

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

**Grid Reliability and Resilience Pricing )**

**Docket No. RM18-1-000**

**REPLY COMMENTS OF THE CALIFORNIA INDEPENDENT  
SYSTEM OPERATOR CORPORATION**

The California Independent System Operator Corporation (“CAISO”) submits these reply comments<sup>1</sup> in response to the Department of Energy’s (“DOE’s”) Notice of Proposed Rulemaking (“NOPR”) published in the *Federal Register* on October 10, 2017.<sup>2</sup>

**I. OVERVIEW**

The Commission should terminate this proceeding without further action. Neither the NOPR itself nor the comments submitted in this proceeding provide a record that supports a finding that organized wholesale electricity markets nationwide have become unjust and unreasonable; nor does it support a finding that the regulations proposed in the NOPR, or any of the other changes proposed by some commenters, will render such markets just and reasonable. If the Commission nonetheless concludes that certain individual regions may benefit from market reforms to prevent the premature retirement of fuel-secure resources, the Commission should recognize that none of the issues identified in the NOPR apply to the CAISO’s balancing authority area. The

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<sup>1</sup> The CAISO filed initial comments in this proceeding on October 23, 2017. The CAISO also joined in the initial comments submitted by the ISO/RTO Council.

<sup>2</sup> *Grid Resiliency Pricing Rule*, 82 Fed. Reg. 46,940 (Oct. 10, 2017). A letter from the Secretary of Energy directing the Federal Energy Regulatory Commission (“Commission”) to take action on the proposed rule accompanied the NOPR.

CAISO does not have a centralized capacity market and does not have any coal or nuclear resources that would be eligible for compensation under the proposed rule. Accordingly, the Commission should exclude the CAISO from any compliance obligation in this NOPR proceeding.

Also, the record in this proceeding is insufficient to impose alternative Day-Ahead and Real-Time market pricing proposals on the CAISO. In recent years, the CAISO has adopted numerous market design changes that render certain pricing changes identified by some commenters as unnecessary, and such changes could harm the CAISO's markets. Finally, there is no basis in the record to import price formation issues being addressed in other ongoing Commission proceedings into this narrowly tailored NOPR proceeding, nor does the record in this proceeding support additional or different action in those separate and distinct proceedings.

## **II. COMMENTS**

### **A. No Record Supports the Proposed Rule**

For the Commission to exercise its authority under section 206 of the Federal Power Act ("FPA") to change an existing tariff or practice affecting rates, terms, and conditions of transmission service or wholesale sales of electricity, the Commission must first find that the existing practice is "unjust, unreasonable, unduly discriminatory or preferential," and that the change it seeks to impose is "just and reasonable."<sup>3</sup> There is no record basis to support either of these findings, particularly with respect to the CAISO.

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<sup>3</sup> 16 U.S.C. § 824e.

The comments submitted in this proceeding overwhelmingly demonstrate that there is no record to support a finding that the tariffs and practices of the ISOs and RTOs that would be affected by the NOPR have become unjust, unreasonable, or unduly discriminatory or preferential. There certainly is no basis to impose the proposed changes on ISO and RTO wholesale markets nation-wide. This is documented in the comments of numerous parties from every corner of the electric utility industry.<sup>4</sup> In particular, there is no record evidence to support applying the proposed compensation scheme in regions without capacity markets and without baseload coal and nuclear resources that would be eligible for such compensation.

Some commenters argue that additional compensation should be provided not only to the resources covered by the proposed rule, but also to virtually every other type of asset used to generate, transmit, or store electric power.<sup>5</sup> These comments do not provide a record to support solutions proposed in the NOPR that would undermine and degrade the effectiveness and efficiency of wholesale markets. Rather, they merely reflect a desire for greater compensation than can be currently earned through competitive electricity markets. Such comments essentially propose a “solution” without

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<sup>4</sup> See, e.g., ISO/RTO Council, Comments at 1-3 (filed Oct. 23, 2017); New York Independent System Operator, Inc., Comments at 4 (filed Oct. 23, 2017) (“The NYISO is not aware of any imminent emergency likely to develop on the wholesale electric system that necessitates drastic and immediate action, particularly in the form proposed in the NOPR.”); Seattle City Light, Comments, at 4 (filed Oct. 23, 2017) (“The DOE proposed rule runs counter to the DOE Staff Report and NERC findings issued within the past few months.”).

