



and the PJM Open Access Transmission Tariff (PJM Tariff). PJM also proposed revisions to Schedule 1 of the Amended and Restated Operating Agreement of PJM (Operating Agreement).<sup>4</sup> For the reasons discussed below, we accept PJM's proposed tariff revisions, accept MISO's proposed tariff revisions subject to condition, and grant the requested waiver of notice to allow the tariff records to be effective March 1, 2017.

## **I. Background**

2. The Commission has previously approved CTS between other regions finding that CTS is a just and reasonable mechanism for enhancing the market efficiency of external transactions between RTOs.<sup>5</sup> The Commission has further found that CTS results in potential production cost savings and minimizes flows from a high-priced control area to a low-priced control area, by incorporating projected price differences between two neighboring regions.

## **II. RTOs' CTS Proposal**

3. The RTOs state that similar to previous CTS proposals, market participants in MISO and PJM will be able to make CTS Interface Bids. A CTS Interface Bid will consist of offers to schedule coordinated buy-sell transactions across the MISO-PJM interface when projected price differences between the MISO and PJM Balancing Authority Areas are greater than the amounts specified in the bid.<sup>6</sup> The RTOs state that

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[Reserve Market Settlement Cal, 53.0.0](#), [SCHEDULE 5, Spinning Reserve, 33.0.0](#), [SCHEDULE 6, Supplemental Reserve, 33.0.0](#), and [ATTACHMENT J, Transmission Provider, 36.0.0](#).

<sup>4</sup> PJM's proposed revisions in Docket No. ER16-535-000 are designated as PJM, FERC Electric Tariff, Intra-PJM Tariffs, [OATT ATT K APPX Sec 1.3](#), [OATT Attachment K Appendix Sec 1.3 Definitions, 25.0.0](#) and [OA Schedule 1 Sec 1.3, OA Schedule 1 Sec 1.3 Definitions, 25.0.0](#).

<sup>5</sup> See *PJM Interconnection, L.L.C.*, 146 FERC ¶ 61,096 (2014) (PJM CTS Order); *N.Y. Indep. Sys. Operator, Inc.*, 146 FERC ¶ 61,097, at P 33 (2014) (NYISO CTS Order); *ISO New England Inc. and New England Power Pool Participants Committee*, 153 FERC ¶ 61,159 (2015); *ISO New England Inc. and New England Power Pool*, 139 FERC ¶ 61,047 (2012).

<sup>6</sup> MISO and PJM explain that a CTS bid will have up to 10 different price and MW quantity pairs for each 15-minute scheduling interval of the clock hour. MISO and PJM state that CTS must be submitted 75 minutes before the start of the scheduling interval and intra-hour schedules will be established every 15 minutes for the target time 30 to 40 minutes from when the system information is collected by the dispatch software.

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they intend to evaluate CTS Interface bids and to schedule transactions based on the projected, i.e., forecasted, price differences between MISO and PJM. PJM states that the proposed scheduling process will leverage its existing Intermediate Term Security Constrained Economic Dispatch (ITSCED) application which has a two-hour forecasting capability.<sup>7</sup> MISO states that it is developing and creating an application that will forecast interface prices two hours in advance and clear advisory CTS transactions (MISO CTS Engine). MISO states that the MISO CTS Engine will establish both intra-hour schedules and forward-looking advisory schedules similar to PJM's ITSCED.<sup>8</sup> MISO submits that in MISO, CTS transactions will be settled as Real-Time physical schedules, will be treated as generation dispatched up and down and, therefore, will be exempt from uplift charges in the MISO market.<sup>9</sup> Under PJM's proposal, PJM will assess uplift to CTS transactions pursuant to existing PJM Tariff language.

