UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Ensuring the Timely and Orderly Interconnection of Large Loads

ADVANCE NOTICE OF PROPOSED RULEMAKING

(Issued DATE)

## I. Introduction

1. Pursuant to his authority under section 403 of the Department of Energy (DOE) Organization Act (DOE Act), the Secretary of Energy directs the Federal Energy Regulatory Commission (Commission) to initiate rulemaking procedures and consider this Advance Notice of Proposed Rulemaking (ANOPR) presenting potential reforms to ensure the timely and orderly interconnection of large loads[1] to the transmission system.[2]

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[1] 42 U.S.C. § 7173. For purposes of this ANOPR, large loads are defined as greater than 20 MW, consistent with how the Commission has defined large generation resources. *See infra* Order No. 2003.

[2] The terms "bulk power system," "BPS," and transmission system are used herein interchangeably. Section 215 of Federal Power Act (FPA), added by the Energy Policy Act of 2005, grants the Commission and the North American Electric Reliability Corporation (NERC) authority to establish mandatory and enforceable reliability standards applicable to "all users, owners and operators of the bulk-power system," including public power entities. 16 U.S.C. § 824o(b)(1). The term "bulk-power system" is defined in section 215 of the FPA as "facilities and control systems necessary for operating an interconnected electric energy transmission network (or any portion thereof)" and "electric energy from generation facilities needed to maintain transmission system reliability" but "does not include facilities used in the local distribution of electric energy." 16 U.S.C. § 824o(a)(1). While the term "bulk-power system" statutorily sets forth the reliability authority of NERC and FERC, FERC has not defined the limits of its authority with respect to the term "bulk power system." NERC's reliability standards apply to the Bulk Electric System (BES), which is defined in NERC's Glossary of Terms. https://www.nerc.com/pa/Stand/Glossary%20of%20Terms/Glossary_of_Terms.pdf.

## II. Background

### A. Demand Growth

United States electricity demand is expected to grow at an extraordinary pace, due, in large part, to the rapid growth of large loads.[3] According to NERC, demand growth is now higher than at any point in the past two decades.[4] Although there are several drivers to this demand growth, such as home and vehicle electrification, increasing quantities of large commercial and industrial load, most notably data centers, are connecting rapidly to the transmission system.[5] NERC explains that the size and speed with which data centers can be connected to the grid present unique challenges for demand forecasting and system planning.[6]

### B. Commission's Jurisdiction

2. Under section 201(b) of the Federal Power Act (FPA), the Commission *shall have* jurisdiction over the transmission of electric energy in interstate commerce and the sale of electricity at wholesale in interstate commerce.[7] Section 201(b) of the FPA further provides that the Commission *shall not have* jurisdiction, except as otherwise provided in the statute, over the facilities used for the generation of electric energy or over facilities

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[3] *See* https://www.energy.gov/sites/default/files/2025-07/DOE%20Final%20EO%20Report%20%28FINAL%20JULY%207%29.pdf.

[4] NERC, *2024 Long-Term Reliability Assessment* (Dec. 2024, updated July 2025), *https://www.nerc.com/pa/RAPA/ra/Reliability%20Assessments%20DL/NERC_Long%20Term%20Reliability%20Assessment_2024.pdf* at 8.

[5] *Id.*

[6] *Id.*

[7] 16 U.S.C. § 824(b).

used in local distribution or only for transmission of electric energy in intrastate commerce, or over facilities for the transmission of electric energy consumed wholly by the transmitter.[8]

### C. Open Access Transmission Service

3. In April 1996, the Commission issued Order No. 888.[9] In Order No. 888, the Commission required all public utilities[10] that own, control, or operate facilities used for transmitting electric energy in interstate commerce to have on file with the Commission open access transmission tariffs (OATT) that contain minimum terms and conditions of non-discriminatory service. The Commission required public utilities to "functionally unbundle" their generation and transmission services and separately state their rates for generation and transmission services (including ancillary services). The Commission declined to extend its unbundling requirement to the transmission component of bundled retail sales.

