
EDISON ELECTRIC
INSTITUTE

PHOTOCOPY
PRESERVATION

701 Pennsylvania Avenue, N.W.
Washington D.C. 20004-2696
Telephone 202-508-5000

# TALKING POINTS ON GLOBAL CLIMATE CHANGE

* EEI is very involved in the climate change process. We have participated as a nongovernmental organization since the inception of the Intergovernmental Panel on Climate Change (IPCC) and United Nations Framework Convention on Climate Change (FCCC) processes, providing our expertise in many areas. We have also formed a voluntary partnership with the U.S. Department of Energy (DOE) to promote reductions in greenhouse gas emissions. This partnership is the Climate Challenge Program. The Climate Challenge is the world's most successful voluntary program addressing global climate change. Over 600 electric utilities are participating in the program. DOE estimates that the actions of the Climate Challenge utilities will reduce, avoid, or sequester over 46 million metric tons of carbon-equivalent greenhouse gases in the year 2000.

- EEI and our member companies have established five initiatives under the Climate Challenge to reduce greenhouse gas emissions. Most of these initiatives are international in scope, and many involve the application of energy-efficient electrotechnologies and renewable energy technologies.

- Given the uncertainty in the scientific understanding of global climate change, the economic impact of measures to mitigate greenhouse gases that are beyond "no regrets," the projected increase in emissions in developing countries, and the success of the voluntary Climate Challenge, EEI believes that any commitments for the post-2000 period adopted by COP-3 should:

  -be voluntary, cost-effective, and flexible;

  -be comprehensive, including all countries, all greenhouse gases and all sources and sinks;

  -recognize the role of electricity and energy-efficient electrotechnologies in mitigation of greenhouse gases;

  -address the increasing contribution of emissions from developing countries by advancing the implementation of their existing commitments; and

  -authorize joint implementation (JI) of measures to mitigate climate change between developed country Parties and other Parties, including developing countries.

- EEI and our member companies urge in any protocol or amendment to the FCCC that: 1) any obligations, either for policies and measures or emission reductions, be voluntary, not legally binding; 2) maximum flexibility be provided in the implementation of any obligations, for example, through transfer of emission credits for JI projects involving developing countries; 3) electric utilities receive full credit for their Climate Challenge

activities and other early actions; and (4) commitments for developing countries be adequately advanced. .

- According to the January 17, 1997, Fact Sheet on the U.S. Climate Change Proposal, the U.S. has proposed a three-part framework for a target to limit and reduce greenhouse gas emissions among developed countries: (1) the target should be binding; (2) it should focus on the medium term (i.e., 2010 to 2020); and (3) countries should have flexibility nationally in implementation. In addition the U.S. said that it will be critical to include developing countries in next steps because finding a solution to the climate change problem will require a concerted global effort. In the U.S. view, all four of these concepts are linked and all four must be included in the new legal instrument.

- In addition to the above elements of its position, the Administration has promised that utilities will receive credit for early actions taken under the Climate Challenge.

- While these elements would not negate the adverse economic impacts of a binding cap on emissions, they are nonetheless vital and necessary components of any international agreement on climate change.

- EEI has sent letters to the Administration with recommendations on changes to the U.S. protocol proposal to address these issues.

- EEI believes that the Administration should live up to its commitments and that the Administration should not accept an agreement in Kyoto that does not contain clear decisions on all of the elements of the U.S. protocol proposal and position (detailed provisions for flexibility, developing country commitments, and full credit for early actions).

701 Pennsylvania Avenue, N.W.
Washington, D.C. 20004-2696
Telephone 202-508-5555

**EDISON ELECTRIC INSTITUTE**

THOMAS R. KUHN
President

July 24, 1997

The President
The White House
Washington, D.C. 20500

Dear Mr. President:

On behalf of the Edison Electric Institute (EEI) and our electric utility members, we wish to express our grave concern that positions of the Administration on a protocol to the Framework Convention on Climate Change, which will be considered at the third meeting of the Conference of the Parties in December in Kyoto, Japan, do not reflect the interests of the U.S. economy, industry and consumers.

Our industry is a world leader in implementing voluntary, cost-effective measures to address greenhouse gas emissions. The Utility Climate Challenge, a voluntary partnership of the electric utility industry and the Department of Energy (DOE), is the flagship program of your Administration's Climate Change Action Plan and is the world's largest and most successful environmental initiative. DOE projects that the current and continuing actions of the 638 electric utility participants in the Utility Climate Challenge will reduce, avoid or sequester at least 169 million metric tonnes of carbon dioxide-equivalent greenhouse gases in the year 2000. Moreover, these substantial annual reductions will continue well into the next century. Over the long term, through the continued electrification of its economy and the increased use of energy-efficient electrotechnologies, the U.S. can reduce its greenhouse gas emissions without risking serious economic consequences.

