

**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

Grid Reliability and Resilience Pricing)	Docket RM18-1-000
Request for Rehearing)	Docket RM18-1-001
Grid Resilience in Regional Transmission Organizations and Independent System Operators)	Docket AD18-7-000

**REQUEST FOR REHEARING OF
FERC ORDER TERMINATING RULEMAKING PROCEEDING,
INITIATING NEW PROCEEDING,
AND ESTABLISHING ADDITIONAL PROCEDURES**

162 FERC ¶ 61,012, Issued January 8, 2018
(filed by the Foundation for Resilient Societies, February 7, 2018)

Pursuant to section 313(a) of the Federal Power Act (“FPA”), 16 U.S.C. § 825 (a), and Rule 713 of the Federal Energy Regulatory Commission’s (“FERC” or “Commission”) Rules of Practice and Procedure, 18 C.F.R. § 385.713, the Foundation for Resilient Societies (hereafter “Resilient Societies”) hereby respectfully submits this Request for Rehearing of the FERC Order issued for these dockets.

About Resilient Societies

Resilient Societies is incorporated in the State of New Hampshire as a non-profit organization engaged in scientific research and education with the goal of protecting technologically-advanced societies from infrequently occurring natural and man-made disasters. Resilient Societies seeks a more robust and resilient bulk power system, in part because all other critical infrastructures depend upon the reliability and recovery of the bulk power system. Resilient Societies seeks to identify cost-effective opportunities to protect societies and then develop policy initiatives. Further information about Resilient Societies may be found at www.resilientsocieties.org.

Summary of Alleged Errors in Order

Resilient Societies and other public stakeholders provided comments in FERC Docket RM18-1-000 in response to the Proposed Rule on Grid Reliability and Resilience Pricing (Proposed Rule) submitted to the Commission by the Secretary of the Department of Energy (DOE).¹ Resilient Societies appreciates that over 1,600 comments were submitted in this docket and that this complex proceeding was conducted under tight deadlines. Nonetheless, under the Administrative Procedure Act and applicable judicial precedent, the Commission is not relieved of its duty to examine relevant data and articulate a satisfactory explanation for its actions, lest its actions be arbitrary and capricious.² Moreover, the Commission must respond meaningfully to arguments raised before it.³

The Commission did not respond meaningfully, or in any significant measure at all, to the docket comments of Resilient Societies and other similarly situated public stakeholders. In fact, when the Commission recited the list of stakeholders whose comments were received in response to the Proposed Rule, the list clearly excluded public interest non-profits such as Resilient Societies and ClearPath Foundation, despite timely filings by both organizations:

The Commission received extensive comments and reply comments in response to the Proposed Rule and the Staff Request for Information from a wide variety of interested stakeholders, including utilities, generators, federal and state legislators, state regulatory

¹ Grid Resiliency Pricing Rule, 82 Fed. Reg. 46,940 (Oct. 10, 2017). Also see Comments and Reply Comments of Resilient Societies submitted in FERC Docket RM18-1-000, filed on October 23, 2017 and November 7, 2017, incorporated in their entirety by reference. Our Comments are available in the Docket and at https://www.resilientsocieties.org/uploads/5/4/0/0/54008795/resilient_societies_ferc_docket_rm18-1-000_20171024.pdf. Our Reply Comments are available in the Docket and at https://www.resilientsocieties.org/uploads/5/4/0/0/54008795/resilient_societies_reply_comments_docket_rm18-1-000_final.pdf.

² See *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983). "While the scope of review under the 'arbitrary and capricious' standard is narrow, and a court is not to substitute its judgment for that of the agency, the agency nevertheless must examine the relevant data and articulate a satisfactory explanation for its action."

³ See *TransCanada Power Mktg. Ltd. v. FERC*, 811 F.3d 1, 12 (D.C. Cir. 2015) (quoting *Pub. Serv. Comm'n v. FERC*, 397 F.3d 1004, 1008 (D.C. Cir. 2005)). "It is well established that the Commission must 'respond meaningfully' to the arguments raised before it."

agencies and state attorneys general, industrial customers, environmental organizations, mining companies, other industries, and individuals.⁴

FERC did not respond meaningfully to comments by Resilient Societies and others who asserted that existing tariffs are unjust and unreasonable. FERC instead made this brief, conclusory statement:

Neither the Proposed Rule nor the record in this proceeding has satisfied the threshold statutory requirement of demonstrating that the RTO/ISO tariffs are unjust and unreasonable. While some commenters allege grid resilience or reliability issues due to potential retirements of particular resources, we find that these assertions do not demonstrate the unjustness or unreasonableness of the existing RTO/ISO tariffs.