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[8] *Id.*

[9] *Promoting Wholesale Competition Through Open Access Non-Discriminatory Transmission Servs. by Pub. Utils.; Recovery of Stranded Costs by Pub. Utils. & Transmitting Utils.*, Order No. 888, FERC Stats. & Regs. ¶ 31,036 (1996) (cross-referenced at 75 FERC ¶ 61,080), *order on reh'g*, Order No. 888-A, FERC Stats. & Regs. ¶ 31,048 (cross-referenced at 78 FERC ¶ 61,220), *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 Pol'y Study Grp. v. FERC*, 225 F.3d 667 (D.C. Cir. 2000), *aff'd sub nom. New York v. FERC*, 535 U.S. 1 (2002).

[10] *See id.* Section 201(e) of the FPA defines "public utility" to mean "any person who owns or operates facilities subject to the jurisdiction of the Commission under this subchapter . . . ." 16 U.S.C. § 824(e).

4. In affirming Order No. 888 on appeal, the United States Supreme Court (Supreme Court) addressed jurisdictional arguments raised by the State of New York and Enron Power Marketing, Inc. (Enron).[11] The Supreme Court explained that "the FPA authorizes FERC's jurisdiction over interstate transmissions, without regard to whether the transmissions are sold to a reseller or directly to a consumer . . . ."[12] In response to arguments raised by the State of New York, the Supreme Court held that Order No. 888 *does not even arguably* affect the States' jurisdiction over generation facilities, transmission in intrastate commerce, or transmitted energy consumed by the transmitter.[13] In response to arguments raised by Enron, the Supreme Court determined that "even if we assume, for present purposes, that Enron is *correct* in its claim that the FPA gives FERC the authority to regulate the transmission component of a bundled retail sale, we nevertheless conclude that the agency had discretion to decline to assert such jurisdiction in this proceeding in part because of the complicated nature of the jurisdictional issues."[14]

5. On this final point, Justice Thomas, with whom Justice Scalia and Justice Kennedy joined, disagreed. According to Justice Thomas, in his concurrence in part and dissent in part, the Commission failed to explain why regulating transmission connected to bundled

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[11] *New York v. FERC*, 535 U.S. 1.

[12] *Id.* at 20.

[13] *Id.* at 22 (emphasis added). The Supreme Court noted that Order No. 888 set forth a seven-factor test for identifying distribution facilities, but it did not purport to regulate distribution facilities. *Id.* at 23.

[14] *Id.* at 28.

retail sales is not necessary.[15] Justice Thomas wrote that "[i]t is certainly possible, perhaps even likely, that the only way to remedy undue discrimination and ensure open access to transmission services is to regulate *all* utilities that operate transmission facilities, and not just those that use their own lines for the purpose of wholesale sales or in connection with unbundled retail transactions."[16] Justice Thomas continued that "[w]hile Congress understood that transmission is a necessary component of all energy sales, it granted FERC jurisdiction over all interstate transmission, without qualification."[17]

6. The Commission most recently took steps to address transmission transparency concerns and electric transmission planning and cost allocation in Order No. 1920 and its progeny.[18] Order No. 1920 built upon electric transmission planning and cost allocation requirements developed over the last several decades in Order No. 888, Order No. 890,[19] and Order No. 1000.[20]

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[15] *Id.* at 30.

[16] *Id.* at 36.

[17] *Id.* at 42.

[18] *Bld'g for the Future Through Elec. Reg'l Transmission Planning & Cost Allocation*, Order No. 1920, 187 FERC ¶ 61,068, at PP 1625-48, *order on reh'g & clarification*, Order No. 1920-A, 189 FERC ¶ 61,126 (2024), *order on reh'g & clarification*, Order No. 1920-B, 191 FERC ¶ 61,026 (2025).

[19] *Preventing Undue Discrimination & Preference in Transmission Serv.*, Order No. 890, 118 FERC ¶ 61,119, *order on reh'g*, Order No. 890-A, 121 FERC ¶ 61,297 (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).

[20] *Transmission Plan. & Cost Allocation by Transmission Owning & Operating Pub. Utils.*, Order No. 1000, 136 FERC ¶ 61,051 (2011), *order on reh'g*, Order No.

