March 28, 2018

Federal Energy Regulatory Commission
888 First Street Northeast
Washington, DC 20426

Re: An Open Letter on FERC's New Policy and Procedural Agenda

Dear Chairman McIntyre and Commissioners Powelson, Glick, Chatterjee, and LaFleur,

The Federal Energy Regulatory Commission (FERC) has long stood for competition and political independence.[1] Markets are bipartisan. The R Street Institute hopes new Commission leadership will not only strengthen, but embolden, this legacy.

The first test was daunting – an unprecedented and profoundly anti-competitive proposal by the Energy Department that contradicted its own 2017 technical report.[2] We applaud the Commission's tactful resilience to unanimously reject the proposal and pivot towards an agenda that enhances economic efficiency.

The R Street Institute has built a pragmatic, pro-market energy policy platform consistent with normative perspectives in applied economics and good governance. Bringing in-house and out-of-house expertise to bear, we offer procedural and market design recommendations for consideration by the Commission's new leadership.

PROCEDURAL PRIORITIES

In the spirit of good governance, we highlight several procedural priorities for the Commission to consider to enhance transparency, accountability and regulatory efficiency:

I. Pursue improvements to hydropower licensing processes.

As noted by the Commission, the most commonly cited challenges associated with hydropower development are permitting and regulatory processes.[3] In most hydropower licensing cases, the Commission plays an administrative role, whereas state water quality agencies have *de facto* control over permitting approvals. Furthermore, we acknowledge FERC's prior comments that changes to FERC regulations and policies are not an adequate substitute for legislative reform.[4]

[1] The Commission's market-based rates under the "just and reasonable" legal standard embody the objective of maximizing economic efficiency through competitive outcomes.
[2] This refers to docket No. RM18-1-000 and the Energy Department's staff report available here: https://energy.gov/sites/prod/files/2017/08/f36/Staff%20Report%20on%20Electricity%20Markets%20and%20Reliability_0.pdf.
[3] Federal Energy Regulatory Commission, "Report on Hydroelectric Licensing Policies, Procedures, and Regulations—Comprehensive Review and Recommendations Pursuant to Section 603 of the Energy Act of 2000," U.S. Department of Energy, May 8, 2001, p. 5. https://www.ferc.gov/legal/maj-ord-reg/land-docs/ortc_final.pdf.
[4] Federal Energy Regulatory Commission, Report on Hydroelectric Licensing Policies, Procedures, and Regulations (2001), p. 6. https://www.ferc.gov/legal/maj-ord-reg/ land-docs/ortc_final.pdf.

Still, a 2017 report by the R Street Institute that incorporated expertise from practitioners, including three former FERC hydropower licensing staff, found that improved federal implementation may increase hydropower licensing predictability and reduce regulatory timeframes without compromising environmental quality. The report suggested the following priorities for FERC:[5]

1. Implement the 2011 FERC-Army Corps of Engineers memorandum of understanding by providing training and ongoing advice to targeted Corps districts.
2. Launch a public inquiry to gain feedback and seek improvements (e.g., schedule discipline) in its alternative licensing process (ALP), which has fallen short of its significant potential to achieve stakeholder consensus around contentious projects.
3. Revise FERC's hydropower performance goal of 24 months to issue an order. A shorter (e.g., one-year) performance goal is more appropriate for low-impact projects and those that successfully complete an ALP process.
4. Expand the use of conditional licensing to all hydropower projects, where possible, recognizing the advantages of FERC's conditional certificates currently used in the natural gas program. This would encourage expedited interagency review. If the Commission decides the action would require statutory amendments to the Federal Power Act, then it should notify Congress.
5. Improve FERC's relicensing terms (e.g., increase terms to 50 years). Namely, FERC should build upon the agency's recently issued notice of inquiry to obtain public input on license terms.
6. Encourage dispute-resolution mechanisms in lieu of extended litigation.

