<table>
<thead>
<tr>
<th>Date</th>
<th>Author</th>
<th>Change Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>8/17/2022</td>
<td>SPP &amp; MISO Staff</td>
<td>Initial Draft</td>
</tr>
</tbody>
</table>

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1 Overview

The concept of the Joint Targeted Interconnection Queue (JTIQ) effort was conceived in mid-2020 through coordination between executives of both Regional Transmission Organizations (RTOs) as a means to address certain types of transmission system needs that exist along the SPP-MISO seam and which are resulting in delays in processing regional generator interconnection queues. The concept was further developed through SPP and MISO executive outreach to stakeholders of both organizations. A joint press release announcing the intent to perform the as yet unnamed study was issued in September of 2020, and an initial joint stakeholder meeting to discuss the JTIQ study was held in December of 2020. SPP and MISO staff continued coordinating the analysis through the majority of 2021 and the technical study work was completed in late 2021. The final study report was published in March 20221.

In early 2022, the RTOs began discussing methodologies for allocating the costs for the proposed suite of JTIQ projects. Through those discussions, the concept of replacing the current Affected System Study (AFS) process, which has been an item of contention because of its potential to result in significant upgrade costs and study timeline delays, with this JTIQ process was proposed. This document serves as a whitepaper to provide important details related to two (2) significant items that are a result of the SPP-MISO 2021 JTIQ study effort: 1) cost allocation between generator interconnection customers and loads, and cost sharing between the loads of each region for the suite of projects proposed through the JTIQ study; and 2) replacing the current Affected System Study (AFS) process with a repeatable JTIQ process for major transmission upgrades and utilizing regional generator interconnection processes to determine required upgrades for the neighboring region in order to interconnect.

This whitepaper is not intended to address the mechanisms in which each RTO will recover its respective portion of JTIQ costs assigned to load.

<table>
<thead>
<tr>
<th>JTIQ Portfolio</th>
<th>Location by RTO</th>
<th>Cost ($M)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bison – Hankinson – Big Stone South 345 kV</td>
<td>MISO</td>
<td>476</td>
</tr>
<tr>
<td>Brookings Co – Lakefield 345 kV</td>
<td>MISO</td>
<td>331</td>
</tr>
<tr>
<td>Raun – S3452 345 kV</td>
<td>MISO - SPP</td>
<td>144.4</td>
</tr>
<tr>
<td>Auburn – Hoyt 345 kV</td>
<td>SPP</td>
<td>90.5</td>
</tr>
<tr>
<td>Sibley 345 Bus Reconfiguration</td>
<td>SPP</td>
<td>18.8</td>
</tr>
<tr>
<td><strong>Total Cost of Portfolio of Projects</strong></td>
<td><strong>MISO - SPP</strong></td>
<td><strong>1,060.7</strong></td>
</tr>
</tbody>
</table>

Table 1: List of Projects Compromising the JTIQ Portfolio

1 https://www.spp.org/Documents/66725/JTIQ%20Report.pdf or link to study report on MISO site
Figure 1: JTIQ Portfolio Map
2 Cost Allocation

The goal of the cost allocation methodology for JTIQ is to equitably distribute the costs of the recommended transmission upgrades to those parties that are expected to benefit from the upgrades. The proposal contained within this document intends to address the significant issues that are understood to be the primary hurdles for generator interconnection requests completing the applicable generator interconnection study processes and executing generator interconnection agreements. These hurdles include cost prohibitive assigned upgrade costs and the lack of cost certainty before submitting a request into the generator interconnection queue. This proposal intends to address those hurdles, in whole or in part, and reflects the significant discussions between MISO, SPP, and stakeholders to achieve cost allocation to different classes of customers (i.e. generator interconnection customers and loads/transmission service customers) in both regions that is roughly commensurate with benefits received.