### D. Generator Interconnection

7. In July 2003, the Commission issued Order No. 2003. In Order No. 2003, the Commission required a standard set of interconnection procedures for transmission providers and a single, uniformly applicable interconnection agreement for generating facilities greater than 20 MW.[21] The Commission determined that generator interconnection is a "critical component of open access transmission service and thus is subject to the requirement that utilities offer comparable service under the OATT."[22]

8. The Commission noted an increasing number of interconnection-related disputes, and determined that "the case-by-case approach is an inadequate and inefficient means to address interconnection issues."[23] The Commission explained that "relatively unencumbered entry into the market is necessary for competitive markets" and noted that "requests for interconnection frequently result in complex, time consuming technical disputes about interconnection feasibility, cost, and cost responsibility."[24] The Commission explained that delays "undermine[] the ability of generators to compete in

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1000-A, 139 FERC ¶ 61,132, *order on reh'g & clarification*, Order No. 1000-B, 141 FERC ¶ 61,044 (2012), *aff'd sub nom. S.C. Pub. Serv. Auth. v. FERC*, 762 F.3d 41 (D.C. Cir. 2014).

[21] *Standardization of Generator Interconnection Agreements & Procs.*, Order No. 2003, 104 FERC ¶ 61,103, at P 1 (2003), *order on reh'g*, Order No. 2003-A, 106 FERC ¶ 61,220 (2004), *order on reh'g*, Order No. 2003-B, 109 FERC ¶ 61,287 (2004), *order on reh'g*, Order No. 2003-C, 111 FERC ¶ 61,401 (2005), *aff'd sub nom. Nat'l Ass'n of Regul. Util. Comm'rs v. FERC*, 475 F.3d 1277 (D.C. Cir. 2007).

[22] *Id.* at P 9 (citing *Tenn. Power Co.*, 90 FERC ¶ 61,238 (2000)).

[23] *Id.* at P 10.

[24] *Id.* at P 11.

the market and provides an unfair advantage to utilities that own both transmission and generation facilities."[25] For these reasons, the Commission concluded that there was a "pressing need for a single set of procedures for jurisdictional Transmission Providers and a single, uniformly applicable interconnection agreement for Large Generators."[26]

9. The Commission went on to explain that "Interconnection is a critical component of open access transmission service, and standard interconnection procedures and a standard agreement applicable to Large Generators will . . . (1) limit opportunities for Transmission Providers to favor their own generation, (2) facilitate market entry for generation competitors by reducing interconnection costs and time, and (3) encourage needed investment in generator and transmission infrastructure."[27]

10. In April 2018, the Commission issued Order No. 845, which amended the Commission's *pro forma* Large Generator Interconnection Procedures and the *pro forma* Large Generator Interconnection Agreement to improve certainty, promote more informed interconnection, and enhance interconnection processes.[28] Among other things,

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[25] *Id.*

[26] *Id.* In May 2005, the Commission issued Order No. 2006, which established standardized Small Generator interconnection agreements and procedures. *Standardization of Small Generator Interconnection Agreements & Procs.*, Order No. 2006, 111 FERC ¶ 61,220, at PP 15, 35-36, *order on reh'g*, Order No. 2006-A, 113 FERC ¶ 61,195 (2005), *order granting clarification*, Order No. 2006-B, 116 FERC ¶ 61,046 (2006).

[27] Order No. 2003 at P 12.

[28] *Reform of Generator Interconnection Procedures and Agreements*, Order No. 845, 163 FERC ¶ 61,043 (2018), *order on reh'g*, Order No. 845-A, *Standardization of Small Generator Interconnection Agreements & Procs.*, Order No. 2006, 111 FERC ¶ 61,220, at PP 546-547, *order on reh'g*, Order No. 2006-A, 113 FERC ¶ 61,195 (2005),

Order No. 845: (1) expanded the option for an interconnection customer to build interconnection facilities and stand-alone network upgrades; (2) allowed interconnection customers to request a level of interconnection service that is lower than their generating facility capacity; (3) required transmission providers to allow limited operation prior to completion of the full interconnection process; and (4) required transmission providers to create a separate, expedited process for interconnection customers to use surplus interconnection service at existing points of interconnection.[29]

