

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Integration of Variable Energy Resources)

Docket No. RM10-11-000

COMMENT OF THE STAFF OF THE FEDERAL TRADE COMMISSION

March 1, 2011

Background and Summary

The Federal Trade Commission (FTC) Office of the General Counsel and Bureau of Economics appreciate this opportunity to comment on the Federal Energy Regulatory Commission's (FERC's) Notice of Proposed Rulemaking (NOPR) regarding integration of variable energy resources (VERs)¹ with grid operations.² *Integration of Variable Energy Resources*, Docket No. RM10-11-000, 133 FERC ¶ 61,149 (2010).³ The Proposed Rule would (1) require public utility transmission providers to offer intra-hourly transmission scheduling; (2) require VERs to provide meteorological and operational data to public utility transmission providers, for the purpose of improving power production forecasting; and (3) allow public utility transmission providers to request to charge higher prices to VERs if VERs add a disproportionate amount to the cost of regulation service. FERC expresses the view that the proposed reforms will remove barriers to the integration of variable energy resources, while also avoiding favoritism toward VERs.

The first two elements in the proposed rule are likely to facilitate integration of VERs at lower costs, as FERC maintains. Consumers are likely to benefit not only from prices lower than they would have been without these reforms, but also from environmental benefits associated with switching to renewable energy sources. As discussed in the FTC's comment on FERC's Notice of Inquiry (NOI) in this docket, intra-hourly transmission scheduling is likely both to accommodate VERs and to better match demand response technologies that can contribute to the

¹ The term "variable energy resources" refers primarily to generation facilities powered by wind or directly by solar radiation.

² This comment expresses the views of the FTC's Office of the General Counsel and Bureau of Economics. The comment does not necessarily represent the views of the FTC or of any individual Commissioner. The FTC, however, has voted to authorize the filing of this comment.

³ 75 Fed. Reg. 75336 (Dec. 2, 2010).

integration of VERs with grid operations.⁴ The FTC's comment on the NOI also pointed out that better micro-forecasting of weather can help increase the efficiency of wind generation and improve the accuracy of forecasts of generation by VERs.⁵ Both effects would increase the productivity of the electricity system and benefit consumers by reducing costs and prices for electric power.

The third element in the proposed rule addresses how best to structure and pay for remedies to correct imbalances in the electricity system. The focus is on periodic situations in which VERs experience large, rapid, unanticipated changes in output.

We encourage FERC to refine the third element of the proposed rule by expanding upon Paragraph 89 of the NOPR, which identifies ways for a VER to satisfy its regulation service obligations without having to buy regulation service from the transmission provider. This refinement is likely to benefit customers by facilitating the least costly approaches available to meet VERs' regulation service obligations. We also recommend that FERC consider whether the costs of "imbalance services" provided to other types of generators can readily be identified and charged to the responsible parties.⁶ Customers will benefit if costs are accurately allocated to the activities that give rise to these costs. By contrast, when costs are allocated more broadly than is efficient, there can be price distortions and resource misallocations that reduce overall consumer welfare. The changes that we propose likely will enable VERs to play a larger role in producing electricity, which will expand the supply options available to satisfy electricity demands and could benefit consumers by minimizing future utility bills.

Interest of the FTC

The FTC is an independent agency of the United States Government responsible for maintaining competition and safeguarding the interests of consumers, both through enforcement of the antitrust and consumer protection laws and through competition policy research and advocacy. The FTC often analyzes regulatory or legislative proposals that may affect competition or allocative efficiency in the electric power industry. The FTC also reviews

⁴ Comment of the Federal Trade Commission before the Federal Energy Regulatory Commission, Integration of Variable Energy Resources, Docket No. RM10-11-000, § III.B (Apr. 8, 2010), available at <http://www.ftc.gov/os/2010/04/V100009fercccomment.pdf>.