The costs of the JTIQ projects will be allocated to generator interconnection project(s) connecting within a pre-defined JTIQ Affected System Zone and to MISO load and SPP load. Generator interconnection customers will fund 90% of engineering construction (“E&C”) and the transmission owner carrying costs as well as the JTIQ study cost. MISO load and SPP load will fund the remaining 10% of E&C and transmission owner carrying cost of JTIQ projects. The 10% of the JTIQ projects’ costs to be paid by MISO and SPP load will be allocated proportional to Adjusted Projected Cost (APC) Benefits of the JTIQ Network Upgrades as calculated in each RTO’s regional planning process. This approach to sharing costs between MISO and SPP load is similar to the FERC-approved methodology used in determining the proportional cost share of Interregional Projects in the Coordinated System Plan.²

2.1 Allocating Costs of JTIQ Projects to Generator Interconnection Customers

The JTIQ study is intended to address issues related to future generator interconnection requests proceeding through the RTOs’ respective generator interconnection processes at different times and ultimately resulting in executed generator interconnection agreements. In the initial JTIQ study as well as subsequent JTIQ studies, the RTOs will utilize available interconnection queue information and regional planning futures assumptions to estimate generation in future queue cycles and in the JTIQ Affected System Zone.

As is the case with the initial JTIQ study, JTIQ projects are expected to be predominately “backbone facilities” that are needed in order to interconnect significant amounts of new generation. These JTIQ projects would not be proposed but for the need to facilitate additional generator interconnections near the SPP-MISO seam. Furthermore, the costs associated with these JTIQ projects assigned to generator interconnection customers will be allocated across multiple generator interconnection queue clusters from both regions in order to reduce the impacts of the JTIQ projects to any single interconnection customer or single cluster study. This approach recognizes that transmission enables interconnections across multiple study clusters.

² See SPP-MISO JOA Section 9.6.3.2 located at: https://www.spp.org/spp-documents-filings/?id=18418
2.1.1 Information to be considered when determining total cost of JTIQ Portfolio to be assigned to generator interconnection customers

To ensure cost certainty for JTIQ projects for the generator interconnection customers prior to submitting requests into the generator interconnection queues, the following information will be considered when determining the overall cost of JTIQ projects and the proportion of those costs to be allocated to generator interconnection customers interconnecting in the JTIQ Affected System Zone:

- Planning-level costs estimates from each RTO’s respective cost estimation methodologies
  - E&C costs
  - Transmission Owner carrying costs which will be fixed at the time JTIQ projects are approved
    - Operations and maintenance (O&M) costs
    - Return on equity (ROE)/Rate of return on investment
- JTIQ study costs (see section 2.1.1.2)
- Available current queue information (if any)
- Projected queue information from trends and regional planning futures
- Historical and projected queue withdrawal rates
- Previous JTIQ project cost true-ups

2.1.1.1 Planning-level costs of JTIQ portfolio

The planning-level costs estimates of JTIQ upgrades identified through a JTIQ study will be developed in accordance with each RTO’s respective cost estimation methodologies and in coordination with the impacted MISO and SPP Transmission Owners. These costs will include E&C costs as well as Transmission Owner carrying costs.

The carrying costs used in determining the JTIQ Affected System Zone rate as calculated in section 2.1.2.1 below will be fixed, or not variable, in order to prevent the JTIQ Affected System Zone rate from potentially changing between the time that one set of JTIQ projects is approved to the approval of the next set of JTIQ projects.

2.1.1.2 JTIQ study cost

Generator interconnection customers are responsible for costs related to Affected System studies in the current generator interconnection processes and will continue to bear the cost of JTIQ studies. A JTIQ total study cost component will be added to the generator interconnection customer share of the JTIQ portfolio to be included in the $/MW affected system zonal charge. For example, if the cost (planning level cost and Transmission Owner carrying costs) of the JTIQ projects assigned to the generator interconnection customers is $500M, as provided for in section 2.1.2 of this whitepaper, and the cost of the study is $0.5M, then the total cost allocated to generator interconnection customers interconnecting in the JTIQ Affected System Zone is $500.5M.

