UNITED STATES OF AMERICA BEFORE THE FEDERAL ENERGY REGULATORY COMMISSION

California Independent System)	Docket No. ER19-2347-001
Operator Corporation)	

REQUEST FOR REHEARING AND ALTERNATIVE MOTION FOR CLARIFICATION OF THE CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION

The California Independent System Operator Corporation (CAISO) respectfully submits this request for rehearing or, in the alternative, motion for clarification of the Commission's September 30, 2019 order in this proceeding.¹

In the September 30 Order, the Commission rejected tariff revisions proposed in the CAISO's July 2, 2019 tariff amendment (July 2 Tariff Amendment) to allow an energy imbalance market (EIM) entity to limit dispatch of incremental net exports when the EIM entity's balancing authority area (BAA) is subject to bid mitigation (the Net Export Limit proposal). The September 30 Order rejected the Net Export Limit proposal even though no commenter opposed the proposal. Rejection of the Net Export Limit proposal was based on erroneous factual conclusions and misunderstandings of the CAISO's proposal. Once those misunderstandings are resolved and conclusions corrected, the Commission should grant rehearing and find that the Net Export Limit is just and reasonable.

Cal. Indep. Sys. Operator Corp., 168 FERC ¶ 61,213 (2019) (September 30 Order). The CAISO submits this request and alternative motion for clarification pursuant to Section 313(a) of the Federal Power Act (FPA), 16 U.S.C. § 824/(a), and Rules 212 and 713 of the Commission's Rules of Practice and Procedure, 18 C.F.R. §§ 385.212, 385.713.

The September 30 Order erred in concluding that the Net Export Limit proposal would allow unmitigated bids to determine the dispatch of resources to serve load outside the EIM entities' BAA. Under no circumstances will the CAISO's proposal result in load in a BAA where local market power mitigation is triggered by paying prices based on unmitigated bids from resources in a transmission-constrained area. The order also incorrectly concluded that the Net Export Limit proposal could weaken the CAISO's market power mitigation process by allowing EIM entities to withhold generation through the submission of high supply bids and restricting EIM transfers out of their BAAs. The September 30 Order cites no record evidence to support these erroneous conclusions and provides no explanation as to how these conclusions were reached.

Another misunderstanding is the statement in the September 30 Order that the Net Export Limit was intended to address the unique situation faced by hydroelectric resources with storage capability. Although the CAISO identified this issue as part of a stakeholder process considering the treatment of hydroelectric resources, the CAISO's filing expressly demonstrates that the disincentives to be addressed by its proposal are not limited to BAAs with predominantly hydroelectric resources.

There also is no record support for the September 30 Order's finding that the proposed Net Export Limit should be rejected due to incentives for inefficient and uneconomic scheduling and bidding. This finding is based on the statement of a single commenter. However, neither the commenter nor the Commission

explain what inefficiencies or uneconomic scheduling and bidding behaviors the proposal creates. The Commission also ignores that the same commenter supported the Net Export Limit, despite its statement, because of the potential competitive benefits of increased EIM participation.

The Commission should grant rehearing, correct the misunderstandings in the September 30 Order, and find that the Net Export Limit proposal is just and reasonable. Even if the Commission does not reverse its decision and approve the Net Export Limit proposal, it should grant clarification and correct the erroneous statements in the September 30 Order to avoid creating confusion as to how local market power mitigation applies in EIM areas.

I. Background

On July 2, 2019, the CAISO filing proposed three separate and distinct measures to enhance local market power mitigation.

In addition to the Net Export Limit proposal, the CAISO proposed to modify its local market power mitigation rules for the real-time market so the CAISO market will no longer mitigate a resource's bids in subsequent market intervals merely because the resource's bids were mitigated in a prior interval.²

Under this proposal, the CAISO market will evaluate in each interval whether the resource's bid should be mitigated (the Mitigation Timing proposal).³

3

The real-time market includes the fifteen-minute granularity real-time unit commitment process (RTUC) and the five-minute granularity real-time dispatch (RTD). The real-time market conducts a multi-interval optimization for each of these real-time market components, and therefore each run produces results for multiple market intervals. July 2 Tariff Amendment filing letter at 4.

³ *Id.* at 10-18.