<sup>5</sup> See, e.g., National Hydropower Association, Comments, at 1 (filed Oct. 23, 2017) (supporting a process compensating hydropower and pumped storage’s reliability and resilience); Geothermal Energy Association, Comments, at 3 (filed Oct. 23, 2017) (arguing many geothermal units should qualify as an eligible grid reliability and resiliency resource under the NOPR); Energy Storage Association, Comments, at 6 (filed Oct. 23, 2017) (“ESA urges FERC to consider means to value and compensate all inadequately compensated or uncompensated resilience attributes for their cost-effective provision . . . . Electric storage resources can provide electric system reliability and resilience solutions that are inadequately compensated or uncompensated.”).

providing any actual evidence that ISO and RTO markets have become unjust and unreasonable.

Other commenters propose some form of a “resiliency market” or other similar compensation mechanism, but offer no convincing support for the proposition that organized markets need such a new centralized market, particularly given evidence that existing ISO and RTO markets are adequately addressing reliability and system needs and already have mechanisms in place to procure the capacity required to meet identified reliability needs.<sup>6</sup> These commenters must first prove that existing practices or tariffs have become unjust, unreasonable, unduly discriminatory or preferential before they can justify a rule to mandate establishing new market structures that could disrupt each region’s existing market design. These commenters not only fail that burden of proof, they further fail to propose alternatives to current practices that would be just and reasonable.

Commenters also demonstrate that the new requirements proposed in the NOPR are vague and indefinite, making it impossible to determine what specifically would be required to comply with the proposed rule.<sup>7</sup> This lack of specificity is yet another way the proposed rule does not satisfy the requirements of FPA section 206. To the extent

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<sup>6</sup> See, e.g., NRG Energy, Inc., Comments, at 11-13 (filed Oct. 23, 2017) (proposing a Forward Resiliency Market that would allow all resources with on-site fuel to compete to supply the market with resiliency service, including a natural gas-fired resource with dual fuel capability or a battery resource.); AES Companies, Motion to Intervene and Comments at 1-2 (filed Oct. 23, 2017) (proposing an interim ISO/RTO rate schedule for cost-based rates similar to the cost-based payment for reactive power services).

<sup>7</sup> See, e.g., ISO/RTO Council, Comments at n.5 (“The NOPR refers extensively to ‘resiliency’ and ‘resilience,’ but contains no definition of those terms. The NOPR also fails to identify with sufficient specificity what ‘resiliency’ problem . . . it seeks to address [.]”); Electric Power Supply Association, Initial Comments, at 37 (filed Oct. 23, 2017) (“[T]he NOPR is vague and conclusory on the matters it does discuss [.]”).

compliance involves anything other than availability payments for a limited group of resources outside of the energy markets, the proposed rule would produce massive and unjustified disruptions to wholesale markets. In short, the requirements proposed in the NOPR have not been shown to be just and reasonable.

**B. No Record Supports Changes to the CAISO Tariff**

In looking specifically at the CAISO balancing area authority (“BAA”), there is no basis to impose the compensation mechanism proposed in the NOPR, or any of the alternatives proposed by commenters, on the CAISO.<sup>8</sup> As noted in the CAISO’s initial comments, the resource mix in the CAISO BAA differs greatly from generators the NOPR identifies are prematurely retiring. Natural gas resources, hydroelectric resources, and solar resources account for close to 90 percent of California’s generation mix.<sup>9</sup> No baseload coal generation units are physically located in the CAISO BAA that would be eligible for compensation under the proposed rule.<sup>10</sup> The only nuclear plant in the CAISO BAA is currently under California cost of service rate regulation, and that unit would therefore not be covered by the proposed rule.<sup>11</sup> Additionally, potential disasters that could affect electric service in the CAISO BAA differ greatly from those the NOPR identifies. System reliability in the CAISO BAA is more

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<sup>8</sup> The proposed rule would not apply to the CAISO because it does not have a capacity market and because no eligible coal or nuclear resources are physically located in the CAISO balancing authority that would qualify for compensation. See CAISO, Initial Comments, at 1-2 (filed Oct. 23, 2017). These reply comments further explain why there is no basis to apply any final rule to the CAISO.