4. MISO and PJM submit that CTS will improve scheduling efficiency and thereby increase price convergence at the market boundaries in three ways. First, CTS will allow market participants to submit a single bid for a real-time interchange transaction that is used by both RTOs in a coordinated clearing process that enables market participants to access the least-cost source of power within the two regions and will help lower the combined energy cost of the two RTOs. Second, CTS will reduce net interchange schedules from the high-priced RTO to the low-priced RTO by explicitly incorporating projected price differences between the two markets into interregional scheduling decisions. Third, CTS will increase utilization of available transfer capacity between the RTOs by decreasing a market participant's economic risk that is associated with having two bids for a single interchange transaction evaluated separately by each RTO.<sup>10</sup>

5. Among the proposed revisions, MISO proposes to revise Module A – Definitions to add a new defined term, “Coordinated Transaction Schedule” to be defined as:

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MISO December 15, 2015 Transmittal Letter at 3 (MISO Transmittal); PJM December 15, 2015 Transmittal Letter at 3-4, Docket No. ER16-535-000 (PJM Transmittal). MISO's Transmittal in Docket No. ER16-533-000 addresses its filing in that docket as well as its filing in Docket No. ER16-534-000. And, each of PJM's Transmittals in Docket Nos. ER16-535-000 and ER16-536-000 addresses all of PJM's proposed revisions.

<sup>7</sup> PJM Transmittal at 4.

<sup>8</sup> MISO Transmittal at 3.

<sup>9</sup> *Id.* at 4.

<sup>10</sup> MISO Transmittal at 2-3; PJM Transmittal at 3.

An Interchange Schedule to purchase Energy in the Real-time Energy and Operating Reserve market from a Source Point in either the MISO Balancing Authority Area or PJM Balancing Authority Area and sell it at a Sink Point in the other balancing authority area that is cleared if the forecasted LMP at the Sink Point minus the forecasted LMP at the Source Point is greater than or equal to the dollar value specified in the bid associated with the Interchange Schedule.

MISO also proposes to strike the definition of “Physical Withholding Software” from its Tariff and modify the definition of “Market Load Ratio Share” to exempt CTS transactions from Export Schedules in calculating Actual Energy Withdrawals.<sup>11</sup> MISO also proposes revisions to the MISO Tariff concerning: rules for interchange schedules in the Real-time Energy and Operating Reserve Market; calculation of Revenue Sufficiency Guarantee (RSG) charges in the Real-time Energy and Operating Reserve Market; calculation of charges under Schedule 5 – Spinning Reserve and Schedule 6 – Supplemental Reserve; and the timing requirements for transaction scheduling.<sup>12</sup>

6. MISO also notes that certain language in its affected MISO Tariff sections<sup>13</sup> is currently pending before the Commission in the following, unrelated dockets: ER11-2275-003, ER12-1265-005, ER12-1266-005, ER12-678-006, ER14-1736-001, ER15-685-001, ER15-2256-000, and ER16-344-000, ER16-213-001 and ER16-373-000. MISO requests that the Commission treat such language as subject to the outcome of those pending proceedings. MISO states that it commits to file any revisions to that language as necessary to comply with any Commission orders in those proceedings.<sup>14</sup>

7. To implement CTS, the RTOs also propose to revise the JOA by renumbering existing definitions and adding definitions for “Coordinated Transaction Scheduling,” “Coordinated Transaction Dispatch,” and “Intermediate Term Security Constrained Economic Dispatch,” and they propose to add a new Section 9 to the JOA, “Overview of Coordinated Transaction Scheduling.”<sup>15</sup>

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<sup>11</sup> MISO Transmittal at 5.

<sup>12</sup> *Id.* at 5-6.

<sup>13</sup> MISO has highlighted such language in its redlined tariff sheets.

<sup>14</sup> MISO Transmittal at 9, n.24.

<sup>15</sup> PJM Transmittal at 7-8; MISO Transmittal at 7-8.

8. In addition, in order to distinguish CTS with the New York Independent System Operator, Inc. (NYISO) from CTS with MISO, PJM proposes to amend section 1.3 (Definitions) of Schedule 1 of the Operating Agreement and Attachment K-appendix of the PJM Tariff to revise the definition for “CTS Enabled Interface.”<sup>16</sup>

9. MISO and PJM request that the Commission issue an order accepting their proposed revisions by April 15, 2016, and they request waiver of the Commission’s prior notice requirements<sup>17</sup> so that their proposed revisions may become effective on March 1, 2017.<sup>18</sup> MISO and PJM state that this lead time is necessary in order to develop, test, and finalize complex software and process changes associated with the implementation of CTS.<sup>19</sup>

### **III. Notice of Filing and Responsive Pleadings**

10. Notice of the MISO Revisions in Docket Nos. ER16-533-000 and ER16-534-000 was published in the *Federal Register*, 80 Fed. Reg. 79,326 (2015), with interventions and protests due on or before January 5, 2016.

