SHOULD LARGE HYDROELECTRIC PROJECTS BE TREATED AS RENEWABLE RESOURCES?

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Synopsis: President Obama has made the passage of a clean-energy standard one of his top domestic priorities. Such a standard would presumably be broader than a “renewable” energy standard by allowing more traditional forms of energy, such as nuclear, to be included in the program. As the Administration and the U.S. Senate move forward on this proposal, many have questioned the role hydropower resources, particularly large projects, could play. Anticipating this debate, the National Association of Regulatory Utility Commissioners (NARUC or Association) in November 2010 passed a resolution recognizing hydropower as a potential renewable resource, provided specific hydro facilities meet certain standards. This resolution could help shift the debate in Congress by providing a strong nonpartisan endorsement of hydropower’s potential as a renewable or clean energy resource. Because hydropower is already widely used in the U.S., its inclusion in a clean or renewable energy standard will make it easier for states and utilities to meet the requirements of any such federal policy. This article describes the status of hydropower in existing state renewable portfolio standards and demonstrates the importance of the NARUC resolution in the Congressional debate.

I. **Introduction**

President Barack Obama came to the White House in 2009 promising a number of significant domestic reforms. From new health care regulations to stronger Wall Street oversight, the President moved quickly on several key initiatives. One of these domestic initiatives remains the reduction and limitation of carbon emissions from power plants, cars, and other polluting sources. Initially, the President and the Democratically controlled Congress in 2009 and 2010 proposed sweeping legislation that would implement a so-called “cap-and-trade” system for reducing carbon emissions. Although the House

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passed such legislation in mid-2009, the Senate could never get a bill onto the floor for a vote.

So despite successes with the health care and Wall Street reform efforts, President Obama has yet to succeed on his climate change proposals. After the legislative defeat in the Senate, along with the Republican-takeover of the House of Representatives following the 2010 mid-term elections, President Obama changed gears. Instead of pursuing a massive new economic device for curtailing carbon emissions, the President scaled back his expectations and called on Congress to pass “clean energy” legislation that will focus on renewable or clean resources, with the goal of having clean energy provide about 80% of the nation’s electricity. While the President did not get specific in his description of what resources would be included in a “clean-energy standard,” it is likely that it will include traditional renewable projects, nuclear energy, “clean” coal, and, perhaps, hydropower.

II. FEDERAL INACTION LEADS TO STATE LEADERSHIP ON CLEAN ENERGY DEVELOPMENT

As of this publication date, Congress had not acted on this proposal. Fortunately, 30 states, including the District of Columbia, have acted by implementing their own renewable energy standards (RPSs). This diverse group of state governments, from Washington in the Pacific Northwest to North Carolina in the Southeast, moved well before the federal government. Following Supreme Court Justice Brandeis’s advice, these states acted as “laboratories of Democracy,” initiating new and innovative proposals that both promote the burgeoning development of renewable energy resources and help clean the environment. These RPSs vary depending on a state’s local resources, but all share the same goal of adding cleaner energy resources into the portfolio mix.

Most of the existing state renewable programs include typical clean resources: wind, solar, biomass, photovoltaics, etc. As more state legislatures adopted renewable energy standards, a debate over the role of hydropower as a clean, renewable resource emerged. According to the Database of State Incentives for Renewable Energy (DSIRE), an online compendium of state renewable energy information co-sponsored by the U.S. Department of Energy, the Interstate Renewable Energy Council, the National Renewable Energy Laboratory, and the North Carolina Solar Center, the majority of states with an
RPS include hydropower; however, in some instances, only new hydropower projects count toward meeting the overall target. In my home State of Vermont, for example, utilities can use hydropower resources to meet our 20% by 2017 target. The same is true in Arizona, where the goal is 15% by 2025, Connecticut, which set 27% by 2020, and several others. By contrast, Oregon, Washington, and Missouri do not include hydropower at all in their RPS, and other states, such as New Hampshire, California, and North Carolina, only make new hydropower projects eligible for inclusion in their renewable programs.