2.1.1.3 Available Queue information

Historically, the MISO and SPP interconnection queues have observed delays due to several reasons. If in the future SPP or MISO interconnection queues are delayed then the number of interconnection
projects and MWs in the JTIQ Affected System Zone could be known at the time of calculation of the JTIQ cost per MW. Actual queue information will be utilized to the extent it is available and informative to the amount of generation expected to interconnect in the JTIQ Affected System Zone during the JTIQ study horizon.

2.1.1.4 Projected Queue information
MISO and SPP may use information from regional planning futures to predict the capacity (in MW) and number of projects in upcoming queue cycles (and in the JTIQ Affected System Zone) that are expected to be submitted into the future interconnection queues.

2.1.1.5 Historical/Projected Withdrawal Rate
Each RTO’s historical withdrawal rate will be utilized to approximate the amount of generation (in MWs) projected to complete the interconnection process and execute a generator interconnection agreement. Approximating the expected withdrawal rate for interconnection projects in the JTIQ Affected System Zone will help ensure reasonable $/MW rate development.

2.1.1.6 True up costs – Subsequent cycles
To the extent there are over or under collected funds due to several factors such as higher withdrawal rates than estimated, variation of queue generation than projected, etc., they would be covered by allocating the variance amount to interconnection project(s) of the subsequent JTIQ cycle.

At the conclusion of each JTIQ study, it is expected that a JTIQ Affected System Zone rate will be recalculated to take into account the new set of JTIQ projects as well as any necessary true up. If there remains an under collection of the previous set of JTIQ, the revised zonal rate will be increased by the amount of the under collection. If an over collection exists, the revised zonal rate will be decreased by the amount of the over collection. Any individual interconnection customer interconnecting in a JTIQ Affected System Zone will only pay one $/MW rate that was in effect at the time the interconnection request is submitted.

2.1.2 JTIQ Cost Allocation to Generator Interconnection Customers
Generator interconnection customers desire costs and timing certainty prior to entering into interconnection queues. In order to facilitate this certainty, generator interconnection customers will be responsible for 90% of the costs included in section 2.1.1 of the JTIQ projects. SPP and MISO will coordinate on analysis to determine the amount of generation connecting in the JTIQ Affected System Zone. This generation amount in the JTIQ Affected System Zone will be used to determine a dollar per megawatt ($/MW) rate for requests to interconnect in a JTIQ Affected System Zone (see section 3.1.1).

2.1.2.1 $/MW Calculation Example
- True-up cost (under-recovered or over-recovered amount from previous JTIQ) - $0
- Portfolio Size – $1,300M
  - E&C -$1B
  - Transmission Owner carrying costs (rate of return; O&M) – $300M
- Study Cost = $0.25M (MISO) + $0.25M (SPP) = $0.5M (Total)
  - **Total Cost (True up cost + Portfolio Size + Transmission Owner carrying costs + Study Cost)**
    = $1300.5M
- MISO MWs in Zone = 20,000 MW 1st cluster (actual Queue) + 25,000 MW 2nd cluster (Queue prediction) = 45,000 MW
- Withdrawal Rate = 50%
  - Remaining MISO MW = 22,500 MW
- SPP’s MWs in Zone = 20,000 MW 1st cluster (actual Queue) + 25,000 MW 2nd cluster (Queue prediction) = 45,000 MW
- Withdrawal Rate = 60%
  - Remaining SPP MW = 18,000 MW

Total MW in JTIQ AFS Zone = Remaining MISO MW + Remaining SPP MW = 22,500 MW + 18,000 MW = 40,500 MW
- Interconnection Customers assigned 90% of E&C + 90% TO Carrying Costs + 100% Study Cost = $1,170.5M
- Cost per MW assigned to applicable generator interconnection requests = 
  $1,170.5M/40,500 MW = $28,901.2/MW

2.1.3 **Allocation of funds to build JTIQ projects**
Each dollar collected from generator interconnection customers will be proportionally accounted for between each JTIQ projects according to each project’s cost-ratio-share. This approach will reduce the risk of all of the JTIQ projects in a specific portfolio not being fully funded at the same time.

