

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

IMPROVEMENTS TO GENERATOR INTERCONNECTION PROCEDURES AND AGREEMENTS	DOCKET NO. RM22-14-000
--	-------------------------------

**COMMENTS OF
TRI-STATE GENERATION AND TRANSMISSION ASSOCIATION, INC. ON
COMMISSION NOTICE OF PROPOSED RULEMAKING**

Pursuant to the Federal Energy Regulatory Commission’s (“Commission” or “FERC”) June 16, 2022 Notice of Proposed Rulemaking (“NOPR”) in the above referenced proceeding,¹ Tri-State Generation and Transmission Association, Inc. (“Tri-State”) respectfully submits these comments on Improvements to Generator Interconnection Procedures and Agreements by FERC.²

I. COMMUNICATIONS

All correspondence and communications in this proceeding should be addressed to the following persons:

Timothy Woolley
Assistant General Counsel, Regulatory Affairs
and Vice President, Rates
Tri-State Generation and Transmission Association, Inc.
P.O. Box 33695
Denver, CO 80233-0695
Phone: (303) 254-3277
Fax: (303) 254-6007
twoolley@tristategt.org

Regan Snyder
Transmission Policy Analyst
Tri-State Generation and Transmission Association, Inc.
P.O. Box 33695
Denver, CO 80233-0695
Phone: (970) 864-1138

¹ Improvements to Generator Interconnection Procedures and Agreements, 179 FERC ¶ 61,194 (2022) (“NOPR”).

² Notice of Proposed Rulemaking, Docket No. RM22-14-000 (Issued June 16, 2022)

rsnyder@tristategt.org

II. INTEREST OF TRI-STATE

Tri-State is a cooperative corporation headquartered in Westminster, Colorado. Tri-State's primary functions involve the generation, transmission, transformation, and sale of electricity at wholesale to its 42 member-owner distribution cooperatives within the states of Colorado, Nebraska, New Mexico and Wyoming. Tri-State operates on a not-for-profit basis. Founded in 1952, Tri-State was previously exempt from Federal Power Act ("FPA") jurisdiction. Tri-State became FPA-jurisdictional in 2019. *See Tri-State Generation & Transmission Ass'n, Inc.*, 170 FERC ¶ 61,224, at P 82 (2020). Tri-State is interconnected with numerous utilities across four states and interconnects with generation facilities as requested.

Tri-State has a direct and substantial interest in this proceeding. Given the geography of the Tri-State system and the span across four states, Tri-State operates a diverse generation and transmission system.

III. BACKGROUND

On June 16, 2022, FERC issued its Notice of Proposed Rulemaking in Docket No. RM22-14-000 proposing reforms to its pro forma Large Generator Interconnection Procedures, pro forma Small Generator Interconnection Procedures, pro forma Large Generator Interconnection Agreement, and pro forma Small Generator Interconnection Agreement to address interconnection queue backlogs, improve certainty, and prevent undue discrimination for new technologies. The reforms are intended to ensure that the generator interconnection process is just and reasonable and not unduly discriminatory or preferential.

Tri-State operated under the Commission's Pro-Forma Tariff beginning September 3, 2019. Tri-State interconnection requests increased substantially around the same time frame,

which spurred Tri-State 's decision to move toward filing a revised LGIP, SGIP, LGIA and SGIA. Tri-State is considered an early adopter of the first-ready, first-served cluster study practice and is in the process of studying its second annual Definitive Interconnection System Impact Study (DISIS) cluster group. Tri-State respectfully offers an experienced perspective as an early adopter to the first-ready, first-served cluster study process.

Tri-State generally agrees with FERC's intent to address transmission planning, looking further down the road to create generation and transmission system improvements in support of a greater and greener electrification across regions in the United States. The Large Generator Interconnection Procedures (LGIP) have and will continue to play a critical role in meeting shared energy goals. A well-designed pro forma and tariff framework is essential to mitigating the systemic queue backlog problems. The framework must be flexible and equitable to all stakeholders. Tri-State agrees with many of FERC's proposed changes to the pro forma, but also offers perspectives on several changes that could have unintended negative impacts that run counter to the Commission's objectives.

Overall, Tri-State supports the following major elements of FERC's proposal:

- First-ready, first served cluster study approach – a vast improvement over a serial approach.
- Requirement of 100% site control at the time of application submittal; with site control deposits only permissible when projects incorporate state and federally controlled lands.
- Increased commercial readiness requirements, such as a site-specific purchase order for generating equipment – advantageous to helping deter speculative projects – in addition to the term sheet or PPA requirement (not as an alternative option).
- Allocation of shared study costs within the Cluster

- Allocation of network upgrades costs for steady state (thermal and voltage) constraints using a proportional impact method
- Study deposit amounts

One of the major thematic issues Tri-State cites in its comments herein on the Notice of Proposed Rulemaking (NOPR) issued in Docket No. RM22-14 is concern for what appears to be a lack of consideration in the rules for Transmission Providers not operating within the bounds of a Regional Transmission Organization (RTO) or Independent System Operator (ISO).