⁵ *Id.*, § III.C. In late January 2011, the Department of Energy and the Department of Commerce signed a memorandum of understanding that affirms the importance of improved localized weather forecasting for both the efficiency of power generation by VERs and the integration of VERs into the grid. Memorandum of Understanding on Weather-Dependent and Oceanic Renewable Energy Resources between the U.S. Department of Energy Office of Energy Efficiency and Renewable Energy and the U.S. Department of Commerce, National Oceanic and Atmospheric Administration (Jan. 24, 2011), available at <http://www.noaanews.noaa.gov/stories2011/images/28812.pdf>.

⁶ In some instances, however, the costs of undertaking a more accurate allocation may exceed the benefits, and therefore the allocation should not be undertaken.

proposed mergers that involve electric and natural gas utility companies, as well as other parts of the energy industry. In the course of this work, as well as in antitrust and consumer protection research, investigation, and litigation, the FTC applies established legal and economic principles and recent developments in economic theory and empirical analysis.

The energy sector, including electric power, has been an important focus of the FTC's antitrust enforcement and competition advocacy.⁷ The FTC's competition advocacy program has produced two staff reports on electric power industry restructuring issues at the wholesale and retail levels.⁸ The FTC staff also contributed (as did FERC staff) to the work of the Electric Energy Market Competition Task Force, which issued a *Report to Congress* in 2007.⁹ In addition, the FTC has held public conferences on energy topics, including *Energy Markets in the 21st Century* (April 10-12, 2007)¹⁰ and *Carbon Offsets & Renewable Energy Certificates* (January 8, 2008).¹¹ The FTC is in the process of updating its Guides for the Use of Environmental Marketing Claims, which help marketers avoid making deceptive environmental claims about their products and services, including electricity.¹²

⁷ See, e.g., Opening Remarks at the FTC Conference on *Energy Markets in the 21st Century: Competition Policy in Perspective* (Apr. 10, 2007), available at <http://www.ftc.gov/speeches/majoras/070410energyconferencereemarks.pdf>. FTC merger cases involving electric power markets have included the *DTE Energy/MCN Energy* (2001) (consent order), available at <http://www.ftc.gov/os/2001/05/dtemcndo.pdf>; and *PacifiCorp/Peabody Holding* (1998) (consent agreement), available at <http://www.ftc.gov/os/1998/02/9710091.agr.htm>. (The FTC subsequently withdrew the *PacifiCorp* settlement when the seller accepted an alternative acquisition offer that did not pose a threat to competition.)

⁸ FTC Staff Report, *Competition and Consumer Protection Perspectives on Electric Power Regulatory Reform: Focus on Retail Competition* (Sept. 2001), available at <http://www.ftc.gov/reports/elec/electricityreport.pdf>; FTC Staff Report, *Competition and Consumer Protection Perspective on Electric Power Regulatory Reform* (July 2000), available at <http://www.ftc.gov/be/v000009.htm> (compiling previous comments from the FTC staff provided to various state and federal agencies).

⁹ See <http://www.ferc.gov/legal/fed-sta/ene-pol-act/epact-fina-rpt.pdf>.

¹⁰ Conference materials available at <http://www.ftc.gov/bcp/workshops/energymarkets/index.shtml>.

¹¹ Conference materials available at <http://www.ftc.gov/bcp/workshops/carbonoffsets/index.shtml>. Other programs have included the FTC's public workshop on *Market Power and Consumer Protection Issues Involved with Encouraging Competition in the U.S. Electric Industry*, held on September 13-14, 1999 (workshop materials available at <http://www.ftc.gov/bcp/elecworks/index.shtml>); and the Department of Justice and FTC workshop on *Electricity Policy*, held on April 23, 1996.

¹² Materials are available at http://www.ftc.gov/bcp/edu/microsites/energy/about_guides.shtml.

