133 FERC ¶ 61,149
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

18 CFR Part 35

[Docket No. RM10-11-000]

Integration of Variable Energy Resources

(November 18, 2010)

AGENCY: Federal Energy Regulatory Commission.

ACTION: Notice of Proposed Rulemaking.

SUMMARY: In this Notice of Proposed Rulemaking, the Federal Energy Regulatory Commission proposes to reform the *pro forma* Open Access Transmission Tariff to remove unduly discriminatory practices and to ensure just and reasonable rates for Commission-jurisdictional services. Accordingly, the Proposed Rule would: (1) require public utility transmission providers to offer intra-hourly transmission scheduling; (2) incorporate provisions into the *pro forma* Large Generator Interconnection Agreement requiring interconnection customers whose generating facilities are variable energy resources to provide meteorological and operational data to public utility transmission providers for the purpose of power production forecasting; and (3) add a generic ancillary service rate schedule through which public utility transmission providers will offer regulation service to transmission customers delivering energy from a generator located within the transmission provider's balancing authority area. The proposed reforms will remove barriers to the integration of variable energy resources.

DATES: Comments are due [Insert_Date that is 60 days after publication in the **FEDERAL REGISTER**]

ADDRESSES: You may submit comments, identified by docket number and in accordance with the requirements posted on the Commission's web site, http://www.ferc.gov. Comments may be submitted by any of the following methods:

- Agency Web Site: Documents created electronically using word processing software should be filed in native applications or print-to-PDF format, and not in a scanned format, at http://www.ferc.gov/docs-filing/efiling.asp.
- Mail/Hand Delivery: Commenters unable to file comments electronically must mail or hand deliver an original copy of their comments to: Federal Energy Regulatory Commission, Secretary of the Commission, 888 First Street, NE, Washington, DC 20426. These requirements can be found on the Commission's website, see, e.g., the "Quick Reference Guide for Paper Submissions," available at http://www.ferc.gov/docs-filing/efiling.asp, or via phone from FERC Online Support at 202-502-6652 or toll-free at 1-866-208-3676.

FOR FURTHER INFORMATION CONTACT:

Mk Shean (Technical Information)
Office of Energy Policy and Innovation
Federal Energy Regulatory Commission
888 First Street, NE
Washington, DC 20426
(202) 502-6792
Mk.Shean@ferc.gov

Andrea Hilliard (Legal Information)

Office of General Counsel – Energy Markets
Federal Energy Regulatory Commission
888 First Street, NE
Washington, DC 20426
(202) 502-8288
Andrea.Hilliard@ferc.gov

SUPPLEMENTARY INFORMATION:

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NOTICE OF PROPOSED RULEMAKING

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NOTICE OF PROPOSED RULEMAKING

(November 18, 2010)

I. Introduction

1. In this Notice of Proposed Rulemaking (Proposed Rule), the Federal Energy Regulatory Commission (Commission) proposes reforms to the *pro forma* Open Access Transmission Tariff (OATT) that derive from the Integration of Variable Energy Resources Notice of Inquiry.[1] The Commission initiated that inquiry to obtain information on barriers to the integration of variable energy resources (VER)[2] and on the current state of VER integration in various regions of the country. Not unexpectedly, commenters indicate that VER presence is not uniform throughout the country. Commenters also describe their experiences integrating VERs and the on-going industry

[1] *Integration of Variable Energy Resources*, 130 FERC ¶ 61,053 (2010) (Integrating VERs NOI).

