 1,000	\$ 1,000	\$ 700
b. Cooperative agreements with organizations working in this area			D	DOE, TBD	\$ 1,500	\$ 1,500	\$ 1,500	\$ 1,000
c. Support for meetings and conferences			D	ORNL	\$ 1,000	\$ 725	\$ 725	\$ 530
d. Develop reporting and verification components of CW			C	PNL	\$ 500	\$ 445	\$ 445	\$ 306
e. Fast-track marketing, outreach			B	Bruce Co., TBD	\$ 900	\$ 801	\$ 801	\$ 511
f. Develop engineering analysis and information on technology options			A/D	NREL	\$ 350	\$ 300	\$ 300	\$ 300
g. Management and administrative support			B		\$ 250	\$ 229	\$ 229	\$ 153

CCAP Programs

Energy and Water Appropriation Committee

I. Energy Supply

A. Enhanced Renewable Commercialization

26a. RE Market Mobilization and Technology Demos (Photovoltaics)

- a. PV Team Up- installation of 50 MW of PV w/ utilities
- b. PV Compact precursor projects- from FY93-94
- c. Step Plan- State efforts for Photovoltaics
- d. RETA- Renewable energy tech. analysis- info. to public interest groups
- e. NASUCA- Nat. Assoc. of State util. consumer advocates PV education proj.

26b. RE Market Mobilization and Technology Demos (Geothermal Power)

- a. Ice-breaker power plants on new geothermal fields- aver. award= \$2.5 M
- b. Increasing efficiency of existing geothermal power plants
- c. Direct use awards - 2-10 awards @ \$20K to \$200K
- d. Program administration and outreach

26c. RE Market Mobilization and Technology Demos (Geothermal HP)

- a. Program development/coordination
- b. Engineering analysis and monitoring
- c. Technical projects
- d. Development of info. materials
- e. Administration

26d. RE Market Mobilization and Technology Demos (Wind)

- a. Wind technology deployment- 4 competitive awards
- b. Wind Resource Assessment- 5 competitive awards
- c. Avian research- competitive solicitation
- d. Coordination and support

26e. RE Market Mobilization and Technology Demos (Biomass)

- a. Competitive solicitations for biomass projects- aver. award= \$7 million
- b. Phase II of the small intl. demonstration of the Hawaii Gasifier
- c. On-site engineering consultation
- d. Evaluation of Program Performance
- e. Stakeholder coordination/planning
- f. Development of tools and materials
- g. Administration - NREL overhead
- h. DOE administration

Activity Type	Performer	CCAP Program Funding (\$000)				
		Full	90%	80%	70%	60%
		<u>\$ 65,000</u>				
		<u>\$ 18,000</u>	\$ -	\$ -	\$ -	\$ -
D	Utilities	\$ 11,600				
D	GA Tech., SMUD	\$ 5,600				
	S. CA Edis., GPU					
D/B/C	PV4U- State Allinc.	\$ 400				
D/B/C	Pace Univ.	\$ 200				
D/B/C	NASUCA	\$ 200				
		<u>\$ 7,000</u>	\$ -	\$ -	\$ -	\$ -
D	TBD	\$ 5,400				
D	DOE field offices	\$ 600				
D	Supp. or Hld. Off.	\$ 500				
B	Geo. Ener. Assoc.	\$ 500	\$ -	\$ -	\$ -	\$ -
		<u>\$ 2,000</u>				
B	Edison Elec.	\$ 100	\$ 59	\$ -	\$ -	\$ -
D	"	\$ 1,000	\$ 1,000			
D	"	\$ 700	\$ -			
A	"	\$ 50				
B	"	\$ 150	\$ 88	\$ -	\$ -	\$ -
		<u>\$ 18,000</u>	\$ -	\$ -	\$ -	\$ -
D	NREL, GFO, TBI	\$ 15,000				
A	NREL/UWIG	\$ 500				
D	NREL, GFO, TBI	\$ 2,000				
B	NREL	\$ 500	\$ -	\$ -	\$ -	\$ -
		<u>\$ 20,000</u>	\$ -	\$ -	\$ -	\$ -
D	NREL	\$ 14,240				
D	GFO	\$ 4,000				
B	NREL	\$ 400	\$ -	\$ -	\$ -	\$ -
C	NREL	\$ 150				
B	NREL	\$ 20				
A	NREL	\$ 50				
B	NREL	\$ 1,000				
B	NREL	\$ 140				