The FTC and its staff have filed numerous competition advocacy comments with FERC and participated in FERC technical conferences on market power issues. For example, in March 2007, the Deputy Director for Antitrust in the FTC's Bureau of Economics served as a panelist for a technical conference on FERC's merger and acquisition review standards under the Federal Power Act (FPA) Section 203 (Docket No. AD07-2-000). Similarly, the FTC submitted a number of comments last year in FERC proceedings, including Demand Response Compensation in Organized Wholesale Energy Markets (Docket No. RM10-17-000)¹³ and Transmission Planning and Cost Allocation by Transmission Owning and Operating Public Utilities (Docket No. RM10-23-000).¹⁴ Since 1994, the FTC has commented on a variety of FERC's initiatives to promote wholesale electricity competition and on several state issues associated with restructuring of the electric power industry.¹⁵

Generator Regulation Service-Capacity

FERC's Framework for Pricing of Regulation Service

The framework that FERC creates for discussion of generator regulation service-capacity rejects proposals to relieve public utility transmission providers of the obligation to offer generator imbalance service.¹⁶ At the same time, FERC accepts the proposition that more generator imbalance service costs should be allocated to VERs, provided that such additional costs can be attributed accurately to VERs and that the transmission provider has taken the necessary steps to avoid excessive costs. Intra-hourly transmission scheduling and improved forecasting of VERs' generation are the only two steps that FERC proposes to require from public utility transmission providers at this time,¹⁷ although the NOPR references other possible measures.¹⁸

¹³ This comment is available at <http://www.ftc.gov/os/2010/10/1010wholesaleenergymarkets.pdf>.

¹⁴ This comment is available at <http://www.ftc.gov/os/2010/09/100929transmissionplanning.pdf>.

¹⁵ For a listing of FTC and FTC staff competition advocacy comments to federal and state regulatory agencies (in reverse chronological order), see http://www.ftc.gov/opp/advocacy_date.shtm.

¹⁶ NOPR PP 84, 87, 89.

¹⁷ *Id.* PP 97-98.

¹⁸ *See id.* P 96, where FERC cites – but does not propose to require – a more extensive list of supportive activities for public utility transmission providers proposed by the American Wind Energy Association: “fast intra-hour market and intra-hourly scheduling; a robust ancillary services market; the option for third-party or self supply of ancillary services; dynamic transfer capability out of the balancing authority area; and Area Control Error (ACE) diversity interchange or an Energy Imbalance Service market.”

The Generator Regulation Service-Capacity section of the NOPR sets out to establish a generic cost recovery mechanism for regulation services that public utility transmission providers already must provide.¹⁹ The heart of the proposal concerns charging VERs higher prices for regulation service upon a determination that VERs account for a disproportionate share of the costs of such service, as calculated through the use of cost causation principles.²⁰ The charges cover the reserves required to preserve reliability through regulation services.

FERC Should Provide a More Detailed Specification of Self-Supply Alternatives

FERC's proposal articulates principles for determining differential regulation service charges that VERs would have to pay if they buy regulation service from public utility transmission providers. The proposal provides little detail, however, regarding an alternative that we think merits more attention: a VER's provision of its own regulation services.

The proposed rule simply states that a transmission customer would be allowed to "demonstrate that it has satisfied its regulation service obligation through dynamically scheduling its generation to another balancing authority area or by self-supplying regulation reserve capacity from generation or non-generation sources."²¹ We are concerned that this sparse description of an important alternative may result in regulatory uncertainty that could discourage VERs from using more efficient self-supply options. The vagueness of FERC's pronouncement might induce a VER to forgo lower-cost self-supply options out of fear that one of its public utility transmission providers will interpret vague guidance from FERC as an invitation to undervalue the VER's self-supply of regulation services. This would result in excessive charges for regulation services provided by the transmission provider.

Vague guidance also might lead a transmission provider to conclude that it has no obligation to permit a VER to self-supply regulation services. In such a case, the transmission provider might prevent entry from a more efficient supplier of such services. Because self-supply potentially can serve to expand output – including in response to higher prices – policies that prohibit self-supply could have obvious harmful effects on competition and consumers. A more detailed description of how self-supplied regulation services can satisfy a VER's regulation service obligation would reduce this uncertainty and facilitate the use of the most cost-effective forms of regulation service (whether self-supplied or purchased from one or more public utility transmission providers).

Accordingly, we encourage FERC to provide a more complete delineation of this element of the proposed rule contained in Paragraph 89 of the NOPR. In connection with this expanded explanation, we further recommend that FERC consider explicitly recognizing that VERs can address regulation service obligations by matching their generation variability to demand variability. As the FTC stated in the NOI phase of this proceeding:

¹⁹ *Id.* P 91.