The CAISO also proposed to improve the calculation of cost-based bids used in the market power mitigation process, by introducing a new hydro default energy bid (DEB) option based on opportunity costs that would apply to all hydroelectric resources with storage capability that participate in the CAISO markets or the EIM (the Hydro DEB proposal).⁴

The tariff revisions to implement the Net Export Limit were a separate measure to address different issues with the current market design other than those addressed by the Mitigation Timing proposal and the Hydro DEB proposal. The Net Export Limit proposal addresses unique circumstances where the existing local market power mitigation design causes a BAA's resources in an import-constrained group of BAAs to be dispatched to provide export energy in excess of what the BAA is required to provide to the EIM under its resource sufficiency obligation.⁵ Under current EIM market rules, the only way an EIM entity can protect itself from such outcomes is by reducing the amount of energy it offers in the EIM or the transmission it makes available to support EIM transfers. This reduced participation leads to sub-optimal results because it limits transfers even if market power mitigation is not triggered.

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ld. at 27-48.

The real-time market extends into eight other BAAs through the EIM. The EIM allows other BAAs in the Western Interconnection to participate in the CAISO's real-time market for imbalance energy. Participation in the EIM is voluntary, including the submission of energy bids. The EIM market rules also allow EIM participants to determine the amount of transmission they make available for EIM energy transfers. This limit establishes the amount of transfer that can occur between EIM entity BAAs. The CAISO tariff contains rules governing how the EIM transfer limits are set and modeled in the EIM, using transmission capacity that EIM participants make available in the real-time market. *Id.* at 7.

For the EIM to dispatch energy transfers in and out of a BAA, the BAA must pass a resource sufficiency evaluation ensuring that it offered adequate energy bids to meet its demand, plus the flexible ramping product requirement. The flexible ramping requirement is based on a quantity that acknowledges some of a BAA's flexible generation capacity will be shared among BAAs in the EIM. There is no requirement to offer a quantity of energy bids beyond the amount needed to pass the resource sufficiency evaluation. Despite this, without the CAISO's proposed Net Export Limit, the existing market power mitigation process can mitigate resources' bids when multiple BAAs are import-constrained and resources are dispatched for additional exports at mitigated bid prices for greater quantities of energy than the minimum that were required to be offered to pass the resource sufficiency evaluation. This can discourage EIM entities from offering energy and transmission to the EIM in excess of what is needed to pass the resource sufficiency test, which further limits resources and transmission that would otherwise be available to increase supply available to other BAAs.⁶

The CAISO's real-time market schedules resources in each market interval based on two passes.⁷ The market completes the first pass (mitigation pass) using a supplier's submitted energy bid. If market power is detected -i.e., if the energy bid is higher than the competitive locational marginal price (LMP) calculated in the market power evaluation – the bid is mitigated to the higher of

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ld. at 18.

The market runs twice for each binding fifteen-minute market (FMM) interval. The mitigation pass is the first run. In the five-minute RTD, the market runs only once for each binding interval. The first or mitigation pass is the previous market run when the current binding interval was the first advisory interval. *Id.* at 5.

the resource's default energy bid or the competitive LMP. The real-time market then conducts a second pass (market pass) to determine final schedules and prices. In the second pass, the market can dispatch additional energy from resources because of their lower mitigated bid prices, which can result in additional net exports from one BAA to another within a constrained region, even though the additional supply is not needed to address market power in the constrained region. Additional supply is not needed because all resources in the constrained region would be subject to mitigation, thus eliminating any market power. No load in the constrained area would be served at unmitigated prices. Although this additional supply may be less expensive than supply in the BAA receiving the increased net exports, this additional supply may be in greater quantities than the exporting BAA was required to offer in the first place. The Net Export Limit proposal only prevents the second pass from dispatching additional exports out of a BAA at the mitigated prices in quantities greater than what market participants were required to offer to the EIM to meet the EIM entity BAA's resource sufficiency evaluation.8

The CAISO proposed to implement the Net Export Limit as an optional feature to allow EIM entities to limit net exports when their BAAs are subject to bid mitigation in these unique circumstances. Specifically, the Net Export Limit would restrict the additional dispatch of resources to the net energy transfer out of a BAA that was scheduled in the market power mitigation pass using the

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⁸ *Id.* at 4-7, 18-19. The CAISO provided hypothetical examples to illustrate these issues. *Id.* at 19-20.