[2] For the purpose of this proceeding, the term variable energy resource (VER) refers to an electric generating facility that is characterized by an energy source that: (1) is renewable; (2) cannot be stored by the facility owner or operator; and (3) has variability that is beyond the control of the facility owner or operator. This includes, for example, wind, solar thermal and photovoltaic, and hydrokinetic generating facilities.

efforts designed to address issues posed by increasing numbers of VERs. Many of these industry efforts are significant in scope and have the potential to address issues confronting regions where large concentrations of VERs are located.[3] Accordingly, in the Proposed Rule, the Commission has decided to propose a limited set of reforms to existing operational procedures that we preliminarily find to be unduly discriminatory and leading to unjust and unreasonable rates for transmission service. Specifically, the Proposed Rule addresses transmission scheduling practices, VER power production forecasts, and the recovery of capacity charges associated with generator imbalance service (*i.e.*, generator regulation service).

2. In Order No. 890, the Commission made several reforms to the *pro forma* OATT, recognizing that the mix of generation resources on the system was changing and that not all generation resources were similarly situated.[4] The Commission recognized that intermittent resources, such as wind power, have a limited ability to control their output, and that this limitation supports tailoring certain requirements to the special

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[3] *See, e.g.*, Joint Initiative at 1-12 (describing collaborative efforts in the Western Interconnection for high-value and cost-effective regional products involving increased coordination among different transmission providers), SMUD at 8-12 (describing SMUD's participation in regional efforts in California and the Northwest), ISO/RTO Council at 12-18 (discussing ISO/RTO efforts to develop and incorporate VER forecasting into their system operations).

[4] *Preventing Undue Discrimination and Preference in Transmission Service*, Order No. 890, FERC Stats. & Regs. ¶ 31,241, at P 5, *order on reh'g*, Order No. 890-A, FERC Stats. & Regs. ¶ 31,261 (2007), *order on reh'g*, Order No. 890-B, 123 FERC ¶ 61,299 (2008), *order on reh'g*, Order No. 890-C, 126 FERC ¶ 61,228, *order on clarification*, Order No. 890-D, 129 FERC ¶ 61,126 (2009).

circumstances presented by this type of resource.[5] Similarly, the Commission preliminarily finds that the practice of hourly scheduling, the lack of VER power production forecasting, and the lack of a clear mechanism to recover the cost of providing generator regulation service may be contributing to undue discrimination and unjust and unreasonable rates in light of the entry and increasing presence of VERs on the transmission grid.

3. In this Proposed Rule, the Commission proposes the following three reforms: (1) amend the *pro forma* OATT to require intra-hourly transmission scheduling; (2) amend the *pro forma* Large Generator Interconnection Agreement to incorporate provisions requiring interconnection customers whose generating facilities are VERs to provide meteorological and operational data to public utility transmission providers for the purpose of improved power production forecasting; and (3) amend the *pro forma* OATT to add a generic ancillary service rate schedule, Schedule 10—Generator Regulation and Frequency Response Service, in which public utility transmission providers will offer to provide regulation service for transmission customers using transmission service to deliver energy from a generator located within a public utility transmission provider's balancing authority area. The Commission recognizes that as the number of VERs increases, public utility transmission providers and their customers will

[5] Order No. 890, FERC Stats. & Regs. ¶ 31,241 at P 663 (requiring that generator imbalance provisions account for the special circumstances presented by intermittent generators).

need processes and tools to manage the changing nature of generation resources on the transmission grid. As such, the Commission believes the reforms proposed herein will address some of the barriers to the integration of VERs by remedying operational and other challenges that may be causing undue discrimination and increased costs ultimately borne by consumers.

4. Specifically, the Commission preliminarily finds that requiring transmission customers to adhere to hourly schedules may be unduly discriminatory and result in the inefficient use of transmission and generation resources to the detriment of consumers. The Commission also preliminarily finds that a lack of VER power production forecasts may unnecessarily increase the volume of regulation reserves deployed by a public utility transmission provider, resulting in rates that are unjust and unreasonable, and that a public utility transmission provider currently lacks the means by which to require VERs to provide it with basic information on meteorological and operational conditions which can be used to develop VER power production forecasts. Finally, although the Commission contemplated a case-by-case approach to generator regulation service in Order No. 890,[6] the increased interest as evidenced by commenters and the number of Commission filings related to this service has led us to consider a generic approach to the provision of generator regulation service, such as the one proposed here.

