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Sustainable Developments

CLIMATE CHANGE AND SUSTAINABLE DEVELOPMENT PRACTICE GROUP

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About the Climate Change and Sustainable Development Group

Committed to meeting client needs as they are affected by a rapidly changing environment, Wiggin and Dana's Climate Change and Sustainable Development Practice Group advises clients reacting to new mandates for change. In particular, the Practice Group advises with regard to the adoption of environmentally-desirable business practices, emerging business opportunities, and litigation associated with climate change and sustainable development. Another useful seminar on these groundbreaking trends is planned for the autumn.

As a firm, Wiggin and Dana is committed to reducing the environmental impact of its offices. Wiggin and Dana's Green Team is implementing a plan to achieve the firm's goal of creating an environmentally sustainable workplace.

Upcoming Event

What are the Risks Companies Face Dealing with Climate Change?
Tuesday, November 18, 2008
Quinnipiack Club | New Haven, CT
8:00 - 8:30 a.m. Registration
8:30 - 9:45 a.m. Panel Discussion

continued

Climate Change Regulation and the Energy and Utilities Industry

By: Daniel P. Venora

No sector of the economy is being more profoundly affected by climate change regulation than the energy and utilities sector. The initial debate over whether the global warming phenomenon is "real" has quickly given way to legislative measures aimed at reducing greenhouse gas emissions, promoting renewable resources, increasing energy efficiency and advancing new clean and green technologies. Many states have enacted climate change measures, other states are considering them, and Congress is expected again to take up the climate change debate, as well as a broader debate on federal energy policy, in the coming months.

Electric generating plants that run on fossil fuels are a primary source of greenhouse gas emissions, and thus a primary focus of climate change regulation. Utilities and other energy suppliers are moving forward with substantial investments in non-traditional energy resources, increased energy efficiency programs, and new technologies for reducing emissions from fossil plants. Climate change regulation is also contributing to a resurgence in nuclear power and an expansion of the electric transmission grid. This article describes some of the projects, initiatives and other developments that are emerging from the energy and utilities sector due to climate change regulation.

Climate Change Regulation Is Driving Substantial Investments In Renewable Resources

Many recent developments in the energy and utilities sector can be tied to existing and proposed climate change regulation. State-imposed greenhouse gas emission reduction targets and renewable portfolio standards ("RPS"), as well as proposed cap and trade measures and similar pending initiatives, all have an impact on the cost of supplying power, and ultimately the costs to consumers. In the northeast and mid-Atlantic region, for example, ten states have formed the Regional Greenhouse Gas Initiative, under which carbon dioxide emissions from power plants will be capped and reduced through a market-based auction of emission allowances, with the auction proceeds to be used to fund energy efficiency, renewable energy and other clean energy technology investments. Similar programs are also under development in other regions of the United States. RPS require many utilities and other electric suppliers to serve a percentage of their load using renewable resources, which are typically higher cost than conventional resources. Under most RPS, the percentage of required renewables increases from year to year. Finally, renewable resources are a means to "break the link" between electricity prices and fossil fuel prices, providing diversity to supply portfolios, reducing reliance on fossil fuels, controlling costs and promoting the development of new technologies.
This combination of factors has resulted in utilities and other energy suppliers across the country making significant investments in renewable resources. Some recent examples include:

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Climate change poses unique business risks. These include professional liability, director/ officer liability, and performance warranties, compliance with new regulatory requirements, revised local and state "green building" mandates, shareholder reporting requirements, carbon market/emission trading, "carbon capture and sequestration," and other potential financial exposures. Do insurance or other mechanisms meet these risks? Learn about these issues from panelists from United Technologies Corporation, Spinnaker Real Estate Partners, Zurich Financial Services Group and Domani Sustainability Consulting.