In a rulemaking that affects not only the finances of ratepayers, but also may cause widespread loss of life from inadequate electric grid resilience, it is critical that FERC not employ conclusory statements to avoid reasoned analysis of comments in the Docket.⁵

Statement of Issues and Specifications of Error

Because of these enumerated issues below, FERC erred in its Order. For each, the applicable court precedent is contained in the prior citation of *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.*, *TransCanada Power Mktg. Ltd. v. FERC*, and *New England Power Generators Association, Inc. v. Federal Energy Regulatory Commission*.

1. FERC did not give a satisfactory explanation for its finding that “neither the Proposed Rule nor the record in this proceeding has satisfied the threshold statutory requirement of demonstrating that the RTO/ISO tariffs are unjust and unreasonable.” Also, the Commission did not meaningfully respond to the reply comments of Resilient Societies concerning ratepayers being unjustly charged for “ghost capacity” through the

⁴ See *Order Terminating Rulemaking Proceeding, Initiating New Proceeding, And Establishing Additional Procedures*, 162 FERC ¶ 61,012 (2018), p. 2.

⁵ In a recent remand by the United States Court of Appeals for the DC Circuit on a tariff case for the ISO-New England Forward Capacity Market, the Court admonished the Commission, stating, “FERC’s responses to Petitioners’ arguments below amounted to conclusory statements that dismissed Petitioners’ concerns without providing reasoned analysis.” *New England Power Generators Association, Inc. v. Federal Energy Regulatory Commission*, No. 15-1071, (C.A. D.C. Cir. Feb. 2, 2018), at p. 16.

mechanism of forward capacity markets.⁶ We assert that ratepayers being charged for capacity that of necessity will be entirely unavailable in a fuel supply disruption, or provided in amounts less than committed, is unreasonable *per se*. ISO New England states the purpose of its forward capacity market is “to promote economic investment in supply and demand resources where they are needed most,” and the market “assures resource adequacy, locally and systemwide,”⁷ but capacity cannot perform when it is “needed most” if the capacity does not have resilient energy sources.

2. FERC did not provide a lawful rationale, or any explanation at all, for ignoring the comments of Resilient Societies and ClearPath Foundation regarding auction-based, technology-neutral remedies to unjust and unreasonable rates in RTO/ISO organized markets. Instead, the Commission terminated the rulemaking on the faulty presumption that the “Proposed Rule would allow all eligible resources to receive a cost-of-service rate regardless of need or cost to the system.”^{8 9}
3. Resilient Societies requested airing of grid resilience issues by means of a public technical conference, but FERC did not give a satisfactory explanation for ignoring this request. A technical conference could provide the means of demonstrating, with actual examples for the various RTOs and ISOs, what share of generation capacity is “ghost capacity” under varied definitions and what alternatively could constitute “resilient capacity.”
4. FERC did not provide reasoned analysis when it claimed that the NERC physical security standards are a valid rationale to terminate this rulemaking on resilience pricing of *generation*. In fact, NERC Standard CIP-014-2, “Physical Security,” applies only to

⁶ For an explanation of “ghost capacity,” see pp. 10-15 of the Resilient Societies Reply Comments filed on November 7, 2017 available in the Docket and at https://www.resilientsocieties.org/uploads/5/4/0/0/54008795/resilient_societies_reply_comments_docket_rm18-1-000_final.pdf

⁷ See ISO New England’s explanatory literature on the Forward Capacity Market. <https://www.iso-ne.com/markets-operations/markets/forward-capacity-market/fcm-participation-guide/about-the-fcm-and-its-auctions>

⁸ See *Order Terminating Rulemaking Proceeding, Initiating New Proceeding, And Establishing Additional Procedures*, 162 FERC ¶ 61,012 (January 8, 2018), p. 9. Also see Reply Comments of Resilient Societies, pp. 17-21.