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[6] Order No. 890, FERC Stats. & Regs. ¶ 31,241 at P 690.

5. Taken together, these proposed reforms mean: VERs and other resources will be able to adjust schedules within the operating hour, allowing public utility transmission providers to commit fewer generation and non-generation resources to provide reserves; public utility transmission providers will have better meteorological and operational information from interconnection customers whose generating facilities are VERs and will be able to use this information to develop power production forecasts for use in operating their systems, thus mitigating the volume of regulation reserves they deploy; and public utility transmission providers will have a generic schedule from which to recover the costs of providing generator regulation service, and customers and other market participants will know the cost of such service. These proposed reforms are intended to ensure that the requirements set forth in the *pro forma* OATT result in the provision of Commission-jurisdictional services at rates that are just and reasonable, and not unduly discriminatory or preferential, consistent with the Commission's responsibilities under sections 205 and 206 of the Federal Power Act (FPA).[7]

II. Background

6. In 1996, the Commission issued Order No. 888, which found that it was in the economic interest of public utility transmission providers to deny transmission service or to offer transmission service on a basis that is inferior to that which they provide to

[7] 16 U.S.C. 824d, 824e.

themselves.[8] Concluding that unduly discriminatory and anticompetitive practices existed in the electric industry and that, absent Commission action, such practices would increase as competitive pressures in the industry grew, the Commission in Order No. 888 required all public utility transmission providers that own, control, or operate transmission facilities used in interstate commerce to have on file an open access, non-discriminatory transmission tariff that contains minimum terms and conditions of non-discriminatory service. As relevant here, the *pro forma* OATT contains terms for scheduling transmission service and the provision of ancillary services.

7. The Commission later turned its attention to the process by which large generators interconnect with the interstate transmission system. In Order No. 2003, the Commission concluded that there was a pressing need for a single set of procedures and a single, uniformly applicable interconnection agreement for large generator interconnections.[9]

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[8] *Promoting Wholesale Competition Through Open Access Non-Discriminatory Transmission Services by Public Utilities; Recovery of Stranded Costs by Public Utilities and Transmitting Utilities*, Order No. 888, FERC Stats. & Regs. ¶ 31,036, at 31,682 (1996), *order on reh'g*, Order No. 888-A, FERC Stats. & Regs. ¶ 31,048, *order on reh'g*, Order No. 888-B, 81 FERC ¶ 61,248 (1997), *order on reh'g*, Order No. 888-C, 82 FERC ¶ 61,046 (1998), *aff'd in relevant part sub nom. Transmission Access Policy Study Group v. FERC*, 225 F.3d 667 (D.C. Cir. 2000), *aff'd sub nom. New York v. FERC*, 535 U.S. 1 (2002).

[9] *Standardization of Generator Interconnection Agreements and Procedures*, Order No. 2003, FERC Stats. & Regs. ¶ 31,146, at P 11 (2003), *order on reh'g*, Order No. 2003-A, FERC Stats. & Regs. ¶ 31,160, *order on reh'g*, Order No. 2003-B, FERC Stats. & Regs. ¶ 31,171 (2004), *order on reh'g*, Order No. 2003-C, FERC Stats. & Regs. ¶ 31,190 (2005), *aff'd sub nom. Nat'l Ass'n of Regulatory Util. Comm'rs v. FERC*, 475 F.3d 1277 (D.C. Cir. 2007).