SCENARIO B

DRAFT

094

CCAP Programs	Activity Type	Performer	CCAP Program Funding (\$000)				
			Full	90%	80%	70%	60%
Interior Appropriation Committee			\$ 126,085	\$ 113,256	\$ 101,498	\$ 88,263	\$ 76,014
I. Commercial Demand							
A. Partnership Programs							
1. Rebuild America			\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000
a. Competitive awards to organizations for whole bldg retrofit programs 12 to 25 awards @ \$0.5 to \$2 Million per award	D	Private Org./ Support Offices	\$ 17,500	\$ 17,500	\$ 17,500	\$ 17,500	\$ 17,500
b. Development and transfer of tools and methodologies	A	ORNL/LBL	\$ 1,200	\$ 1,200	\$ 1,200	\$ 1,200	\$ 1,200
c. Marketing and recognition	D	DOE/Support Off.	\$ 500	\$ 500	\$ 500	\$ 500	\$ 500
d. Coordination/Planning with stakeholders	A	DOE	\$ 200	\$ 200	\$ 200	\$ 200	\$ 200
e. Administration	B	DOE	\$ 200	\$ 200	\$ 200	\$ 200	\$ 200
f. Evaluation of cost-effectiveness and results	C	FSEC, Texas A&M, ORNL	\$ 400	\$ 400	\$ 400	\$ 400	\$ 400
B. Development, Commercialization, and Training							
3. State Revolving Funds			\$ 11,000	\$ 11,000	\$ 11,000	\$ 9,900	\$ 9,900
a. Competitive grants for States to establish revolving loan funds for EE/RE retrofits of public bldgs. 10 grants @ \$1 million per State.	D	States/Supp. Off.s	\$ 10,000	\$ 10,000	\$ 10,000	\$ 9,000	\$ 9,000
b. Analyze existing State revolving funds for "lessons learned"	A	TBD	\$ 200	\$ 200	\$ 200	\$ 180	\$ 180
c. Evaluate the impacts of the programs in initial States	C	TBD	\$ 550	\$ 550	\$ 550	\$ 495	\$ 495
d. Information transfer between States	B/D	TBD	\$ 250	\$ 250	\$ 250	\$ 225	\$ 225
4. Cost-Shared Demonstration of Emerging Technologies			\$ 10,000	\$ 9,000	\$ 6,000	\$ 6,000	\$ 4,000
a. Form of consortia to create initial markets for new tech.- 5-8 in year 1 Program costs approx. \$0.5 to \$1.2 million per technology chosen	D	Utilities, manufac., SEOs, others	\$ 6,000	\$ 6,000	\$ 4,500	\$ 4,500	\$ 3,000
b. Other programs to boost demand for EE/RE technologies in homes including Devel. and deploy. of market tools- work with a firm to increase market identification of EE/RE technologies Maintenance to improve eff.- info. campaign to promote proper maint.	E	Advertising firm	\$ 1,000	\$ 1,000	\$ -	\$ -	\$ -
	E	Util. retailers, TBD	\$ 1,000	\$ -	\$ -	\$ -	\$ -
c. Non-competitive Procurements Market assessment and support	B	ORNL, LBL, NRE	\$ 800	\$ 800	\$ 600	\$ 600	\$ 400
Utility impact assessment/evaluation	C	ORNL	\$ 400	\$ 400	\$ 300	\$ 300	\$ 200
Program Evaluation	C	DOE, TBD	\$ 300	\$ 300	\$ 225	\$ 225	\$ 150
Administration	B	DOE, TBD	\$ 200	\$ 200	\$ 150	\$ 150	\$ 100
Coordination with utilities	B	CEE	\$ 300	\$ 300	\$ 225	\$ 225	\$ 150
5. Energy Efficiency and Renewable Energy Info. and Training Programs			\$ 3,400	\$ 3,400	\$ 3,400	\$ 2,400	\$ -
a. Cofunded program for training/education of specific building professionals 1-5 programs @ \$0.5 to \$2.6 million	D	Assoc./Support Offices	\$ 2,650	\$ 2,650	\$ 2,650	\$ 1,800	\$ -
b. Materials development and administration	A	ORNL	\$ 300	\$ 300	\$ 300	\$ 262	\$ -
c. Market research to improve design of education programs	C	ORNL/DOE	\$ 200	\$ 200	\$ 200	\$ 136	\$ -
d. Program evaluation	C	ORNL	\$ 150	\$ 150	\$ 150	\$ 102	\$ -
e. Advisory council for initial program planning	A	TBD	\$ 100	\$ 100	\$ 100	\$ 100	\$ -