We are concerned because the U.S. delegation in the climate change negotiations has proposed the adoption of legally binding emission reduction obligations, contingent upon the inclusion of "maximum national flexibility" to achieve those obligations. The electric utility industry opposes legally binding emission reduction obligations, or targets and timetables, because of the uncertainties of potential climate change and because of the severe consequences to the American economy that would likely result if such an approach were adopted and implemented. Numerous government and private sector studies have

demonstrated that binding targets and timetables reducing emissions to or below earlier, historical levels would have severe economic impacts on American industry, including the electric utility industry, and consumers. These impacts would include substantial losses in Gross Domestic Product and jobs in the U.S. and a major exodus of U.S. industry overseas. Moreover, prior to the first meeting of the Conference of the Parties in 1995, you stated that the U.S. "will not accept any outcome or agree to any process that adversely affects the United States and its industrial competitiveness." In addition, the current state of the science does not warrant premature or non-cost-effective actions addressing greenhouse gas emissions. For these reasons, we cannot support U.S. signature or ratification of a protocol to the Framework Convention on Climate Change that imposes legally binding emission reduction obligations, or caps. We believe that greenhouse gas emissions should be addressed through commitments by industries to flexible, cost-effective, comprehensive (*i.e.*, all greenhouse gases, sources and sinks) and voluntary actions. The success of the Utility Climate Challenge should be seriously considered as an approach that has the potential to yield significant environmental benefits without the economic and political disruptions that would accompany the imposition of binding targets and timetables.

While the U.S. delegation has been very explicit in its desire for binding targets and timetables, the U.S. has not elaborated on how provisions for flexibility (such as global joint implementation for credit, international emissions trading, extended compliance periods, and banking and borrowing) would be incorporated into the proposed agreement or how they would be implemented. In the absence of detailed provisions, the impacts and economic consequences of the U.S. protocol proposal cannot be evaluated. While even fully elaborated and implemented provisions for flexibility in the U.S. protocol proposal only would partially negate the adverse economic impacts of a binding cap on emissions, they are nonetheless vital and necessary components of any international agreement on climate change.

Other aspects of the U.S. proposal that require your attention include inadequate involvement of developing countries -- a matter that directly affects U.S. competitiveness -- and the absence of credit for early actions, such as under the Utility Climate Challenge. Notwithstanding the U.S. commitment in several forums on credit for early actions, the U.S. protocol proposal made no provision for international credits for actions undertaken prior to the effective date of any emission reduction obligation. Accordingly, I and other EEI officers have written to and met with several Administration officials -- most recently Under Secretary of State Timothy Wirth -- encouraging them to confirm that 1) the language of the U.S. protocol proposal allows international credit for early actions to be banked and added to the first budget period, 2) the U.S. will pursue the concept of international credit for early actions in the intergovernmental negotiations, and 3) the Administration will be working with us to memorialize the concept of international credit for early actions in any international

agreement. We specifically request a letter from the Administration describing how it will fulfill its promises to our industry on this critical issue.

Each of these concepts -- obligations for developing countries, international credit for early actions and provisions for flexibility -- is a vital and necessary component of any effort to address greenhouse gas emissions and, therefore, must be included in any agreement adopted in Kyoto; the U.S. should not agree to any protocol or other instrument in the climate change negotiations that does not articulate all of these concepts in detail.

Mr. President, the U.S. electric utility industry is a progressive, responsible voice on global climate change here and around the world. We believe that encouragement and enhancement of voluntary, cost-effective actions by business and industry remain the best ways to address this complex environmental and economic issue. We look forward to a continued dialogue with you and your Administration on global climate change.

Sincerely,

Thomas R. Kuhn
President, Edison Electric Institute

E. R. Brooks
Chairman, Edison Electric Institute and
Chairman, President and CEO,
Central and South West Corporation

TRK:lnf
cc: The Honorable Albert Gore
The Honorable Madeleine Albright
The Honorable Federico Peña
The Honorable Robert Rubin
The Honorable William Daley
The Honorable Alexis Herman
The Honorable Daniel Glickman
The Honorable Carol Browner
Todd Stern, Assistant to the President
and Staff Secretary
Kathleen McGinty, Chairwoman,
Council on Environmental Quality

Dirk Forrister, Chairman,
White House Climate Change Task Force
Janet Yellen, Chairwoman,
Council of Economic Advisors
Charlene Barshefsky,
U.S. Trade Representative
Senator Trent Lott
Senator Thomas Daschle
Representative Newt Gingrich
Representative Richard Gephardt
Senator Jesse Helms
Senator Joseph Biden
Senator Frank Murkowski
Senator Dale Bumpers
Senator John Chafee
Senator Max Baucus
Representative Thomas Bliley
Representative John Dingell

## Climate Challenge Participation Accord

This Participation Accord describes the commitments that the American Electric Power System (AEP) and the U.S. Department of Energy (DOE) have made to participate in the Climate Challenge Program in pursuit of the President's goal for reducing greenhouse gas emissions. The Climate Challenge Program is a joint, voluntary effort of DOE and the electric utility industry to reduce, avoid or sequester greenhouse gas emissions. The framework of the Climate Challenge Program was established in the Climate Challenge Program Memorandum of Understanding and exhibits thereto dated April 20, 1994 (the Climate Challenge Program MOU) (see Attachment A to this Participation Accord).