submitted bids for an interval, plus the amount of flexible ramping product the market scheduled the BAA to provide in excess of its flexible ramping product requirement. The Net Export Limit would address instances where the CAISO market increases exports out of an EIM entity BAA only because of a mitigated bid price. This occurs when the real-time market mitigates all resources' bids in a group of EIM entity BAAs only because that group is import-constrained. The Net Export Limit would be based on the amount of energy each BAA is required to offer to the EIM in each market interval.⁹

The CAISO proposed to apply the Net Export Limit both in the FMM and the RTD, so that each interval limit would be determined separately. Each EIM entity would have the option to activate the Net Export Limit so the EIM transfer limitations described above would be enforced after mitigation. The CAISO proposed to treat the congestion revenue associated with the Net Export Limit in the same manner as it treats congestion revenue of any internal transmission constraint, *i.e.*, the congestion revenue would be included in the real-time congestion offset of the BAA in which the constraint is located. The congestion is located.

In the September 30 Order, the Commission accepted the Mitigation

Timing proposal and Hydro DEB proposal but rejected the Net Export Limit

proposal. Details concerning the portion of the September 30 Order rejecting the

Net Export Limit proposal are discussed below.

⁹ Id. at 20-21.

¹⁰ Id. at 22. The CAISO provided hypothetical examples to illustrate how the Net Export Limit would address the issues discussed above. Id. at 23-24.

¹¹ *Id.* at 24-25. The CAISO also explained how it addressed concerns raised in the stakeholder process that resulted in the Net Export Limit proposal. *Id.* at 26-27.

II. Statement of Issues and Specifications of Error

The CAISO specifies the following issues and errors in accordance with Commission Rule 713(c)(2):

- 1. The Commission erred in concluding that the Net Export Limit proposal would allow unmitigated bids to determine the dispatch of resources to serve load outside the EIM entities' BAA and that the proposal would effectively allow market participants in the EIM to raise prices above competitive levels at the discretion of the EIM entity, resulting in potentially unjust and unreasonable rates.
- 2. The Commission erred in concluding that the Net Export Limit proposal could weaken the CAISO's market power mitigation process by allowing EIM entities to withhold generation through the submission of high supply bids and restricting EIM transfers out of their BAAs.
- The Commission erred in concluding that the Net Export Limit proposal is intended to address the unique situation faced by hydroelectric resources with storage capability.
- 4. The Commission erred in concluding that the proposed Net Export Limit should be rejected because the proposal could create incentives for inefficient and uneconomic scheduling and bidding because EIM entities may have incentives to bid such that the constraint becomes binding and the resulting congestion revenue is returned to them.
- 5. The Commission erred by failing to demonstrate that it has made a reasoned decision in rejecting the Net Export Limit proposal based upon substantial evidence in the record and by failing to make clear the path of its reasoning. *Sithe/Independence Power Partners v. FERC*, 165 F.3d 944, 948 (D.C. Cir. 1999).
- 6. The Commission erred by failing to specify the evidence on which it relied and failing to explain how that evidence supports the conclusions it reached on the Net Export Limit proposal. *City of Charlottesville v. FERC*, 661 F.2d 945, 949-50 (D.C. Cir. 1981).

III. Discussion

A. The Net Export Constraint Proposal Cannot Result in Load in a BAA Where Local Market Power Mitigation Is Triggered by Paying Prices Based on Unmitigated Bids for Resources in a Constrained Area.

The Commission bases its decision to reject the Net Export Limit proposal on several erroneous conclusions of facts. Chief among these errors is the order's statement that the CAISO's proposal "could weaken CAISO's market power mitigation process" by allowing unmitigated bids to determine "the dispatch of resources to serve load outside of the EIM entities' BAAs." Relying on this inaccurate conclusion, the September 30 Order goes on to claim that the Net Export Limit proposal "would effectively allow market participants in the EIM to raise prices above competitive levels at the discretion of the EIM entity, resulting in potentially unjust and unreasonable rates."

The September 30 Order cites no evidence in the record to support these conclusions and does not explain the reasoning that led to them. The CAISO believes there are two possible interpretations of the claim that unmitigated bids would determine the dispatch of resources to serve load "outside of the EIM entities' BAAs." This statement is incorrect under both interpretations.