⁹ A cost-of-service rate for all capacity, including claimed “resilient capacity” that is unavailable to RTO/ISO customers during fuel or transport system disruption, is a cost without associated service. It is not a benefit to ratepayers and it was not proposed by DOE in the NOPR.

transmission stations and substations and their associated primary control centers; Generator Operators are completely exempted from NERC physical security standards.¹⁰ Further, FERC erred in stating that geomagnetic disturbance (GMD) standards are a good rationale to terminate this rulemaking on resilience pricing of *generation*. NERC Standard EOP-010-1, “Geomagnetic Disturbance Operations,” applies only to Reliability Coordinators and Transmission Operators; Generator Operators are almost completely exempted.¹¹ Moreover, NERC Standard NERC’s TPL-007-1, “Transmission System Planned Performance for Geomagnetic Disturbance Events,” contains a defective benchmark GMD event that effectively exempts Generator Operators from protecting their generating capacity from solar storms.^{12 13}

5. FERC did not give a satisfactory explanation for ignoring the Resilient Societies analysis that showed the proportion of generation capacity with energy stored on-site in the RTO/ISO organized markets is significantly lower than the proportion of generation capacity with energy stored on-site under cost-of-service regulation. Instead, the Commission cites the benefits of ratepayer savings, which gives the patina of validity, while disregarding relevant data: in particular, RTO and ISO capacity pricing rules that do not compensate for on-site fuel storage and dual-fuel capability diminish the share of generating capacity with resilience to fuel supply disruptions.¹⁴ Common sense says

¹⁰ See Order No. 802, *Physical Security Reliability Standard*, 149 FERC ¶ 61,140 (Nov. 20, 2014), para. 91, 92 (NERC recommended exclusion of generators, accepted in FERC Order); para. 93 (NOPR excludes generators from reliability standard); para. 99 (exclusion of generator owners and operators from the Order).

¹¹ See FERC Order No. 797, *Reliability Standard for Geomagnetic Disturbance Operations*, 147 FERC ¶ 61,209 (2014). (Requires sharing of thermal impact information with and by generator-owners but not operating mitigation duties of those operators). See also FERC Order No. 797-A, Denial of rehearing, 149 FERC ¶ 61,107 (2014).

¹² FERC claims a fix to Standard TPL-007-1 will be implemented by means of Order No. 830-A, 158 FERC ¶ 61,041 (Jan. 19, 2017), asserting that “the GMD research plan will provide a scientific foundation for improvements to Reliability Standard TPL-007-1.” More skeptical assessments are found in completed reports to and by the Congressionally-mandated EMP Commission in year 2017 (pending release).

¹³ See *Order Terminating Rulemaking Proceeding, Initiating New Proceeding, And Establishing Additional Procedures*, 162 FERC ¶ 61,012 (2018), p. 17. “Further, the Commission has conducted significant work to address bulk power system reliability through the North American Electric Reliability Corporation (NERC) reliability standards, including its continued work on Critical Infrastructure Protection standards to protect the system against cybersecurity and physical security threats, as well as geomagnetic disturbances.”

¹⁴ Resilient Societies used EIA data to compare generation capacity in Traditionally Regulated States to capacity in Organized Markets. At the issuance of FERC Order 888 in 1996, 98% of generation capacity in Traditionally Regulated States had its energy stored on-site while 97% of generation capacity in Organized Markets had its

RTO/ISO generation capacity, with energy sources less often stored on-site, has lower resilience to fuel supply disruptions. Instead, FERC asserted, contrary to relevant data in the docket, “The Commission’s endorsement of markets does not conflict with its oversight of reliability, and the Commission has been able to focus on both without compromising its commitment to either.”¹⁵

6. FERC did not give a satisfactory explanation for giving the RTO/ISOs preferential treatment over all other public stakeholders, except to make the conclusory statement that “the RTOs/ISOs are well-suited to understand the needs of their respective regions and initially assess how to address resilience given their individual geographic needs.”¹⁶ FERC initiated a new proceeding, Docket No. AD18-7-000, to take additional steps to explore resilience issues, directing “each RTO and ISO to submit specific information regarding the resilience of its respective region within 60 days.”¹⁷ By its Order terminating the DOE-proposed rulemaking, FERC elevated RTO/ISO stakeholders above every other category of stakeholder without reasoned analysis. Moreover, the RTO/ISO will have the privilege of setting the discussion framework for any reply comments, a process that will be disadvantageous to other stakeholders.
7. FERC did not give a satisfactory explanation for ignoring Resilient Societies’ comment that “We urge the FERC commissioners to act quickly on the DOE proposed rule, to recognize that a resilient capacity emergency does exist, and to provide for secure electricity reserves. FERC should act promptly to establish markets for generation resilience, with pricing to include on-site energy reserves.”¹⁸ Instead, FERC terminated the DOE-initiated rulemaking and substituted an administrative procedure that will take much longer to establish resilient capacity in the RTO/ISO markets, if such capacity is established at all.

energy stored on-site. By 2015, 73% of generation capacity in Traditionally Regulated States had its energy stored on-site while 60% of generation capacity in Organized Markets had its energy stored on-site. See page 12 of our October 23, 2017 Comments in FERC Docket RM18-1-000.