CCAP Programs

II. Residential Demand

A. Appliance Improvements

6. "Golden Carrot" Market Pull Partnerships

- a. Form of consortia to create initial markets for new tech.- 5-9 in year 1
Program costs approx. \$0.5 to \$2 million per technology chosen
- b. Other programs to boost demand for EE/RE technologies in homes including
National Retailers Program- work with retailers to promote EE tech.
Devel. and deploy. of market tools- work with a firm to increase
market identification of EE/RE technologies
Maintenance to improve effic.- info. campaign to promote proper maint.
- c. Non-competitive Procurements
Market assessment and support
Utility impact assessment/evaluation
Program Evaluation
Administration
Coordination with utilities

7. Enhance Residential Appliance Standards

- a. Engineering/economic analysis
- b. Test procedure development/modification
- c. Certification and enforcement

B. Home Improvements

8. HERS/EEMs Program

- a. Base program- support HERS council in implem. consistent national plan
for HERS and EEMs.
- b. EPACT program- develop the A&E tools to support national HERS/EEMs
programs. Issue HERS guidelines.
- c. CCAP program- aggressive outreach for HERS/EEMs beginning with pilot
States, including training for real estate agents, appraisers, lenders, etc.

9. Cool Communities Program

- a. Competitive solicitations- community outreach, 25 awards @ \$10K per award
and 10 Federal Facilities @ approx. \$10k per facility
- b. CRADA with roofing manufacturers
- c. Product Characterizations
- d. Rating and labeling
- e. Integration with building standards
- f. Market testing
- g. Evaluation of program
- h. Program support/Administration

Activity Type	Performer	CCAP Program Funding (\$000)				
		Full	90%	80%	70%	60%
		<u>\$ 15,000</u>	<u>\$ 11,000</u>	<u>\$ 11,000</u>	<u>\$ 8,041</u>	<u>\$ 8,041</u>
D	Utilities, manufac., SEOs, others	\$ 7,700	\$ 6,200	\$ 6,200	\$ 4,500	\$ 4,500
D	Retailers	\$ 2,000	\$ 2,000	\$ 2,000	\$ 1,500	\$ 1,500
E	Advertising firm	\$ 1,000	\$ -	\$ -	\$ -	\$ -
E	Util, retailers, TBD	\$ 1,000	\$ -	\$ -	\$ -	\$ -
B	ORNL, LBL, NREL	\$ 1,200	\$ 1,024	\$ 1,024	\$ 742	\$ 742
C	ORNL	\$ 800	\$ 676	\$ 676	\$ 495	\$ 495
C	DOE, TBD	\$ 500	\$ 423	\$ 423	\$ 309	\$ 309
B	DOE, TBD	\$ 300	\$ 254	\$ 254	\$ 186	\$ 186
B	CIE	\$ 500	\$ 423	\$ 423	\$ 309	\$ 309
		<u>\$ 3,215</u>	<u>\$ 3,215</u>	<u>\$ 3,215</u>	<u>\$ 3,215</u>	<u>\$ 3,215</u>
D	LBL	\$ 1,800	\$ 1,800	\$ 1,800	\$ 1,800	\$ 1,800
D	NIST	\$ 1,200	\$ 1,200	\$ 1,200	\$ 1,200	\$ 1,200
D	TBD	\$ 215	\$ 215	\$ 215	\$ 215	\$ 215
		<u>\$ 2,720</u>	<u>\$ 2,720</u>	<u>\$ 2,220</u>	<u>\$ 2,220</u>	<u>\$ 2,220</u>
D	PNL, HERS coun.	\$ 700	\$ 700	\$ 700	\$ 700	\$ 700
D	NREL, PNL	\$ 520	\$ 520	\$ 520	\$ 520	\$ 520
D	States, NREL, HERS coun., ASE	\$ 1,500	\$ 1,500	\$ 1,000	\$ 1,000	\$ 1,000
		<u>\$ 2,950</u>	<u>\$ 2,350</u>	<u>\$ 1,900</u>	<u>\$ 1,700</u>	<u>\$ 1,700</u>
D	Supp. Offices	\$ 700	\$ 700	\$ 600	\$ 600	\$ 600
E	DOE, manufac.	\$ 300	\$ 300	\$ -	\$ -	\$ -
A	LBL	\$ 400	\$ 400	\$ 400	\$ 300	\$ 300
A	LBL, ORNL, FSEC	\$ 600	\$ 600	\$ 600	\$ 500	\$ 500
E	LBL	\$ 300	\$ -	\$ -	\$ -	\$ -
E	TBD	\$ 300	\$ -	\$ -	\$ -	\$ -
C	LBL	\$ 250	\$ 250	\$ 214	\$ 214	\$ 214
B	D&R/others	\$ 100	\$ 100	\$ 86	\$ 86	\$ 86

