BRACEWELL

INSIGHTS

More Power to the Water

April 13, 2011

*By: **Frank V. Maisano***

Power from water is again in the news as the Senate Energy and Natural Resources Committee moves forward on measures to increase hydropower and improve the impact of energy development on water resources. As well, the national trade group representing the hydropower industry, which includes many municipal utilities, held its annual meeting in Washington, D.C., last week, and the excitement among the industry players was palpable. Despite past concerns about costs, land use and water resources, there is a real opportunity to expand America's hydropower resources and create good jobs. There are 80,000 dams in the U.S., and only 3% generate electricity. Just as it was following the Great Depression, hydropower can be a part of our energy renaissance. Already, the hydro industry supports 300,000 jobs across America. With clean energy options limited as nuclear power faces new problems because of the situation in Japan, it is vital to move past the concerns and woes of an industry that has long been ignored. In 2009, hydroelectric power provided 7% of total U.S. electricity generation and 35% of generation from renewables, producing power without air pollution or toxic byproducts. Using hydropower avoids nearly 200 million metric tons of carbon pollution in the U.S. each year, equal to the output of more than 38 million passenger cars. In addition to this clean energy, hydropower infrastructure also provides a myriad of other important benefits, including managing river flows for species and habitat protection, water supply, recreation opportunities, irrigation, flood control, and navigation. And importantly, hydropower and pumped storage assets provide essential grid reliability and stability services such as the ability to quickly meet changing demand in load, and firming for intermittent resources. It can also provide black-start capability in times of outage, as in 2003 when a blackout caused power outages from New York to Michigan. Hydro facilities in upstate New York and Ontario that were operating continuously were essential to bringing power back to millions of customers. A 2009 Navigant Consulting ***study*** examined the hydropower industry's job-creation and growth potential. It found that the industry could add up to 60,000 MW of capacity by 2025, which could support the creation of approximately 1.4 million cumulative direct, indirect and induced jobs across the country. In the study, it was estimated that 9,000 MW alone could come from upgrades and additions of capacity at existing hydro facilities, with an additional 10,000 MW by converting nonpowered dams into generating assets. Every state in the union is already home to hydropower projects, hydro equipment manufacturing plants, companies that benefit from the hydropower supply chain and consumers who enjoy hydro's lower electricity costs. Hydropower is a proven renewable energy resource "" one that has been in use in our country for well over 100 years. Hydropower should also be a resource for

our energy future, with tremendous growth potential that can create real jobs and economic benefits. It is not clear that a clean energy standard will ever become law, as the president has suggested in his recent energy speeches, but with an improving outlook, a push by Congress and real jobs on the line, hydropower should be a significant player when and if it emerges.