### I. AEP Commitments

A. Consistent with paragraph II.B.1 (a and f) of the Climate Challenge Program MOU, AEP will undertake the following programs, projects and actions to reduce, avoid or sequester greenhouse gas emissions:

- Fossil power plant efficiency improvement program
- Adjustable speed drive motor pilot program
- Transmission & distribution system efficiency improvement program
- 415 MW coal to natural gas conversion project
- Hydroelectric facilities refurbishment program
- Nuclear plant availability and capacity increase
- Demand side management program
- Green Lights program participant
- Enhanced forest management and tree planting program
- Increase sales of fly ash to cementitious products markets

In addition, AEP will actively promote to its customers the use of electrotechnologies that can result in an improvement in energy efficiency and a reduction in emissions.

Finally, AEP will participate in the following industry-wide Climate Challenge initiatives:

- The Utility Forest Carbon Management Program
  $5,000 initial commitment in 1994
- The Earth Comfort Geothermal Heat Pump Program
  $50,000/year for 5 years initial commitment in 1995
- Envirotech - The Electrotechnology and Renewable Energy Investment Pool
  Up to $5,000,000 initial commitment in 1995
- EV America
  Commitment to purchase EVs, number and cost unknown at this time

A more complete description of these programs, projects and actions is included in Attachment B.

B. AEP will report annually on activities and achievements under the Climate Challenge Program. Results achieved during each year shall be reported in a clear and understandable manner that is consistent with the guidelines adopted pursuant to subsection 1605(b) of the Energy Policy Act and the climate program

accounting protocols in Exhibit B of the Climate Challenge Program MOU. The first such report may include a description of the activities and achievements of AEP prior to its becoming a participant in the Program, expressed on an annual basis to the extent possible.

C. AEP will confer with DOE on or before January 1, 1998 to evaluate jointly AEP's progress in achieving its Climate Challenge Program goals and to discuss possible adjustments to its voluntary commitments.

D. The Climate Challenge Program representative for AEP will be:

Dale E. Heydlauff, Vice President - Environmental Affairs
American Electric Power Service Corporation
1 Riverside Plaza
Columbus, Ohio 43215
614-223-1280 (fax -1252)

AEP agrees to notify DOE prior to or, in any event, no later than 30 days after any change in the contact.

## II. DOE Commitments

A. DOE's commitments to AEP are those set out in section III of the Climate Challenge Program MOU, which are hereby incorporated in this Participation Accord by reference.

B. DOE will consider AEP's requests to intervene in regulatory proceedings of federal, state and local commissions and boards on issues pertinent to the Climate Challenge Program. Before DOE intervenes in regulatory and other proceedings pertaining to AEP for purposes of addressing Climate Challenge Program issues, it will provide notice to AEP.

C. DOE will provide an annual report to AEP describing the actions that it has taken to fulfill its commitments under section III and Exhibit C of the Climate Challenge Program MOU and the results of those actions.

D. The Climate Challenge Program representative for DOE, who will serve as liaison to AEP, will be:

Allan Hoffman
U.S. Department of Energy
Room 6B-128 (EE-10)
1000 Independence Avenue SW
Washington, DC 20585
202-586-1786

DOE agrees to notify AEP prior to or, in any event, no later than 30 days after any change in liaison responsibilities or personnel.

## III. General Provisions

A. Use of DOE-developed materials by AEP will be governed by the provisions of section IV of the Climate Challenge Program MOU, which are hereby incorporated in this Participation Accord by reference.

B. In addition to the foregoing provisions, DOE and AEP agree to act in accordance with the principles set out in section I of the Climate Challenge Program MOU and the general provisions set out in subsections V.A-V.D, V.F. and V.G. of the Climate Challenge Program MOU, which are hereby incorporated by reference.

C. Either party may withdraw from this Participation Accord or any of its activities under the Climate Challenge Program without penalty and without being subject to remedies at law or equity.

E. Linn Draper Jr.

Dr. E. Linn Draper, Jr.
Chairman of the Board, President and
Chief Executive Officer
American Electric Power Company, Inc.