<sup>9</sup> *Id.* at 6-7 (footnote omitted).

<sup>10</sup> *Id.* at 5.

<sup>11</sup> *Id.*

likely to be disrupted by earthquakes or wildfires than extreme cold temperatures or hurricane conditions.<sup>12</sup>

There is no basis for providing the guaranteed additional compensation contemplated in the NOPR to any resources in the CAISO BAA other than coal or nuclear resources. As discussed in the CAISO's initial comments, geothermal, hydroelectric, biomass, and storage resources already have ample options for compensation in the CAISO BAA. Resource adequacy, renewable portfolio standards, and other state procurement programs provide numerous means for such resources to recover their costs. Adopting a final rule that would provide guaranteed cost of service recovery for such resources could undermine or circumvent already-established bilateral procurement processes. The Commission should not attempt to usurp regional, state, and local programs for procuring and compensating these resources where there is no demonstrated need.

One commenter – Deseret Generation & Transmission Co-operative (“Deseret”) – suggests that the CAISO should be subject to the requirements proposed in the NOPR.<sup>13</sup> Deseret offers no credible support for its position. Deseret states that any final rule should apply not only to resources physically located within the CAISO BAA, but also to the markets operated by the CAISO, including the Energy Imbalance Market (“EIM”). Deseret states that it has a coal plant located in northeast Utah that is certified

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<sup>12</sup> *Id.* at 6.

<sup>13</sup> Deseret Comments at 4. Similarly, Tri-State Generation and Transmission Association, Inc. (“Tri-State”) argues that the guaranteed cost of service recovery proposed in the NOPR should apply to all generation resources involved in the sale of “resiliency” energy at wholesale in interstate commerce. See Tri-State Comments at 4 (filed Oct. 23, 2017).

as a participating resource in the EIM.<sup>14</sup> Deseret claims that the intent of an “energy only” market like the EIM is not only to establish “trading signals and markets for instantaneous energy supply” but to “capture, promote, and compensate, adequate resource reliability and robust grid resources as well,” arguing that its resources should be eligible for resiliency-related compensation under the rule.<sup>15</sup>

There is no basis to grant the relief Deseret requests. First, as noted above and in the CAISO’s initial comments, the proposed rule does not apply to the CAISO or any of its markets (including the EIM) because the CAISO does not have a capacity market. Second, the proposed rule only applies in instances where there is “a tariff that contains a day-ahead and a real-time market or the functional equivalent.”<sup>16</sup> The EIM is only a real-time imbalance energy market, so the proposed rule would not apply to that limited market.<sup>17</sup> Third, Deseret’s resource is ineligible for compensation under the proposed rule not only because the resource is not physically located in the CAISO BAA, but also because it is subject to cost of service regulation by a state or local regulatory authority.<sup>18</sup> Fourth, the EIM does not include a capacity market or form of capacity sufficiency payments, and as such it is not intended to “capture, promote, and compensate, adequate resource reliability and robust grid resources.”

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<sup>14</sup> Deseret, Comments, at 1 (filed Oct. 23, 2017).

<sup>15</sup> *Id.* at 4 (footnote omitted).

<sup>16</sup> NOPR, 82 Fed. Reg. at 46,948.

<sup>17</sup> CAISO tariff section 29.

<sup>18</sup> Deseret requests that the Commission exclude from the “subject to cost of service rate regulation by any state or local regulatory authority” resources of rural cooperatives with fewer than 4,000,000 MWh of annual retail sales. Deseret, Comments at 2 (footnote omitted). Deseret offers no support as to why such resources should be treated differently. It would be unduly discriminatory for the Commission to treat a subset of resources subject to state or local cost of service recovery as eligible for the compensation scheme contemplated in the proposed rule.