- Pacific Gas and Electric signed power purchase agreements for 800 megawatts of photo voltaic solar generation, to be used toward meeting California's aggressive RPS. The projects are expected to be on line in 2012 or 2013, contingent on the extension of the federal investment tax credit. Renewable resources comprised over 11 percent of PGE's supply portfolio in 2007.
- Exelon, the nation's largest nuclear generator, announced a plan to cut 15 million metric tons of greenhouse gas emissions by 2020. The plan will cost more than $10 billion, and includes measures such as facility improvements, additional investments in nuclear generation, combined cycle gas generation and renewable energy resources.
- Los Angeles Department of Water and Power, the nation's largest municipal utility, is reportedly considering whether to divest ownership of coal plants and acquire low carbon emission resources in order to comply with California's greenhouse gas reduction targets. Municipal utilities and cooperatives in other parts of the country are also investing in wind, solar, and geothermal power.
- Two of Florida's largest utilities have proposed a plan to build two new 1,117-MW nuclear plants, in addition to a nearly $700 million project to build three large solar projects. This plan was issued in part to respond to a July 2007 executive order by Governor Crist to cut greenhouse gas emissions. The state is also weighing adoption of RPS.

In conjunction with climate change regulation, federal and state programs have also emerged to provide financial incentives for the development of new technologies. Several recent examples include:

- The U.S. Department of Energy ("DOE") is considering proposals for $340 million in grants to commercialize clean coal technologies, a goal of the Bush administration's Clean Coal Power Initiative. The focus of the grants is expected to be on technologies to reduce greenhouse gas emissions.
- The DOE is also making available over $30 billion in loan guarantees ($18.5 billion for nuclear plant projects, $2 billion for front-end nuclear technology and uranium enrichment, and $10 billion for renewable energy and advanced transmission and distribution projects) under a program established by the Energy Policy Act of 2005.
- Connecticut has awarded utility-backed contracts under its "Project 150" initiative, which seeks to promote the development of up to 150 megawatts of power from renewable resources, such as fuel cells, solar and bio-mass. Regulators have also authorized the state's utilities to enter into long-term contracts for renewable energy certificates.

Transmission Is Needed To Link Renewable Projects To The Grid

Many large-scale wind projects are or will be located in less populated regions, such as northern Maine, west Texas, the Great Plains and portions of Canada. In order to integrate these projects into the electric grid and deliver their power to populated load centers, a significant investment in electric transmission lines will be necessary. Several recent examples include:

- In the northeast, a 150 to 200 mile "Maine Power Connection" is being planned to reach large, undeveloped land areas in the northern part of Maine, at an estimated cost of $625 million. The line will interconnect an estimated $1.6 billion of new wind power planned for the region.

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- The Texas Public Utilities Commission approved a $4.93 billion plan to add 2,300 miles of lines to the transmission grid in west Texas and the Texas panhandle. The new lines will interconnect 6,900 megawatts of wind projects currently in operation and will support the development of an additional 11,500 megawatts of new wind capacity.
- Large scale transmission projects are also planned in Kansas and Oklahoma to tap wind resources and develop wind power projects.
- A merchant, international transmission line is planned to transport wind power from wind farms in Montana, 300 megawatts of which will go to Alberta, Canada, and another 300 megawatts of which will go to southern Montana.

Conclusion

Moody's Investor Services recently characterized carbon dioxide emission regulation as the most significant emerging credit issue for electric utilities. Climate change regulation and policies promoting renewable resources are having a profound impact on the energy and utilities sector. These issues have charted a new course for the industry, and will drive investments by the industry for the foreseeable future.

Daniel Venora is a Partner in Wiggin and Dana's Climate Change and Sustainable Development Practice Group and its Energy and Utilities Practice Group. Mr. Venora has extensive experience in energy and public utility regulation, including administrative proceedings, regulatory policy, and infrastructure projects. Prior to joining Wiggin and Dana, Mr. Venora was Assistant General Counsel for one of the largest energy companies in the northeast. If you have any questions or comments about this article or its subject matter, please contact Daniel at 203.498.4338 or dvenora@wiggin.com.