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R47

January 17, 2003

The Honorable Spencer Abraham  
Secretary  
U.S. Department of Energy  
1000 Independence Ave., SW  
Washington, D.C. 20585

**Re: Public Power's Action Plan for the President's Business Challenge Program**

Dear Secretary Abraham:

On behalf of the American Public Power Association (APPA) and the Large Public Power Council (LPPC), we are writing to demonstrate our support for the President's voluntary approach to reduce greenhouse gas (ghg) emissions and the emissions intensity of the U.S. economy. Accordingly, public power pledges to work in partnership with the federal government to develop and implement ghg mitigation programs and initiatives that are credible and effective. As reflected in the action plan outlined below, we are committed to doing our fair share to achieve the President's goal of reducing the ghg emissions intensity of the U.S. economy by 18 percent by 2012.

APPA is a national service organization representing the interests of more than 2,000 community and state-owned electric utilities that provide for the electric power needs of approximately 40 million Americans. LPPC is an association of 26 of public power's largest systems that own or operate over 61,000 megawatts of generation and approximately 33,000 circuit miles of transmission lines. Public power systems are among the most diverse of the electric utility sectors, representing utilities in small, medium and large communities in 49 states (all but Hawaii). Seventy-five percent of public power systems are located in cities with populations of 10,000 or less. Overall, public power accounts for about 14 percent of all kilowatt-hour sales to consumers and nearly thirteen percent of total generation compared to nearly 6 percent for the rural electric cooperative utilities and 72 percent for the investor-owned electric utilities. In its overall mix, public power systems generate more electricity from sustainable resources, including hydropower and other renewable fuels, than the other electric utility sectors.



## ***PUBLIC POWER'S ACTION PLAN FOR GHG MITIGATION***

While public power has an average carbon dioxide (CO<sub>2</sub>) emission per kilowatt-hour rate that is almost 15 percent lower than the national average,<sup>1</sup> more can and should be done to meet our nation's increasing energy demands while lowering ghg intensity in our local communities. The following is a brief description of the contributions that public power has made and can continue to make in the years ahead.

### Hydropower

Public power is uniquely situated to avoid substantial CO<sub>2</sub> emissions if the potential production from our existing hydroelectric facilities and dams can be fully realized. A Department of Energy (DOE) study shows that over 21,000 megawatts of potential capacity can be developed at existing dams. Over 4,300 megawatts of this potential capacity are available at existing hydro facilities alone, while over 10,000 megawatts is located in the capacity-hungry West. At 50 percent utilization and offsetting the national fossil average CO<sub>2</sub> emission rate, this would reduce CO<sub>2</sub> emissions by 82 million tons (20 million tons of carbon equivalent) per year beyond business as usual forecasts. Moreover, the avoidance of these emissions can be achieved without building a single new dam.

Compared to the other electric utility sectors, public power owns or operates the largest share of our nation's carbon-free hydropower generation. Currently, 10 percent of the nation's electricity, and about 80 percent of its renewable energy, is generated by hydropower facilities. In contrast, hydroelectric projects comprise over 22 percent of public power's total generation.

Full realization of this potential resource hinges on achieving targeted reforms to the current Federal Energy Regulatory Commission (FERC) regulatory process. Over the next 15 years, two-thirds of all non-federal hydroelectric capacity – which totals nearly 29,000 megawatts of power and can provide enough electricity to serve six million retail customers – must undergo the FERC relicensing process. The relicensing of each hydro project may potentially result in a significant loss of existing capacity due to the exceedingly complex, fragmented, costly and inefficient relicensing process. Such lost capacity must be replaced by less efficient generation sources that both impose additional costs to the consumer and produce ghg emissions. On the other hand, with specific reforms to the current FERC licensing process, we can avoid losing this carbon-free generating capacity projected under business-as-usual forecasts, while enabling public power and other industry segments to realize the potential of another 21,000 megawatts of such generating capacity.