Feb 3, 1995
Date

Hazel R. O'Leary

Secretary of Energy or designee
U.S. Department of Energy

FEB 03 1995
Date

Attachment:

Attachment A - Climate Challenge Program MOU and exhibits
Attachment B - Description of AEP Climate Challenge Plan

## Attachment B - AEP's Climate Challenge Plan

The programs and initiatives included in the AEP Climate Challenge Plan fall into five areas: supply-side, demand-side, land management, industry initiatives and miscellaneous. A description of the components of each of these areas follows:

**Supply-side Activities.** The evaluation of on-going and potential future programs and activities in the supply-side area determined that emissions savings were occurring and would continue to occur in the areas of fossil plant heat rate improvements, use of natural gas in place of coal, hydroelectric generation life extension and efficiency improvements, nuclear plant availability and capacity increases and transmission and distribution system energy loss reductions. In the area of **fossil plant heat rate improvement**, a significant number of capital improvements or operational changes were identified that have already been undertaken since 1/1/91 or could potentially lead to improvements in individual unit heat rates. Examples of these activities include the use of **adjustable speed drive motors** for certain applications in the power plants, operating fossil units within a load range that optimizes heat rate while maintaining economic dispatch, reblading steam turbines to improve turbine efficiency, taking auxiliary equipment out of operation to reduce auxiliary power losses, and others. In addition, a target heat rate improvement level was established for the AEP System to be achieved by 2000. While many of these activities were occurring already, AEP will investigate other innovative ideas for improving fossil plant efficiency due to the attention given to the Climate Challenge program and the potential benefits of reducing $CO_2$ emissions.

AEP is **converting three small coal units to natural gas-burning capability** in 1995 in what is referred to as a "dual-firing" mode as an acid rain compliance measure. AEP will operate these units on natural gas when it is cost-effective to do so, factoring in the value of $SO_2$ allowances. Based on projections in the compliance plan of the amount of generation expected from these units when on gas and the differential $CO_2$ emission rate of natural gas compared to coal, an estimate of emissions savings is included in the Climate plan.

The operation of AEP's **conventional hydroelectric generation** (16 facilities totaling 271 MW) avoided roughly 1 million tons of $CO_2$ in 1990. Many of these units are nearing the end of their expected operating lives. In addition, the turbines in many of the units are outdated and not as efficient as turbines available today. In the late 1980s and early 1990s, AEP undertook a program to increase the efficiency and extend the lives of its hydroelectric facilities. The program was expanded in 1994 due in part to the Climate Challenge. Without this program, much of the capacity would likely have been taken out of service before the year 2000. With the program, these units will remain in service, in some cases with increased capability. These measures have been included in the Climate Challenge plan, with a generation projection from the units based on a normal hydrological year and an emissions projection based on the assumption that the generation would come

from coal-fired units on the AEP System if it does not come from the non-$CO_2$ emitting hydroelectric units.

AEP has two nuclear units as part of its system, totaling 2,110 MW. Since the early 1990s, an intensive program has been established to **increase the availability of the AEP nuclear units** by reducing the forced outage rates and decreasing the lengths of refueling outages. This program is consistent with efforts being undertaken throughout the industry to improve nuclear plant operations. AEP will continue to implement its strategic plan for the 2,110 MW nuclear plant. If the AEP program is successful, projected electric generation from the plant may increase as much as 40% compared to levels seen in 1990 and during many years in the 1980s. In addition, AEP's Nuclear Engineering Department is undertaking a project to **increase the capability of one of the nuclear units by 60 MWe**. Similar to the hydroelectric units, the emissions savings that will result from increased output from these units is based on the assumption that the generation would instead come from coal-fired units on the AEP System.

Potential emissions savings from **activities on the transmission and distribution system** fall into two categories. AEP has an active program of transmission line construction to meet the needs of its customers and to maintain the reliability of the transmission system in its geographical region of the country. In many cases, the addition of a new transmission line will allow energy to flow through the system more efficiently, thus reducing line losses. This directly translates to emissions savings as it results in less electricity being generated to meet a given customer demand. AEP's T&D Services Department also continually evaluates programs to reduce line losses for the existing transmission system. The combined effect of planned additions to the system and planned improvements in the system in the 1990-2000 timeframe have been included in the Climate plan and form part of AEP's commitments.

On the distribution side, AEP has an on-going program to upgrade the electrical equipment in its distribution system. A portion of this activity is planned maintenance to insure reliability of the system and a portion is unplanned in response to equipment failures. Much of the equipment being replaced has been in operation for many years. The replacement equipment tends to be more efficient due to improvements in technology, which will automatically result in a reduction in distribution losses. This translates into emissions savings on the same basis as for the transmission system. AEP will continue its distribution system maintenance program. The emissions savings calculation for the transmission and distribution system energy loss savings is based on an average $CO_2$ emission rate for the AEP System that factors in non-fossil generation with fossil-based generation.

**Demand-side Activities.** Like many utilities, AEP has a demand side management (DSM) program aimed at altering the amounts and patterns of its customers' electricity use. To the extent that such a program results in a reduction in the amount of electricity generated to meet customer demand, emissions savings will occur. AEP has implemented

and will continue to implement a diversified portfolio of DSM projects, examples of which include:

- Project Good Turn refrigerator recycling program
- Targeted Energy Efficiency residential weatherization program
- Neighborhood Energy Watch residential weatherization program
- SMART Financing Program (commercial & industrial)
- TranstexT residential energy management system

The $CO_2$ emissions savings projected for the year 2000 from this level of effort were included in the final Climate Challenge plan. The emissions calculation is based on the assumption that the reduction in generation associated with the end-use energy efficiency improvement occurs at AEP fossil plants.