CCAP Programs	Activity Type	Performer	CCAP Program Funding (\$000)				
			Full	90%	80%	70%	60%
10. Upgrade Building Standards			\$ 14,000	\$ 10,006	\$ 10,006	\$ 8,000	\$ 8,000
a. Incentive funding for exemplary State program creation or transfer	D	States, Supp. Off.	\$ 8,000	\$ 5,400	\$ 5,400	\$ 4,500	\$ 4,500
b. Incentive for program enforcement- enhancement or State-State transfer	D	States, Supp. Off.	\$ 4,000	\$ 3,000	\$ 3,000	\$ 2,000	\$ 2,000
c. Core materials development	A	DOE/PNL	\$ 500	\$ 400	\$ 400	\$ 400	\$ 400
d. Cost-shared training & education w/ private groups/associations/SEOs	D	TBD	\$ 500	\$ 450	\$ 450	\$ 430	\$ 430
e. Promotion of code adoption	D	ASE, others	\$ 500	\$ 400	\$ 400	\$ 400	\$ 400
f. Evaluation of results	C	DOE/PNL	\$ 300	\$ 213	\$ 213	\$ 170	\$ 170
g. Administration	B	DOE	\$ 200	\$ 142	\$ 142	\$ 100	\$ 100
11. Residential Energy Efficiency Programs			\$ 6,800	\$ 6,800	\$ 5,750	\$ 5,750	\$ -
a. Competitive solicitations for State consortia that may include: homebuilders assoc., utilities, States/local agencies, universities, others 5-10 grants @ \$250K to \$750K per grant	D	TBD	\$ 3,500	\$ 3,500	\$ 3,000	\$ 3,000	\$ -
b. Advanced Housing Program- work NAHB to support energy value housing	A	NAHB	\$ 1,200	\$ 1,200	\$ 820	\$ 820	\$ -
c. Industrialized Housing- developing innovative construction techniques	A	U. of OR, FSEC	\$ 1,600	\$ 1,600	\$ 1,600	\$ 1,600	\$ -
d. Administration and evaluation	B&C	ORNL, NREL	\$ 500	\$ 500	\$ 330	\$ 330	\$ -
III. Industrial Demand							
A. Accelerated Efficiency							
12. Motor Challenge Program			\$ 3,500	\$ 3,500	\$ 3,500	\$ 3,000	\$ 3,000
a. Communication, analysis, and administrative support	B	Contractor TBD	\$ 750	\$ 750	\$ 750	\$ 500	\$ 500
b. Independent performance validators for showcase demonstrations- 5 awards	C	TBD	\$ 500	\$ 500	\$ 500	\$ 400	\$ 400
c. Marketing and public relations support	D	NREL, TBD	\$ 300	\$ 300	\$ 300	\$ 300	\$ 300
d. Motor and drive resource centers	D	NC State, Uof OR	\$ 300	\$ 300	\$ 300	\$ 300	\$ 300
e. Experts group to support showcase demonstrations	B	ORNL, experts	\$ 150	\$ 150	\$ 150	\$ 140	\$ 140
f. Tool and protocol development	D	ORNL, contractors	\$ 350	\$ 350	\$ 350	\$ 350	\$ 350
g. Technical management and evaluation support	C	ORNL	\$ 400	\$ 400	\$ 400	\$ 373	\$ 373
h. Information Clearinghouse and motor master support	D	WSEO	\$ 550	\$ 550	\$ 550	\$ 450	\$ 450
i. Electric motor systems database	C	ORNL, SAIC	\$ 200	\$ 200	\$ 200	\$ 187	\$ 187
13. Golden Carrot Programs for Industry			\$ 2,000	\$ 2,000	\$ 2,000	\$ 1,429	\$ 1,429
a. Engineering analysis, marketing and public relations support	B	TBD	\$ 600	\$ 600	\$ 600	\$ 429	\$ 429
b. Solicitations to create buyer groups- 3 awards	D	TBD	\$ 1,100	\$ 1,100	\$ 1,100	\$ 800	\$ 800
c. Program opportunity notice to develop partnerships- 3 awards	D	TBD	\$ 300	\$ 300	\$ 300	\$ 200	\$ 200
14. One-Stop Shops for Industrial Energy Efficiency			\$ 1,500	\$ 1,350	\$ -	\$ -	\$ -
a. Information/Communication- Videos, Roundtables, Fact Sheets, etc.	D	SEOs, assoc, cntrs	\$ 500	\$ 500	\$ -	\$ -	\$ -
b. Educational Energy/Waste display- traveling exhibit	E		\$ 150	\$ -	\$ -	\$ -	\$ -
c. Course and materials for energy management	D	DOE/Eng. Soc.s	\$ 225	\$ 225	\$ -	\$ -	\$ -
d. Topical training program	E		\$ 125	\$ 125	\$ -	\$ -	\$ -
e. Demonstrations to remove barriers to commercialization - 2 awards	D/E		\$ 500	\$ 500	\$ -	\$ -	\$ -