Accordingly, the Commission adopted standard procedures (the Large Generator Interconnection Procedures or LGIP) and a standard agreement (the Large Generator Interconnection Agreement or LGIA) for the interconnection of generation resources greater than 20 MW.[10] These reforms were designed to minimize opportunities for undue discrimination and expedite the development of new generation, while protecting reliability and ensuring that rates are just and reasonable.[11]

8. In Order No. 2003-A, the Commission explained that the interconnection requirements adopted in Order No. 2003 were based on the needs of traditional synchronous generators and that a different approach may be appropriate for generators relying on newer technology.[12] The Commission therefore exempted wind resources from certain sections of the LGIA and added Appendix G to the LGIA, as a placeholder for the inclusion of interconnection standards specific to newer technologies.[13] Subsequently, in Orders Nos. 661 and 661-A, the Commission adopted a package of interconnection standards applicable to large wind generators for inclusion in Appendix G of the LGIA.[14]

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[10] *Id.*

[11] *Id.*

[12] Order No. 2003-A, FERC Stats. & Regs. ¶ 31,160 at P 407 n.85.

[13] *Id.*

[14] *Interconnection for Wind Energy*, Order No. 661, FERC Stats. & Regs. ¶ 31,186 (2005), *order on reh'g*, Order No. 661-A, FERC Stats. & Regs. ¶ 31,198 (2005).

9. More recently, in recognition of the evolving energy industry and in a further effort to remedy the potential for undue discrimination, the Commission revised and updated the *pro forma* OATT in Order No. 890.[15] Among other things, the Commission adopted a set of transmission planning principles,[16] created a new *pro forma* ancillary service schedule designed to address energy imbalances caused by generators,[17] and instituted a new conditional firm transmission product.[18]

10. As these and other reforms illustrate, the Commission routinely evaluates the effectiveness of its regulations and policies in light of changing industry conditions. Consistent with this practice, the Commission issued the Integrating VERs NOI on January 21, 2010 to better understand the challenges associated with the large-scale integration of VERs on the interstate transmission system and the extent to which existing operational practices may be imposing barriers to their integration.[19] The Commission explained that the changing characteristics of the nation's generation

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[15] Order No. 890, FERC Stats. & Regs. ¶ 31,241, *order on reh'g*, Order No. 890-A, FERC Stats. & Regs. ¶ 31,261, *order on reh'g*, Order No. 890-B, 123 FERC ¶ 61,299, *order on reh'g*, Order No. 890-C, 126 FERC ¶ 61,228, *order on clarification*, Order No. 890-D, 129 FERC ¶ 61,126.

[16] Order No. 890, FERC Stats. & Regs. ¶ 31,241 at P 435-43.

[17] *Id.* P 663-72.

[18] *Id.* P 911-15.

[19] Integrating VERs NOI, 130 FERC ¶ 61,053 at P 9.

portfolio compelled a fresh look at existing policies and practices.[20] Therefore, in the Integrating VERs NOI, the Commission sought comments on the following subject areas: (1) power production forecasting, including specific forecasting tools and data and reporting requirements; (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.[21]

11. The response from commenters was significant, with more than 135 entities submitting comments that responded to some or all of the questions posed by the Commission.[22] A number of commenters, especially from the VER industry, argue that there is a clear need for the Commission to undertake basic reforms, and they urge the Commission to do so.[23] At the same time, a common theme expressed by a number of commenters is that different parts of the country face different challenges associated with

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[20] *Id.*

[21] *Id.* P 12.

[22] *See* Appendix A.

[23] AWEA at 2; Iberdrola at 8-10; NextEra 2-8.

the integration of VERs.[24] For example, commenters in the Northwest tend to focus on the difficulties posed by the deployment of wind resources,[25] whereas commenters in the Southwest tend to focus on the difficulties posed by the deployment of solar resources.[26] Further still, commenters in the South explain that in many areas the geography and regional conditions are less suitable to the development of significant wind and solar resources.[27] Commenters therefore express a need for flexibility in responding to these challenges and urge the Commission to take this need into account in crafting any proposed rules.[28]

III. The Need for Reform

12. The Commission preliminarily finds that the package of reforms proposed herein is needed to protect against unjust and unreasonable rates, terms, and conditions and undue discrimination in the provision of Commission-jurisdictional services. Specifically, the Commission is proposing to reform the *pro forma* OATT to ensure that the services provided are not structured in an unduly discriminatory manner, that public utility transmission providers have access to needed information to facilitate the integration of VERs, and that transmission customers have a clear understanding of the

[24] Southern at 3; EEI at 2; ISO/RTO Council at 2.