III. HYDROPOWER AS RENEWABLE ENERGY

There are varying reasons why some states have embraced hydropower while others have not. For one, each state is different and has its own unique circumstances. In Vermont, for example, we import a significant amount of electricity from our northern neighbors in Québec. Much of this comes from Hydro-Québec’s system which, predictably, produces most of its power from hydroelectric dams. Given our geography and relatively low load, we are able to meet our renewable goals through a variety of resources, including energy efficiency, solar, wind, and biomass. Hydropower, though, is a ubiquitous resource in the Northeast, and it not only provides us with clean, carbon-free electricity, it is also much cheaper, more reliable, and more widely available than most other renewable resources.

Given these advantages, why don’t all states utilize hydropower to help meet their renewable goals? Although it is a plentiful, carbon-free fuel, concerns

12. DSIRE Database, DSIRE, http://www.dsireusa.org/ (last visited Aug. 30, 2011) (RPS information about each state may be accessed by clicking the state on the map).
14. DSIRE Database, supra note 12.
16. Id.
remain over its environmental footprint. Damming rivers forever alters a region’s geologic landscape, and a hydroelectricity facility’s turbines often kill the fish that get caught in the plant.20 In the Pacific Northwest, hydroelectric plant operators routinely stop producing electricity during salmon spawning seasons and must take careful steps to reduce their impact on the fish population.21 Although these necessary steps prevent massive fish kills and protect crucial species, they limit the efficiency and effectiveness of the hydropower facilities.22 While hydropower supplies the Northwest with 70% of its electricity,23 these environmental concerns have kept some states from fully embracing it as a renewable panacea. In fact, many hydropower facilities have been shut down for environmental reasons. According to the advocacy group American Rivers, older dams are shut down and removed because of safety issues and concerns over their long-term impact on the environment and recreation.24 American Rivers statistics demonstrate that roughly 600 dams have been removed in the last 50 years.25

IV. NARUC TAKES UP THE ISSUE

Despite these concerns, hydropower remains an important piece of the U.S. energy mix, and this is where NARUC comes into play. “NARUC is the national association representing the State Public Service Commissioners who regulate essential utility services . . . .”26 These services include electricity, natural gas, water, telecommunications, and, in some cases, transportation.27 As NARUC’s Immediate Past President, I know first-hand of the Association’s stature in Washington and literally across the globe. Our 250-plus members are as diverse as the states they represent, but we attempt to set policies that best protect the consumers we all serve.

Clean energy issues are always at the top of our agenda, as evidenced through volumes of resolutions supporting these initiatives and a committee – the Energy Resources and the Environment Committee (ERE Committee)28 – dedicated to these concerns. At our three meetings per year, we invite speakers representing all sectors of the utility industry, from Congressmen and Senators to CEOs of major utility companies to representatives of utility consumers.29 At

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22. Murphy, supra note 20.
25. Id.
27. Id.
our 2010 Summer Committee Meetings in Sacramento, California, we welcomed the Honorable Nathalie Normandeau, Deputy Premier and Minister of Natural Resources and Wildlife, Québec, a renowned champion of hydropower. During her presentation, Deputy Premier Normandeau noted Québec’s significant hydropower resources and its long history of sharing these resources with New England States. According to the Deputy Premier, 95% of Québec’s energy comes from clean and renewable hydraulic sources. Of that amount, 90% is consumed by Québeccers, and the remaining 10% is exported to New England, New York, and Michigan. Being from Vermont, I know firsthand how these resources are utilized in my home state, and her message resonated with my fellow commissioners across the country.

Shortly after the Deputy Premier’s appearance, the congressional debate on reducing carbon emissions moved from a cap-and-trade system to the current clean-energy standard. This caused NARUC to take stock of our existing positions and hold an internal debate about whether hydroelectricity should be part of a clean energy standard. Historically, NARUC remains neutral on whether the federal government should even establish a renewable portfolio standard. Although the majority of our members have adopted their own RPS programs, we have membership on both sides of this issue.