11. Notice of the PJM Revisions in Docket Nos. ER16-535-000 and ER16-536-000 was published in the *Federal Register*, 80 Fed. Reg. 79,587 (2015), with interventions and protests due on or before January 5, 2016.

12. Intervenors and commenters are listed in the appendix to this order. The entity abbreviations listed in the appendix are used throughout this order.

### **IV. Discussion**

#### **A. Procedural Issues**

13. Pursuant to Rule 214 of the Commission’s Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2015), the notice of intervention and the timely, unopposed motions to intervene serve to make the entities that filed them parties to the proceedings in which they were filed.

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<sup>16</sup> PJM Transmittal at 8-9.

<sup>17</sup> *See* 18 C.F.R. § 35.3(a)(1) (2015).

<sup>18</sup> MISO Transmittal at 1; PJM Transmittal at 1.

<sup>19</sup> MISO Transmittal at 1, 9; PJM Transmittal at 1, 10; MISO and PJM Answer at 6.

14. Pursuant to Rule 214(d) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214(d), the Commission will accept the MISO Market Monitor's late-filed motion to intervene in Docket Nos. ER16-533-000, ER16-534-000, ER16-535-000, and ER16-536-000, given his interest in the proceeding, the early stage of the proceeding, and the absence of undue prejudice or delay.

15. Rule 213(a)(2) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.213(a)(2), prohibits an answer to a protest unless otherwise ordered by the decisional authority. We will accept the RTOs' January 29, 2016 answer and PJM's February 11, 2016 answer because they have provided information that has assisted us in our decision-making process.

### **B. Substantive Issues**

16. We accept the PJM and MISO Revisions<sup>20</sup> to implement CTS, subject to condition,<sup>21</sup> as described below, effective March 1, 2017. The Commission continues to find that CTS is a just and reasonable mechanism for enhancing market efficiency of inter-RTO transactions and minimizing flows from a high-priced control area to a low-priced control area.<sup>22</sup> MISO and PJM have demonstrated that their CTS proposal also should provide these benefits. Furthermore, we agree with the RTOs that their CTS proposal should increase utilization of available transfer capability between the RTOs by decreasing market participant risk and enable the RTOs to more easily obtain power at the lowest available cost. In an attempt to measure the impact of these benefits, the MISO Market Monitor estimates a production cost savings for the joint MISO-PJM region of \$17 million to \$72 million annually. The MISO Market Monitor notes that the RTOs' CTS proposal will improve reliability in both areas and avoid certain shortages MISO experienced in 2013 that were attributed to an under-utilization of the interface

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<sup>20</sup> We accept MISO's request to accept the MISO Revisions subject to the outcomes of the proceedings identified above. *See supra* P 6. However, we also note that several sections of the MISO Tariff which MISO has proposed to revise in Docket No. ER16-533-000 are also the subject of a separate proceeding in Docket No. ER16-815-000. Accordingly, our acceptance of the MISO Revisions is also subject to the outcome of Docket No. ER16-815-000.

<sup>21</sup> The Commission can revise a proposal filed under section 205 of the Federal Power Act as long as the filing utility accepts the change. *See City of Winnfield v. FERC*, 744 F.2d 871, 875-77 (D.C. Cir. 1984). The filing utility is free to indicate that it is unwilling to accede to the Commission's conditions by withdrawing its filing.

<sup>22</sup> *See* PJM CTS Order, 146 FERC ¶ 61,096 at P 15; NYISO CTS Order, 146 FERC ¶ 61,097 at P 33.

with PJM.<sup>23</sup> We next turn to the various concerns and issues raised in the protests, including uplift, interface pricing, and whether informational reports are necessary.