Therefore, there is no basis to expand the proposed rule to apply to the EIM or any of the CAISO's markets. Deseret ignores the fundamental underpinnings of the EIM, the resource adequacy framework in California and the West, and the basic cost allocation principles.<sup>19</sup> Participation in the EIM is voluntary for balancing authorities and individual resource owners in a participating BAA.<sup>20</sup> The EIM allows participating entities to purchase or sell five-minute real-time energy under a market-driven regime for meeting their energy imbalance needs.<sup>21</sup> In other words, the EIM only allows balancing authorities to participate in the imbalance energy portion of the CAISO's real-time market; it does not incorporate a forward capacity requirement.<sup>22</sup> Participating balancing authorities are responsible for maintaining balance between supply and demand in their areas and must demonstrate such balance in advance of real-time to avail themselves of economic transfer opportunities in the EIM.<sup>23</sup> Each balancing authority that chooses to participate in the EIM remains responsible for maintaining the reliability of its balancing authority area, including meeting operating reserve and capacity requirements and manually dispatching resources out-of-market to maintain reliability.<sup>24</sup> Under the EIM, the CAISO and each of the EIM entities retain their respective resource adequacy regimes to ensure the long-term availability of resources in each BAA.<sup>25</sup> Features of the EIM design also ensure that EIM participants have

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<sup>19</sup> Tri-State's argument should fail for the same reasons.

<sup>20</sup> *Cal. Indep. Sys. Operator Corp.*, 147 FERC ¶ 61,231, at P 8 (2014).

<sup>21</sup> *Id.* at P 2.

<sup>22</sup> *Id.* at P 123

<sup>23</sup> *Id.* at P 3.

<sup>24</sup> *Id.* at P 9.

<sup>25</sup> *Id.* at P 110.



sufficient resources to meet load reliably and cannot inappropriately “lean” on other BAAs (*i.e.*, consume capacity at no charge as provided by the broader EIM footprint), including, *inter alia*, a requirement that EIM entities’ base schedules be balanced.<sup>26</sup> Although EIM participating entities are required to pass several hourly tests to show they are not leaning on other EIM entities, they are not required to make any resource adequacy showings, and there are no backstop capacity sufficiency measures with associated compensation. The only consequence of failing the sufficiency tests is that for the particular hour the EIM entity does not have access to incremental energy from the EIM.

The Commission has previously declined to require forward capacity obligations for participating EIM balancing authorities. The Commission found that the resource adequacy programs of each BAA participating in the EIM provide the backdrop to the EIM resource sufficiency framework and, in conjunction with the EIM framework, would provide adequate resource sufficiency and protect against insufficiency.<sup>27</sup> Deseret’s proposal constitutes a collateral attack on the Commission’s EIM orders and seeks to circumvent and assume away the CAISO’s resource adequacy program and the resource adequacy programs of the other balancing authorities participating in the EIM.

Under the resource adequacy frameworks in effect in the CAISO and other Western BAAs, load serving entities procure capacity through bilateral contracts to meet their resource adequacy requirements. State and local regulatory authorities oversee

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<sup>26</sup> *Id.* at PP 110, 122. After initial EIM implementation, the CAISO subsequently enhanced the EIM functionality to allow it to automatically account for and recognize capacity an EIM entity has available to maintain reliable operations in its own BAA but has not bid into the EIM, *i.e.*, Available Balancing Capacity. *California Independent System Operator Corporation*, 153 FERC ¶ 61,305, at P 1 (2015).