[25] *See, e.g.,* NorthWestern at 4-6; Idaho Power at 2-4; Puget at 2.

[26] *See, e.g.,* NV Energy at 2, 6; Southern California Edison at 7.

[27] *See, e.g.,* Southern at 19.

[28] Southern at 4-10; EEI at 2; ColumbiaGrid at 4-5.

determination of and obligations for the provision of ancillary services.[29] The Commission believes that this set of proposed reforms represents a reasonable foundation upon which public utility transmission providers will be well-positioned to manage system variability associated with increased numbers of VERs. The Commission anticipates that the proposed operational and pricing reforms will result in a more efficient utilization of all generation, non-generation,[30] and transmission resources and lay the basis for continued development, including the possibility of innovative solutions, such as efforts by the Joint Initiative in the West.

13. As noted in the Integrating VERs NOI, the composition of the electric generation portfolio is changing. VERs are making up an increasing percentage of new generating

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[29] As part of this Proposed Rule, the Commission is also proposing a minor revision to 18 C.F.R. 35.28. To date, when amending its regulations concerning the *pro forma* OATT, the Commission has listed by name Commission rulemaking proceedings promulgating and amending the *pro forma* OATT when explaining the details of a public utility transmission provider's obligation to have an OATT on file with the Commission (as indicated by, e.g., proposed regulatory text included in another recently issued Notice of Proposed Rulemaking: *Transmission Planning and Cost Allocation by Transmission Owning and Operating Public Utilities*, 131 FERC ¶ 61,253 (2010)). This process is increasingly cumbersome. Thus as part of this Proposed Rule, the Commission proposes to no longer explicitly reference, by name, prior Commission rulemaking proceedings promulgating and amending the *pro forma* OATT in its regulations. Likewise, the Proposed Rule includes a similar change with respect to a public utility transmission provider's obligation to have standard generator interconnection procedures and agreements and standard small generator interconnection procedures and agreements on file with the Commission.

[30] *See* Order No. 890, FERC Stats. & Regs. ¶ 31,241 at P 888 (modifying Schedules 2,3,4,5,6, and 9 of the *pro forma* OATT to indicate that the ancillary services provided in those rate schedules may be provided by generating units as well as other non-generation resources such as demand response where appropriate). .

capacity being brought on-line—in 2009, new wind generating capacity rose to 9,994 MW, or 39 percent of all newly installed generating capacity, bringing total wind generating capacity to more than 35,000 MW.[31] In addition to this existing capacity, another 85 GW of wind generating capacity has been proposed to be online by the end of 2012.[32] The amount of new solar generating capacity also has increased in recent years, adding 351 MW in 2008 and 481 MW in 2009, bringing the total solar generating capacity to more than 2,000 MW.[33]

14. The Commission expects the number of VERs, both in real numbers and as a percentage of total generation capacity, to continue to grow. Indicators of this anticipated growth are suggested by the significant number of public policies, both at the state and federal levels, encouraging the development of VERs. In the Integrating VERs NOI, the Commission noted that as of December 2009, 30 states and the District of Columbia had

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[31] Ryan Wiser & Mark Bolinger, Lawrence Berkeley National Laboratory, *2009 Wind Technologies Market Report* 3-5 (2010), *available at* http://www1.eere.energy.gov/windandhydro/pdfs/2009_wind_technologies_market_report.pdf.

[32] Div. of Energy Market Oversight, Fed. Energy Regulatory Comm'n, *2009 State of the Markets Report* (2010), *available at* http://www.ferc.gov/market-oversight/st-mkt-ovr/som-rpt-2009.pdf.

