Statement of NRECA

To The House Natural Resources Committee
Subcommittee On Water And Power

Oversight Hearing On "Hydropower: Providing 75 Percent of America's Renewable Energy and Exploring Its Role as a Continued Source of Clean, Renewable Energy for the Future."

June 12, 2008

Testimony of
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Chairwoman Napolitano, Ranking Member McMorris Rodgers, and Members of the Subcommittee:

My name is Glenn English, and I am the Chief Executive Officer of the National Rural Electric Cooperative Association (NRECA). I appreciate the invitation to appear before you today to discuss hydropower issues. NRECA is a trade association consisting of nearly 1,000 cooperatives providing electricity to 41 million consumers in 47 states. As member-owned, not-for-profit organizations, cooperatives have an obligation to provide a reliable supply of electricity to all consumers in our service areas at the lowest possible price. We take our obligation to serve very seriously--the personal and economic health of our members, our communities, and our nation depends on it. Cooperatives serve primarily the more sparsely populated parts of our nation but cover roughly 75 percent of the nation's land mass.

In the early stages of this nation's hydropower program, electric cooperatives agreed to a partnership with the federal government. Electric cooperatives agreed to pay what were then significantly higher costs for power in exchange for a guarantee of a secure, reliable cost-based power resource. This partnership provided the basic structure for real competition between consumer-owned and large investor-owned utilities. Today the federal hydropower program remains a very important source of power for more than 600 electric cooperatives. In total, 50 million people nationwide share the benefits of the federal hydropower program. The Energy Information Agency (EIA) reports that hydropower accounts for nearly 75 percent of the country's renewable energy supply, while meeting seven percent of consumers' total energy needs.

To fully appreciate the future role of hydropower--and its importance--I believe the Subcommittee should know the energy challenge facing this nation and how electric cooperatives are reacting to this challenge. Frankly, I believe that Congress is focused on one half of the looming challenge—but the other half is critical though it has not received the same spotlight as global climate change. This is the fundamental question of whether the nation will have enough electricity capacity to meet consumer energy needs.

EIA has projected that electricity demand will grow 30 percent by 2030, requiring 264 gigawatts of electricity. To better understand the magnitude of this challenge, consider that 264 gigawatts is 2.5 times the power now generated in the state of Texas. The more critical and immediate problem will come in the next ten years. Members of the Subcommittee are well aware of the opposition to building new coal-fired generation, as well as the massive undertaking needed to enlarge our fleet of nuclear power plants. Even taking increased energy efficiency into account, the nation will still need 118 gigawatts of new generating capacity by 2020. Natural gas will clearly play a crucial role, but we will need every source of electric power generation at our disposal. We simply cannot wait. In some regions, demand will soon outstrip capacity unless generation and transmission are added, leading Richard Sergel, CEO of the North American Electric Reliability Corporation, to state: *"We're close to the edge…We need action in the next year or two to start on the path to having enough electricity 10 years from now."* I have attached a map to my testimony showing the near-term dates when many regions will face an electricity capacity shortfall.

Among electric cooperative consumers, demand growth is projected at about double the national average. Electric cooperatives take seriously our responsibility to meet our consumers' electricity needs, while also taking a leadership role in the development of renewable energy. More than ever before, renewable hydropower must be part of the diverse mix of fuels to meet our consumers' needs.

As a member of the steering committee of the 25x25 Ag Energy Working Group, NRECA worked with Congress to include the goals of the 25x25 action plan in the Energy Independence and Security Act of 2007.[1] The action plan calls for the United States to produce 25 percent of its electricity from renewable energy sources by 2025. During the Working Group process, I argued that hydropower must be included in the definition of a renewable. I was pleased that language in the 25x25 action plan recommended that *"America must rapidly increase centralized and decentralized renewable electricity generation, taking advantage of biomass, geothermal, hydropower, landfill gas, biogas from animal operations and other organic waste, solar, and wind, as well as thermal uses."* This type of recognition of hydropower as a renewable is long overdue.

It's important to note that electric cooperatives continue to develop their own sources of renewable energy through aggressive use of the Clean Renewable Energy Bond (CREBS) program included in the Energy Policy Act of 2005. So far, 40 electric cooperatives have developed or are developing $430 million worth of renewable energy projects using this program. This project portfolio includes $60 million for new incremental hydropower projects.

In addition, cooperatives across the country recently formed the National Renewables Cooperative Organization (NRCO) to accelerate the development and deployment of renewable energy resources. Since it has become increasingly difficult to build new baseload generation, electric cooperatives recognized we must produce as much power as is technologically and economically possible from renewable sources. Formed in March of 2008, NRCO already has 24 member co-ops who collectively serve 23 million Americans in 36 states. NRCO reflects the commitment of cooperatives around the country to the responsible development of cost effective renewable resources in a manner that benefits their consumers, their communities, and the nation as a whole. The NRCO will allow cooperatives to pool expertise in developing renewable energy, share access to sites that are conducive to renewable production, and potentially lower the high capital costs of these projects.