**1. Uplift**

**a. Comments**

17. Wisconsin TDUs state that MISO's proposal to exempt CTS transactions from uplift charges, such as Revenue Sufficiency Guarantee (RSG) charges, is not adequately supported. Wisconsin TDUs state that the Commission has insisted that imposition of RSG charges reflect cost causation, recognizing that impacts from deviations on real-time unit commitments are a major cost driver for RSG. Wisconsin TDUs assert that while MISO has stated that MISO's unit-commitment decisions will not be affected by CTS, it has not adequately supported that exclusion.<sup>24</sup> Wisconsin TDUs request that the MISO Tariff include language that ensures that MISO's unit commitment decisions will not be affected by CTS.<sup>25</sup> Similarly, Wisconsin TDUs state that MISO did not justify its proposal to exempt CTS transactions from Schedule 5–Spinning Reserve and Schedule 6–Supplemental Reserve.<sup>26</sup>

18. The MISO Market Monitor supports CTS but expresses concern that PJM's allocation of uplift costs to both CTS exports and imports will likely undermine the expected benefits of CTS. The MISO Market Monitor states that PJM's allocation of uplift charges to exports and imports are highly uncertain and can range between \$2 and \$7/MWh on a monthly average basis.<sup>27</sup> The MISO Market Monitor argues that these uplift charges will result in participants substantially increasing their CTS offer prices or choosing to not submit offers if they do not expect to experience a profit. According to the MISO Market Monitor, this will result in fewer opportunities for cost savings made through CTS.

19. The MISO Market Monitor provides empirical evidence that, in its opinion, demonstrates that uplift charges have discouraged efficient trading in CTS between

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<sup>23</sup> MISO Transmittal at 2.

<sup>24</sup> Wisconsin TDUs January 5, 2016 Comments at 4-5.

<sup>25</sup> *Id.* at 7.

<sup>26</sup> *Id.* at 8.

<sup>27</sup> MISO Market Monitor January 22, 2016 Comments at 4.

NYISO and PJM.<sup>28</sup> The MISO Market Monitor alleges that CTS between NYISO and ISO New England Inc. (ISO-NE) has experienced better results due to the fact that there are no transmission charges and little or no uplift charges in either direction for CTS transactions between these two regions.

20. Further, the MISO Market Monitor argues that CTS transactions do not contribute to uplift and therefore, allocating these costs to CTS transactions is unreasonable.<sup>29</sup> The MISO Market Monitor explains that when load or conventional exports increase their real-time schedules after the day-ahead schedules are set, an RTO may have to commit peaking resources in real-time and pay these resources uplift.<sup>30</sup> However, the MISO Market Monitor states that RTOs would not have to commit peaking resources in response to changes in CTS transactions because these transactions are scheduled economically in advance based on the forecasted prices based on the current set of committed generation in both RTOs.

21. The MISO Market Monitor explains that CTS transactions will in fact lead to reductions in uplift because economic adjustments in interchange can allow the RTOs to avoid committing peaking resources.<sup>31</sup> Therefore, the MISO Market Monitor requests that the Commission direct PJM to modify its tariff to exempt CTS transactions from all charges, including its current allocation of uplift costs.

**b. Answers**

22. In response to Wisconsin TDUs, MISO states that CTS is exempt from RSG charges because the final clearing of CTS offers and real time dispatch of the common set of cleared CTS offers are performed outside of MISO's current unit commitment process.<sup>32</sup> MISO explains that, since CTS transactions are economically dispatched by the real time Unit Dispatch System, there is no direct impact on the commitment of additional resources that would require make-whole payments. In addition, MISO notes that the Commission has consistently found that transactions associated with MISO's

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<sup>28</sup> *Id.* at 4-5.

<sup>29</sup> *Id.* at 6.

<sup>30</sup> *Id.* at 6-7.

<sup>31</sup> *Id.* at 7.

<sup>32</sup> MISO and PJM January 29, 2016 Answer at 8-9.

economic and reliability commitment decisions are not subject to RSG charges and such exclusions are consistent with incentivizing market participants to follow MISO's instructions.<sup>33</sup>

23. In response to the MISO Market Monitor, PJM states that although CTS transactions will likely reduce uncertainty in the amount of interchange that typically contributes to uplift charges, CTS transactions will be difficult for PJM to forecast because imports are not under PJM's control and, therefore, should be allocated uplift charges.<sup>34</sup> PJM argues that unanticipated interchange transactions, such as increases in CTS import transactions, may obviate the need to dispatch generators previously committed in the day-ahead market resulting in uplift charges in the form of lost opportunity cost payments.

24. Further, PJM notes that in heavily congested areas of its system, generation resources with inflexible parameters are required to operate for long periods to maintain transmission security.<sup>35</sup> PJM argues that CTS and non-CTS interchange transactions that contribute to congestion in these constrained areas should be charged for uplift charges paid to the uneconomic generators operating to relieve these constrained areas.