[33] Solar Energy Industries Ass'n, *US Solar Industry Year in Review 2009*, at 2, *available at* http://seia.org/galleries/default-file/2009%20Solar%20Industry%20Year%20in%20Review.pdf.

a renewable portfolio standard.[34] Moreover, federal tax policies that provide incentives to the development of renewable generation facilities have been in place for a number of years. For example, the federal production tax credit, which has been in effect intermittently since the early 1990s, provides an inflation-adjusted credit for power produced from VERs and other renewable resources.[35] In February 2009, the American Recovery and Reinvestment Act (ARRA) not only extended the production tax credit for a period of three additional years,[36] but also instituted an investment tax credit, which allows developers of certain renewable generation facilities to take a 30 percent cash grant in lieu of the production tax credit.[37] Other federal policies that provide incentives to renewable generation facilities include accelerated depreciation of certain renewable generation facilities and loan guarantee programs.

15. The Commission has recognized this policy development, not only in this proceeding, but also in the Transmission Planning and Cost Allocation Proposed Rule, observing that "state policies to promote increased reliance on renewable energy

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[34] *See* Integrating VERs NOI, 130 FERC ¶ 61,053 at P 2 (citing Div. of Energy Market Oversight, Fed. Energy Regulatory Comm'n, *Renewable Power and Energy Efficiency Market: Renewable Portfolio Standards* 1 (2009), *available at* http://www.ferc.gov/market-oversight/othr-mkts/renew/othr-rnw-rps.pdf).

[35] 26 U.S.C. 45.

[36] American Recovery and Reinvestment Tax Act of 2009, Pub. L. No. 111-5, sec. 1101, 123 Stat. 115, 319 (2009).

[37] *Id.* sec. 1102, 123 Stat. 115, 319-20.

resources, such as the renewable portfolio standard measures discussed above, accentuate the need for transmission to deliver electricity from location-constrained renewable energy resources to load centers."[38] The same observation is true for the operational reforms proposed here. Public policies that promote renewable resources accentuate the need for reforms to operational protocols that unduly discriminate against VERs and/or have the effect of maintaining rate structures that are no longer just and reasonable.

16. As the number of VERs has increased, the Commission has received a variety of proposals that seek variations from the *pro forma* OATT and/or LGIA in order to address system needs resulting from the integration of VERs. In recent years, a number of public utility transmission providers have proposed to assess various forms of ancillary services charges to wind generating resources, while others have proposed revised interconnection standards addressing reporting requirements and additional ancillary service obligations.[39] Consistent with many of the comments received in response to the Integrating VERs NOI, such filings suggest that the *pro forma* OATT and LGIA may need adjustments to address operational issues arising in response to the increased integration of VERs in individual balancing authority areas.

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[38] *Transmission Planning and Cost Allocation by Transmission Owning and Operating Public Utilities*, 131 FERC ¶ 61,253, at P 36 (2010) (Transmission Planning and Cost Allocation Proposed Rule).

[39] *See, e.g.*, *NorthWestern Corp.*, 129 FERC ¶ 61,116 (2009) (*NorthWestern*), *order on reh'g*, 131 FERC ¶ 61,202 (2010); *Westar Energy Inc.*, 130 FERC ¶ 61,215 (2010) (*Westar*); *Cal. Indep. Sys. Operator Corp.*, 131 FERC ¶ 61,087 (2010); *Puget Sound Energy, Inc.*, 132 FERC ¶ 61,128 (2010) (*Puget Sound*).

17. In light of these filings, comments, and the increasing deployment of VERs on the nation's transmission system, the Commission has identified reforms that it preliminarily finds would eliminate operational procedures that have the *de facto* effect of imposing an undue burden on VERs. The proposed reforms acknowledge that existing practices as well as the ancillary services used to manage system variability were developed at a time when virtually all generation on the system could be scheduled with relative precision and when only load exhibited significant degrees of within-hour variation. In proposing these reforms, the Commission seeks to ensure that VERs are integrated into the transmission system in a coherent and cost-effective manner, consistent with open access principles.