The NRCO and CREBS will help stimulate development of renewable resources in the future. In the meantime, the federal government is overlooking its largest and most long-standing renewable resource: hydropower.

For more than 100 years, the federal government has developed hydropower capabilities at the multi-purpose projects of the Bureau of Reclamation (Bureau) and U.S. Army Corps of Engineers (Corps) across the country. These projects serve a variety of needs (flood control, irrigation, municipal and industrial water, and recreation) and play an important role in local, regional and national economic development. Preference customers purchasing this power are repaying the federal government's hydropower investment. There is no subsidy.

The multi-purpose projects of the Corps and Bureau generate enough emission-free hydropower each year to displace 85.5 million metric tons of CO2. The Subcommittee may be interested in the positive environmental role each of the four Power Marketing Administrations play in the displacement of CO2.

The Bonneville Power Administration (BPA) generates 72,307 gigawatt-hours of hydropower, annually displacing 56.2 million metric tons of CO2. One of the federal dams in BPA's footprint, the Grand Coulee Dam, with which the ranking member is very familiar, has the potential to produce almost 7 gigawatts of electricity. That's enough power to displace the emissions of more than 10 coal-fired power plants.

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[1] Sec. 806 of the Energy Independence and Security Act of 2007. 25 x 25 Action Plan. http://www.25x25.org/storage/25x25/documents/IP%20Documents/Action_Plan/actionplan_64pg_11-11-07.pdf

The federal hydropower marketed by the Southwestern Power Administration produces an average of 5,570 gigawatt-hours of clean renewable hydropower annually. This energy production reduces emissions of carbon dioxide by 4.6 million tons per year.[2] Projects in the Southeastern Power Administration (Southeastern) play a similar role in mitigating carbon emissions. Southeastern's generation of 5,232 gigawatt-hours in fiscal year 2007 offset carbon dioxide emissions by 4.4 million metric tons.[3] In the Western Area Power Administration, 26,159 gigawatt-hours in fiscal year 2007 offset the equivalent of 20.3 million metric tons of CO2.

Unfortunately, the hydropower capabilities at federal dams have been compromised by years of insufficient funding, even though federal hydropower investment is repaid with interest to the U.S. Treasury.

Starting in the late 1970s and continuing to present day, the hydropower facilities at these multi-purpose projects have not been adequately maintained or kept up-to-date. By abandoning its stewardship of this important national resource, the federal government has compromised the reliability of federal hydropower generation at a time when renewable energy resources are increasingly important in the effort to reduce carbon emissions as well as meet growing electricity demand.

Let us heed the words of Chairman Peter Visclosky in the FY 2008 House Energy and Water Appropriations Committee report:

"Energy security and issues of global climate change are increasingly important to the decisions made regarding infrastructure investment. Hydropower improvements at existing facilities provide a reliable, efficient, domestic, emission-free resource that is renewable."[4]

Unfortunately, the Corps and Bureau have practiced "break-down" maintenance--only fixing or replacing units when they break instead of performing routine maintenance to keep federal hydropower projects running at their most efficient capacity. Fortunately, a blueprint now exists to address this problem.

A little-known section included at the end of the Energy Policy Act of 2005 mandated that the Bureau of Reclamation and the Corps of Engineers inventory the amount of additional hydropower possible through the rehabilitation of existing federal dams and additional development at these facilities.

The report found 64 sites warranting *"…further exploration for additional hydropower development,"*[5] potentially resulting in the addition of 1,230 MW. By rehabilitating existing hydroelectric facilities, an additional 1,283 MW of emission-free hydropower could be produced. In total, 2,500 MW or the approximate output of four sizable coal-based power plants could be displaced through the addition and rehabilitation of these hydroelectric resources.

Let me be clear. This is not a Republican or Democratic issue. Successive administrations --under the direction of the Office of Management and Budget--have failed to put sufficient resources into the power function of these facilities, allowing many parts of the federal power

[2] Testimony of Jon Worthington, Administrator Southwestern Power Administration, before the House Subcommittee on Water and Power, February 26, 2008

[3] Testimony of Leon Jourolmon, Acting Administrator Southeastern Power Administration, before the House Subcommittee on Water and Power, February 26, 2008.

[4] House Energy and Water Appropriations Committee Report FY 2008.

[5] Potential Hydroelectric Development at Existing Federal Facilities, U.S Departments of the Interior, Army and Energy, May 2007.

system to fall into disrepair. When hydropower units are down, preference customers are forced to buy power from the open market, which is frequently fossil-based and more costly.

Wolf Creek Dam in Kentucky epitomizes this problem. In 2006, the Corps of Engineers implemented emergency measures to prevent a catastrophic failure of this dam. Due to the lowering of the reservoir behind the dam, approximately 312 megawatts of hydropower generation has been lost.

Wolf Creek is but one example of a system that is failing to operate efficiently. The problem runs rife through the Federal Power System. In the Southwestern Power Administration service territory, ten percent of the units generating hydropower are out of service because they need to be fixed or outright replaced. This total outage amounts to 132 Megawatts.