25. PJM contends that, although CTS transactions reduce uncertainty because they are submitted in advance of non-CTS interchange transactions, CTS transactions will still contribute to variable interchange because generators will be scheduled hours in advance of the 75-minute scheduling deadline for CTS transactions. PJM also notes that the short minimum duration time of CTS transactions, i.e. 15 minutes, makes forecasting interchange difficult.<sup>36</sup>

26. With respect to the MISO Market Monitor's request to exempt CTS transactions between PJM and MISO from all other charges, PJM states that PJM's stakeholders supported PJM's decision to charge CTS transactions in a manner consistent with all other interchange transactions.<sup>37</sup> PJM notes that its stakeholders do not support

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<sup>33</sup> *Id.* at 9 (citing *Midwest Indep. Transmission Sys. Operator, Inc.*, 132 FERC ¶ 61,184, at P 111 (2010) (order on RSG charge exemptions)).

<sup>34</sup> PJM February 11, 2016 Answer at 3.

<sup>35</sup> *Id.* at 3-4.

<sup>36</sup> *Id.* at 4.

<sup>37</sup> *Id.* at 4-5.

exempting CTS transactions from balance operating reserve charges in PJM and have stated that CTS transactions should be treated the same as real-time dispatchable transactions.

27. Further, PJM argues that the MISO Market Monitor's request is beyond the scope of this proceeding. PJM notes that the fees that the MISO Market Monitor opposes are fees that apply to both non-CTS transactions and current CTS transactions between PJM and NYISO that the Commission has previously approved.<sup>38</sup> PJM states that the Commission does not require that PJM and MISO implement market designs and rules that are the same, such that PJM should be required to eliminate fees because MISO has done so.

**c. Commission Determination**

28. While MISO and PJM have proposed to treat uplift differently, we note that the Commission's previous approvals of CTS did not require that each RTO allocate uplift charges consistently.<sup>39</sup> Further, we find that both MISO and PJM's CTS uplift proposals have met their requisite just and reasonable standard under FPA section 205. MISO's election to *not apply* uplift fees to CTS transactions, and its subsequent ability to demonstrate that decision to be just and reasonable, does not render PJM's proposal *to apply* uplift charges to CTS transactions automatically unjust and unreasonable. Lastly, the Commission continues to explore issues relevant to price formation, including the allocation of uplift, and by accepting the RTOs' CTS proposal here, we do not intend to prejudge the outcome of any broader reforms.

29. We are not persuaded by Wisconsin TDUs' argument that MISO has not adequately supported its proposal to exempt CTS transactions from RSG charges. We disagree with Wisconsin TDUs that additional MISO Tariff language is necessary to make the MISO Revisions just and reasonable. We find sufficient MISO's explanation that the final clearing of CTS offers and real time dispatch of the common set of cleared CTS offers are performed outside of MISO's current unit commitment process. We agree with MISO that, since CTS transactions are economically dispatched by MISO in its real time Unit Dispatch System, these transactions have no direct impact on the *commitment* of additional resources that would require make-whole payments.

30. Consistent with our finding that MISO will economically dispatch CTS transactions in real time, we also disagree with Wisconsin TDUs' contention that MISO's

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<sup>38</sup> *Id.* at 5-6.

<sup>39</sup> See PJM CTS Order, 146 FERC ¶ 61,096; NYISO CTS Order, 146 FERC ¶ 61,097.

proposed exemption of CTS from allocation of Schedule 5 (Spinning Reserve) and 6 (Supplemental Reserve) charges has not been justified. As explained by MISO, Schedules 5 and 6 exclude dispatchable resources from the allocation of costs for Spinning Reserve and Supplemental Reserve.

