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

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Uplift Cost Allocation and Transparency) in Markets Operated by Regional Transmission Organizations and Independent System Operators

Docket No. RM17-2-000

## COMMENTS OF THE R STREET INSTITUTE

Pursuant to the Federal Energy Regulatory Commission's (the "Commission" or "FERC") Notice of Proposed Rulemaking ("NOPR") issued on January 19, 2017,<sup>1</sup> the R Street Institute ("RSI") respectfully submits these comments in response to the Commission's proposed revisions to require regional transmission organizations (RTOs) and independent system operators (ISOs) to allocate the costs of realtime uplift resulting from deviations to market participants that caused the uplift costs. The Commission also proposes to enhance transparency by requiring RTO/ISOs to publicly post uplift payments and operator-initiated commitments and define transmission constraint penalty factors in the RTO/ISO tariff, along with the circumstances the factors set locational marginal prices (LMPs) and any procedures for modifying the factors. Overall, RSI supports the intentions of the NOPR and specific proposals to improve transparency. RSI emphasizes a principles-based approach to uplift cost-causation and cautions against overly prescriptive methodologies that may have unintended consequences.

#### Ι. ABOUT THE R STREET INSTITUTE

The R Street Institute is a pragmatic, free market oriented think tank. RSI aligns with such thinkers as Milton Friedman, Friedrich Hayek, Ronald A. Coase, James M. Buchanan and Arthur C. Pigou. RSI favors consumer choice; regulation that is transparent and applied equitably; and systems that rely on price signals rather than central planning.

RSI recognizes market failures – including public goods and externalities – are valid concerns governments must sometimes address. RSI also recognizes the nature of a democratic society often means agreeing on a compromise that may not always represent the first, best solution. RSI sees its role as offering research and analysis that advance the goals of a market-oriented society and efficient government, with the full realization that progress often occurs incrementally. In other words, RSI looks for free market victories on the margins.

<sup>&</sup>lt;sup>1</sup> Uplift Cost Allocation and Transparency in Markets Operated by Regional Transmission Organizations and Independent System Operators, Notice of Proposed Rulemaking, 158 FERC ¶ 61,047 (Jan. 19, 2017).

In 2016, RSI launched an electricity policy program to research and promote consumer choice and economically sound market and rate design. RSI believes competitive electricity markets and consumer choice yield superior economic and environmental results relative to the regulated monopoly model.

### II. COMMENTS ON UPLIFT COST ALLOCATION

Efficient market design minimizes uplift costs by incorporating reliability requirements into market-based products and allocating uplift costs on the basis of cost-causation. The NOPR correctly notes that real-time deviations from day-ahead schedules can create a need for additional resource commitments in real-time that tend to increase uplift costs. RTO/ISOs do not always consider whether deviations contributed to increasing or decreasing uplift costs. Thus, the NOPR correctly identifies flaws in some RTO/ISO approaches that materially affect uplift costs and market outcomes.

Uplift cost allocation affects the marginal incentives of market participants. Cost recovery misaligned with cost-causation can distort operating and investment behavior. Reallocation of uplift costs aligned with causation would encourage cost-minimizing behavior among physical and financial energy market participants. Incorporating uplift charges into transmission planning processes, which generally exclude them, may also improve the accuracy of valuation of potential transmission upgrades and expansions.

The NOPR reflects many elements of MISO's approach to uplift cost allocation and the recommendations of MISO's Market Monitor. The Monitor asserts that MISO's approach is the best industry practice. Indeed, many elements have strong theoretical appeal, such as the granular designation of uplift cost category by cause. However, opinions vary on its effectiveness in practice.

Allocating uplift costs by causation is reasonable in principle but challenging in practice. One challenge is that the cause of uplift costs is not always readily recognizable. PJM and its Market Monitor contend that it is not possible to determine uplift causality at the individual transaction level. Uplift often results from multiple-factor causation (e.g., shifts in load and supply forecasts, transmission and generation contingencies) that varies substantially on an intra-hour basis. Static modeling approaches do not capture such dynamic complexities and can result in inaccurate uplift cost allocation at the individual transaction level. Yet some RTO/ISOs use static approaches to determine uplift cost causality on an individual transaction basis. Inferior methods attempting to improve the alignment of uplift cost allocation with causation may actually worsen it. The takeaway is that a definitive best industry practice has not been established.