II. Clarify market manipulation rules and publicly reevaluate investigation procedures.

The unusual economic nature of electricity markets leave them particularly vulnerable to market manipulation. The Office of Enforcement (OE) plays a critical role in the promotion of competitive markets by identifying and prosecuting manipulative behavior and encouraging a culture of compliance. However, some unclear enforcement standards and procedures have undermined the performance of competitive markets. Rectifying these becomes all the more important as technology continues to transform the power sector (e.g, clarifying manipulation rules for opportunity costs, a huge component of use-limited resource participation).

The Commission relies on legal settlements to establish compliance, whereby market participants infer what constitutes permissible behavior based on prior enforcement cases.[6] The Commission has been reluctant to explicitly define manipulative behavior to avoid inadvertently excusing new forms of manipulative behavior that were previously uncontemplated. This merely makes the case for a clear manipulation framework that ages well as behavior evolves.

Instead, the current lack of clarity between what constitutes legitimate versus manipulative trading has had the unintended consequences of deterring economically beneficial behavior[7] and increasing compliance costs unnecessarily. Deterring market participation decreases market liquidity, which paradoxically makes market manipulation more likely and consequential.[8] Furthermore, an ambiguous

[5] Devin Hartman, "Ebbing the Flow of Hydropower Red Tape," *R Street Policy Study* No. 105, August 2017, 2. http://2o9ub0417chl2lg6m43em6psi2i.wpengine.netdna-cdn.com/wp-content/uploads/2017/08/105.pdf

[6] Shaun Ledgerwood and John Tsoukalis, "Market manipulation push is widening the compliance gap," Risk.net, January 23, 2015. https://www.risk.net/commodities/energy/2389628/market-manipulation-push-widening-compliance-gap

[7] Ibid.

[8] Several large trading companies have left the market or restricted their trading volumes citing enforcement risk.

manipulation standard invites regulatory groupthink that expands the Commission's internal manipulation standard and encourages staff to interpret complex trades in a manner that confirms their initial suspicions, resulting in "false positives." It is prudent for OE to reexamine its internal definition of manipulation, ensure staff discipline on investigations,[9] and advance a public framework for economic efficiency-based anti-manipulation rules rather than the current *per se* standard.[10]

FERC should also consider publicly reevaluating enforcement procedures. Numerous legal experts have raised concerns that FERC's opaque investigation process does not comport with basic elements of due process.[11] One suggestion is to allow manipulation claims to be test through a thorough judicial process.[12] While opinions differ, a healthy enforcement process requires a transparent, open and enforceable process with clear rules and safe harbors.[13]

III. Improve accountability, stakeholder governance, and avoid mission creep in the regional transmission organizations (RTOs) and independent system operators (ISOs).

The R Street Institute commissioned staff and students of the Vermont Law School to study how RTO/ISO stakeholder-governance processes affect market efficiency. The report concludes that these processes generally work well but changes in stakeholder composition, a greater number of market participants, and the introduction of virtual trading and innovative technologies have placed pressure on an efficient process.[14] Furthermore, it notes that the impact of state policies on efficient operations is growing, which makes a focus on long-term market efficiency over short-term political solutions increasingly difficult. The report makes three recommendations:[15]

1. A regular review process for each RTO/ISO stakeholder governance process that incorporates the four criteria of responsiveness laid out in Order No. 719. Another 2017 study by the Kleinman Center at the University of Pennsylvania corroborates this, arguing for FERC to "require PJM to evaluate its governance system to ensure it is meeting good governance goals."[16]
2. An increased focus on prioritizing recommendations from the market monitors by FERC, RTO/ISOs, and stakeholders.
3. Increased vigilance by FERC in assessing RTO/ISO proposals and compliance filing powers.

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[9] This includes avoiding "fishing expeditions," where investigations begin in one place and end up in another as staff explore suspicions outside the scope of the original inquiry, then selectively interpret information to confirm their suspicions. External, independent reviews of enforcement practices would help mitigate the effects of confirmation bias and groupthink.

[10] Ledgerwood and Tsoukalis, 2015.