<sup>27</sup> *California ISO*, 147 FERC ¶ 61,231 at PP 122-23, *order on reh’g*, 149 FERC ¶ 61,058 at PP 54-55 (2014).

integrated resource plans and the procurement of resource adequacy resources by their load serving entities. There is no centralized capacity market in the Western United States. As such, Deseret should seek to sell any available generation capacity pursuant to the resource adequacy procurement mechanisms that exist in the Western BAAs. Nothing precludes Deseret from seeking fixed cost recovery from the voluntary purchasers of its capacity. However, if Deseret is unsuccessful in marketing its capacity through existing resource adequacy and bilateral procurement mechanisms, it should not be permitted to essentially “bypass” such processes and automatically recover the costs of its unsold and unused generation capacity from other BAAs and load serving entities that possess or have procured different capacity to meet their needs.

Mandating full cost-of-service recovery for resources that load serving entities did not procure and that were not procured under any backstop procurement mechanisms unduly interferes with, and defeats the purpose of, a bilateral procurement resource adequacy framework. Requiring other load serving entities to involuntarily bear the fixed costs of Deseret’s resources when they have sufficient resources also violates fundamental principles of cost causation.<sup>28</sup>

Finally, forcing BAAs that are participating in the EIM, or other participants in CAISO markets generally, to pay the full cost of service of resources not procured through existing resource adequacy programs and not found to be needed by the BAAs

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<sup>28</sup> One of the cost allocation principles the Commission adopted in Order No. 1000 was that the costs of a regional transmission facility must be allocated solely to the transmission planning region that found the facility to be needed, and such costs could be allocated to other planning regions or individual entities in other planning regions only if they voluntarily agreed to bear a portion of those costs. *Transmission Planning and Cost Allocation by Transmission Owning and Operating Public Utilities*, Order No. 1000, 76 Fed. Reg. 49,842 (Aug. 11, 2011), FERC Stats. & Regs. ¶ 31,323 at P 586 (2011). Similar logic applies in a resource adequacy framework where individual load serving entities meet their resource adequacy needs by procuring capacity bilaterally and requires that the Commission reject Deseret’s request.

for reliability is not only unjustifiable, it will discourage participation in the EIM and organized markets, thus diminishing the benefits these markets bring to their participants and to ratepayers. Further, guaranteeing full cost recovery to a single market participant in a real-time imbalance energy market is antithetical to the basic concept of markets and will unduly distort the markets.

### **C. There Are Better Ways for Each Region to Address Resiliency Issues**

There is no basis for imposing a uniform rule on every ISO and RTO.<sup>29</sup> Regions have different resource mixes, fuel supply options, load curves, environmental requirements, and reliability risks.<sup>30</sup> The need for a regional approach and regional flexibility is a strong theme in the submitted comments, and the volume of comments show flaws with the universal changes proposed in the NOPR.<sup>31</sup>

The North American Electric Reliability Corporation's ("NERC") assertion that the trend of coal and nuclear resources retiring reduces system flexibility to respond to events, and may therefore affect reliability, is not supported by the CAISO's experience.<sup>32</sup> The CAISO has successfully operated its system with minimal nuclear facilities and completely without coal resources.<sup>33</sup> The CAISO promptly and

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<sup>29</sup> CAISO, Initial Comments at 5.

<sup>30</sup> *Id.*

<sup>31</sup> See, e.g., ISO/RTO Council, Comments at 33; American Electric Power Company, Inc., Comments, at 2 (filed Oct. 23, 2017); American Public Power Association, Comments, at 17 (filed Oct. 23, 2017) ("[T]he NOPR would impose a 'one size fits all' remedy in response to a concern—adequate grid resilience—that should take into account regional differences[.]"); AES Companies, Motion to Intervene and Comments at 2 ("[E]ach region should be afforded some latitude in terms of implementation, given its unique characteristics, the regional generation portfolio (which vary widely), and the unique history within each region.").

<sup>32</sup> NERC, Initial Comments, at 7 (filed Oct. 23, 2017).