This indicates value in a rulemaking that encourages better identification of uplift cost causality and allocates costs accurately. Since some best practices have not emerged, continued experimentation at the RTO/ISO level may provide value for future market design considerations. This underscores the need to avoid an overly prescriptive rulemaking, while encouraging prompt adoption of improved practices.

RSI suggests the Commission seek ongoing refinements in methods to identify deviation-related uplift cost-causation in a dynamic context and require uplift cost allocations to follow the cost-causation principle without prescribing categories or methodologies for doing so. This would improve uplift cost allocations not currently based on cost-causation without forcing RTO/ISOs to contrive uplift cost allocation schemes based on overly simplistic assumptions. RTO/ISOs should have flexibility to determine uplift cost allocations at the level causality is identifiable. An overly prescriptive uplift cost allocation rulemaking may result in committing organized wholesale electricity markets to an inferior path dependency and deter development of superior methodologies that result from regional experimentation.

#### A. Definition of Deviations and Uplift Categories

The NOPR proposes to require RTO/ISOs to establish at least two categories for real-time uplift costs allocated to deviations: system-wide capacity and congestion management. These categories are so broad as to likely provide little practical value (except to prescribe a methodology); many specific causes of uplift costs would fall into sub-categories of capacity- and congestion-related deviations. No need exists for the Commission to define uplift cost categories; a principles-based rulemaking where uplift cost categories must reflect causation would suffice. This will encourage RTO/ISOs to adjust their categories consistent with their current understanding of uplift cost causation. Regional flexibility is at a premium given the aforementioned need for continued experimentation to develop best practices.

Deviations are not the sole cause of capacity-related and congestion-related uplift. Forcing adoption of flawed methodologies for deviation-related uplift cost allocation may create challenges for apportioning the total cost of uplift to deviations. Specifically, this may inaccurately shift the allocation of uplift costs across deviation and non-deviation categories.

#### B. Netting

The NOPR proposes to require RTO/ISOs to distinguish between deviations that "help" and those that "harm" the ability to address system needs. It would require uplift cost allocation to net harming deviations from helping deviations. Distinctly measuring beneficial and harmful deviations provides analytical value but netting them does not necessarily provide the best basis for uplift cost allocation. Netting deviations is not the only methodology available to allocate uplift costs by causation and may create unintended consequences.

Measuring "helping" or "harming" deviations, defined in the NOPR as those converging ("helping") or diverging ("harming") day-ahead scheduled unit commitment and dispatch and real-time energy and operating reserve requirements, may prove challenging. Depending on the metric used, netting may not result in uplift cost allocation accurately reflecting causation. A netting metric based simply on the amount of energy or capacity provided in the "helping" or "harming" category would fail to distinguish the value of help or harm actually provided. For example, a 10 MW helping deviation during a low ramp period may not result in avoided uplift costs of comparable magnitude to those created by a 10 MW harming deviation during a high ramp period. In this example, the resource would have caused uplift costs on balance but pay none.

Netting, under certain circumstances, may create an incentive for a generator to deviate from its day-ahead schedule and dispatch instructions. Specifically, netting would encourage a resource that knowingly creates a harmful deviation to provide a helpful deviation within the settlement interval. Although a helping deviation provides system benefit, it may displace lower-cost resources the RTO/ISO would otherwise dispatch. Thus, even helpful deviations create opportunity costs. Netting may increase production costs via elevated opportunity costs from expanded helping deviations.

The Commission should strongly consider the consequences of rule changes that encourage resources to deviate from their economic schedules. Good market design discourages uninstructed deviations outright, not encouraging them when they happen to help the system. Uplift cost allocation based solely on harming deviations may provide better incentives for production cost minimization, reduce gaming opportunities and allocate uplift costs by causation more accurately.