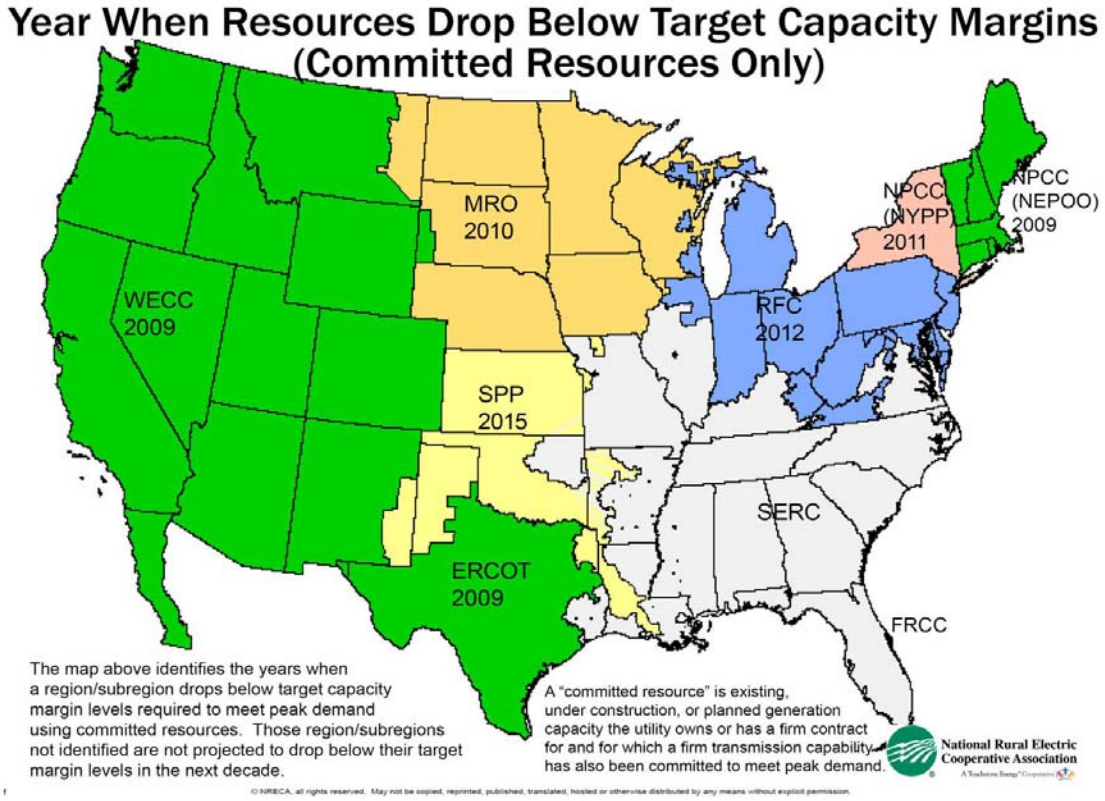
The problem was compounded this spring when several dams could not take advantage of above average rainfalls in Missouri and Arkansas. In one instance, the Truman Dam in Missouri was unable to realize its true hydropower potential due to a transformer failure. This failure precluded three of its six generators from operating during this unique opportunity to generate excess hydropower.

In many cases, preference customers have stepped in to provide funding for the rehabilitation of these facilities. A group of Western Area Power Administration customers known as the Western States Power Corporation has funded projects rehabilitating hydroelectric facilities of the Corps and Bureau to the sum of $45.8 million**.** Unfortunately, Western States members simply can not advance fund all of the federal hydropower program's repair needs while at the same time maintaining their own generation infrastructure and developing new sources of renewable and conventional generation. It must be a federal priority and a continuation of the federal hydropower commitment to consumers.

Some have called for the breaching of our federal dams. This would be completely counter to the long-standing federal hydropower commitment and policy. This is not the time to create additional energy challenges for this country. Nor is it time to adopt misguided proposals initiated by OMB that seek to change the repayment terms of the PMAs. We must invest in our federal hydropower infrastructure and reverse the "break-down" maintenance practice that has put the federal hydroelectric infrastructure in such a dire state of disrepair.

NRECA urges Congress and future Administrations--Republican or Democrat--to take all steps necessary to maximize the reliability and efficiency of the existing federal hydropower assets and to identify and pursue all opportunities to expand these facilities. These assets are an essential part of the national strategy for addressing global climate change and ensuring that consumers have enough electricity.

Thank you for the opportunity to testify. I will be happy to answer any questions you might have.


Year When Resources Drop Below Target Capacity Margins
(Committed Resources Only)
MRO
2010
NPCC
(NYPP)
2011
NPCC
(NEPOO)
2009
WECC
2009
RFC
2012
SPP
2015
SERC
ERCOT
2009
FRCC
The map above identifies the years when a region/subregion drops below target capacity margin levels required to meet peak demand using committed resources. Those region/subregions not identified are not projected to drop below their target margin levels in the next decade.
A "committed resource" is existing, under construction, or planned generation capacity the utility owns or has a firm contract for and for which a firm transmission capability has also been committed to meet peak demand.
National Rural Electric Cooperative Association
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