**Land Management Activities.** AEP has a long history of tree planting and land management programs. $CO_2$ savings can occur both from planting new trees and increasing forest stand productivity through aggressive land management techniques. Such efforts would continue even without the Climate Challenge program. However, the emphasis on $CO_2$ emissions brought about from participation in the Climate Challenge has resulted in a renewed focus on AEP's land management activities. As a result, both the tree planting and land management programs will be expanded between 1994 and 2000. Ultimately, AEP will plant up to 15 million new trees during this period, and bring 15,000 additional acres of existing forest lands under more aggressive management. All of these activities have been included in the Climate Challenge plan.

**Miscellaneous.** The AEP Climate Challenge plan includes three additional areas that hold the potential for $CO_2$ emissions savings. The first, U.S. EPA's Green Lights program, is in some respects a DSM program, but on AEP's side of the electric meter. AEP became a Green Lights utility ally in 1992, and is in the process of conducting lighting retrofits in its facilities. Under the current schedule, AEP will complete the lighting retrofit program in 1997. The energy savings projected to occur from this effort, reaching a peak of 47 million kwh/year in 1997, have been included in the plan. AEP is also an aggressive marketer of coal ash for use in commercial products. One of these uses, fly ash in place of cement in the manufacture of concrete products, can result in significant energy and emissions savings. AEP will continue to aggressively market coal by-products, and a fly ash utilization program has been included in the plan. Finally, AEP, as well as many other utilities, is developing an electrotechnologies marketing program to identify and promote the use of electric technologies to replace the direct use of fossil fuels. Many such technologies can result in an overall improvement in energy efficiency and reduction in emissions even though the generation of electricity increases. While the AEP Climate Challenge plan recognizes the role of electrotechnologies, an emission savings projection was not developed at this time.

**Industry-wide Initiatives.** The electric utility industry recognized early in the Climate Challenge development process that the combined resources of many companies could be

an effective approach to achieving emissions savings in a cost-effective manner. Through the efforts of the Edison Electric Institute, five industry-wide initiatives were developed during 1994. AEP will participate in four of these initiatives as part of its Climate Challenge plan:

- The Utility Forest Carbon Management Program
  $5,000 initial commitment in 1994
- The Earth Comfort Geothermal Heat Pump Program
  $50,000/year for 5 years initial commitment in 1995
- Envirotech - The Electrotechnology and Renewable Energy Investment Pool
  Up to $5,000,000 initial commitment in 1995
- EV America
  Commitment to purchase EVs, number and cost unknown at this time

As these initiatives are still in a developmental stage, an emissions savings projection was not included in the AEP plan. However, as the initiatives are implemented and emissions savings occur, a share of these savings will be credited to AEP.

**Emissions Savings Projection.** The $CO_2$ emissions savings projection for the year 2000 from each of these program areas is:

| | |
|---|---|
| Supply-side activities | 8.31 million tons |
| Demand-side activities | 0.78 million tons |
| Land management & Misc. | 0.46 million tons |
| **Total** | **9.55 million tons** |

**Considerations.** It is important to note the programs included in this Climate Challenge Participation Accord and the emissions savings projected to occur from implementation of these programs are based on the best projections available at the time the Accord goes into affect. Changing circumstances either within AEP or external to AEP could materially affect the actual emissions savings that will be achieved under this Climate Challenge Participation Accord.

# The Climate Challenge Accord

**The Climate Challenge Program is a joint, voluntary effort of the U.S. Department of Energy and the electric utility industry to reduce, avoid or sequester greenhouse gas emissions.**

**It reflects the intention of the parties to play a leadership role in pursuit of the President's goals for reducing greenhouse gas emissions.**

**The parties by today's Memorandum of Understanding form the Climate Challenge Program. As representatives of the Department of Energy and the electric utility industry, we, the undersigned, do hereby execute the Climate Challenge Memorandum of Understanding, as of this 20th day of April, 1994.**

Secretary,
United States Department of Energy

President,
Edison Electric Institute

President,
American Public Power Association

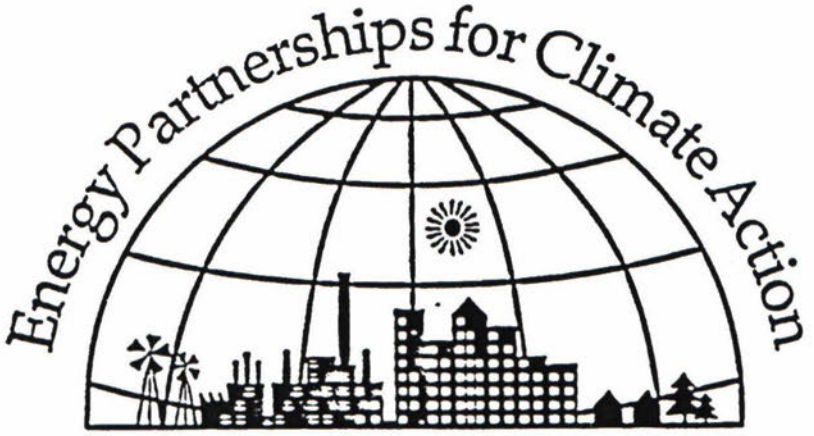
Executive Vice President,
National Rural Electric Cooperative Association