Under the CAISO's proposal, bids would be mitigated in importconstrained BAAs in the market pass. Thus, there are no bids that have not been subject to local market power mitigation to determine dispatch in the constrained EIM BAAs, and if local market power mitigation is triggered, there

September 30 Order at P 21.

¹³ *Id.*

are no unmitigated bids to determine the dispatch for load in the constrained area.

The statement also is incorrect insofar as it assumes that bids could be mitigated to serve areas for which the CAISO's approved market rules do not trigger local market power mitigation. Under the Commission-approved CAISO tariff mitigation only applies where the mitigation pass identifies circumstances that warrant mitigation.¹⁴ The Commission's order provides no basis for changing the CAISO tariff to require bid mitigation to serve load in areas for which the market has not triggered local market power mitigation.

An example illustrates the flaws in this conclusion, which is one of the reasons for rejecting the Net Export Limit articulated in the September 30 Order. Consider an example consisting of two BAAs in the EIM, BAA1 and BAA2.

Assume the EIM entity for BAA1 elects the CAISO's proposed Net Export Limit and that local market power mitigation is triggered in BAA1 and BAA2 for a market interval because they are both import constrained relative to the CAISO BAA. Also assume for the same market interval the mitigation pass schedules an energy transfer from BAA1 to BAA2 and the Net Export Limit constraint limits transfers out of BAA1 in the corresponding market pass to the amount scheduled in the market power mitigation pass, as it would under the CAISO's proposal.

If the September 30 Order intended to state that the CAISO's proposed

See tariff sections 29.34, 29.39, 34.1.5, 39.7, and 39.7.2 et seq.

See id. Local market power mitigation is triggered for BAAs other than the CAISO BAA in the EIM when they are transmission-constrained in receiving additional energy transfers from the CAISO. This is because energy prices in the CAISO BAA establish the competitive LMP used in the EIM market power mitigation process.

Net Export Limit would allow unmitigated bids to determine the dispatch to serve load in BAA2, the order was in error because unmitigated bids would not determine the dispatch to serve load in either BAA1 or BAA2. In the example described above, the EIM market power mitigation process would mitigate bids for all resources in BAA1 and BAA2. The load that would potentially be served by additional transfers from BAA1 to BAA2 beyond those scheduled in the mitigation pass that would be limited by the CAISO's proposed Net Export Limit constraint would instead be served by dispatch of mitigated bids for resources in BAA2.¹⁶

Alternatively, if paragraph 21 of the September 30 Order was intended to suggest that the CAISO's proposed Net Export Limit would allow unmitigated bids to determine the dispatch to serve load outside of BAA1 and BAA2 (*i.e.*, the transmission constrained area for which local market power mitigation was triggered), the order was in error because there is no basis under the existing CAISO tariff or the proposed tariff revisions for bids to be mitigated to serve load outside an area for which mitigation is not triggered (*i.e.*, outside of BAA1 and BAA2). In any case, even without the proposed Net Export Limit constraint, the market would not dispatch resources in an area for which it applies mitigation (*i.e.*, inside of BAA1 and BAA2) to serve load outside the mitigated area because the approved market provisions mitigate bids to the greater of a resource's default energy bid or the competitive LMP, which the CAISO did not propose to

Figure 4 on pages 22-23 of the July 2 Tariff Amendment filing letter further shows that, under the Net Export Limit proposal, all balancing authority areas subject to local market power mitigation are served based on prices reflecting mitigated bids.

modify in this tariff amendment.¹⁷ Because the mitigated bids are equal to or greater than the price of the competitive LMPs outside of the constrained mitigated area, they would not be economic to provide energy to transfer out of a mitigated area.

These principles were illustrated in the CAISO's transmittal letter submitted with this tariff amendment. Figure 4 in the CAISO's transmittal letter illustrates that the mitigation pass will subject all three of the BAAs in the constrained area to local market power mitigation in the market pass and no load will be served based on bids that were not subjected to local market power mitigation. If local market power mitigation is triggered, the resources in the three BAAs in Figure 4 will be subject to mitigation. The market run will determine the dispatch based on mitigated bid prices. The Commission has not explained how this can result in unmitigated bids determining the dispatch to serve load in the constrained area.