CCAP Programs	Activity Type	Performer	CCAP Program Funding (\$000)				
			Full	90%	80%	70%	60%
14b. Strengthening State Gov. Coordination of EE Services to Industry			\$ 7,000	\$ 6,031	\$ 2,400	\$ -	\$ -
a. Grants to States for pilot projects providing EE and poll prevent. services 10-15 awards totaling 6.5 million	D	DOE/Supp. Office	\$ 6,500	\$ 5,600	\$ 2,200	\$ -	\$ -
b. Evaluation and transfer of results to other States	C	TBD	\$ 500	\$ 431	\$ 200	\$ -	\$ -
15. Expand Energy Analysis and Diagnostic Centers			\$ 3,500	\$ 2,386	\$ 1,450	\$ 1,450	\$ 950
a. Addtl. 4 EADCs- cost share for year 1	D	Universities	\$ 400	\$ 400	\$ 400	\$ 400	\$ 400
b. Workshops- 30 EADCs @ \$20K per center	D	EADCs	\$ 600	\$ 300	\$ 300	\$ 300	\$ -
c. Modify EADC database	A	Rutgers	\$ 50	\$ 50	\$ 50	\$ 50	\$ 40
d. Best practice manuals- facilities not covered by EADCs	E	TBD	\$ 300	\$ -	\$ -	\$ -	\$ -
e. Data collection and verification/assessment	E	EADCs	\$ 960	\$ 500	\$ -	\$ -	\$ -
f. Awards program	D	TBD	\$ 300	\$ 300	\$ 200	\$ 200	\$ 100
g. Service center- supporting analysis and data on EADC activities	C	Rutgers	\$ 250	\$ 203	\$ 170	\$ 170	\$ 120
h. Life cycle cost manual	D	TBD	\$ 200	\$ 200	\$ 200	\$ 200	\$ 170
i. Industrial consultants	E	TBD	\$ 300	\$ 300	\$ -	\$ -	\$ -
j. Special studies	D	TBD	\$ 100	\$ 100	\$ 100	\$ 100	\$ 100
k. Program development- travel invitations for Stakeholders for CCAP meetings	B	DOE	\$ 40	\$ 33	\$ 30	\$ 30	\$ 19
B. Pollution Prevention							
16. NICE3 Program- expansion			\$ 5,500	\$ 5,500	\$ 5,500	\$ 5,500	\$ 5,500
a. Competitive awards- 20 to 30 awards @ ~300K per award	D	DOE, EPA	\$ 5,120	\$ 5,120	\$ 5,120	\$ 5,120	\$ 5,120
b. Project monitoring and reporting of project activities	C	Golden Oper. Off.	\$ 160	\$ 160	\$ 160	\$ 160	\$ 160
c. Materials and distribution	A	DOE	\$ 50	\$ 50	\$ 50	\$ 50	\$ 50
d. Workshops to assist in tech. transfer	D	TBD	\$ 60	\$ 60	\$ 60	\$ 60	\$ 60
e. Administration- travel for site visits and selection panels	B	TBD	\$ 60	\$ 60	\$ 60	\$ 60	\$ 60
f. NEPA programmatic environmental assessment	C	TBD	\$ 50	\$ 50	\$ 50	\$ 50	\$ 50
IV. Energy Supply							
A. Enhanced Renewable Commercialization							
27. Promote Integrated Resource Planning			\$ 6,000	\$ 6,000	\$ 5,500	\$ 4,500	\$ 4,500
a. Financial assistance to States	D	States	\$ 3,000	\$ 3,000	\$ 2,500	\$ 2,000	\$ 2,000
b. Providing support for IRP education- for regulators and utilities	D	TBD	\$ 3,000	\$ 3,000	\$ 3,000	\$ 2,500	\$ 2,500
B. Improved Energy Efficiency							
29. Efficiency Standards for Electric Transformers (funded from base)			\$ 500	\$ 500	\$ 500	\$ 500	\$ 500
a. ORNL will provide engineering analysis for action #29 and #30	D	ORNL	\$ 100	\$ 100	\$ 100	\$ 100	\$ 100
b. ORNL study to determine whether standards are needed- req'd by EPA Act	D	ORNL	\$ 400	\$ 400	\$ 400	\$ 400	\$ 400