2.1.4 **Construction Authorization**
Construction of JTIQ projects will be authorized to begin immediately upon Board of Directors approval. SPP and MISO will make Tariff revisions to facilitate this approach.
2.2 JTIQ Cost Collection via Milestones in Generator Interconnection Process

JTIQ funds allocated to Interconnection Customers will be collected via new milestone payments and financial security requirements in MISO and SPP’s respective interconnection processes. JTIQ funds collected from generator interconnection customers via milestones will be fully refundable upon withdrawal before the Generation Interconnection Agreement (GIA) is executed. All allocated JTIQ costs will be collected from Interconnection Customer(s) before or shortly after the execution of a GIA. New milestones added to the process will be in-line with the existing milestones on the amount of funds collected at each stage. After GIA execution, any collected JTIQ costs become non-refundable.

Collecting JTIQ funds throughout the interconnection study process will provide more certainty to funding of JTIQ upgrades and should prevent the need to have a more complex “critical mass” or project subscription prior to beginning construction.

2.2.1 JTIQ Milestone Payments in MISO Generator Interconnection Process


Proposal is to add:

- First JTIQ M1 milestone of 10% of JTIQ NU along with GI M3 milestone
- Second JTIQ M2 milestone of another 20% of JTIQ NU along with GI M4 milestone
- Third JTIQ M3 milestone of remaining 70% of JTIQ NU at the GIA execution

For example - If an Interconnection Customer’s share of JTIQ costs is $30,000/MW, A deposit of $3,000/MW is required for JTIQ M1 milestone, $6,000/MW is required for JTIQ M2 milestone, and the remaining $21,000/MW is required upon execution of the Generator Interconnection Agreement.

### 2.2.2 JTIQ Milestone Payments in SPP Generator Interconnection Process

The JTIQ process will utilize deposit and financial security requirements that are similar to the SPP generator interconnection process. Information related to SPP’s deposits and financial security requirements can be found in Section 1.3 of the SPP Guidelines for Generator Interconnection Requests.

SPP-MISO JT IQ White Paper Cost Allocation & AFS Process Changes

**Figure 3: SPP Generator Interconnection Deposit Requirements**

<table>
<thead>
<tr>
<th>Type of Deposit</th>
<th>Amount</th>
<th>Payment Requirement</th>
<th>Payment Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>GIR Application and DISIS Cluster Study Deposit (with Appendix 3) to enter into DISIS Phase One Study</td>
<td>$25,000</td>
<td>For generation less than or equal to 2 MW</td>
<td>Check or Wire</td>
</tr>
<tr>
<td></td>
<td>$35,000</td>
<td>For generation greater than 2 MW and less than or equal to 20 MW</td>
<td>Check or Wire</td>
</tr>
<tr>
<td></td>
<td>$50,000</td>
<td>For generation greater than 20 MW and less than 75 MW</td>
<td>Check or Wire</td>
</tr>
<tr>
<td></td>
<td>$90,000</td>
<td>For generation greater than or equal to 75 MW</td>
<td>Check or Wire</td>
</tr>
<tr>
<td>For Generating Facility Replacement Requests Only</td>
<td>$60,000</td>
<td>For All Generating Facility Replacement Requests</td>
<td>Check or Wire</td>
</tr>
</tbody>
</table>

**Per Section 8.2(b):** Study deposits provided pursuant to this section shall be applied toward any Interconnection Studies applicable to the Interconnection Request. Twenty percent (20%) of the study deposit shall be non-refundable at the start of DISIS Phase One.