### Other Renewable Power

Public power has the greatest percentage of renewable capacity in its generation portfolio of any industry segment in the electric utility sector. In addition to hydropower, public power is a leader in other renewable resources. Several of the largest public power systems, for example, currently have in operation over 375 megawatts of wind power projects and have plans to bring online additional capacity in the coming years. Another significant renewable energy resource targeted by public power systems is landfill gas. As a result of their local government structure and proximity to city landfills, public power systems have a unique opportunity to develop landfills into gas energy projects. Landfills are the largest single human source of methane emissions in the United States. Nation-wide, hundreds of landfill sites do not use technology to capture and use the emitted gas. Given methane's higher heat trapping potential (21 times more potent than CO<sub>2</sub> as a greenhouse gas), development of the more than 300 existing sites, located in public power

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<sup>1</sup> Public power's CO<sub>2</sub> emissions rate is 1.19 lbs CO<sub>2</sub>/kWh while the national average is 1.36 lbs CO<sub>2</sub>/kWh. Pounds of CO<sub>2</sub> per kilowatt generated is a good measure of ghg intensity for the power generation sector. (APPA generation and emissions data for 2000; EIA Annual Energy Review 2001, tables 8.1,12.2)



communities, which do not use this technology would reduce emissions by 226 million tons of CO<sub>2</sub> (56 million metric tons of carbon equivalent). This amount is equivalent to nearly nine percent of the annual CO<sub>2</sub> emissions from the electric power sector nationwide.<sup>2</sup> New federal incentives to help develop these projects that use the gas for electricity would be beneficial to the President's climate change program and could be implemented by 2012.

Green pricing has become a useful tool to enlarging the amount of renewable energy generated and sold in public power communities. Green pricing programs have already been adopted by 60 public power systems that serve almost 34 percent of all public power customers. Public power is committed to increasing this level of participation both in terms of the number of systems offering green pricing and the number of customers taking advantage of this opportunity. One effective public power strategy to achieve this goal is through the exclusive marketing partnership just established between APPA and Green Mountain Energy Company. Announced last fall, this partnership has been developed exclusively for public power systems and is intended to accelerate the use of renewable energy sources to meet the energy needs of our public power consumers.

### Improving End-Use Efficiency

End-use efficiency gains have allowed per capita energy use to remain constant for nearly three decades while our economic output per capita has increased over 74 percent. Similarly, our nation's energy use per unit of gross domestic product has fallen more than 40% in the past 30 years in part as a result of efficiency improvements.<sup>3</sup> Given the substantial energy, economic and environmental benefits, energy efficiency should be a cornerstone of America's energy policy and an important component of our strategy for voluntarily mitigating ghg emissions. To this end, public power systems have in place a diverse set of effective of demand-side management and conservation programs. To name just a few, these efforts range from green building-type programs for lowering energy use, to programs for performing industrial, commercial and residential energy audits, to programs for installing high efficiency appliances, efficient lighting, and heat pumps. Although we are unable to quantify expected future ghg reductions from such end-use efficiency programs in the future, public power anticipates that these types of programs will be an important element of overall ghg mitigation strategy due to our close ties to local governments and the communities that we serve.

### Improving Supply-Side Efficiency

Although estimates vary, opportunities exist to improve the generation efficiency of existing coal-fired capacity by 4 to 8 percent. Taking the lower end of this projected range, such improvements translate into CO<sub>2</sub> emissions reductions of 8 million tons (2 million metric tons of carbon equivalent) for public power coal-fired generation. Our ability to implement such efficiency projects will hinge on removal of regulatory barriers to such projects under the Clean Air Act.

### Nuclear Power

A recent analysis by the Nuclear Energy Institute (NEI) indicates that 89 million tons of CO<sub>2</sub> (22 million metric tons of carbon equivalent) can be avoided in 2012 through uprates and restarts of existing nuclear power plants. Public Power has a ten percent share of the total U.S. nuclear capacity and would thus play an important role in achieving these reductions. Further, the new generation from the restart of Tennessee

<sup>2</sup> The electric power sector in 2000 emitted approximately 2,592.5 million tons of CO<sub>2</sub> (641 million metric tons of carbon equivalent) in the United States. (EIA Annual Energy Review 2001, table 12.2.)

<sup>3</sup> EIA Annual Energy Outlook 2001 at page 5.



Valley Authority's Brown's Ferry in 2007 would go to public power customers. An additional 1,065 megawatts of emissions-free capacity will achieve annual CO<sub>2</sub> avoidances of almost 8 million tons (2 million metric tons of carbon equivalent) under reasonable operating assumptions.

### Sequestration and Other Off-System Mitigation

Public power has many other programs that benefit the environment and reduce ghg emissions. One such example is the APPA Tree Power Program, in which 176 public power utilities participated in 2001. Program participants plant trees in their local communities to provide shade, improve aesthetics, and capture CO<sub>2</sub>. Another example is public power programs to reuse coal combustion fly ash. The use of fly ash as a replacement for Portland cement in concrete has great potential for reducing CO<sub>2</sub> emissions. Public power is actively seeking additional opportunities to undertake these and other off-system activities and projects to reduce, avoid or sequester ghg emissions.