<sup>33</sup> CAISO's current generation mix is detailed in its initial comments in this proceeding. See CAISO, Initial Comments at 6-7.

successfully responded to the unexpected closure of the San Onofre Nuclear Generating Station by pursuing a diverse mix of transmission and non-transmission alternatives. NERC suggests that the outages at the Aliso Canyon natural gas storage field highlight the risk of single-source fuel dependency. The CAISO agrees and has proactively adopted measures to ensure it can meet its load reliably given a changing fleet and other challenges such as the Aliso Canyon outages. The CAISO has found that the mix of non-synchronous resources such as variable energy resources, natural gas-fired resources, and hydroelectric resources can support, and have supported, the reliant and resilient operations of the CAISO grid. Further, the CAISO has successfully implemented targeted market design changes, improved gas-electric coordination efforts, and taken other measures to address the Aliso Canyon situation, gas supply limitations and other challenges.<sup>34</sup>

For the reasons discussed above, the Commission should terminate this proceeding and not adopt the requirements proposed in the NOPR.

**D. There is No Basis for the Commission to Take Additional or Different Actions in the Price Formation Proceeding or Related Proceedings**

Some commenters suggest that the Commission should address issues raised in the NOPR by acting in the Price Formation Proceeding<sup>35</sup> or other proceedings.<sup>36</sup> There

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<sup>34</sup> The CAISO has made numerous tariff amendment filings that strengthen its ability to address gas supply limitations, operational challenges and changing system conditions: the Aliso Canyon tariff amendments; RIMPR 1 and 2; Order No. 764 compliance and implementing a 15-minute market, the western Energy Imbalance Market, flexible ramping product; frequency response enhancements; and flexible resource adequacy requirements.

<sup>35</sup> *Price Formation in Energy and Ancillary Services Markets Operated by Regional Transmission Organizations and Independent System Operators*, Docket No. AD14-14-000 (“Price Formation Proceeding”).

<sup>36</sup> See, e.g., Electric Power Supply Association, Initial Comments at 6 (“EPSA strongly urges the Commission to accelerate and expand its price formation efforts.”); Dynegy Inc., Comments, at 7 (filed

is no record in this proceeding to support additional or different action in those separate and distinct proceedings. Further, there is no basis to import broader price formation issues being addressed in other ongoing dockets into this narrowly tailored NOPR proceeding.

The NOPR's discussion of the Commission's price formation efforts simply offers a conclusory statement that the "loss of fuel-secure generation must be stopped."<sup>37</sup> There is no evidentiary support for that conclusion, however. Commenters provide no justification for expanding the issues to be addressed in the Price Formation Proceeding or related proceedings, and offer no reason why the Commission cannot resolve those proceedings based on evidence presented to date in those dockets. Given the advanced state and well-developed records in those proceedings, there is no reason why the Commission should be addressing more general price formation issues in the instant more narrowly targeted proceeding.

Further, there is a wide range of Commission-approved ISO and RTO wholesale market designs, and the Commission's actions to address price formation issues should take this diversity into account. As the CAISO has explained in its filed comments in the Price Formation Proceeding, the Commission should allow market operators to continue to work with their stakeholders to identify price formation issues within their markets and to craft enhancements to their individual market structures to address region-specific price formation issues.<sup>38</sup>

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Oct. 23, 2017) ("[T]he Commission should . . . continue to focus on the price formation efforts that are already underway."); Calpine Corporation, Comments, at 4 (filed Oct. 23, 2017).

<sup>37</sup> NOPR at 46,945.

<sup>38</sup> CAISO, Comments on Technical Workshops, Docket No. AD14-14-000, at 2-3 (filed March 6, 2015).

In response to the *Fast-Start Pricing in Markets Operated by Regional Transmission Organizations and Independent System Operators* proceeding (“Fast-Start Proceeding”), the CAISO highlighted the unique features of its market design, which addresses the specific needs of a generation fleet with a growing percentage of variable resources.<sup>39</sup> Among other issues, the CAISO expressed concern that the proposed fast-start pricing rules could result in market prices that would mask proper price signals during the numerous intervals in which the CAISO market faces oversupply, potentially forcing the CAISO to rely more extensively on out-of-market actions that increase, rather than minimize, market uplift.<sup>40</sup> The CAISO’s prior comments highlighted the need for regional flexibility in addressing price formation issues because regional market designs differ. These continue to be important considerations. Collectively, the CAISO’s comments in the Commission’s price formation proceedings show how the CAISO has addressed or is addressing concerns raised by the Commission in a manner crafted to work within the CAISO market design.