Even if the Commission does not grant rehearing and accept the Net Export Limit proposal, it should clarify that load in a BAA where local market power mitigation is triggered cannot be served by resources at prices based on unmitigated bids. Allowing these incorrect statements to stand could create confusion as to how local market power mitigation applies in EIM areas.

Tariff sections 29.34 and 34.1.5 (cross-referencing tariff section 31.2.3). Although the CAISO proposed certain revisions to tariff section 34.1.5 in the July 2 Tariff Amendment, as mentioned above the CAISO did not propose to change the existing mitigation to the greater of a resource's default energy bid or the competitive LMP.

July 2 Tariff Amendment filing letter at 23.

B. The Net Export Limit Cannot Weaken the CAISO's Market Power Mitigation Process.

The September 30 Order also erred in concluding that the Net Export Limit proposal "could weaken CAISO's market power mitigation process by allowing EIM entities to withhold generation through the submission of high supply bids and restricting EIM transfers out of their BAAs."19 Again, the order cites no record evidence to support this incorrect conclusion, nor is there any. Nothing in the CAISO's proposed tariff revisions create any ability for EIM entities to withhold generation. Indeed, as the CAISO explained in its tariff amendment filing, the Net Export Limit proposal is designed to eliminate existing incentives for an EIM entity to reduce the amount of energy it offers to the market or the transmission it makes available to support EIM transfers to the minimum amount needed to pass the resource sufficiency evaluation.²⁰ In other words, the proposal will encourage suppliers to offer greater levels of supply into the EIM rather than facilitate the withholding of generation.²¹ Without the Net Export Limit, however, EIM entities may only offer the minimum amount of supply they are required to offer to limit the amount of energy they may have to sell at mitigated prices.

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September 30 Order at P 21.

See July 2 Tariff Amendment filing letter at 18-24.

The CAISO also wishes to clarify the relevance of its statements in the July 2 Tariff Amendment filing letter that EIM is a voluntary market. Contrary to the suggestion in paragraph 22 of the September 30 Order, the CAISO never intended to suggest that the voluntary nature of EIM should allow for "unmitigated exercise of market power". Instead the CAISO merely intended to observe that, where suppliers can choose whether to offer into a market, it is particularly important to address design features creating strong disincentives for market participation. To the extent there is any doubt, the CAISO makes it clear that the voluntary nature of EIM is not the primary justification for the Net Export Limit enhancement.

C. The Net Export Limit Is Appropriately Calibrated to Apply to All Balancing Authority Areas in the EIM and Was Never Intended to Address Only Those with Predominantly Hydroelectric Resources.

The September 30 Order states that the Net Export Limit proposal "is not an appropriately calibrated solution to the concerns CAISO identifies."22 The order goes on to suggest that this proposal was intended "to address the unique situation faced by hydroelectric resources with storage capability that are dispatched at DEBs that they believe do not reflect their true opportunity costs."23 These statements reflect another misunderstanding of the Net Export Limit proposal. First, nowhere does the CAISO's filing state that the Net Export Limit proposal applies only to hydroelectric resources with storage or that the Net Export Limit proposal was intended only to address issues with such resources. Second, the proposal applies to all circumstances where multiple BAAs are in an import-constrained area in the mitigation pass, causing the CAISO's systems to dispatch one or more of those BAAs to flip from full import in the mitigation pass to export in the market pass at mitigated prices more energy than was required to be offered in the EIM to pass the resource sufficiency evaluation. These circumstances are not limited to BAAs with hydroelectric resources, and the proposed tariff language was not limited to such BAAs.²⁴ As such, the September 30 Order erred in concluding that the concerns giving rise to the Net

September 30 Order at P 21.

²³ *Id.* at P 23.

See new section 29.39(e) as proposed in Attachment D to the July 2 Tariff Amendment.

Export Limit enhancement can be addressed by the approved Hydro DEB.²⁵

Some portions of the CAISO's July 2 filing may have contributed inadvertently to this misunderstanding. For example, the CAISO observed that the situations addressed by the Net Export Limit "are exacerbated by the CAISO's calculation of default energy bids." The attachments to the CAISO's filing also documented how these situations were identified as part of a stakeholder process considering the impact of local market power mitigation rules on hydroelectric resources. The issues identified in that stakeholder process, however, were not limited to BAAs with hydroelectric resources. A close reading of the CAISO's filing and proposed tariff language clearly confirms the Net Export Limit proposal is fuel neutral. This is demonstrated by the detailed discussion of the Net Export Limit proposal at pages 18 to 27 of the CAISO's July 2 Tariff Amendment filing letter and in the proposed tariff language (new tariff section 29.39(e)) to implement the Net Export Limit, none of which contains a single reference to hydroelectric resources.