**AND**

<table>
<thead>
<tr>
<th>DISIS Financial Security One</th>
<th>$4,000 per/MW</th>
<th>Security Deposit equal to $4,000 per generation requested capacity of the plant</th>
<th>Check, Wire, or Letter of Credit</th>
</tr>
</thead>
</table>

**DP1 (Decision Point 1) - TO PROCEED INTO DISIS PHASE TWO, PRIOR TO THE END OF DP1**

**DISIS Financial Security Two**

- **10% Or $4,000 per/MW**
  - Equal to the greater of:
    - a) Ten percent (10%) of the Financial Security Two Cost Factor**, less the amount of Financial Security One that was provided to enter DISIS Phase One, or
    - b) $4,000 per MW of the requested capacity advancing to DISIS Phase Two. If applicable, "in lieu of" Financial Securities for Gen Tie Site Control equal to $80,000 per ROW mile, for the entire Gen Tie Line Length.
  - Check, Wire, or Letter of Credit

**DP2 (Decision Point 2) - TO PROCEED INTO FACILITIES STUDY, PRIOR TO THE END OF DP2**

**DISIS Financial Security Three**

- **20% Less Previous Securities**
  - Equal to twenty percent (20%) of the total upgrade costs**, less the amount of Financial Security One and Financial Security Two that was provided to enter DISIS Phase One and DISIS Phase Two. If applicable, "in lieu of" Financial Securities for Gen Tie Site Control equal to $80,000 per ROW mile, for the entire Gen Tie Line Length.
  - Check, Wire, or Letter of Credit

**INTERCONNECTION FACILITIES STUDY QUEUE, AFTER DECISION POINT 1 AND DP2 HAS ENDED**

- **Facilities Study Deposits**
  - No additional cash Study Deposits are required to enter into the Facilities Study, other than satisfying requirements under Section 8.5.2 and providing the DISIS Financial Security Three (above). However, Transmission Owners may invoice SPP (and Interconnection Customer) for study costs. These costs may be received even
  - Cash via check or wire

Decision Point 1, Financial Security 2 deposit (similar point as MISO’s M3) is 10% of NU (Similar to MISO’s M3 milestone)
Decision Point 2, Financial Security 3 deposit (similar point as MISO’s M4) is 20% of NU (Similar to MISO’s M4 milestone)
Proposal is to add:

- First JTIQ M1 Financial Security of 10% of JTIQ NU along with Decision Point 1, Financial Security 2 deposit
- Second JTIQ M2 Financial Security of Another 20% of JTIQ NU along with Decision Point 2, Financial Security 3 deposit
- Third JTIQ M3 milestone of remaining 70% of JTIQ NU at the GIA execution

For example - If JTIQ Interconnection Customer share of cost is $30,000/MW, A deposit of $3,000/MW is required for JTIQ M1, $6,000/MW is required for JTIQ M2 milestone, and the remaining $21,000/MW is required upon execution of the Generator Interconnection Agreement.

### 2.3 Cost Sharing of JTIQ Projects between SPP and MISO Loads

SPP and MISO loads will be allocated, in aggregate, 10% of the total costs of each approved JTIQ project. The 10% portion of costs allocated to SPP and MISO loads includes E&C and transmission owner carrying costs. SPP and MISO loads will apportion the 10% share between the RTOs on the basis of the proportion of benefits received as determined through an approach similar to that employed in the SPP-MISO Coordinated System Plan (CSP) as referenced in Section 9.6.3.2 of the SPP-MISO JOA.

SPP and MISO will each conduct a regional review of the portfolio of approved JTIQ projects to determine the amount of benefits each RTO’s footprint is expected to receive over a 10-year period. Each RTO’s calculated benefit will be summed together to calculate the total benefit, and each RTO’s share of the 10% of JTIQ costs allocable to load will be that RTO’s calculated benefits divided by the total. For the initial suite of JTIQ projects, SPP and MISO intend to rely on the methodology described above and the initial JTIQ study results of calculated APC benefits to determine each RTO’s allocable share of the 10% of total JTIQ project costs.

For example, the portion of costs assigned to load is 10% of a $1.3B portfolio = $130M. The MISO APC benefits over a 10 year period through analysis in the MISO MTEP study is $20M, and the SPP APC benefits over a 10 year period through analysis in the SPP ITP study is $30M. MISO load will be allocated $52M in costs and the SPP load will be allocated $78M in cost for the JTIQ portfolio of projects.