Tri-State appreciates the Commission's recognition of the nationwide shortage of qualified engineers needed to keep pace with the increasing number of interconnection requests in the queue and associated interconnection studies. Yet, Tri-State is concerned that some of the proposed LGIP changes could further exacerbate the impacts of the lack of qualified personnel to support queue processing.

Overall, the following are some of Tri-State's major areas of concern with the proposed changes:

- Shortened study and customer engagement windows accompanied with heavy penalties for Transmission Providers.
- Required virtual interactive maps, such as a heatmap, which may not provide the best information for Interconnection Customers compared to the cost, resources and time required to produce them.

IV. COMMENTS

Tri-State agrees a first-ready, first served cluster study process is superior to the proforma serial approach. Tri-State supports this change for several key reasons:

- helps to remedy the material backlog of interconnection requests created by the serial approach,
- allows for more efficient use of transmission systems by allowing projects that are ready to be built to interconnect, and
- discourages projects from entering the interconnection queue if they are not yet commercially viable.

The following comments are organized by paragraph number in the NOPR. As a Generation and Transmission entity, Tri-State did not respond to every request for comment but addressed those requests affecting Tri-State.

Paragraph 47 - The NOPR proposes to allow Interconnection Customers to request Informational Interconnection Studies, and to require Transmission Providers to publicly post an interactive visual representation of available interconnection capacity. Tri-State provides Interconnection Customers with Informational Interconnection Studies and agrees the studies are superiorly beneficial to potential Interconnection Customers versus visual representation of available interconnection capacity. The studies provide the most accurate information available.

Based on its experience as an early adopter, Tri-State believes offering two options for informational studies is most effective to suite Interconnection Customer's needs: streamlined and customizable. Tri-State recommends study timeframes and scopes should be somewhat

flexible, based on mutually agreed upon timeframes, using Reasonable Efforts. For Tri-State, streamlined studies are completed within 45 days and do not take into consideration higher queued projects, which may be under study at the time of the informational study request. Alternatively, Interconnection Customers may choose a customized study to provide input into the study scope and assumptions, such as considering higher queued projects and analysis of multiple interconnection service levels, which can impact the study timeframe.

To date, Tri-State has performed three (3) informational studies in 2021 and ten (10) informational studies in 2022. Notably, all Interconnection Customers have selected the customizable informational study option to have the ability to adjust the study scope to meet their unique needs, and no customer has requested short circuit or stability analyses to be included.

Paragraph 48 - Tri-State doesn't believe assigning a request window for informational interconnection studies would be of much benefit to either the Transmission Providers or prospective Interconnection Customers. Most Tri-State interconnection customers have requested Informational Studies three to four months prior to the DISIS application window opening. There may be no true benefit to establishing an informational request window as customers have not commonly requested studies after the close of the annual cluster application window. Thus far Tri-State has not had issues with being able to perform Informational Studies in a timely manner.

As an early adopter, Tri-State has positive experience with Informational Interconnection Studies. And Tri-State fervently prefers Informational Interconnection Studies over providing a publicly available, interactive heatmap which is better suited for RTO/ISOs. Informational

Interconnection Studies provide more accurate, useful, and customizable information to prospective customers. The number of Informational Interconnection Studies an Interconnection Customer requests shouldn't be limited and adding limitations wouldn't likely provide much benefit because often Interconnection Customers have affiliates that could make requests independently. The Commission's proposal to limit Interconnection Customers to five (5) Informational Interconnection Study requests would also need to apply to affiliates.

The Commission's proposed firm 45-day study window and scope doesn't allow the flexibility to customize studies which is often needed and requested by Interconnection Customers. Notably, no Interconnection Customer has requested short circuit analysis in Tri-State's experience with performing customized informational studies. Also, mutually agreed upon study time frames allow for the Transmission Provider to provide the best information in relationship to active studies.

Paragraph 49 - To require Transmission Providers to publicly post an interactive visual representation of available interconnection capacity would be extremely difficult to implement and maintain, especially for non-RTO/ISOs. The proposed changes to 6.4 of the pro forma LGIP would require Tri-State to study and determine injection capacity at every bus on its system in every Cluster Study so results could be posted within 30 days of completion of each Cluster Study. This is problematic due to only a subset of buses/lines are studied in each Cluster Study, greatly increasing the study scope/cost to fully evaluate every bus on its system in every Cluster Study. The increased study depth would likely have a negative impact on completion timeframes and ultimately increase rates.

Further, Tri-State questions who will be responsible for the increased study costs and time required to perform the analysis—the Interconnection Customers, or Tri-State's native load

customers which are rural, low-income areas and cannot be burdened with unreasonable costs.