¹⁵ See *Order Terminating Rulemaking Proceeding, Initiating New Proceeding, And Establishing Additional Procedures*, 162 FERC ¶ 61,012 (2018), p. 5.

¹⁶ *Ibid.* p. 11.

¹⁷ See *Order Terminating Rulemaking Proceeding, Initiating New Proceeding, And Establishing Additional Procedures*, 162 FERC ¶ 61,012 (2018), p. 10.

¹⁸ See Reply Comments of Resilient Societies in Docket RM18-1-000, p. 22.

For each of the issues stated and errors specified, Resilient Societies respectfully requests that FERC schedule a rehearing that can better direct the RTOs and ISOs to eliminate unjust and unreasonable tariffs for “ghost capacity” and to instead compensate *genuine* resilient capacity in regional energy markets.

Request for Rehearing

Resilient Societies seeks from the Commission, supported by its Staff, reasoned analysis of the “Ghost Capacity’ Scenarios in ISO-New England under Forward Capacity Auction No. 11,” displayed at page 12 of our Reply Comments in Docket RM18-1-000. We obtained relevant ISO-New England and Energy Information Administration data and then enhanced the data with additional research. We designated “ghost capacity” by energy source and unavailability of “just-in-time fuel.” We projected cleared capacity net of “ghost capacity.”

"Ghost Capacity" Scenario in ISO-New England under Forward Capacity Auction No. 11									
Megawatts of Capacity									
Energy Source	Jun-Sep 2020 Cleared Capacity	Intermittent	Just-In-Time Fuel	No Real and Reactive Power in Emergencies	Imports	Ghost Capacity	Cleared Capacity Net of Ghost Capacity	Availability Factor	Net Available Capacity
Coal	917	0	0	0	0	0	917	83%	763
Nuclear	3,344	0	0	0	0	0	3,344	93%	3,094
Fuel Oil	4,940	0	0	0	0	0	4,940	84%	4,157
Jet Fuel & Kerosene	1,043	0	0	0	0	0	1,043	91%	944
Natural Gas-Dual Fuel	7,600	0	0	0	0	0	7,600	82%	6,239
Natural Gas-Mystic LNG	1,984	0	0	0	0	0	1,984	82%	1,629
Natural Gas-Single Fuel	7,301	0	7,301	0	0	7,301	0	82%	0
Hydropower Local	3,122	250	0	0	0	250	2,872	81%	2,319
Solar	66	66	0	0	0	66	0	n/a	0
Wind	137	137	0	0	0	137	0	n/a	0
Waste, Biomass, Steam	935	441	0	0	0	441	495	82%	406
Demand Response-Passive	2,791	0	0	2,791	0	2,791	0	n/a	0
Demand Response-Generator	4	0	0	0	0	0	4	100%	4
Demand Response-Load Shed	416	0	0	416	0	416	0	n/a	0
Hydropower Imports	896	0	0	0	896	896	0	n/a	0
Other Imports	339	0	0	0	339	339	0	n/a	0
Totals	35,835	894	7,301	3,207	1,235	12,638	23,197	84%	19,555
Percent of Cleared Capacity	100%	2%	20%	9%	3%	35%	65%		55%
Percent of Net Available Capacity	183%	5%	37%	16%	6%	65%	119%		100%
	Net Real Load	Net Available Capacity	Surplus/Deficit						
August 12, 2016 Summer Peak	25,596	19,555	-6,041						

Our analysis determined “ghost capacity” to be 35 percent of projected cleared capacity and potentially 65 percent of net available capacity in winter 2020/2021. Resilient Societies

estimates that retail customers in the ISO-New England forward capacity market will pay about \$100 per customer per year for “ghost capacity.” Payment for capacity that will not be available during fuel supply disruption is unjust and unreasonable, and defeats the Commission’s duty to provide a reliable bulk power system in contravention of Section 205 of the Federal Power Act.