### Public Power Programs and Collaborations

APPA and LPPC are committed to maximizing the ghg emissions that can be reduced, avoided, and sequestered by public power under the preceding mitigation actions. To this end, we are taking several steps to maximize the participation of our systems and help them undertake effective, credible, quantifiable, and verifiable mitigation strategies.

One step is to participate in the Electric Power Industry Climate Initiatives (EPICI) and the Power Partners Program. Through this industry-wide effort, we are developing an overall framework for public power systems to –

- Perform inventories of current emissions from existing power production activities;
- Report emissions under the enhanced 1605(b) voluntary reporting protocols;
- Identify and make commitments regarding actions or goals that each participating public power system intends to achieve over a specified time frame.

An important element of the public power framework is to forge partnerships between the federal government, local governments, and environmental groups. For example, public power is developing a Local Community Outreach Initiative that is designed to assist our systems in working together with local governmental and environmental groups. The goal of this initiative is to help public power systems to identify and implement effective ghg mitigation programs that have the support and involvement of such governmental and environmental entities.

We are optimistic that our members will actively engage in our program, and in time, present plans and results that lead to real and quantifiable ghg emissions reductions. To date, the public power systems that have expressed an intention to participate in our program represent nearly 63 percent of public power's total generation or 8 percent of all electric utility generation nationwide. These systems serve nearly 15 million electric consumers or nearly 36 percent of the total population served by public power (41 million). This early and strong response holds great promise that the public power sector will make a fair contribution to the President's overall ghg emissions intensity goal.

### Individual GHG Reduction Goals

Two public power systems – Seattle City Light and Sacramento Municipal Utility District (SMUD) – announce the following entity-wide goals to reduce greenhouse gas emissions.



**Seattle City Light** is the first major utility to meet all energy needs with "zero net" greenhouse emissions. Seattle City Light will meet all load growth through conservation and renewables. Between 1977 and 2002, Seattle City Light has avoided 3.1 million tons of carbon dioxide emissions through conservation efforts alone.

**Sacramento Municipal Utility District's** goal is to reduce, by the year 2011, its entity-wide greenhouse gas emissions by 15 percent relative to their entity-wide emissions in 1990. SMUD intend to achieve this despite a projected 39 percent increase in customer demand over that same period. To reach this goal SMUD will continue to meet increased customer demand by replacing some purchased power with a combination of very low emitting fossil fuel and renewable energy resources. SMUD will also continue to increase its energy efficiency programs and deployment of advanced/emerging renewable energy technologies on both the utility and customer side of the meter. The achievement of this performance goal will result in a 38 percent reduction in ghg emissions intensity (e.g., 1.11 lb CO<sub>2</sub>e/kWh to 0.688 lb CO<sub>2</sub>e/kWh).

In addition, many more public power systems – large and small – are taking an active approach to controlling their emissions. At Muscatine Power and Light in Iowa, for example, the utility aims to reduce 5,855 tons of CO<sub>2</sub> and save 5,048 MW of energy from 1998 levels by 2003. They will accomplish this through a combination of residential and commercial energy efficiency rebate programs. The City of Westerville, Ohio, has been designated an "Energy Smart Community" by the State of Ohio for its numerous renewable energy and conservation programs. Serving 35,000 residents, Westerville's electric department is implementing, among other programs, a utility green power contribution program to fund solar schools.

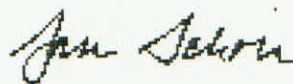
## CONCLUSION

Public power is experienced and positioned to help achieve the President's goal of reducing ghg emissions intensity economy-wide. We look forward to working with your Department, the White House and Congress on programs that motivate and assist our sector to achieve this important goal for our industry and the nation.

Sincerely,



Alan H. Richardson  
President & CEO  
American Public Power Association



Jan Schori  
Chair  
Large Public Power Council

cc: The Honorable James Connaughton  
Chairman, White House Council on Environmental Quality

The Honorable Robert G. Card  
Undersecretary, U.S. Department of Energy

Mr. Phil Cooney  
Chief of Staff, White House Council on Environmental Quality

Ms. Larisa Dobriansky  
Deputy Assistant Secretary for Energy Policy  
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