Some rules have already been finalized as a result of the Commission’s consideration of price formation issues. The CAISO has demonstrated compliance with Order No. 825<sup>41</sup> and is developing an approach to compliance with Order No. 831.<sup>42</sup>

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<sup>39</sup> CAISO, Comments, Docket No. RM17-3-000, at 2 (filed Feb. 28, 2017).

<sup>40</sup> *Id.*

<sup>41</sup> *Settlement Intervals and Shortage Pricing in Markets Operated by Regional Transmission Organizations and Independent System Operators*, Order No. 825, 81 Fed. Reg. 42,882 (June 30, 2016), FERC Stats. & Regs. ¶ 31,384 (2016).

<sup>42</sup> *Offer Caps in Markets Operated by Regional Transmission Organizations and Independent System Operators*, Order No. 831, 81 Fed. Reg. 87,770 (Dec. 5, 2016), 157 FERC ¶ 61,115 (2016). The Commission granted the CAISO an extension to comply with Order No. 831 until May 1, 2018. See *Offer Caps in Markets Operated by Regional Transmission Organizations and Independent System Operators*, Docket No. RM16-5-000 (May 11, 2017) (notice of extension of time).

These show that price formation issues can be effectively addressed in a manner that reflects the specific needs and attributes of each region.

Overall, there is no need for the Commission to change course on price formation issues. Instead, any further actions taken by the Commission in the Price Formation Proceeding or other proceedings discussed above should allow each ISO and RTO region the flexibility to address its own unique challenges.

**E. Proposals to Require that All ISOs and RTOs Adopt an “Extended LMP” Type Approach to Price Formation Are Not Justified**

Some commenters reference a specific approach to modifying the calculation of locational marginal prices (“LMPs”) under consideration by PJM Interconnection, L.L.C. (“PJM”).<sup>43</sup> Other commenters argue that the Commission pursue this approach nationwide through either a new notice of proposed rulemaking<sup>44</sup> or a new section 206 FPA proceeding that would apply to all ISOs and RTOs.<sup>45</sup> There is no justification to apply these pricing changes to all ISOs and RTOs, and the proposal goes far beyond the limited scope of this NOPR.

First, the “extended LMP” approach under consideration by PJM<sup>46</sup> does not address the specific issues identified by the DOE in the NOPR—namely, grid reliability and resiliency. The goal of the extended LMP proposal is to value baseload generation in the energy markets through the proposed pricing mechanism.<sup>47</sup> As such, that

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<sup>43</sup> See, e.g., Calpine Corporation, Comments at 22.

<sup>44</sup> See, e.g., Electric Power Supply Association, Initial Comments at 52-53.

<sup>45</sup> See, e.g., PJM Power Providers Group, Comments, at 16-17 (filed Oct. 23, 2017) (urging FERC to initiate an FPA section 206 proceeding).

<sup>46</sup> See PJM, Comments, at 45-46 (filed Oct. 23, 2017).

<sup>47</sup> Independent Market Monitor for PJM, Comments, at 38 (filed Oct. 23, 2017).

proposal falls beyond the scope of the issues raised in this proceeding, *i.e.*, guaranteeing cost of service recovery to coal and nuclear resources that are at risk of premature retirement, and cannot properly be adopted in a final rule in this proceeding under the Administrative Procedure Act (“APA”). The APA requires that an agency provide notice to the public and an opportunity for comment prior to releasing a final regulation.<sup>48</sup> The APA therefore does not allow the Commission to finalize a rule where it gave no notice as to the potential for adopting the “extended LMP” approach. As previously noted in CAISO’s initial comments, courts have rejected final rules issued by an agency that are not logically connected to a proposed rule.<sup>49</sup>

There also is no record to support a mandate to impose an “extended LMP” pricing approach to all ISOs and RTOs in a separate proceeding. PJM itself raises this approach only in the context of a need for “targeted action in PJM.”<sup>50</sup> Although the CAISO does not disagree with PJM that this approach might be justified for PJM, there is no demonstrated need to take comparable actions in the CAISO’s market.<sup>51</sup>

In contrast to PJM,<sup>52</sup> the CAISO has, with the Commission’s approval, implemented numerous market enhancements that reflect the changing mix of resources in the region. One example is the 15-minute market. This enhancement

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<sup>48</sup> 5 U.S.C. § 553 (b), (c).