Resilient Societies seeks a rehearing by which the Commission would recognize that consumers now pay for “ghost capacity” as a substantial share of overall regional generating capacity. Such a rehearing has the potential to develop positive incentives for resilient capacity, while reducing the underbrush of non-resilient or “ghost capacity.” We respectfully aver that the current market for generating capacity that serves the ISO-New England region perversely rewards non-resilient capacity—by failing to provide incremental compensation to generators for on-site fuel storage, dual-fuel capability, or other fuel supply resilience.

In furtherance of our Request for Rehearing, Resilient Societies respectfully requests that the Commission include as supporting evidence the analyses, fuel unavailability contingencies, and consequences for loss of resilience shown in the ISO-New England report publicly-released on January 17, 2018, entitled “[Operational Fuel-Security Analysis](#).”¹⁹ This contingency-analysis report, which is a credit to ISO-New England’s planning process, projects circumstances in which “power plants won’t have or be able to get the fuel they need to run, particularly in winter” as “the foremost challenge to a reliable power grid in New England.”

The evidence from the January 2018 bomb cyclone confirms that, with retirement of generation plants with fuel-stored on-site, New England even now depends upon petroleum fuels that may not be restocked, and the viability of major interstate gas pipelines that lack alternative reliable means of fuel delivery. Our analysis of “ghost capacity” projected for winter 2020/2021, combined with the ISO New England contingency analysis for the period 2024-2025, support the case for a rehearing. That rehearing could and should provide guidance for the RTO/ISOs to address the *current disincentives* in the pricing of both generation and transmission systems to provide *real* resilient capacity rather than “ghost capacity.”

¹⁹ ISO-New England, “Operational Fuel-Security Analysis” Report. January 17, 2018. Available at https://www.iso-ne.com/static-assets/documents/2018/01/20180117_operational_fuel-security_analysis.pdf

Resilient Societies Seeks These Remedies as an Adversely Affected and Aggrieved Party

Resilient Societies seeks these remedies as an Adversely Affected and Aggrieved Party suffering Injuries in Fact. Resilient Societies is domiciled in the State of New Hampshire and two of its directors are residents of New Hampshire and Massachusetts. Through payment of office rent to defray utility charges and directly through payments to utilities, these parties have been forced under FERC tariffs to pay unjust and unreasonable rates for “ghost capacity”—capacity that is unlikely to be available when the transportation infrastructure for fuel supply is disrupted. Moreover, because the New England electric grid is over-reliant on natural gas and therefore not resilient to interruptions in fuel delivery (as explained in our Comments and Reply Comments in the Docket, and in the recent ISO-New England report “[Operational Fuel-Security Analysis](#)”), Resilient Societies and its directors are at grave risk from long-term blackouts.

Conclusion

FERC might have continued the “RM” rulemaking docket initiated by DOE while deciding to take prompt action or not, but instead chose to terminate the rulemaking without following the requirements of the Administrative Procedure Act. In its Order, FERC has acted to ensure further consideration of grid resilience issues will be under a lengthy “AD” administrative docket that cannot be appealed to the various Courts of Appeals. Without rehearing, the FERC Order will advantage RTO/ISO stakeholders over other public stakeholders, an unjust and discriminatory outcome.

Under FERC tariffs, ratepayers in New England and possibly elsewhere are unreasonably and unjustifiably required to pay for “ghost capacity” in the forward capacity auctions. Due to issues with unreliable supply of fuel in New England and elsewhere, “ghost capacity” is unlikely to be available in emergencies when it is most needed. Without rehearing, RTO/ISO tariffs would continue to perpetuate unjust and unreasonable ratepayer charges.

The FERC Order is convenient if the Commission wishes to give preferential treatment to RTO/ISO stakeholders in an unaccountable administrative proceeding, but this would not be in

the interest of the American public. When inadequate grid resilience may cause a long-term blackout, and when hundreds, thousands, or millions of deaths may result, the public deserves equitable participation in the DOE-initiated rulemaking, under a rulemaking docket.

Respectfully submitted by:



Thomas S. Popik, Chairman,



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CERTIFICATE OF SERVICE

I hereby certify that I caused a copy of the foregoing document to be served electronically upon each person designated on the official service list for FERC Docket RM18-1-000 as compiled by the Secretary of the Federal Energy Regulatory Commission.
Dated at this 7th day of February 2018.

/s/ William R. Harris

William R. Harris

Secretary

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