[11] Andrew R. Corcoran, "FERC's Anti-Manipulation Efforts Need Better Balance," Natural Gas & Electricity, January 2016. https://files.skadden.com/sites%2Fdefault%2Ffiles%2Fpublications%2FGAS32_06b%20corcoran.pdf

[12] Ibid.

[13] Roy J. Shanker, "Manipulation of Electricity Markets: What is the State of the Economics?," Harvard Electricity Policy Group, May 31, 2012, 17. https://sites.hks.harvard.edu/hepg/Papers/2012/HEPGMay2012/Roy_Shanker_May2012.pdf

[14] Mark James et. al., "How the RTO Stakeholder Process Affects Market Efficiency," *R Street Policy Study* No. 112, October 2017. http://2o9ub0417chl2lg6m43em6psi2i.wpengine.netdna-cdn.com/wp-content/uploads/2017/10/112.pdf.

[15] Ibid.

[16] Christina Simeone, "PJM Governance: Can Reforms Improve Outcomes?," Kleinman Center for Energy Policy, University of Pennsylanvia, May 19, 2017, 2. https://www.pjm.com/-/media/committees-groups/committees/mc/20170925-stakeholder/20170925-kleinman-center-paper-pjm-governance-reforms.ashx.

The R Street study finds that FERC at times is overly deferential to RTO/ISO proposals. This raises the question of the tendencies and motivations behind such proposals. Sometimes RTO/ISOs prioritize key stakeholders and political satisfaction, as well as short-term electric reliability guarantees, at the expense of market efficiency. The Commission would be wise to keep this implicit incentive structure in mind, especially in proceedings involving second- or n^{th}-best solutions motivated by stakeholder compromises or a lack of trust in market incentives to drive reliable participant behavior.

Similarly, the role of RTO/ISOs should not expand beyond the confines of the Federal Power Act. The accommodation of state policy preferences could result in institutionalizing discriminatory and preferential resource treatment and/or FERC becoming a *de facto* air pollution regulator. Political compromise will likely prove short-lived but leave a damaging legacy – the consequences of enabling pathways to anti-competitive market design will live beyond an election cycle. Expanding the mission of RTO/ISOs is actually more likely to worsen, than improve, state relations in the long-term.[17]

Legitimizing the role of RTO/ISOs to counteract subsidies leads to precarious territory. Although well intended, this risks compounding unintended consequences as regulatory intervention to "correct" for legislative intervention is a formula for multiplicative government failure. It risks setting a precedent that unleashes endless debate on what constitutes a subsidy with resulting regulatory inconsistency over corrective actions without addressing the core problem. Unless the complete collapse of investor confidence is imminent without intervention, the preferable responses to state interventions are legal action and outreach. FERC should not hesitate to draw a jurisdictional "bright line" (e.g., defining market compatible and market incompatible policies) and pursue legal action after engaging in public dialogues with state officials.

IV. Engage in proactive federal and state outreach.

The rules and operations of RTO/ISOs have become so complex that they raise industry transactions costs (i.e., consulting and legal fees) considerably and create a vacuum of political misunderstanding. This has emboldened rent-seeking behavior as parochial interests advance false arguments in statehouses and on Capitol Hill. Ultimately, this has resulted in policies that undermine competition, such as state bailouts for power plants based on misconceptions of the reliability implications of plant retirements. Similarly, at the federal level, the Commission's identification of energy price formation deficiencies has been misconstrued by influential parties to justify technology- and fuel-specific subsidies.

While a reclusive regulator finds itself misunderstood, a proactive regulator spurs productive conversation within the policy network. Improving educational materials, RTO/ISO performance metrics,[18] and proactive outreach to policymakers would enhance transparency, improve state relations and produce more productive policy outcomes. R Street has found success creating documents such as a Q&A with Monitoring Analytics, which has provided value in multiple statehouses throughout PJM's footprint.[19]

Cooperative federalism harmonizes state and federal policies and avoids working at cross-purposes. Such a theme would serve as a productive continuation of the state policy dialogue FERC began in 2017.

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[17] See public comments and written work of Rob Gramlich for more on the importance of containing RTO/ISO mission creep.