**Note:** This section discusses the approach used to determine the sharing of costs between SPP and MISO loads. It is not intended to address how each RTO will recover its portion of these costs through its respective tariff mechanisms. It is anticipated that the sharing of costs between the RTOs’ loads will result in updates to regional or zonal rates, therefore transmission service customers that have existing transmission service agreements and transmission service customers that submit new transmission service requests will bear costs associated with the JTIQ projects through the applicable tariff schedules.
3 Generator Interconnection Process Enhancements

3.1 The JTIQ Affected System Zone
The initial JTIQ study and subsequent JTIQ studies are intended to replace the cluster-by-cluster Affected System study coordination currently in place between MISO and SPP. Going forward, MISO and SPP will evaluate all generator interconnection requests within a given cluster through a screening analysis to evaluate if those interconnection requests will have an impact on the other RTO’s facilities. Interconnection requests that are determined to have an impact will therefore qualify to be in a JTIQ Affected System Zone and be allocated costs for the JTIQ upgrades.

The scope of the existing MISO DPP and SPP DISIS studies will be enhanced to identify network upgrades for injection constraints in SPP and MISO respectively.

3.1.1 Screening Analysis to determine the JTIQ Affected System Zone
No later than five (5) business days after the close of the applicable queue application deadline, the Host RTO will share a list of interconnection requests with the Affected System RTO along with the Point of Interconnection bus numbers. The Affected System RTO shall request any deficiencies in the data from the Host RTO within 5 business days of receiving the initial data. The Host RTO shall fulfill all data requirements within 5 business days of such request.

The Affected System RTO shall perform a screening analysis to determine the list of the Host RTO’s interconnection requests that meet the threshold to be in a JTIQ Affected System Zone. In the screening analysis, the Affected System RTO shall monitor its full transmission system 100 kV+. Any interconnection request that is determined to have greater than 5% distribution factor (OTDF or PTDF) impacts on one or more facilities of the Affected System RTO will be included in a JTIQ Affected System Zone. The latest Affected System RTO model from the previous MISO DPP or SPP DISIS study can be utilized to perform the screening analysis, and these models will have been made available to Interconnection Customers who can perform their own screening analysis prior to submitting a new interconnection request.

The Affected System RTO shall provide the results of the screening analysis for the screened interconnection requests to the Host RTO no later than 15 calendar days prior to the kick-off of Phase 1 of the applicable MISO DPP or SPP DISIS.

The Host RTO shall publicly publish the list of interconnection requests identified to be in a JTIQ Affected System Zone along with the $/MW JTIQ Affected System charge for the screened interconnection requests no later than five (5) days prior to kick-off of Phase 1 of the applicable MISO DPP/SPP DISIS.

3.1.2 Determination of JTIQ Affected System Zones
SPP and MISO expect there will be two JTIQ Affected System Zones: North and South. The basis of this split will be similar to MISO DPP and SPP DISIS study regions or groups.
A MISO DPP South Region interconnection request that meets the screening criteria will generally be in the JTIQ Affected System Zone - South. An SPP DISIS Southeast or Southwest interconnection request that meets the screening criteria will generally be in the JTIQ Affected System Zone - South. All other Region/Group interconnection requests that meet the screening criteria will generally be in the JTIQ Affected System Zone - North. In the event an interconnection request passes the screening criteria for potentially impacting the transmission system in both the North and South zones, it will be assigned the $/MW JTIQ charge of the zone with the highest distribution factor impact (OTDF or PTDF).

![Geographical Representation of North and South JTIQ Zones](image)

*Figure 4: Geographical Representation of North and South JTIQ Zones*
3.2 Transition Plan

The replacement of the existing affected system coordination processes with the proposed JTIQ process will be implemented with the MISO DPP/SPP DISIS clusters that have not commenced at that time of the effective date established in a FERC order approving the JTIQ process. The clusters that are farther ahead in the process (Phase 3 and beyond) will continue under the existing process, including the existing affected system study processes.