31. We next respond to concerns raised by the MISO Market Monitor that PJM's proposal to assess uplift charges to CTS transactions is unjust and unreasonable. Specifically, the MISO Market Monitor expresses concern that PJM's allocation of uplift costs to both CTS exports and imports will likely undermine the expected benefits of CTS, arguing that similar uplift costs have caused CTS transactions to clear less frequently at the PJM-NYISO interface than the NYISO-ISO-NE interface. We find that the MISO Market Monitor has not provided sufficient evidence to demonstrate that PJM's existing treatment of CTS transactions is unjust and unreasonable. While the MISO Market Monitor provides data in an attempt to prove that uplift charges are responsible for the lack of CTS transactions at the PJM-NYISO interface, we note that there are other potential factors affecting the volume of CTS transactions, such as inaccurate price forecasting identified by the PJM Market Monitor.<sup>40</sup> We also find PJM's explanation that there are several scenarios under which CTS transactions can contribute to uplift in PJM to be reasonable.<sup>41</sup>

## **2. Interface Pricing**

### **a. Comments**

32. MidAmerican states that the full benefits of CTS will not be achieved until MISO and PJM resolve their differences over the proper means to calculate interface prices.

33. Exelon supports the RTOs' CTS proposal, but requests that the Commission reject the filings without prejudice and direct the RTOs to align the implementation of CTS with interface pricing reform. Exelon states that CTS should be delayed until PJM and MISO agree upon a uniform definition of interface pricing and notes that PJM and MISO recently identified June 2016 as a targeted implementation date for a common interface pricing definition.<sup>42</sup> Exelon argues the anticipated benefits of CTS cannot be realized

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<sup>40</sup> See Monitoring Analytics, *Market Monitor Report*, PJM Members Committee Webinar (2015), <http://www.pjm.com/~media/committees-groups/committees/mc/20151019-webinar/20151019-item-07-imm-report.ashx>.

<sup>41</sup> PJM February 11, 2016 Answer at 4-5.

<sup>42</sup> Exelon January 5, 2016 Comments at 3 (citing November 18, 2015 Joint and Common Market Initiative Meeting, Joint Common Market, MISO-PJM Interface Pricing

without consistent interface price forecasting because CTS relies on the use of projected price differences to clear transactions.

34. In addition, Exelon argues that a delay in implementation will also ensure that the MISO CTS Engine is fully developed and incorporates any lessons learned from neighboring markets.<sup>43</sup> Exelon notes that the MISO Market Monitor has indicated that CTS between PJM and NYISO has experienced low participation and very small production cost savings as a result of inaccurate price forecasts.<sup>44</sup> Exelon states that any possible improvements implemented by PJM and NYISO should also be implemented in the CTS solution between PJM and MISO.

**b. Answer**

35. With respect to Exelon's request to the Commission to direct both RTOs to align the implementation of CTS with interface pricing reform, MISO and PJM argue that market participants would realize the benefits of CTS under either of the RTOs' current interface pricing definitions or under any agreed-upon future interface pricing definitions.<sup>45</sup> MISO and PJM state that, regardless of which interface pricing definition is used, CTS would enable market participants to access the least-cost source of power within the two regions and help lower the combined energy production cost of the two RTOs.

36. In addition, MISO and PJM state that they anticipate that interface pricing revisions will be implemented by June 2016, prior to the effective date of CTS revisions. MISO and PJM note that the March 1, 2017 effective date for CTS revisions would allow MISO the time needed to develop its CTS engine and provide the RTOs an opportunity to incorporate lessons learned from CTS between PJM and NYISO.<sup>46</sup> MISO and PJM state

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Update, <http://www.pjm.com/~media/committees-groups/stakeholder-meetings/pjm-misojoint-common/20151118/20151118-item-05-interface-pricing-miso-pjm.ashx>).

<sup>43</sup> *Id.* at 3.

<sup>44</sup> *Id.* at 3-4 (citing June 2, 2015 Presentation by Dr. David Patton on Coordinated Transaction Scheduling (CTS) Between NYISO and PJM, <https://www.misoenergy.org/Library/Repository/Meeting%20Material/Stakeholder/MS/2015/20150602/20150602%20MSC%20Item%2004d%20MISO%20IMM%20NYISO-PJM%20CTS%20Analysis.pdf>).

<sup>45</sup> MISO and PJM January 29, 2016 Answer at 6.

<sup>46</sup> *Id.* at 7.

that PJM has already implemented enhancements to its ITSCED application to improve interchange modeling and improve ITSCED solution accuracy. MISO and PJM state that interface prices between PJM and MISO would benefit from these improvements.