V. HOW THE NARUC RESOLUTION PROCESS WORKS

Clean energy, on the other hand, enjoys broad support throughout the NARUC community. The term “clean energy standard” is meant to be more inclusive – and less political – than “renewable” energy because it includes fossil fuels, such as natural gas and clean coal, along with nuclear energy. Although NARUC does not have a specific position of support or opposition to a “clean energy standard,” we’ve long supported both clean and renewable energy, and NARUC has held that all options – fossil fuels, renewable energy, energy efficiency, and conservation – must be included in any national energy policy.
But we were silent on the overall concept of a clean-energy standard. That began to change in July 2010.

NARUC sets its policies through resolutions approved by our committees and, ultimately, our Board of Directors. These resolutions are debated during our three yearly meetings and, if approved, become official NARUC policy. This means when legislation on a specific issue is moving through Congress, the NARUC Washington Office will send letters of support or opposition and provide general advocacy for our stated positions. We will also testify before Congress and participate in proceedings at various federal agencies and the courts, when necessary. Our resolutions give NARUC staff and leadership guidance for these advocacy materials; i.e., NARUC can only advocate on the subjects in which it has taken a position.

A NARUC-approved resolution holds tremendous value in Washington and across the country because of our nonpartisan nature. Our members represent politically and geographically diverse regions from all 50 states, the District of Columbia, the U.S. Virgin Islands, Puerto Rico, and other U.S. territories. Our resolution process is similar to the way Congress passes a law: the first step is approval by the appropriate committee, and then the Board. Along the way, resolutions can be changed or rejected outright. Any resolution winning final approval carries the weight of the Association behind it.

VI. NARUC COMMITTEES DEBATE RESOLUTION

In the weeks preceding our November 2010 Annual Meeting in November, as congressional action on a cap-and-trade bill became unlikely, a state commissioner from the Oregon Public Service Commission proposed a draft resolution recognizing hydropower as a renewable resource. That an Oregon commissioner offered this concept is important: the Pacific Northwest has struggled with the environmental concerns of hydropower for almost a century. Immediately this resolution became controversial, for the very reasons discussed earlier. Our ERE Committee raised concerns over the impact this could have on NARUC’s views on environmental issues. Our Electricity Committee, on the other hand, questioned whether this resolution would in turn lend the Association’s support for a federal renewable standard.

40. Id.
41. Id.
As is often the case in NARUC deliberations, debate over this resolution was cordial and professional, but heated nonetheless. Our Electricity and ERE committees approved two vastly different versions, leaving our Board in the unenviable position of having to muster a compromise or table it for further review.48 Rather than leave it to the Board, our ERE and Electricity committee chairs—Commissioners Jeanne Fox of New Jersey and Garry Brown of New York, respectively—worked with each other and the sponsoring commissioner and found a Solomon-like compromise. These members added new language that made clear NARUC was not taking sides on the overall RPS debate while also leaving it to the states to determine whether and how hydro resources should be treated in their own programs.49 Also, the principals inserted new clauses demonstrating some environmental concern about pumped-storage hydro facilities but also recognized hydro’s long history of providing reliable, affordable carbon-free electricity.50 In the end, the NARUC Board of Directors approved the compromised version, and the resolution—which clearly asserts our support for hydropower’s inclusion as a renewable energy resource—became Association policy.