Chairman,
Large Public Power Council

Chairman,
Tennessee Valley Authority

# CLIMATE CHALLENGE

## MEMORANDUM OF UNDERSTANDING




U.S. DEPARTMENT OF ENERGY
AND
EDISON ELECTRIC INSTITUTE
AMERICAN PUBLIC POWER ASSOCIATION
NATIONAL RURAL ELECTRIC COOPERATIVE ASSOCIATION
LARGE PUBLIC POWER COUNCIL
TENNESSEE VALLEY AUTHORITY

APRIL 20, 1994

## Climate Challenge Program Memorandum of Understanding

The Climate Challenge Program is a joint, voluntary effort of the U.S. Department of Energy (DOE) and the electric utility industry to reduce, avoid or sequester greenhouse gas emissions. It reflects the intention of the parties to play a leadership role in pursuit of the President's goals for reducing greenhouse gas emissions. The parties by this Memorandum of Understanding (MOU) form the Climate Challenge Program.

### I. Principles

The implementation of the Climate Challenge Program will be based on these general principles:

A. Utility activities undertaken as part of the Climate Challenge Program will be voluntary and flexible and may cover any greenhouse gas, while promoting the environmental objectives of the program.

B. The Climate Challenge Program will include opportunities for industry and utility-specific activities.

C. The Climate Challenge Program recognizes that many utility activities have been or will be undertaken for business and other reasons and also have the result of reducing, avoiding or sequestering greenhouse gas emissions.

D. The Climate Challenge Program recognizes that utility activities may be cross-sectoral in nature, i.e., they may occur outside of utility facilities or their impacts may occur outside of the utility sector. Examples of these types of cross-sectoral activities include:

- Demand-side management programs.
- Electrotechnology and electrification programs, which may result in net reductions in greenhouse gas emissions for the economy overall while increasing electric utility emissions.
- Forestry and other sink-related activities.
- International activities.

E. Utility activities undertaken as part of the Climate Challenge Program will be cost effective and will take into consideration impacts on ratepayers and shareholders, competitive situations of the utilities with regard to costs and rates, resource planning, and the regulatory mandates and positions of federal, state and local commissions and boards, city councils, publicly elected boards and other governing entities, including their positions on cost recovery.

The Climate Challenge Program will also recognize that utility-specific circumstances -- such as growth requirements, fuel mix, geography, power supply resources, financial resources, and others -- vary and that the actions taken and results achieved may vary accordingly.

F. Reporting and accounting for activities under the Climate Challenge Program will be consistent with the guidelines adopted pursuant to subsection 1605(b) of the Energy Policy Act. Climate Challenge activities may overlap with activities from other programs, such as Climate Wise, Motor Challenge, Green Lights and Natural Gas Star.

G. DOE will work with other agencies of the federal government to assist the utility industry to the maximum extent possible in reducing or eliminating legal, institutional, economic, market, informational and other barriers to implementation of voluntary emission reduction, avoidance or sequestration activities.

H. The Utility Participants[1] will periodically report their individual progress under the Climate Challenge Program and the obstacles that they have encountered.

## II. Industry Actions

A. The Edison Electric Institute, the American Public Power Association, the National Rural Electric Cooperative Association, the Large Public Power Council and the Tennessee Valley Authority each agrees to designate an individual as its Climate Challenge Program Representative and to notify DOE and each other of any change in its Program Representative. The primary responsibility of each Climate Challenge Program Representative will be to coordinate the organization's participation in the Climate Challenge Program. In addition, Program Representatives will provide support for Utility Participants' activities and facilitate Utility Participants' communication with the Climate Challenge Program office at DOE and the Secretarial Representative designated under section III.A.

B. Each electric utility choosing to participate in the Climate Challenge Program shall sign an instrument with DOE. That utility-specific instrument shall contain the following core elements:

1. A specific commitment to do one or more of the following:

a. Make a specified contribution to particular industry initiatives identified in Exhibit A, "Industry Programs."