**c. Commission Determination**

37. We disagree with the contention that the RTOs' CTS proposal cannot be just and reasonable until after the interface pricing issue is resolved. Exelon argues that the anticipated benefits of CTS cannot be realized without consistent interface price forecasting because CTS relies on the use of projected price differences to clear transactions. However, while inaccurate interface prices could result in a CTS transaction which should not have been cleared or prevent a CTS transaction which should have been cleared, the optimization of interchange (i.e., CTS) significantly decreases the risk that such transactions will take place compared to that same risk in current interface products. As noted by the RTOs in their answer, unlike CTS transactions that clear only if the projected price difference between the RTOs equals or exceeds the bid, current interface products between MISO and PJM require market participants to make predictions based on their own expectations. This frequently results in both inefficient transactions and flows from a high-priced control area to a low-priced control area. Providing an option where market participants may bid while leveraging the RTOs' price forecasts represents a substantive improvement that we find just and reasonable even if the interface pricing regime has not been modified. Further, we find that Exelon's concerns may prove to be moot because the RTOs have stated their intention to resolve the interface pricing issue prior to the implementation of CTS. The RTOs explain in this proceeding that they expect to implement interface pricing revisions by June 2016, prior to the effective date of CTS revisions.

**3. Requests for Informational Reports**

**a. Comments**

38. MidAmerican endorses the RTOs' CTS proposal and believes it represents an improvement over the status quo. However, MidAmerican requests that the Commission condition its acceptance by requiring ongoing reporting for a reasonable period to ensure that the RTOs' CTS proposal realizes its intended benefits.<sup>47</sup> MidAmerican argues that, since CTS relies on price forecasts but settles based on prices that actually occur, market participants will build a risk premium into their bids, potentially limiting the savings achieved under CTS.<sup>48</sup>

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<sup>47</sup> MidAmerican January 5, 2016 Comments at 3.

<sup>48</sup> *Id.* at 3-4.

39. MidAmerican requests that the Commission require periodic reports on: (1) interface pricing reform between MISO and PJM; (2) the correlation between the price forecasts developed by MISO and PJM and the actual prices on which coordinated transaction schedules are settled; and (3) the volume of coordinated transaction schedules that are ultimately unprofitable.<sup>49</sup>

**b. Answer**

40. In response to MidAmerican, MISO and PJM state that they consistently report on both CTS and interface pricing reform in their stakeholder proceedings. MISO and PJM assert that MidAmerican provides no legal support or precedent for its request that MISO and PJM be required to report on these matters on an ongoing basis.<sup>50</sup>

**c. Commission Determination**

41. We deny MidAmerican's request for the RTOs to submit informational filings. The development of a consistent interface price calculation methodology between the RTOs is already the subject of an ongoing proceeding in Docket No. AD14-3-000.<sup>51</sup> Furthermore, as noted in their answer, MISO and PJM have held and will continue to hold regular discussions on CTS and interface pricing in their Joint and Common Market meetings and in their respective working groups. We find that information presented in these forums should adequately address MidAmerican's concerns. The Commission has yet to premise its acceptance of CTS on further informational reports and we find no compelling argument to do so here.

**4. Clarification Regarding MISO Tariff Revisions**

**a. Comments**

42. MidAmerican argues that MISO should clarify the extent to which CTS transactions require transmission service reservations.<sup>52</sup> MidAmerican also asserts that the abbreviations for Coordinated Transaction Scheduling Dispatch should be consistent across the MISO-PJM JOA and the MISO Tariff.

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<sup>49</sup> *Id.* at 4-5.

<sup>50</sup> MISO and PJM January 29, 2016 Answer at 4-5.

<sup>51</sup> MISO-PJM Joint and Common Market Initiative.

<sup>52</sup> MidAmerican January 5, 2016 Comments at 5-6.

**b. Commission Determination**

43. We agree with MidAmerican that the MISO Tariff is unclear as it fails to clarify the extent to which CTS transactions require transmission service reservations. Section 40.2.12 of the MISO Tariff as proposed describes the types of transmission service reservations that are required for each type of interchange transaction, but does not describe the transmission service market participants will be required to reserve for CTS transactions. While MISO clarified in its answer that market participants will be required to make a transmission service reservation, we find that its existing Tariff provisions do not adequately convey this fact and direct MISO to revise section 40.2.12 to describe the transmission service necessary to conduct a CTS transaction.