18. The Commission is aware that, in many instances, issues associated with VER integration are highly technical in nature and can vary significantly from one region to the next. The Commission is also cognizant of and supports ongoing industry initiatives dedicated to crafting regional solutions to the challenges associated with VER integration. Such regional efforts include the work being conducted by the North

American Electric Reliability Corporation (NERC) through the Integration of Variable Generation Task Force[40] and the work of the Joint Initiative.[41] As such, the reforms proposed here do not purport to resolve all of the challenges associated with VER integration, nor are they intended to undermine progress being made in various regions regarding VER integration. The Commission's goal in this proceeding is simply to identify those basic reforms that can and should be implemented in the near term. The Commission believes that the reforms proposed herein can and should be implemented in a way that complements ongoing stakeholder proceedings.

IV. Summary of Proposed Reforms

19. The Commission is proposing three reforms that, taken together, are designed to address issues confronting public utility transmission providers and VERs and to allow for the more efficient utilization of transmission and generation resources to the benefit of all customers. First, the Commission proposes to provide the transmission customer with the option of using more frequent transmission scheduling intervals within each operating hour, at 15-minute intervals, so that they may adjust their transmission schedules to reflect, in advance of real-time, more accurate power production forecasts,

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[40] *See* North American Elec. Reliability Corp., *Accommodating High Levels of Variable Generation* (2009), *available at* http://www.nerc.com/files/IVGTF_Report_041609.pdf.

[41] *See* Joint Initiative at 3-11 (describing projects currently being developed by members of Columbia Grid, Northern Tier Transmission Group and WestConnect such as an Intra-Hour Transaction Accelerator Platform and a Dynamic Scheduling System).

load profiles, and other changing system conditions. At the same time, this proposed reform will enable public utility transmission providers and other entities to manage the system's variability more effectively and, over time, rely less on ancillary services and more on the flexibility of generation and non-generation resources.

20. Second, the Commission proposes to require public utility transmission providers to amend their *pro forma* LGIAs to incorporate provisions requiring interconnection customers whose generating facilities are VERs to provide certain meteorological and operational data to public utility transmission providers to facilitate public utility transmission providers' development and deployment of VER power production forecasting tools. Under the LGIA provisions proposed here, the interconnection customer whose generating facility is a VER would only be required to provide such data in the instance where the interconnecting public utility transmission provider is developing and/or deploying VER power production forecasting tools.

21. Third, the Commission proposes to add a generic ancillary service rate schedule to the *pro forma* OATT through which a public utility transmission provider must offer generator regulation service, to the extent it is physically feasible to do so from its resources or from resources available to it, to transmission customers using transmission service to deliver energy from a generator located within the transmission provider's balancing authority area. Under this proposed rate schedule, a public utility transmission provider will have the opportunity to recover reserve service costs associated with management of supply-side variability. In Order No. 890, the Commission took a case-by-case approach to filings by public utility transmission providers seeking to recover the

costs of additional regulation reserves associated with providing generator imbalance service.[42] This existing policy, however, has led to uncertainty and allows the potential for undue discrimination. To prevent this uncertainty and potential undue discrimination, we believe it is appropriate now to propose a generic generator regulation reserve rate schedule that will delineate the rights and obligations of public utility transmission providers and customers with respect to the provision of this service.