SPP and MISO intend to utilize the JTIQ concept to proactively plan for the addition of new generation along the entirety of the SPP-MISO seam. Due to the north-to-south configuration of the SPP-MISO seam, the propensity for generation to predominately develop in geographic clusters, and to better associate the JTIQ process with reasonable cost causation principles, SPP and MISO propose that separate JTIQ Affected System Zones be established for the northern and southern seams. Until SPP and MISO have conducted a JTIQ study for the JTIQ Affected System Zone - South, the current approach of separate affected system studies for each SPP DISIS or MISO DPP cluster will continue for interconnection requests that are determined to not reside within the JTIQ Affected System Zone - North.

3.2.1 Embedding JTIQ in GI schedule for SPP DISIS/MISO DPP – Timing

The use of the JTIQ process to coordinate affected system impacts will be implemented and will replace the current affected system coordination between MISO and SPP in MISO DPP or SPP DISIS cycles that have not yet begun Phase 1 following FERC approval of filings made in support of this proposal.

For MISO DPP and SPP DISIS clusters already under way upon FERC approval of this proposal:

- For MISO DPP or SPP DISIS clusters that have a completed first affected system study as a part of Phase 2, the current affected system study process will be followed to completion. No impact or consideration of JTIQ projects are expected for these clusters.
- For clusters that have an affected system study under way as a part of Phase 2 of the study process, the in-progress affected system study will be restarted with the JTIQ suite of projects in the base case. JTIQ affected system charge ($/MW) will not be applicable for these clusters.
- For requests that have not started Phase 2 of their respective MISO DPP or SPP DISIS study process, the current affected system study process will not be performed and the JTIQ process proposed in this whitepapers will be followed.

Table 2 below is a hypothetical example of transition plan for clusters in different stages of the interconnection process. The actual transition schedule will depend on the timing of a FERC order approving the proposed JTIQ process and the JTIQ projects receiving approval from each RTO’s Board of Directors.
<table>
<thead>
<tr>
<th>PHASE</th>
<th>AFS</th>
</tr>
</thead>
<tbody>
<tr>
<td>MISO DPP20</td>
<td>3</td>
</tr>
<tr>
<td>SPP DISIS18</td>
<td>Normal process – AFS will be performed. No JTIQ projects in base case</td>
</tr>
<tr>
<td>SPP DISIS19</td>
<td>3</td>
</tr>
</tbody>
</table>

| MISO DPP21  | 2                                                                   |
| SPP DISIS20 | 1st AFS begun, Add JTIQ projects in base case of AFS only (may trigger a delay in AFS completion), overloads are directly assigned (normal process), No $/MW JTIQ charge |

| MISO DPP22  | 1                                                                   |
| SPP DISIS21 | No AFS started; JTIQ will be in base case of MISO DPP/SPP DISIS.    |

| MISO DPP23  | 1                                                                   |
| SPP DISIS22 | No AFS. Use CSP, SPP DISIS/MISO DPP. $/MW                           |

Table 2: Transition for Applying Current and Proposed JTIQ AFS Processes
3.3 **JTIQ study replacing AFS (Subsequent JTIQs)**

The JTIQ study will be a forward-looking interconnection study and will utilize futures information, as determined by the MISO-SPP Joint Planning Committee (“JPC”), to model projected interconnection requests near the MISO-SPP seam. MISO and SPP will perform two parallel, coordinated components of the JTIQ study in accordance with each RTO’s regional study methodologies.

3.3.1 **Study Assumptions**

Each RTO will dispatch study generation in accordance with their fuel-type dispatch methodology.

3.3.2 **Futures**

The JPC will determine the future(s) to be used. In advance of each JTIQ study, the MISO-SPP Joint Planning Committee will use information from the chosen future(s) to determine projected generation to be included as future generation in the model used in the study.

3.3.3 **Study Models**

Both MISO and SPP will utilize 5-year out planning models (MISO – MTEP and SPP – ITP) models. To capture impacts of all resource fuel types, summer-peak and shoulder-peak scenarios will be studied.

3.3.4 **Study Constraint Identification criteria**

In MISO’s portion of each JTIQMISO study, MISO will assume SPP future sites as study units, and constraint identification criteria utilized will be the same as used for MISO’s DPP studies.