The resolution is significant in both its compromises and its unqualified support for hydro as a renewable resource. For one, it acknowledges the clean, environmentally friendly benefits hydroelectricity brings. It also addresses some of hydro’s shortcomings in terms of impact on fish passages and the environment as a whole. In addition, the resolution continues our belief that states should determine the role hydropower should play in their state-wide renewable programs. The following WHEREAS clauses illustrate the compromise we struck:

WHEREAS, Hydropower is generally a low-carbon or carbon-free resource; and

WHEREAS, Hydropower is a relatively mature and cost-effective resource, with limited need for market transformation support that nonetheless may contribute to the diversity of renewable resources and may face certain development and retention challenges, such as high capital cost, remoteness from load and the need for fish passages and other environmental mitigation. . . . 51

In the end, the resolution is clear: NARUC supports characterizing hydroelectricity as a renewable resource: “NARUC urges policymakers to give due consideration to the potential value of hydropower resources and the relative maturity and cost of the technology in establishing portfolio or incentive policies that promote clean or renewable energy sources.”52 The resolution also says: States should retain the right to impose their own standards and criteria as to whether and to what extent hydropower resources will be deemed to qualify for special incentives or renewable or clean-energy portfolio requirements, including

48. Id.
50. Id. at 1 (“Although there may be competing demands for water resources, including . . . ecological considerations, . . . water from rivers is a naturally renewable resource that is not subject to fluctuations in price.”).
51. Id.
52. Id. at 2.
standards to determine when hydropower is designed and managed in an environmentally sustainable manner.\textsuperscript{53}

Any state policies “respecting hydropower should not be federally preempted,” the resolution ends.\textsuperscript{54}

For NARUC, passing this resolution was no small feat. It firmly establishes the Association’s view that hydropower resources can be a clear and viable contributor to promoting clean energy throughout the country. It also, in traditional NARUC fashion, puts the states in control of their own policies by declaring that federal programs should not preempt those already implemented at the state level. As for its impact on the congressional debate, that remains to be seen. Much of this is out of our control, but as we wrote at the outset, President Obama made clean energy a centerpiece of his domestic agenda.\textsuperscript{55} He is hopeful that Congress will pass legislation requiring that 80% of our electricity come from “clean” sources by 2035.\textsuperscript{56} Although he hasn’t yet articulated a formal blueprint, one assumes nuclear, natural gas, “clean” coal, and other forms of renewable energy will be included. Given that the overwhelming majority of states include some kind of hydro in their RPSs,\textsuperscript{57} it is likely that a federal clean-energy standard will allow for hydropower as well.

\textbf{VII. BACK TO CONGRESS}

At press time, all eyes are on the Senate Energy and Natural Resources Committee.\textsuperscript{58} Committee Chairman Jeff Bingaman of New Mexico and Ranking Member Lisa Murkowski released a White Paper in March seeking public comments on how a clean-energy standard should be developed, what resources should be included, and other related topics.\textsuperscript{59} NARUC did not file comments, but, according to Chairman Bingaman, more than 300 people and organizations did.\textsuperscript{60} The Chairman has yet to offer legislation, and his committee will use the comments as they begin drafting a bill.\textsuperscript{61} He noted in a spring interview that, given the split in leadership in the House, it seems unlikely that a clean-energy standard will become law this year.\textsuperscript{62}

If and when Senator Bingaman releases his draft bill and moves it forward, NARUC is hopeful that, if it includes hydropower as a clean-energy resource and we have no other objections, we will be able to support the legislation.

\textsuperscript{53} Id.
\textsuperscript{54} Id.
\textsuperscript{55} See supra Section I.
\textsuperscript{56} Id.
\textsuperscript{57} DSIRE Database, DSIRE, http://www.dsireusa.org/ (last visited Aug. 30, 2011).
\textsuperscript{61} Id.
\textsuperscript{62} Id.
Given our stature in Washington and long history as a nonpartisan, public-interest association, our support will greatly increase the chances that a clean-energy standard could become law. Congress, the courts, and the federal agencies have all recognized NARUC’s standing as the collective voice of the state utility regulatory community. While not every state commissioner will agree with NARUC policy, our support of, or opposition to, federal policies carries substantial influence in Washington and nationwide. Unlike Congress, our policies hold up year after year, so if this Congress is unable to move clean-energy legislation, we will be ready to assist when and if the legislative branches try again.