11. In July 2023, the Commission issued Order No. 2023, which further amended the Commission's *pro forma* Large Generator Interconnection Procedures (LGIP) and the *pro forma* Large Generator Interconnection Agreement (LGIA).[30] Among other things, Order No. 2023 established a cluster study process, increased study deposits, increased financial commitments and readiness requirements, and adopted study delay penalties.[31]

## III. Need for Reform

12. In light of the unprecedented current and expected growth of large loads seeking to interconnect to the transmission system, and to provide open access and non-discriminatory access to the transmission system, it has become necessary to standardize interconnection procedures and agreements for such loads, including those seeking to

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*order granting clarification*, Order No. 2006-B, 116 FERC ¶ 61,046 (2006).

[29] *See* Order No. 845 at P 558.

[30] *Improvements to Generator Interconnection Procs. & Agreements*, Order No. 2023, 184 FERC ¶ 61,054, *order on reh'g*, 185 FERC ¶ 61,063 (2023), *order on reh'g*, Order No. 2023-A, 186 FERC ¶ 61,199, *errata notice*, 188 FERC ¶ 61,134 (2024).

[31] *See generally* Order No. 2023 at P 9.

share a point of interconnection with new or existing generation facilities (hybrid facilities).

## IV. Legal Authority

13. There are at least four legal justifications for the Commission's jurisdiction over such interconnections. First, like generator interconnections, large load interconnections are a "critical component of open access transmission service"[32] that require minimum terms and conditions to ensure non-discriminatory transmission service.

14. Second, the interconnection of large loads to the transmission system falls under a practice directly affecting Commission-jurisdictional wholesale electricity rates.[33] The FPA has vested the Commission with exclusive authority to ensure that wholesale rates are just and reasonable and not unduly discriminatory or preferential.[34]

15. Third, the proposal does not impinge on States' authority over retail electricity sales by asserting jurisdiction over the interconnection of large loads to the transmission system. Even if the large load seeking to interconnect to the transmission system is an end-use customer, the proposal does not exert jurisdiction over any retail sales to the large load. Similarly, nothing in the proposed reforms governs the siting, expansion, or modification of generation facilities. Authority over expansion or siting of generation facilities remains reserved to the States, consistent with section 201(b)(1) of the FPA.[35]

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[32] Order No. 2003 at P 9 (citing *Tenn. Power Co.*, 90 FERC ¶ 61,238 (2000)); *see also* Order No. 2023 at P 11.

[33] *See FERC v. Elec. Power Supply Ass'n*, 136 S.Ct. 760, 764 (2016).

[34] 16 U.S.C. § 824d.

[35] 16 U.S.C. § 824(b)(1).

16. Fourth, any contrary view of the proposed reforms conflicts with the FPA's core purposes. The Commission has exclusive jurisdiction over the transmission of electric energy in interstate commerce, including the rates, terms, and conditions of transmission service, and all facilities for such transmission or sale of electric energy at wholesale in interstate commerce. Any large load that seeks to interconnect to the transmission system does so to obtain transmission service and the appurtenant benefits of such.[36]

## V. Principles for Reform

17. This ANOPR includes a set of principles that we believe should inform the Commission's rulemaking procedures.

18. First, to avoid *even arguably* affecting the States' jurisdiction over generation facilities, facilities used in local distribution or only for the transmission of electric energy in intrastate commerce, or transmissions consumed by the transmitter,[37] the Commission's jurisdiction should be limited to interconnections directly to transmission facilities, consistent with the Commission's seven-factor test.[38]

19. Second, consistent with the Commission's *pro forma* LGIP and LGIA, the reforms should only apply to new loads greater than 20 MW and, for hybrid facilities, where the

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[36] Such benefits include open and non-discriminatory access to capacity, energy, and ancillary services.

[37] *New York v. FERC*, 535 U.S. 1, at 22; 16 U.S.C. § 824.

[38] "The seven-factor test enables [the Commission] to identify the "primary function" of a facility. This primary function determines whether the facility is under [the Commission's] jurisdiction." *Cal. Pac. Elec. Co.*, 133 FERC ¶ 61,018, at P 45 (2010).

load is greater than 20 MW. We seek comment on alternative thresholds, including whether such a threshold is necessary at all.