<sup>49</sup> CAISO, Initial Comments at 21 (referencing *Ass’n of Private Sector Colleges and Universities v. Duncan*, 681 F.3d 427, 435 (D.C. Cir. 2012) and *Environmental Integrity Project v. EPA*, 425 F.3d 992, 998 (D.C. Cir. 2005)).

<sup>50</sup> PJM Comments at 36.

<sup>51</sup> There is no reason why any PJM-specific issue cannot be addressed either through its stakeholder process or by a section 206 proceeding limited to PJM. Because such actions would be tailored to addressing issues specifically affecting PJM, any solution should not -- and cannot -- be uniformly applied to all other ISOs and RTOs.

<sup>52</sup> See, *e.g.*, *id.* at 40 (“PJM has not yet adopted the level of reforms as other regions with respect to fast-start pricing.”).



provides block 15-minute schedules for the majority of real-time market dispatch and considers start-up and minimum load as part of its economic dispatch. This enhancement provides greater flexibility within the hour, allowing all resources, including variable energy resources, to self-schedule closer to the financially binding interval.

Additional examples of the market enhancements the CAISO has implemented include the flexible ramping product to compensate and incentivize flexibility in the CAISO's fleet. With increasing levels of variable energy resources and behind the meter generation, the operational challenge of ramping capability has become a significant issue in the CAISO BAA. The flexible ramping product allows the CAISO to procure sufficient ramping capability via economic bids.

The need in the CAISO region for flexible capacity resources has also been addressed through flexible resource adequacy provisions which establish flexible capacity procurement requirements for load serving entities as part of state and local resource adequacy programs. These requirements ensure that the supply fleet has sufficient flexibility, including ramping and load following capabilities, to satisfy ramping and intra-hour variability needs, including sufficient contingency reserves to ensure the security and safety of the grid.

The CAISO has also implemented modeling functionality that optimizes the commitment and dispatch of generating units like combined cycle units that, by their physical nature, have multiple operating configurations. This multi-stage generation functionality is designed to take advantage of the inherent flexibility of these resources while respecting their operating characteristics and the costs of their operation.

Not only is there no need to impose an “extended LMP” approach to the CAISO markets in light of these enhancements, doing so could harm the CAISO markets. The adverse impacts of an “extended LMP” approach in the CAISO markets would be comparable to, but even greater than, the problems associated with imposing a “one size fits all” approach to fast-start pricing. Requiring these types of changes would “produce market outcomes that could undermine the CAISO’s efforts to operate a robust region-wide energy imbalance market and manage a generation fleet that is increasingly comprised of variable energy resources.”<sup>53</sup> As the CAISO discussed in greater detail in its comments to the Fast Start Proceeding, implementing an extended LMP pricing approach in the CAISO market could undermine the market signals the CAISO market benefits from the flexible ramping product.<sup>54</sup>

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<sup>53</sup> CAISO, Comments, Docket No. RM17-3-000, at 2 (filed Feb. 28, 2017).

<sup>54</sup> *See id.*

### III. CONCLUSION

The evidence is overwhelming that the record in this proceeding does not support new requirements. The Commission should terminate this proceeding without adopting a final rule or issuing any other directives as proposed by certain commenters.

Respectfully submitted,

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## CERTIFICATE OF SERVICE

I certify that I have served the foregoing document upon the parties listed on the official service list in the captioned proceedings, in accordance with the requirements of Rule 2010 of the Commission's Rules of Practice and Procedure (18 C.F.R. § 385.2010).

Dated at Folsom, California this 7<sup>th</sup> day of November, 2017.

*/s/ Anna Pascuzzo*  
Anna Pascuzzo