[18] List available here: https://www.ferc.gov/industries/electric/indus-act/rto/rto-iso-performance.asp.

[19] Document available here: http://2o9ub0417chl2lg6m43em6psi2i.wpengine.netdna-cdn.com/wp-content/uploads/2017/06/RSTREETSHORT40.pdf.

The Commission could also consider prioritizing reforms that enhance market efficiency and improve relations with states. For example, thoughtful reform to the Public Utility Regulatory Policies Act's implementing regulations could encourage competition and reduce burdens on state regulatory bodies and customers.[20]

MARKET DESIGN

To enhance the performance of competitive markets, we suggest the following areas for improving market design:

V. Reduce artificial barriers to entry and eliminate preferential policies.

In 2016, R Street published its flagship report on wholesale electricity markets, emphasizing the need for proactive market design to encourage dynamic economic efficiency as well as static efficiency.[21] A major impediment to dynamic efficiency are artificial barriers to entry, which preclude the full participation of all resources. Current practices of the RTO/ISO market monitors are well suited to evaluate static efficiency and identify barriers to conventional new entrants, but do not detect artificial deterrents to entry by unconventional actors. The report recommends implementing recurring analyses of artificial barriers to entry as the state of technology continuously evolves. R Street is working on a deeper dive into artificial barriers in a forthcoming paper with the Kleinman Center.

Reforms to reduce or eliminate artificial barriers to entry may necessarily be technology-specific, but should not result in preferential treatment. Order No. 745 is a clear example of preferential treatment. An R Street study highlighted the compensation problems associated with the Order and other policies that turn demand response into an inferior substitute for generation.[22] Correcting these would yield significant efficiency gains as demand response holds considerable market value, while the Commission's attention is better suited to facilitating price-responsive demand in light of advances and the proliferation of smart technologies.[23] Price-responsive demand has always held large, but mostly elusive, value for well-functioning electricity markets.[24] A concerted effort to remove barriers to price-responsive demand and explore pathways to efficient demand bidding has transformative potential.

We applaud FERC for its recent actions to reduce artificial barriers to entry for energy storage in Order No. 841. These are important to remedy expeditiously, even if the competitiveness of the technologies is currently limited, as innovators need the ability to predict the market valuation of nascent technologies with minimal regulatory distortion in order to maximize dynamic efficiencies. The principles-based approach of Order No. 841 leaves room for regional experimentation, which provides value when best practices remain unclear. However, it also creates opportunities for wide variances in the quality of implementation by RTO/ISOs.

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[20] For example, see comments of the National Association of Regulatory Utility Commissioners here: https://pubs.naruc.org/pub/35409F29-0A60-FF1C-39C2-9985EDFCF478.

[21] Devin Hartman, "Wholesale Electricity Markets in the Technological Age," *R Street Policy Study* No. 67, August 2016, 7. https://www.rstreet.org/wp-content/uploads/2016/08/67.pdf.

[22] Devin Hartman, "Pathways to Competition in Demand Response," *R Street Policy Shorts* No. 30, July 2016. http://2o9ub0417chl2lg6m43em6psi2i.wpengine.netdna-cdn.com/wp-content/uploads/2016/07/RSTREETSHORT30.pdf.

[23] Demand response resources yield few revenues from FERC-jurisdictional energy markets, thus associated capacity market reforms have greater impact than revising Order 745.

[24] For example, see early economic work on electricity restructuring, such as: http://faculty.haas.berkeley.edu/borenste/download/Regulation00ElecRestruc.pdf

How RTO/ISOs implement the order will directly affect the market value of energy storage.[25] In particular, rules governing bidding parameters and capacity accreditation may have large effects on the market value of energy storage. As such, FERC must remain vigilant that RTO/ISOs implement Order No. 841 thoroughly and efficiently.