20. Third, to the extent practicable, load and hybrid facilities should be studied together with generating facilities. Such an approach will allow for efficient siting of loads and generating facilities and thereby minimize the need for costly network upgrades. For example, siting a large load near or at the same point of interconnection as a new generating facility could reduce the network upgrades needed to interconnect only the load or only the generating facility.

21. Fourth, like generating facilities, load and hybrid facilities should be subject to standardized study deposits, readiness requirements, and withdrawal penalties. These provisions deter speculative projects and provide transmission providers with more useful information to more accurately forecast demand on their systems. We seek comment on the extent to which the existing study deposits, readiness requirements, and withdrawal penalties can be adopted. We also seek comment on whether additional commitments or financial penalties would be appropriate.

22. Fifth, hybrid facilities should be studied based on the amount of injection and/or withdrawal rights requested. For example, a hybrid facility consisting of a 500 MW load and a 600 MW generating facility may seek no withdrawal rights and 100 MW of injection rights.[39] This provides incentives for co-location with new generation facilities and ensures efficient buildout of the transmission system.

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[39] Any facility should be able to seek additional rights through a separate interconnection request.

23. Sixth, any hybrid interconnection shall be required to install the system protection facilities necessary to prevent unauthorized injections or withdrawals that exceed the respective rights. We seek comment on whether other operational limitations should be considered. We also seek comment on the minimum technical requirements for such system protection facilities, whether a hybrid interconnection customer should be subject to penalties for unauthorized injections or withdrawals, how any such penalties should be designed, and how such penalties should be allocated to other transmission customers.

24. Seventh, the interconnection study of large loads that agree to be curtailable and hybrid facilities that agree to be curtailable and dispatchable should be expedited. The system operator's ability to control such facilities through curtailment and/or dispatch must be sufficient for the system operator to integrate the facility into both operations and system planning. This ensures the timely and orderly addition of large loads to the transmission system in a safe, reliable, and non-discriminatory manner. We seek comment on whether this should be accomplished through a serial interconnection study process or by some other means. We also seek comment on appropriate deadlines for such an expedited study process, including whether such studies can be completed in 60 days.

25. Eighth, load and hybrid facilities should be responsible for 100% of the network upgrades that they are assigned through the interconnection studies. We seek comment on whether such costs should be offset through a crediting mechanism and, if so, over how many years.[40]

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[40] *See* Order No. 2003 at P 22.

26. Ninth, to the extent the interconnection customer is not the transmission owner, the interconnection customer shall be afforded the same (or equivalent) option to build as currently provided to generator interconnection customers.

27. Tenth, an existing generating facility that seeks to enter a partial suspension to serve a new load at the same location must go through a system support resource (SSR)/reliability must run (RMR) type study. The study must consider system conditions, including forecasted load growth, at least three years after the proposed suspension date. The partial suspension can only proceed after any network upgrades needed to ensure reliability are placed into service. Any such network upgrades shall be the responsibility of the generating facility. We invite comments on whether and how resource adequacy should be considered in the SSR/RMR type study.

28. Eleventh, utilities serving large loads, including those at hybrid facilities, should be responsible for transmission service based on their withdrawal rights, as that value amount reflects the quantity of capacity and energy that is being transmitted across the transmission system to the load.

29. Twelfth, utilities serving large loads, including those at hybrid facilities, should be responsible for ancillary services based on peak demand, without consideration of any co-located generation. Any co-located generating facilities will similarly be fully compensated for the provision of ancillary services.

30. Thirteenth, there must be a plan to implement these proposed reforms. We seek comment on appropriate transition plans, including the treatment of large load interconnections that are already being studied for interconnection.

31. Fourteenth, utilities serving large loads must meet all applicable NERC reliability standards and OATT provisions. Utilities and we must be prepared to revise large load interconnection procedures and agreements, as necessary. NERC should review its reliability standards to determine if new registration categories or new or modified reliability standards are required to ensure reliability of the BES.

32. This proposal is not intended in any way to discourage public utilities from making filings to address these and similar issues under FPA section 205.