44. Additionally, MISO does not consistently define Interface Schedules in its proposed revisions. For example, section 40.2.12 of the MISO Tariff states that “Interchange Schedules include Import Schedules, Export Schedules, and Through Schedules”<sup>53</sup> and defines Interchange Schedules as “An Import Schedule, Export Schedule, or Through Schedule.”<sup>54</sup> However, the proposed section 40.2.12(b) defines Interchange Schedules in the Real-Time Energy and Operating Reserve Market as “Fixed Interchange Schedules, cleared Day-Ahead Interchange Schedules, Dynamic Interchange Schedules, and cleared Coordinated Transaction Schedules.” Therefore, we direct MISO to revise the MISO Tariff to either consistently define Interchange Schedules, or introduce another term as appropriate.

45. We also agree with MidAmerican that the abbreviations for Coordinated Transaction Scheduling Dispatch should be consistent across the MISO-PJM JOA and the MISO Tariff. Accordingly, we direct MISO, as proposed in the RTOs’ answer, to revise the MISO Tariff so that Coordinated Transaction Scheduling Dispatch is abbreviated as “CTSD.”

46. We direct MISO to make the changes discussed above in a compliance filing to be made within 30 days of the date of this order.

**5. Request for Waiver**

47. The RTOs request waiver of section 35.3(a)(1) of the Commission’s regulations<sup>55</sup> that requires, *inter alia*, that rate schedules or tariffs shall be tendered for filing not more

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<sup>53</sup> MISO Tariff § 40.2.12.

<sup>54</sup> *Id.* § 1.I.

<sup>55</sup> 18 C.F.R. § 35.3(a)(1) (2015).

than 120 days prior to the date on which the service is to commence. MISO states that good cause exists to grant this waiver in order to provide certainty to the RTOs because of the complexity of CTS integration and the lead-time necessary to develop, test and finalize software and process changes. We grant the RTOs' requested waiver for good cause shown and accept the proposed effective date of March 1, 2017. Consistent with MISO's commitment,<sup>56</sup> we direct MISO to file a section 205 filing at least 60 days prior to the proposed effective date to reflect the most up-to-date version of the then-current MISO Tariff provisions.

The Commission orders:

(A) The PJM Revisions are hereby accepted to be effective March 1, 2017, as discussed in the body of this order.

(B) The MISO Revisions are hereby accepted to be effective March 1, 2017, subject to condition, and subject to the outcome of the proceedings in Docket Nos. ER11-2275-003, ER12-1265-005, ER12-1266-005, ER12-678-006, ER14-1736-001, ER15-685-001, ER15-2256-000, and ER16-344-000, ER16-213-001 and ER16-373-000, as discussed in the body of the order.

(C) MISO is hereby directed to submit a compliance filing within 30 days of the date of this order, as discussed in the body of this order.

(D) MISO is hereby directed to submit a section 205 filing at least 60 days prior to the proposed effective date, as discussed in the body of this order.

By the Commission.

( S E A L )

Nathaniel J. Davis, Sr.,  
Deputy Secretary.

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<sup>56</sup> MISO Transmittal at 9.

**Appendix – Interventions, Comments<sup>57</sup> and Answers**

**Docket Nos. ER16-533-000, ER16-534-000, ER16-535-000 and ER16-536-000**

Motions to intervene were filed by: Consumers Energy Company; NRG Power Marketing LLC and GenOn Energy Management, LLC; Northern Indiana Public Service Company; Exelon Corporation (Exelon); Entergy Services, Inc.; American Municipal Power, Inc.; Madison Gas & Electric Company and WPPI Energy (collectively, Wisconsin TDUs); MidAmerican Energy Company (MidAmerican); and Wisconsin Public Service Corporation and Wisconsin Electric Power Company.

Exelon and MidAmerican filed comments. On January 22, 2016, Potomac Economics, Ltd. (MISO Market Monitor) filed a motion to intervene out-of-time and comments.

On January 29, 2016, the RTOs filed an answer. On February 11, 2016, PJM filed an answer.

**Docket Nos. ER16-533-000 and ER16-534-000**

PJM filed a motion to intervene, and Wisconsin TDUs filed comments.

**Docket Nos. ER16-535-000 and ER16-536-000**

The Indiana Utility Regulatory Commission filed a notice of intervention. MISO and the Independent Market Monitor for PJM filed motions to intervene.

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<sup>57</sup> The interventions and comments are timely unless otherwise noted.