VI. Reduce artificial barriers to exit and improve reliability must-run (RMR) practices.

An unprofitable generator seeking deactivation would ideally face no barrier to exit. However, shortcomings in market design can result in local reliability problems that require an out-of-market RMR payment to keep the generator in operation. R Street commissioned a study by Michael Giberson of Texas Tech University, which found that RMRs tend to bias investment toward cost-of-service transmission investments and away from market-driven generator and competitive retail services.[26] The paper recommended four guidelines for RMR practices:

1. Energy and reserve prices should reflect resource scarcity even if out-of-market compensation is necessary for reliability standards.
2. RMR governing rules should provide transparency in operation and regarding cost of service.
3. RTO/ISOs should only enter RMR agreements when the reliability benefits exceed the costs.
4. RTO/ISOs should consider cost-effective alternatives that address reliability needs.

VII. Pursue energy price formation through a strict economic lens.

Market performance would benefit from new FERC leadership taking a refreshed approach to energy price formation. A mixture of beneficial and detrimental proposals have emerged under the price formation banner, requiring a strict policy adherence to pricing legitimate marginal costs and scarcity conditions. A 2017 R Street paper found clear benefits from finalized price formation rulemakings but a need for better economic consensus and less prescription in other Commission proposals.[27] Additional opportunities center on creating robust and locational shortage pricing, followed by mostly lower-salience marginal cost pricing improvements. These include:

1. Adjustments to rules and practices governing economic and physical offer and bid parameters.
2. Inclusion of all active constraints in price formation.
3. Improving locational reserve products and spatial determinations.
4. Intertemporal modeling improvements to dispatch and unit commitment.
5. Enhancement of RTO/ISO interchanges.
6. Further transparency and pricing of grid operator interventions.
7. Removing additional administrative price controls.
8. Improvement of additional uplift cost-allocation methods.
9. Improving day-ahead settlement and scheduling intervals.
10. Pricing unpriced resources other than fast-start resources.

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[25] For e.g., see Roger Lueken et. al., "Getting to 50 GW? The Role of FERC Order 841, RTOs, States, and Utilities in Unlocking Storage's Potential," The Brattle Group, February 28, 2018, 16. http://files.brattle.com/files/13428_13366_getting_to_50_gw_study_2_22_1811.pdf

[26] Michael Giberson, "Integrating Reliability Must-Run Practices into Wholesale Electricity Markets," *R Street Policy Study* No. 114, October 2017. http://2o9ub0417chl2lg6m43em6psi2i.wpengine.netdna-cdn.com/wp-content/uploads/2017/10/114.pdf.

[27] Devin Hartman, "Refreshing Price Formation Policy in Wholesale Electricity Markets," *R Street Policy Study* No. 106, August 2017. http://2o9ub0417chl2lg6m43em6psi2i.wpengine.netdna-cdn.com/wp-content/uploads/2017/08/106.pdf.

VIII. Revise economic constructs for resource adequacy commensurate with the state of technology.

A 2017 R Street study found that new, dynamic technologies are rapidly changing the abilities of unconventional resources to provide resource adequacy. Smart grid technologies are changing the very characterization of resource adequacy as a "common good" by enabling the ability to isolate consequences of resource shortfalls to parties responsible for them.[28] The ability to "privatize the commons" is emerging and carries major economic ramifications, including the ability of customers to pay for the firmness of their power supply based on their willingness to pay.

The paper contains several findings with ramifications for resource adequacy policy:

1. Low marginal costs place greater emphasis on resource adequacy constructs.
2. The economic advantage of market-based resource adequacy mechanisms grows.
3. The economic advantage of market incentives over uniform reliability standards grows.
4. The North American Electric Reliability Corporation is best suited as a technical resource on market design issues, rather than as an economic policy advisor.
5. Potential shortfalls of essential reliability services may justify dedicated market procurement mechanisms.
6. Evolving technology mostly plays to the strengths of energy-only markets, but at the same time, exposes their vulnerability to any price formation deficiencies.
7. Efficient energy price formation is critical for energy-only markets and beneficial for areas with capacity markets.
8. For regions committed to capacity planning, the advantage of using markets grows with the advent of emerging technologies. Capacity markets should become more sophisticated to value the temporal and spatial dynamics of unconventional resources, while considering flexibility provisions to enable broader adoption of differentiated reliability products.