CCAP Programs	Activity Type	Performer	CCAP Program Funding (\$000)				
			Full	90%	80%	70%	60%
Y. Methane Reduction Actions							
37. Expanded RD&D for Methane Recovery from Landfills			\$ 1,500	\$ 1,500	\$ 1,159	\$ 1,159	\$ 1,159
\$400K in FY95 budget, \$1.1 Mill from prior year funding							
a. Lab and field research cost-shared with Unocal and California	A	Argonne	\$ 250	\$ 250	\$ 250	\$ 250	\$ 250
b. Program administration	B	NREL	\$ 150	\$ 150	\$ 109	\$ 109	\$ 109
c. Solid Waste Mgmt. Assoc. of North America (SWANA)- expert support	D	SWANA	\$ 200	\$ 200	\$ 200	\$ 200	\$ 200
d. Landfill demonstration/R&D projects- cost shared, 3 projects @ \$300K	D	TBD	\$ 900	\$ 900	\$ 600	\$ 600	\$ 600
Foundation Actions							
Climate Wise (EPA co-funding addtl \$4.6 M)			\$ 6,000	\$ 5,000	\$ 5,000	\$ 3,500	\$ 1,900
a. Program development and implementation support	A	Support Service	\$ 1,500	\$ 1,000	\$ 1,000	\$ 700	\$ 270
b. Cooperative agreements with organizations working in this area	D	DOE, TBD	\$ 1,500	\$ 1,500	\$ 1,500	\$ 1,000	\$ 500
c. Support for meetings and conferences	D	ORNL	\$ 1,000	\$ 725	\$ 725	\$ 530	\$ 300
d. Develop reporting and verification components of CW	C	PNL	\$ 500	\$ 445	\$ 445	\$ 306	\$ 160
e. Fast-track marketing, outreach	B	Bruce Co., TBD	\$ 900	\$ 801	\$ 801	\$ 511	\$ 290
f. Develop engineering analysis and information on technology options	A/D	NREL	\$ 350	\$ 300	\$ 300	\$ 300	\$ 300
g. Management and administrative support	B		\$ 250	\$ 229	\$ 229	\$ 153	\$ 80

**Draft
4-19-94**

Objective:

***In Hypothetical Scenarios Involving Funding For
CCAP Below Request, Determine the Program
Cuts Least Harmful to the Plan's Objective.***

***Scenarios Are: 90% of Requested Funding
80% of Requested Funding
70% of Requested Funding
60% of Requested Funding***

ANALYSIS (Cont.)

