

## FERC Launches Inquiry About Integration of Variable Energy Resources Into the Transmission Grid

On January 21, 2010, the Federal Energy Regulatory Commission (FERC) issued a Notice of Inquiry (NOI) to explore whether any of its standardized rules or procedures governing organized energy markets or operation of the transmission grid should be changed to eliminate barriers to the integration of Variable Energy Resources (VERs). VERs are renewable energy resources that are characterized by variability in the fuel source that is beyond the control of the resource operator, including wind and solar generation facilities and certain hydroelectric resources. While FERC extolled the virtues of VERs, including low marginal energy costs and reduced greenhouse gases and other emissions, FERC also recognized the challenges that the unpredictability of VER output poses to transmission system operators responsible for ensuring the reliability of the grid. While FERC implemented special interconnection procedures for wind generation, FERC acknowledged that its existing open access rulemakings, from Order No. 888 through Order No. 890, and the existing *pro forma* Open Access Transmission Tariff (OATT), were not necessarily designed to accommodate VERs, but rather were developed with centralized, dispatchable resources in mind. Therefore, the NOI seeks comments from industry participants on perceived barriers to integration of VERs under FERC's existing rules, regulations, and the *pro forma* OATT, as well as any suggested revisions to these policies to better accommodate VERs.

Comments are due 60 days after publication of the NOI in the *Federal Register*, and should be filed in Docket No. RM10-11-000.

### RAPID DEVELOPMENT OF VERS POSES POTENTIAL PROBLEM FOR TRANSMISSION SYSTEM OPERATORS

Due to the increasing prevalence of renewable portfolio standards (as of December 2009, 30 states, including the District of Columbia had them), as well as VERs' low marginal cost of electricity production once constructed, VERs are becoming a significant component of the nation's energy supply portfolio. In 2008, new wind generating capacity made up 42 percent of all newly installed generating capacity in the United States. VERs present unique operational challenges not faced by traditional dispatchable generation, primarily due to the weather-dependant nature of the wind, sun, etc., that fuel VERs. Such unpredictability makes scheduling VERs difficult. Moreover, particularly with respect to wind generation, substantial and rapid ramps can occur with changes in wind speed or direction. The volatile minute-to-minute output from VERs places a burden on transmission system operators, who are required to balance generation and demand while maintaining reliability in real time. The economic integration of VERs into the grid may require different forecasting techniques, new generation reserve products, and a new perspective on capacity markets to manage VER output. During the last year, several Regional Transmission Organizations (RTO) and balancing area operators other than RTOs have proposed new rate schedules and initiated their own inquiries about how to address the costs of integrating VERs into their systems.



## THE NOI

In the NOI, FERC expressed its own preliminary view that one of the most important issues affecting the integration costs for VERs involves the reserves needed by transmission system operators to address variability in VER output. Resolving this issue will require a determination of both the amount of reserves needed as well as the cost of those reserves. Therefore FERC may view the cost of the reserves necessary to integrate VERs, and the fact that such costs are not presently recovered by transmission system operators under the *pro forma* OATT, as a significant hurdle to the integration of an increasing number of VERs into the electric grid.

In this extensive NOI, FERC seeks comment on a number of issues in each of the following subject areas:

- 1) Data and reporting requirements, including the use of accurate meteorological forecasting tools;
- 2) Scheduling practices, flexibility, and incentives for accurate scheduling of VERs;
- 3) Forward market structure and reliability commitment processes;
- 4) Balancing authority area coordination and/or consolidation;
- 5) Suitability of reserve products and reforms necessary to encourage the efficient use of reserve products;
- 6) Capacity market reforms; and
- 7) Redispatch and curtailment practices necessary to accommodate VERs in real time.

Commenters may also share their overall views, including technical, commercial, and legal observations, on the challenges posed by the increasing number of VERs, operational and technical barriers faced by VERs, and the extent to which FERC policies can and/or should be revised to accommodate VERs.

## FOR ADDITIONAL INFORMATION

For additional information, assistance, or counsel in responding to the NOI, please contact Gary Bachman, Rich Bonnifield, or David Yaffe, in our Washington, D.C. office at (202) 298-1800, or any other member of Van Ness Feldman's Electricity practice.

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