D. The Record and the Commission's Order Lack Any Explanation of How the Net Export Limit Creates Inefficient and Uneconomic Scheduling and Bidding Practices.

The September 30 Order suggests that rejection of the Net Export Limit proposal is supported by concerns raised in comments filed by the Department of Market Monitoring (DMM) that the proposed Net Export Limit could create incentives for inefficient and uneconomic scheduling and bidding because EIM

²⁵ September 30 Order at P 23.

July 2 Tariff Amendment filing letter at 3.

entities may have incentives to bid such that the constraint becomes binding, returning the resulting congestion revenue to them.²⁷ The conclusory statement of a single commenter who did not oppose the CAISO's proposal and that was not backed by a single fact or iota of analysis or explanation of how the CAISO's proposal creates incentives for inefficient scheduling and bidding does not constitute the substantial evidence needed to support a Commission finding.

In addition, the September 30 Order fails to account for both the CAISO's response to the DMM concerns and other portions of the DMM comments. The CAISO explained in the July 2 filing that the benefits of the Net Export Limit proposal are anticipated to outweigh any hypothetical incentives for inefficient scheduling and bidding based on the allocation of associated congestion revenue. Specifically, the Net Export Limit is expected to increase the benefits to consumers of the EIM by reducing the incentive of EIM participants to limit the amount of transmission and/or supply they make available to the EIM to avoid selling energy at mitigated bids to other BAAs in greater quantities than they were required to offer.²⁸

An additional example illustrates this outcome described in the CAISO's tariff amendment filing. Returning to the example above, assume further if BAA1 enforces the Net Export Limit and congestion results, the prices in BAA1 and BAA2 will be different. Assume the marginal price using mitigated bids is \$25 for

September 30 Order at P 23.

See July 2 Tariff Amendment filing letter at 26; Attachment L to July 2 Tariff Amendment at p. 8 (based on internal numbering, page 1 of the portion of Attachment L with the header "Local Market Power Mitigation Enhancements 2018 – Draft Final Proposal").

BAA1 and \$30 for BAA2. The Net Export Limit must be binding because of the price differential, and the cost of congestion is \$5. BAA1 will receive the \$5 in congestion rents for the MW quantity of the EIM transfer. Under these assumptions, the result is a net payment for supply in BAA1 supporting the transfers of \$30, but the supply providers in BAA1 will be paid lower at \$25. If the Net Export Limit was not enforced, the price in BAA1 and BAA2 would clear between \$25 and \$30. In other words, even with the Net Export Limit enforced, prices in BAA1 would never be less than \$25. Thus, BAA1 supply serving its native load would be paid higher than when the EIM transfer limit is enforced.

Moreover, DMM itself supported the Net Export Limit and the other local market power enhancements in the July 2 filing for several reasons, including "the potential benefits from increased [EIM] participation by entities with hydro resources."²⁹ The September 30 Order fails to explain why the Net Export Limit proposal should not be approved given the uncontroverted evidence that the anticipated benefits of the proposal outweigh the conclusory, unsupported, and unsupportable concerns discussed in the DMM comments.

DMM Motion to Intervene and Comments, Docket No. ER19-2347-000, at 2 (July 23, 2019).

IV. Conclusion

For the foregoing reasons, the CAISO respectfully requests that the Commission grant rehearing of the September 30 Order and accept the tariff revisions proposed in this proceeding to implement the Net Export Limit. In the alternative, the Commission should grant clarification and correct the erroneous factual conclusions in the September 30 Order identified above.

Respectfully submitted,

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Dated: October 30, 2019

CERTIFICATE OF SERVICE

I hereby certify that I have served the foregoing document upon all of the parties listed on the official service list for the above-referenced proceeding, pursuant to the requirements of Rule 2010 of the Commission's Rules of Practice and Procedure (18 C.F.R. § 385.2010).

Dated at Washington DC this 30th day of October, 2019.

/s/ Sean Atkins Sean Atkins