***Draft
4-19-94***

4. Once all outlays for CCAP have been categorized, an analytical procedure can be used to downsize the plan for minimum emission savings loss

- A You can eliminate start-up costs only if you eliminate the program entirely***
- B You can't eliminate administration and evaluation functions, but you can scale them to size of action***
- C Direct emissions-reducing outlays reduce emissions savings proportionate to their reduction***

PRELIMINARY REVIEW OF PROPOSED CCAP MILESTONES AND INDICATORS

Action # and Title of Action	GHG Reduction Targets (in million metric tons of carbon equivalent-MMTCE)	Milestones	Performance Indicators
1. Coordinate DOE Rebuild America & EPA Energy Star Buildings	3.1 MMTCE by 2000	3/94 20 Partners in Energy Star Showcase Buildings 4/95 Partial savings realized 6/95 25 Partners in Energy Star 6/96 Total savings realized from Showcase Buildings 1995-2000 Annual Reports	(1) preliminary analysis of savings in Showcase Buildings (3/95) (2) final analysis of savings in Showcase Buildings (6/96) (3) Annual Report on participation and GHG reductions
2. Expand EPA "Green Lights" Program	2.5 MMTCE by 2000	5/94 Over 100 Partners in Energy Star Region 9/94 150 hospitals recruited; 140 Universities/schools 12/94 2000 Participants	(1) new participants (2) square feet recruited (3) square feet upgraded (4) lbs. of CO ₂ emissions prevented per year
32. Expand Natural Gas Star	3.0 MMTCE by 2000 1.0 MMTCE by 1997	3/94 begin marketing; Natural Gas Star Briefs (quarterly) 94-96 Annual Implementation Workshops (summers) 95-97 Annual Program Summaries (February) 3/96 review best management practices; expand MOU	(1) transmission and distribution pipeline miles covered (75% by 1/97) (2) # of services covered by program (3) production covered (50% by 1/97) (4) # of production wells covered (5) estimated reduction in methane emissions

Action # and Title of Action	GHG Reduction Targets (in million metric tons of carbon equivalent-MMTCE)	Milestones	Performance Indicators
33. Increase Stringency of Landfill Rules; & 34. Expand Landfill Outreach Prog.	5.3 MMTCE by 2000 4.7 MMTCE by 1997	1994 landfill rules promulgated; begin 5 State Outreach programs 1995 compliance guidance provided to facilities; expand to 15 state programs 1996 expand to National Program 95-97 Annual Reports	(1) # of landfills affected by new rules (2) # of new energy recovery projects (3) additional kWhs produced through energy recovery projects (4) estimated reductions in methane emissions
35. Launch Coalbed Methane Outreach Prog.	2.2 MMTCE by 2000 1.0 MMTCE by 1997	6/94 launch Key State Outreach 1/96 summaries of Key Demonstration projects; ownership issues addressed 95-97 Annual Reports (each January)	(1) # of "gassy" mines with methane recovery projects (2) annual reductions in methane emissions
38. Expand Partnership w/ Livestock Producers	1.5 MMTCE by 2000 1.0 MMTCE by 1997	3/94 Expand marketing and support to swine producers 6/94 AgSTAR Newsletters & Training Materials (semiannual after that) 6/94 USDA Interim Technical Specifications 1/96 Expand to Dairy Industry 95-97 Annual Reports (each January)	(1) # of participating farms (2) # of animals represented (3) total energy savings for dairy and swine producers (4) annual reductions in methane emissions
42. Launch Partnership w/ Aluminum Producers	2.2 MMTCE by 2000 1.0 MMTCE by 1997	1/94 develop Phase I & II prog. 4/94 implement Phase I 9/94 Industry Workshop 3/95 define/implement Phase II 95-97 Annual Reports (Mar.)	(1) % of aluminum production in program (2) # of plants in program (3) % of potential reductions (4) estimated reductions in CF4 and C2F6