IX. Reassess cost allocation and anti-competitive carve-outs under Order No. 1000.

Very few stakeholders consider Order 1000 an unqualified success in meeting its objectives.[29] The cost allocation method has clear concerns with cost socialization and misalignment of transmission project benefits with costs.[30] Dr. Bill Hogan has gone as far to say that Order 1000 cost allocation and related rules "are among the more egregious examples of cost socialization that violate basic market principles" with particular applications likely to force FERC to reopen the entire issue to make the policy more compatible with market choices.[31] Rather than being forced into reactive adjustment, the Commission should strongly consider taking a proactive approach to revising transmission cost allocation.

Order 1000 also laid out principles for facilitating competition between transmission proposals and non-transmission alternatives. Results to-date suggest competition has been very limited because of anti-competitive carve-outs in compliance plans, however competition has yielded innovation and cost performance improvements. The Commission could address this through a rulemaking or by signaling an interest that induces petitioners to initiate complaints (e.g. notice of inquiry to initiate conversation). Furthermore, Order No. 1000 failed to address some significant barriers to implementation of non-

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[28] James Bushnell et al., "Capacity Markets at a Crossroads," *EI @ Hass WP* No. 278, April 2017, 52. https://sites.hks.harvard.edu/hepg/Papers/2017/WP278Updated.pdf.

[29] ScottMadden, Inc., "FERC Order No. 1000: Five Years On," June 2016, 7. http://www.scottmadden.com/wp-content/uploads/2016/06/ScottMadden_FERC_Order_1000_2016_0601.pdf.

[30] Ibid, 5.

[31] "Comments of William W. Hogan to the Federal Energy Regulatory Commission," Docket No. AD17-11-000, May 2, 2017, 4. https://www.ferc.gov/CalendarFiles/20170426151558-Hogan,%20Harvard.pdf.

transmission alternatives, which the Commission should expeditiously remove to lower costs and unlock multiple benefit streams.[32]

The Commission should also seek broader examination of lessons learned and areas for improvement in competitive transmission. This includes scrutiny of the nature (e.g., sponsorship model) and criteria for competitive selections. Another consideration is to reduce the authorized rate of return for incumbents operating in areas not subject to competitive solicitations and increase returns for cost-capped projects selected in a competitive process.[33]

X. Advance an economic framework for grid resilience.

As aforementioned, initial attempts by the Energy Department misframed resilience, and we applaud the Commission's effort to redirect the discussion in a productive direction. Given the degree of political interest in the issue, we are concerned that rent-seeking interests may coopt the resilience narrative. In particular, some resilience discussions in states and RTO/ISO stakeholder processes appear motivated to placate parochial interests. As such, the resilience initiative would greatly benefit from a robust economic framing to shed light on whether unaccounted market failures exist and, if so, to develop reforms consistent with the principle of incentive compatibility if anticipated benefits exceed costs.[34] R Street is coordinating with Resources for the Future to co-host a technical workshop on an economic framing of resilience with the aim of feeding into Commission efforts.

CONCLUSION

The R Street Institute offers its ideas and resources in an effort to provide regulatory assistance. We leverage deep expertise to provide productive and timely educational perspectives to regulators and policymakers. This includes in-house expertise as well as serving as "connective tissue" between energy academics and practitioners, as showcased by commissioned and collaborative FERC-specific projects with industry and academic institutions. Please notify us if we can be of assistance in any way.

Sincerely,

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[32] Elizabeth Watson and Kenneth Colburn, "Looking Beyond Transmission," *Fortnightly Magazine*, April 2013. https://www.fortnightly.com/fortnightly/2013/04/looking-beyond-transmission

[33] Travis Kavulla, "There is No Free Market for Electricity: Can There Ever Be?," *American Affairs* Vol. I, Number 2, Summer 2017. https://americanaffairsjournal.org/2017/05/no-free-market-electricity-can-ever/.

[34] "Incentive compatibility" refers to market design that aligns the incentive structure of market participants with the efficient and reliability operation of the transmission system.