²⁰ *Id.* P 94.

²¹ *Id.* P 89.

The expansion of VERs may require further disaggregation or the addition of new commodities (services) to power markets. This could enable markets to dispatch the system more efficiently by rewarding the facilities and programs that can supply power and ancillary services at least cost to society. This, in turn, should prompt more efficient investment decisions. For example, electricity markets could trade a commodity (service) consisting of a contract to provide (on average) a megawatt of power over an hour that allows significant flexibility about when the power will arrive. A 4-megawatt wind farm that is experiencing gusty winds – and thus expects to produce at an average of 25 percent of its capacity (*i.e.*, one megawatt) during an hour – could sell this contract. Such a contract could be paired with contracts sold to buyers with variable demands, so that the system operator could utilize both variable supplies and variable demands to ensure system stability and reliability. Within this example, buyers could contract for the lower-cost, variable supply to run hot water heaters, create stockpiles of crushed rock that can be mixed with concrete, charge plug-in electric or hybrid vehicles, or pursue similar flexible end-uses. As discussed at several points in the remainder of this comment, trading an electricity commodity that better reflects the output patterns of VERs could improve integration of VERs in several aspects of power markets. Demand-side purchases of power with an uncertain schedule may be an effective way for customers to participate in keeping electricity systems in balance.²²

Caution in Reviewing Regulation Cost Allocations Proposed by Public Utility Transmission Providers

FERC proposes to allow individual public utility transmission providers to develop ways to allocate disproportionate regulation service costs to VERs.²³ FERC may wish to avoid proposals to allocate regulation service costs that discriminate unduly against VERs. Such discriminatory allocations include those that focus on the variability of generation supplied at a single VER facility but (1) fail to take account of the economies of massed reserves in supplying regulation service to VERs²⁴ or (2) fail to consider how a system operator can reduce the

²² FTC comment, *supra* note 4, at 6.

²³ NOPR P 105.

²⁴ In a comment to the Public Utility Commission of Pennsylvania that discussed strategies that utilities could apply to stifle efficient distributed generation investment, the FTC also stressed that it is important for regulators to recognize economies of massed reserves in efforts to protect system reliability. Reply Comment of the Federal Trade Commission before the Public Utility Commission, Commonwealth of Pennsylvania, in the Matter of Energy Efficiency and Conservation Program and EDC Plans, Docket No. M-2008-2069887, Section III.E (Dec. 17, 2008), available at <http://www.ftc.gov/os/2008/12/V090001papuc.pdf>. In the case of VERs, there are likely to be economies of massed reliability reserves because it is unlikely that all VERs will stop generating simultaneously. As a result, reserves held to assure reliability in the presence of one VER also partially assure system reliability in the presence of other VERs.

variability of VERs' generation by dispatching geographically dispersed VERs that are subject to differing weather patterns. Discriminatory cost allocations directed against competitors could be characterized as a regulatory version of raising rivals' costs and can lessen competition.

More Detailed Allocations of Regulation Costs May Be Appropriate for Other Generation Groups

The FERC proposal appropriately spotlights VERs as a group of transmission customers that may cause above-average costs for regulation and other reliability services. But other groups of transmission customers may also cause above-average costs. FERC should be alert to types of transmission customers (other than VERs) that cause differential costs in the power system's reliability efforts. A policy that singles out VERs for higher charges because they cause higher regulation costs could result in discriminatory prices if other groups of transmission customers cause higher (or lower) costs for regulation and other reliability measures but escape being subjected to higher (or lower) charges.²⁵ A failure to apply equivalent cost causation principles to such customers could lead to prices for power sources that do not reflect true resource costs. As a result, these price distortions likely would yield a mix of power sources that is not efficient, which in turn could raise prices for consumers above what they otherwise would be.

²⁵ Discrimination occurs when a supplier – in this instance, a transmission provider – makes higher profit margins in serving some customers than it earns from others. Charging the same price to customers who cause different levels of costs can be just as discriminatory as charging different prices to customers who cause the same level of costs.