Action # and Title of Action	GHG Reduction Targets (in million metric tons of carbon equivalent-MMTCE)	Milestones	Performance Indicators
✓ 41. Create Partnership with Manufacturers of HCFC-22 to Eliminate HFC-23 Emissions	5.0 MMTCE by 2000 2.5 MMTCE by 1997	1/95 baseline estimates final 12/95 measurement guidelines complete; technical options identified 1/96 cost analysis final 95-2000 Annual Reports	(1) % of HCFC-22 production represented by the program (2) # of plants represented by program (3) % of potential reductions represented by the program (4) estimated reductions in emissions
✓ 40. Narrow Use of High GWP Chemicals Using the CAA and Product Stewardship to Reduce Emissions	5.0 MMTCE by 2000	2/94 deadline for SNAP Rule; update SNAP List regulatory requirement (quarterly) 2/95 assess possible candidates for stewardship programs & initiate industry contact 1/96 finalize approach to program 7/96 signed agreements 1/97 implementation	(1) estimated reductions in emissions ✓ (2) % of application controlled (3) % of potential reductions presented by the program (4) # of chemicals voluntarily withdrawn by manufacturers ✓ (5) % of emission reductions/equipment
✓ 30. Launch EPA Energy Star Transformers	0.8 MMTCE by 2000 (with #29: DOE will develop efficiency standards for electric transformers)	9/94 Program Kick-Off, announce first participants 4/95 announce significant utility participation	(1) # of utilities signed-up between 1/95 - 1/2000 (3) (4) (2) # of transformers sold, KWh, and CO ₂ savings (12/95...)

Action # and Title of Action	GHG Reduction Targets (in million metric tons of carbon equivalent-MMTCE)	Milestones	Performance Indicators
6. Form "Golden Carrot" Market-Pull Partnerships	11.8 MMTCE by 2000	6/94 promote ground source heat pumps; market advanced clothes washers; national refrigerator program 9/94 design program for advanced air source heat pumps and central air conditioners 4/95 announce ductwork repairs advanced clothes dryers 6/95 announce utility home retrofits & water heating technologies	(1) preliminary analysis of potential savings based on targeted tech., budgets of utilities and other organizations, and anticipated market transformation effects (2) analysis of direct program effects: utilities' measurement & evaluation (3) analysis of indirect program market transformation effects
16. Accelerate Source Reduction, Pollution Prevention, and Recycling	4.2 MMTCE by 2000	4/94 Implementation Plan 5/94 establish M&E system to quantify reductions & track progress 9/94 complete 5-year plan identifying key waste streams to target for action; enroll 15 communities in Keep America Beautiful "Buy Recycled" Program; enroll 50 companies in WasteWiSe Program	(1) # of companies in WasteWiSe Program (2) # of communities in Keep America Beautiful "Buy Recycled" Program (3) % of population w/ curb-side recycling (4) % of federal wastepaper recycled; % of federal paper procurement from recycled stock (5) % of communities w/Unit Pricing programs (6) estimated net GHG reductions (CO₂ offset, methane from landfills, & sink enhancement)

Action # and Title of Action	GHG Reduction Targets (in million metric tons of carbon equivalent-MMTCE)	Milestones	Performance Indicators
19. Reform the Federal Tax Subsidy for Employer-Provided Parking	6.6 MMTCE by 2000 (with #20)	1/94 FY'95 Budget includes Cash-Out; complete formal legislative language; seek input of Hill staff 12/94 Cash-Out bill passed 1/95 Implementation begins	(1) % of employees offered Cash Out take it (1995 target: 15%) (2) % of <u>all</u> employees offered Cash-Out (target 10% in 97; 20% in 2000)
20. Transportation System Efficiency Strategy	6.6 MMTCE by 2000 (with #19)	1/94 establish CA with NGO for Mobility Partner Project 3/94 establish service bureau with NGO, assistance principles, guidelines for program evaluation and recognition; outreach to state/local governments 6/94 distribute case studies 12/95 Travel Model Improve: complete dissemination of first Track B products 12/98 complete Track C; develop totally redesigned travel model process	No indicators at this time