C. Deviations that Result from Following Dispatch

RSI agrees with the NOPR position that instructed deviations should not be included in any netting calculations. The fundamental concern resides with uninstructed deviations that cause uplift costs. Allocating uplift costs to market participants that follow dispatch instructions would be unjust and unreasonable and may undermine the incentive structure to follow dispatch signals.

D. Settlement

RSI agrees with the NOPR that settling uplift costs on an hourly basis has advantages over daily settlement. This better aligns cost allocation with incentives to behave efficiently in the market. The longer the settlement interval, the greater the opportunity for expanded helping deviations to offset harming deviations within the netting methodology. However, even an hourly interval could create

significant incentive for uninstructed deviations. For example, if a wind farm produces below its dayahead schedule for 30 minutes (e.g., from an unexpected drop in wind resources from the day-ahead forecast) it may elect to overproduce for the following 30 minutes to avoid uplift charges (assuming no overgeneration event). This overproduction may result in suboptimal unit commitment and dispatch, despite classification as a helping deviation.

III. COMMENTS ON TRANSPARENCY

RSI agrees with the NOPR premise that price formation visibility in energy and ancillary service markets is paramount to efficient market functionality. This enhances the optimality of market participant behavior in both operating conditions and long-term investment decisions. Improved price formation transparency also enables market monitors, market participants and other stakeholders to evaluate market performance, diagnose market design concerns and propose more efficient remedies. RTO/ISOs vary on the types of data they publicly release and some provide information on a much more timely and granular basis.

A. Uplift Reporting

Identifying chronic uplift is important for improved market design and market participant behavior. Uplift disclosures help market monitors, market participants and other stakeholders evaluate market performance and identify concerns with RTO unit commitment practices, reliability requirements and other characteristics of market design.

Uplift causes sometimes vary substantially within a zone, especially with respect to transmission congestion. Therefore, uplift reporting at the sub-zonal level would provide substantial benefit. At the same time, the Commission should be mindful of confidentiality concerns and creating opportunities for collusion as more granular reporting increases the ability to publicly identify uplift costs caused by individual market participants.

The NOPR proposal to require total uplift payments for each transmission zone on a monthly basis, broken out daily by uplift category, is reasonable. This will improve the timeliness and granularity of uplift transparency in most RTO/ISOs, especially regarding those associated with transmission constraints. The NOPR's other proposal to require reporting of uplift payments for each resource on a monthly basis is also reasonable. It provides sufficient temporal aggregation to mask daily offer behavior that could raise anti-competitive concerns.

B. Reporting Operator-Initiated Commitments

The NOPR proposal to report RTO/ISO operator-initiated unit commitments, by zone and commitment reason, near real-time and after the day-ahead market close is reasonable. NYISO, MISO

and CAISO already meet these temporal requirements and provide a breakout by commitment reason. If anything, RTO/ISOs could report commitments on a sub-zonal basis, which would provide value for commitments in areas with transmission constraints.

While operator-initiated commitments are uncommon, they often occur during periods of system stress and have a sizable effect on market outcomes. This validates extensive transparency even for infrequent events. Given rapid penetration of meteorologically-sensitive resources that may increase grid operator commitments, sufficient transparency on such actions is vital.

C. Transmission Constraint Penalty Factors

Procedures to value transmission flow over a constraint play a pivotal role in RTO/ISO dispatch and price formation. Some RTO/ISOs do not include the parameters of transmission constraint penalty factors in their tariffs and sometimes change them discretionarily, which materially affects price formation. In some cases, RTOs relax transmission constraint parameters to set a shadow price less than the penalty factor, whereby the RTO manually reduces congestion costs. This distorts price formation with respect to congestion valuation that undermines efficient unit commitment and dispatch in the short-term. In the long-term, it distorts investment and retirement decisions in chronically congested areas.

The NOPR proposal to require RTO/ISOs to list transmission constraint penalty factors, the procedure by which they may change and how they affect LMPs in their tariffs, is reasonable. This will result in enhanced scrutiny of transmission congestion management procedures. Ultimately, it should translate into better practices that enhance price formation with the associated benefits of improved operating and investment signals with respect to transmission congestion.

I. CONCLUSION

In response to the NOPR, RSI respectfully requests the Commission consider the comments contained herein. Respectfully submitted,

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