

UNITED STATES OF AMERICA

comments in December 2009 in FERC's proceedings on possible elements of a National Action Plan on Demand Response (Docket No. AD09-10-000)¹⁷ and on transmission planning processes (Docket No. AD09-8-000),¹⁸ and in March 2010 on performance metrics for regional transmission organizations (RTOs) and independent system operators (ISOs) (AD10-5-000).¹⁹ The FTC also has commented on FERC's initiatives to promote wholesale electricity competition and on various state issues associated with restructuring the electric power industry.²⁰

III. Issues Involved in the Integration of VERs

In this section, we discuss

Historically, electricity markets traded commodities suitable for a system dominated by predictable thermal generators. The keystone commodity traded on these markets is the megawatt-hour of power, which consists of one megawatt of energy flowing during every moment within an hour. In fact, however, this commodity is a bundle of several components, including (1) a total amount of energy, (2) temporal certainty about when that energy will be

of changing output (“ramping”) quickly enough to meet the change in demand. Further, the current economic model may not be nuanced enough to optimally deploy and compensate resources that can react quickly. A comparable economic institution may be needed that addresses the physical limits on how quickly conventional generators can ramp.

Plants operating at 100 percent of capacity cannot increase output even if they are capable of ramping quickly. Similarly, energy storage facilities that are not charged cannot deliver power. A resource can solve a problem only if transmission grid conditions allow it to get power to the area that needs it. Rapid reaction is likely to have greater value when weather conditions (such as gusty winds or broken clouds) create greater fluctuations in VERs’ output. A good institution will both (1) improve incentives to invest in generation, demand response, and storage resources located in areas where rapid changes in power output are valuable and (2) encourage resources’ owners to operate them in ways that deliver the greatest benefit to

the National Action Plan on Demand Response,³⁰ better forecasting of demand – including the level and persistence of consumer participation in demand response – would help maintain reliability at the lowest cost.

2. Balancing authority coordination/consolidation (Section III.D)

FERC asks whether small balancing authorities lead to higher integration costs for VERs and, if so, what should be done. Two potential solutions would be (1) coordination between small balancing areas and (2) consolidation of small balancing areas into larger areas. We encourage FERC to examine this question from the perspective that integration of VERs can be less costly if the geographic scale of the balancing authority is sufficient to include VERs whose low-generation periods are unlikely to coincide with each other. In practice, selectively coordinating or combining existing control areas may be a feasible and practical approach to reducing the costs of integrating VERs.

3. Capacity markets (Section III.F)

FERC points out that VERs typically receive less revenue per unit of output than other sources of generation, both because of their operating characteristics and because they seldom participate in day-ahead markets (due to the risk associated with VERs' intermittent character). The NOI asks whether the existing payment system discriminates against VERs and thereby constitutes a barrier to VERs' entry. Although output from a single wind farm is sensitive to the weather conditions in its location, which vary enormously from day to day, the output of groups of geographically dispersed VERs acting together as a single generation source is more predictable. With this increase in predictability, portfolios of output from geographically dispersed VERs, if allowed to bid as a group, may be sufficiently certain to participate in capacity markets. Allowing entry into capacity markets should increase competition, but aggregating facilities raises obvious antitrust concerns. FERC should do appropriate antitrust analysis of any policies that allow aggregation of firms or outputs.

FERC should consider ways in which capacity markets can support a transition from the status quo thermal system (with limited demand-side participation and aggressive price mitigation that substitutes for demand elasticity) to a future system in which VERs and consumer participation in demand response play a larger role, and in which administrative interventions such as price caps and capacity markets are less important.

³⁰ Federal Trade Commission, Comment before the Federal Energy Regulatory Commission, Discussion Draft of Possible Elements of a National Action Plan on Demand Response (Dec. 11, 2009), available at <http://www.ftc.gov/os/2009/12/V100002ferc.pdf>.