63. See, e.g., United States v. Southern Motor Carrier Rate Conference, Inc., 467 F. Supp. 471 (N.D. Ga. 1979), aff’d 672 F.2d 469 (5th Cir. 1982), aff’d en banc on reh’g, 702 F.2d 532 (5th Cir. 1983), rev’d on other grounds, 471 U.S. 48, 52 n.10 (1985) (“The District Court permitted . . . (NARUC) . . . to intervene as a defendant. . . . Throughout this litigation, the NARUC has represented the interests of the Public Service Commissions of those States in which the defendant rate bureaus operate.”); compare Indianapolis Power & Light Co. v. ICC, 687 F.2d 1098 (7th Cir. 1982), and Washington Utilis. & Transp. Comm. v. FCC, 513 F.2d 1142 (9th Cir. 1975), with NARUC v. FERC, 475 F.3d 1277 (D.C. Cir. 2007); NARUC v. DOE, 851 F.2d 1424, 1425 (D.C. Cir. 1988), and NARUC v. FCC, 737 F.2d 1095 (D.C. Cir. 1984), cert. denied, 469 U.S. 1227 (1985).
Resolution Recognizing Hydropower as Renewable Energy

WHEREAS, Renewable energy represents an important source of electricity and is a key element in ensuring long-term United States energy security; and

WHEREAS, The International Energy Agency defines renewable energy as energy that is derived from natural processes that are replenished constantly; and

WHEREAS, The International Energy Agency defines hydropower as the potential and kinetic energy of water converted into electricity in all hydroelectric plants; and

WHEREAS, Hydropower is a renewable source of energy, using the power of flowing water, without wasting or depleting it in the production of energy; and

WHEREAS, Although there may be competing demands for water resources, including agricultural, domestic and industrial uses, as well as minimum flow requirements for ecological considerations, hydropower fosters North American energy independence, as water from rivers is a naturally renewable resource that is not subject to fluctuations in price; and

WHEREAS, Some hydroelectric power plants may support the development of other renewable resources when they have appropriate reservoirs of water that provide operational flexibility allowing them to respond to fluctuating demand for electricity and to the intermittent generation profiles of, for example, wind and solar; and

WHEREAS, Pumped storage hydroelectric power plants would not normally be considered a form of renewable energy unless the source of the pumping energy is from a renewable source and there is no double counting of the renewable pumping resource and the generation from the pumped storage facility; and

WHEREAS, Hydropower is generally a low-carbon or carbon-free resource; and

WHEREAS, Hydropower is a relatively mature and cost-effective resource, with limited need for market transformation support that nonetheless may contribute to the diversity of renewable resources and may face certain development and retention challenges, such as high capital cost, remoteness from load and the need for fish passages and other environmental mitigation; and

WHEREAS, Numerous NARUC resolutions have supported deployment of clean and renewable energy technologies; now, therefore be it

RESOLVED, That the National Association of Regulatory Utility Commissioners, convened at its 2010 Annual Meeting in Atlanta, Georgia, recognizes that hydropower facilities can be valuable clean and renewable
energy resources if they are constructed and operated consistent with applicable provincial, State and federal law or policies and have received all required regulatory approvals; and be it further

RESOLVED, That NARUC urges policymakers to give due consideration to the potential value of hydropower resources and the relative maturity and cost of the technology in establishing portfolio or incentive policies that promote clean or renewable energy sources; and be it further

RESOLVED, That in implementing this Resolution individual States should retain the right to impose their own standards and criteria as to whether and to what extent hydropower resources will be deemed to qualify for special incentives or renewable or clean energy portfolio requirements, including standards to determine when hydropower is designed and managed in an environmentally sustainable manner; and be it further

RESOLVED, That such State policies respecting hydropower should not be federally preempted.

Sponsored by the Committees on Electricity, Energy Resources and the Environment and International Relations
Recommended by the NARUC Board of Directors November 16, 2010
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