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[1] **"Utility Participants"** means individual electric utilities that sign a utility-specific instrument with DOE pursuant to sections II.B & C of this MOU. Utility Participants will be listed in an addendum that will be attached to this MOU. Utility Participants may engage in joint Climate Challenge Program activities with non-utilities.

b. Reduce[2] greenhouse gas emissions by a specified amount below the utility's 1990 baseline level by the year 2000.

c. Reduce greenhouse gas emissions to the utility's 1990 baseline level by the year 2000.

d. Reduce greenhouse gas emissions by or to some other specified level.

e. Reduce or limit the rate of greenhouse gas emissions to a particular level, expressed in terms of emissions per kilowatt-hour generated or sold.

f. Undertake specific projects or actions, or make specific expenditures on projects or actions, to reduce greenhouse gas emissions.

2. A commitment to report annually on activities and achievements under the Climate Challenge Program. Results achieved during each year shall be reported in a clear and understandable manner that is consistent with the guidelines adopted pursuant to subsection 1605(b) of the Energy Policy Act.[3] The first such report may include a description of the activities and achievements of the utility prior to its becoming a participant in the Program, expressed on an annual basis to the extent possible.

3. A commitment to confer at reasonable intervals to evaluate jointly the progress of the Utility Participant in achieving its Climate Challenge Program goals and to discuss possible adjustments to its voluntary commitments.

C. The Climate Challenge Program is a voluntary program, the success of which is dependent on broad participation. A utility's commitment to each of the numbered elements 1, 2 and 3 of section II.B will constitute an acceptable utility commitment to the Climate Challenge Program sufficient to lead to the execution of an individual utility instrument. DOE agrees to work with utilities to develop utility-specific instruments containing these commitments and any supplemental or incidental provisions that express the mutual understanding of the parties.

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[2] For purposes of these commitments, "reduce" means reduce, avoid, or sequester greenhouse gas emissions, and may include projects or actions undertaken outside of a Utility Participant's service territory.

[3] See Exhibit B, "Model Accounting Protocols."

## III. DOE Actions

A. DOE agrees to designate an individual as the representative of the Secretary to the Climate Challenge Program and to notify the Program Representatives after any change in its representative.

B. DOE acknowledges that its responsibilities include, among others: (1) working to assure that the energy needs of our nation are met; (2) promoting energy efficiency and the use of renewable energy; and (3) promoting energy policies that protect the environment. Activities under the Climate Challenge Program will be consistent with these responsibilities. DOE further agrees to proceed, consistent with the broad purposes of section 1602 of the Energy Policy Act, to consider in the development of its least-cost energy strategy energy efficiency measures and low-emission and non-emitting power generation technologies, including solar energy, geothermal, hydropower and other renewable energy technologies, natural gas, clean coal technologies and nuclear energy.

C. DOE agrees to support the Climate Challenge Program in the following manner:

1. To the extent feasible, DOE agrees to take steps identified in Exhibit C, "DOE Actions to Facilitate Greenhouse Gas Emission Reductions, Avoidance and Sequestration," to address incentives and barriers.

2. DOE will work with appropriate organizations and entities to encourage a) the recovery, in electric rates, of the costs of Climate Challenge Program activities undertaken by Utility Participants (but will not advocate inconsistent rate treatment at state and federal levels), and b) the removal of possible state barriers to participation in such activities. (See Exhibit C.)

3. To the extent resources permit, DOE agrees to cooperate with Utility Participants to develop workshops and training courses that will provide information on technical and economic characteristics of Climate Challenge Program activities. DOE also agrees to provide to small Utility Participants manuals and other technical support beyond workshops and training.

4. Subject to authorization and appropriation, DOE will seek to provide incentives for reducing, avoiding or sequestering greenhouse gas emissions and technical support beyond the workshops and training courses provided for by subsection III.C.3.

5. More specific agreements about DOE actions to support the activities of particular Utility Participants may be included in utility-specific instruments.

## IV. Use of DOE Materials

A. All parties agree that DOE publications may be a valuable tool in publicizing the benefits of reduction, avoidance and sequestration technologies and practices and in promoting the Climate Challenge Program.

B. DOE agrees to loan to Utility Participants, at their request and at no charge, camera-ready negatives, mechanicals, and other directly reproducible material, from which Utility Participants can create:

1. Climate Challenge Program brochures

2. Climate Challenge Program briefing papers

3. Climate Challenge Program videos

4. Other Climate Challenge Program materials

C. If Utility Participants choose to use DOE materials, they agree to reproduce such materials faithfully, and agree not to alter their form, content or appearance in any way, except, at the option of Utility Participants, to add the phrase "Distributed at no cost by [Climate Challenge Program Utility Participant], with permission of DOE's Climate Challenge Program," as well as the Utility Participant's logo, address and telephone number.

## V. General Provisions

A. Participation in the Climate Challenge Program does not constitute Utility Participant endorsement of any particular scientific theory concerning the significance of anthropogenic greenhouse gas emissions and their relationship to global climate change, and Utility Participants have expressed and may express differing views about the potential impacts of greenhouse gases and global climate change.

B. No provision in this MOU shall be construed as advocating any policy that would result in the creation of rate disparities between wholesale and retail customers or that would have anticompetitive effects.