22. Additionally, the Commission is proposing guidelines under which public utility transmission providers may assess generator regulation reserve charges to transmission customers. Such charges must be established based on traditional cost causation principles. To the extent a public utility transmission provider proposes to require transmission customers who are delivering energy from VERs to purchase, or otherwise account for, a different volume of generator regulation reserves than it proposes to charge transmission customers delivering energy from other generating resources, such differing volumes must be shown to be commensurate with the variability that VERs exhibit on the transmission provider's system. Furthermore, the public utility transmission provider

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[42] Order No. 890, FERC Stats. & Regs. ¶ 31,241 at P 689 n.401, *order on reh'g*, Order No. 890-A, FERC Stats. & Regs. ¶ 31,261 at P 313. More recently, the Commission clarified transmission providers' obligation to offer generator regulation service by rejecting a transmission provider's proposal to require VERs exporting out of the transmission provider's balancing authority area to provide or arrange for their own generator regulation capacity. *See NorthWestern*, 129 FERC ¶ 61,116 at P 24 (finding that the proposal to disclaim the obligation to provide the capacity reserves necessary to providing generator imbalance service would be inconsistent with the transmission provider's obligation to offer generator imbalance service set forth in the *pro forma* OATT).

must show that it has adopted measures to mitigate the total amount of regulation reserve necessary to manage the variability through the implementation of VER power production forecasting and intra-hourly scheduling. This mitigation requirement will help to ensure that the rates for this service are just and reasonable.

23. Through these three proposals, the Commission seeks to reform operational protocols that present barriers to the integration of VERs and to ensure the cost of integrating new resources, such as VERs, are not unnecessarily inflated by inappropriate systems and processes. While the proposed reforms focus on discrete operational protocols, they are integrally related and should be understood as complementary parts of a package. The Commission believes this set of reforms will help to level the playing field for all types of resources, provide much-needed clarification as to the roles and responsibilities of public utility transmission providers and transmission customers, and bring greater transparency and efficiency to existing system operations. As described in more detail below, the Commission believes that these proposed rules are necessary to remedy undue discrimination in existing transmission system operations and to ensure that rates for Commission-jurisdictional services are just and reasonable.

24. As should be clear from the scope of this Proposed Rule, the Commission is not proposing to address the additional issues identified in the Integrating VERs NOI at this time. Upon review of the comments, the Commission believes that further study of many issues identified in the Integrating VERs NOI is required. In addition, a number of

parties are actively developing solutions to address issues raised in the Integrating VERs NOI.[43] Therefore, in keeping with the suggestion of a number of commenters to allow individual regions to continue to develop solutions to the challenges unique to their characteristics and resources, and in recognition of commenters who seek Commission engagement on these issues, the Commission proposes to instruct its staff to monitor and conduct outreach with industry stakeholders to keep abreast of developments.

V. Proposed Reforms

A. Intra-hourly Scheduling

25. Outside of regions that have an RTO or ISO, resources typically schedule transmission service on an hourly basis, and adjustments to such schedules are permitted during the hour only for emergency situations that threaten reliability.[44] In the

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[43] *See, e.g.*, Joint Initiative at 7-12 (explaining ongoing efforts in the West to develop a dynamic scheduling system and intra-hour transaction accelerator platform to facilitate transactions among balancing authorities); ISO/RTO Council at 44 (indicating that ISOs and RTOs have begun to integrate centralized forecasting into reliability commitment processes); NERC, *Integration of Variable Generation Task Force, 2009-2011 Work Plan* (2009), *available at* http://www.nerc.com/docs/pc/ivgtf/IVGTF_Work_%20Plan_111309.pdf (detailing on-going efforts to establish mechanisms to calculate the capacity associated with VERs). *See also* Order No. 890, FERC Stats. & Regs. ¶ 31,241 at P 1626-27 (requiring transmission providers to use an OASIS template that will be developed by the North American Energy Standards Board to post information concerning curtailments, including the circumstances and events leading to a firm service curtailment, specific customers and services curtailed, and the duration of the curtailment).

[44] Section 13.8 of the *pro forma* OATT requires transmission customers to schedule use of firm point-to-point transmission service by 10:00 a.m. the day prior to operation. That section also gives the transmission provider the discretion to accept schedule changes no later than 20 minutes prior to the operating hour.