In SPP’s portion of each JTIQSPP study, SPP will assume MISO future sites as study units, and constraint identification criteria utilized will be same as used in SPP’s DISIS studies.

The constraints identified by each RTO’s portion of the study will be coordinated to identify common constraints as well as other any other constraints identified by either RTO that may need to be addressed to support the purpose of JTIQ. The JPC will meet to decide the constraints to be included for mitigation and solution development.

3.3.5 **HVDC modeling**

HVDC projects that have interconnection agreements with injection rights signed with their host entities will be included in the study models.

3.3.6 **Economic Analysis for APC Benefits**

A separate economic analysis will not be performed as part of the JTIQ. As described in Section 2.3, each RTO will conduct a regional review of each set of JTIQ projects through their respective regional transmission planning processes. The results of the regional review will be used to determine the cost sharing for load in MISO and SPP as described in Section 2.3.

3.3.7 **Conditionality of Interconnection on JTIQ projects**

MISO and SPP will perform conditionality test as part of their respective MISO DPP and SPP DISIS studies. In MISO DPP and SPP DISIS studies, dependency of interconnection requests on individual JTIQ upgrades will be evaluated. This conditionality test will be performed similar to the A10 test performed by MISO and the injection limit test performed by SPP.
For interconnection projects determined to be conditional on JTIQ projects, injection limits will be evaluated in the AERIS/QOL studies at MISO and SPP DISIS studies, or periodic SPP studies similar to the MISO AERIS/QOL studies if such studies are implemented at SPP. Interconnection requests will only be limited by JTIQ projects in which they are determined to be conditional based on the results of that test as run in the MISO and SPP interconnection processes.

### 3.3.8 Expanded scope of SPP DISIS/MISO DPP studies

The scope of MISO’s MISO DPP and SPP’s SPP DISIS studies will be extended beyond each RTO’s boundaries to capture localized injection constraints of Interconnection projects connecting close to the MISO-SPP seam and that otherwise may not be addressed by JTIQ projects, which are intended to address broader interconnection constraints.

### 3.3.9 Expanded scope of MISO DPP studies

MISO’s MISO DPP studies will monitor for localized constraints on SPP transmission facilities that are caused by MISO interconnection requests that are: 1) located within 5 substations for under 200kV facilities, 2 substations for 200-300 kV facilities, and 1 substation for facilities greater than 300 kV from a MISO substation, and 2) that have a ≥10% DFAX on those SPP facilities. MISO will coordinate with SPP Transmission Owners via SPP to formulate a mitigation plan to alleviate the identified localized constraints. The cost of network upgrades identified by MISO’s DPP will be assigned to the impacting DPP study interconnection requests utilizing MISO’s cost allocation methodology mentioned in section 6.1 of MISO’s BPM-015.

### 3.3.10 Expanded scope of SPP DISIS studies

SPP’s SPP DISIS studies will monitor for localized constraints on MISO transmission facilities that are caused by SPP interconnection requests that are: 1) located within 5 substations for under 200kV facilities, 2 substations for 200-300 kV facilities, and 1 substation for facilities greater than 300 kV from an SPP substation, and 2) and have a ≥10% DFAX on those MISO facilities. SPP will coordinate with MISO Transmission Owners via MISO to formulate a mitigation plan to alleviate the identified localized constraints. The cost of network upgrades identified by SPP’s DISIS will be assigned to the impacting DISIS study interconnection requests utilizing SPP’s cost allocation methodology mentioned in Section 3.5 of SPP’s DISIS Manual located at: annual

4  FERC Filing Effort
MISO and SPP legal team plan to proceed with FERC filings by Q1 2023. Updates in following existing tariff documents will be filled with FERC to incorporate the new JTIQ Affected System Zone concept.

4.1  MISO – SPP JOA

4.2  Attachment X Tariff and Appendix 6

4.3  Attachment FF Tariff – Section 2 and 3

4.4  SPP Tariff

4.5  SPP Cost Allocation Filing (as needed due to load portion of split)