C. The parties agree to cooperate in efforts to publicize the Climate Challenge Program.

D. The parties agree to work together to promote public confidence in the Climate Challenge Program and to resolve any problems that may arise in the implementation of the Program.

E. Any party may withdraw from the Climate Challenge Program or its activities under the Program without penalty and without being subject to remedies at law or equity. It is further understood that a utility may choose not to sign a utility-specific instrument if DOE guidelines under subsection 1605(b) of the Energy Policy Act are unacceptable to it.

F. DOE and Utility Participant actions will be subject to applicable federal, state and local laws and regulations, including integrated resource planning constraints.

G. DOE agrees that information provided by Utility Participants to DOE that is privileged or confidential as trade secret, commercial or financial information shall be protected as provided in 5 U.S.C. § 552(b)(4) and other applicable federal law and regulations.

H. Through consensus, parties will complete the exhibits to this MOU.

As representatives of DOE and the electric utility industry, we, the undersigned, do hereby execute this Memorandum of Understanding.

IN WITNESS WHEREOF, the parties hereto have caused this instrument to be executed as of the 20th day of April, 1994.

Secretary, United States Department of Energy

President, Edison Electric Institute

President, American Public Power Association

Executive Vice President, National Rural Electric Cooperative Association

Chairman, Large Public Power Council

Chairman, Tennessee Valley Authority

Attachments:
Exhibit A
Exhibit B
Exhibit C

Exhibit A

## Industry Programs

I. Industry Initiatives

See attached industry initiatives.

Because different ownership forms create different obstacles as well as opportunities, industry initiatives may include activities that cannot be pursued by all segments of the electric utility industry.

New industry initiatives may be added to Exhibit A from time to time. Industry representatives will form an Initiatives and Options Review Committee for purposes of consideration, review and addition of new industry initiatives. In addition, Program Representatives may from time to time compile and provide to DOE initiatives specifically tailored to meet the needs and special characteristics of their own electric utility members.

II. Options Workbook

See attached Options Workbook.

The Initiatives and Options Review Committee and DOE may from time to time add new options to the Options Workbook. In addition, Program Representatives may from time to time compile and provide to DOE options specifically tailored to meet the needs and special characteristics of their own electric utility members.

It is envisioned that an expanded version of the Options Workbook will include a description of some barriers to actions to reduce, avoid or sequester greenhouse gas emissions. Utility Participants may identify and address additional barriers to achievement of their Climate Challenge Program commitments.

Attachments

**Exhibit B**

## Model Accounting Protocols

Exhibit B will be agreed upon after issuance of DOE's final guidelines under subsection 1605(b) of the Energy Policy Act.

## DOE Actions to Facilitate Greenhouse Gas Emission Reductions, Avoidance and Sequestration

As part of the Climate Challenge Program, the Department of Energy (DOE) supports voluntary actions by the electric utility industry to limit greenhouse gas emissions. DOE will support incentives to encourage cost-effective actions by Climate Challenge Program Utility Participants that reduce greenhouse gas emissions. Moreover, DOE will support efforts to eliminate unwarranted obstacles that inhibit actions to reduce greenhouse gas emissions.

The parties recognize that much of the policy affecting Climate Challenge Program activities is made outside of DOE -- by Congress, the White House, other federal agencies, state regulators and others. DOE will promote Climate Challenge Program objectives in these diverse arenas.

Listed below are some of the most significant activities that DOE will undertake to support the actions of the Utility Participants, subject to the constraints of authorization and appropriations. This commitment will be reassessed by DOE with Utility Participants at reasonable intervals, in order to determine whether changes should be made to this list.

1. Work with other federal agencies to achieve appropriate tax policy for energy efficiency programs.

2. Consistent with the Energy Policy Act and Executive Order 12902, work with other federal agencies and Utility Participants to implement cost-effective energy efficiency improvements and greenhouse gas emission reductions at federal facilities.

3. Support government/utility joint ventures in energy efficiency designed to increase market penetration and reduce costs.

4. Seek funding for photovoltaics, geothermal, wind and other renewable energy initiatives.

5. Seek support for research, demonstration and deployment of fuel cell technology.

6. Work with other federal agencies to address unwarranted obstacles to the continued use and expansion of hydroelectric power at existing facilities.

7. Work with other agencies to eliminated unwarranted regulatory obstacles to tree planting at abandoned mine sites.

8. Seek funding for programs that encourage the use of electrotechnologies and electric vehicles that reduce net greenhouse gas emissions.

9. Seek support for research on cofiring low-sulfur coal with natural gas.

10. Encourage commercial deployment of high-efficiency clean coal technologies.

11. Work to facilitate resolution of issues of nuclear waste storage, nuclear power plant life extension and relicensing policies, and the future use of nuclear power.

12. Work with federal, state and local agencies and regulators to identify unwarranted obstacles to activities that reduce greenhouse gas emissions and to work toward acceptable solutions.