To support the requirement if implemented, Tri-State may have to consider significantly increasing the \$5,000 non-refundable application fee to cover the significant manpower and costs needed for creating and maintaining a heatmap and the software to support such.

Additionally, independent interconnection study processes are extremely common in non-RTO/ISOs regions within small geographic areas. For instance, it is common for multiple Transmission Providers to inhabit a single substation. As a result, injection capacity is dependent upon not only interconnection requests within a specific interconnection queue, but every neighboring system's interconnection queue and associated study assumptions. This will result in inconsistent and inaccurate heatmaps between Transmission Providers in a local geographic area.

FERC notably recognizes the lack of qualified engineers available to perform analysis; and, requiring publicly posted, interactive tools such as a heatmap would contradictorily impact available manpower.

Perhaps, visualization maps are a feasible option for RTO/ISOs where every bus is studied, but there should be an alternative for non-RTO entities. For example, a Transmission Provider could visually post the results of the most recently completed Cluster Study, but not study every bus on the system. Furthermore, it would need to be clear that the heatmap is not binding and doesn't reflect interconnection requests to neighboring transmission providers.

Also, consider variations between heatmaps, as may Transmission Providers have co-located or co-owned bulk electric system assets, such as substations and transmission lines.

Paragraph 67 - The NOPR also proposes a short 30-day customer engagement window, which Tri-State believes is not sufficient to meet the purpose of the customer engagement window. Tri-State, like all early cluster study adopters, implements a 75-day customer engagement window. A 75-day customer engagement window gives Interconnection Customers an opportunity to assess the viability of their projects before committing to the interconnection process and subjecting themselves to a withdrawal penalty. Further, the customer engagement window is a time for Interconnection Customers to cure deficiencies in their applications. For example, Tri-State received over 50 interconnection requests in its 2022 Cluster Request Window. Only 40% of Interconnection Customers were able to cure their deficiencies within the first 30 days of the customer engagement window. Additionally, 31% needed 60 days to cure their deficiencies, and the final 29% of the cluster needed the full 75-day Customer Engagement Window to cure their deficiencies.

Paragraph 68 - After an Interconnection Request is received, the Transmission Provider has five business days to notify the interconnection customer of any issues. Then, the Interconnection Customer has 10 business days to provide the deficient information, resulting in a 15-day period where information is clarified, and deficiencies are cured which leaves very little time remaining in the engagement window. Often developers need additional time to correct deficiencies in the Interconnection Request which will require a Customer Engagement Window beyond 30 days.

After the close of the request window and notifying customers of application windows within five days, the Interconnection Customer has 15 business days to request an individual scoping meeting, which means scoping meeting requests could come as late as 21 days into the customer engagement window, leaving as few as seven (7) business days to hold all individual scoping

meetings (which could be dozens) within the customer engagement window. Tri-State recommends the customer engagement window be extended to allow adequate time cure deficiencies and hold individual scoping meetings.

Paragraph 74 - Tri-State feels strongly 150 days is not enough time to complete the system impact study. Tri-State currently implements a 270-day study period, specifically 150-days for Phase 1 (power flow, short circuit, reactive capability) and 120-days for Phase 2 (short circuit, transient stability), and notably has yet to miss a study deadline. Such adequate time length allows for a thorough study process, including coordination with neighboring systems and the correction of errors found in IC's modeling data. Importantly, study length requirements need to be developed keeping in mind interconnection queue requests are increasing across the board, and sufficient time is required to complete the studies. Without sufficient time to perform the study, it will increase the likelihood of rushed or inaccurate studies to ensure the deadlines are met. Tri-State recommends the system impact study length be extended beyond 150 days to ensure adequate study time.

Compounding issues related to the application and customer engagement window timelines is the common practice of applicants waiting until the close of the request window to submit applications. Tri-State's experience has been that most interconnection requests submitted in the Cluster Request Window are received the last two days of the request window. During the 2022 DISIS Request Window 75% of the applications were received during the last two days of the request window being open, and 50% of the applications were received in the last two days of the 2021 DISIS Request Window. Said differently, the Cluster Request Window could be shortened without impacting customers because most of the requests are received within a two-day window.

If the Commission's concern is shortening the Cluster Study process, Tri-State recommends the Cluster Request Window be shortened. Tri-State, like all early cluster study adopters, implements a 45-day Cluster Request Window, but that could be easily shortened in order to allot more time in different phases of the Cluster Study process.

Paragraph 77 - Tri-State agrees there is substantial value in dividing cluster studies into subgroups, based on geographic regions and electrical relevance; however, this task is best suited for Transmission Providers to determine the subgroups based on their extensive knowledge of their own Transmission Systems. Importantly, creating sub clusters may not make sense for Transmission Providers with small footprints. The grouping criteria, if any, should be made publicly available by the Transmission Provider through a business practice manual posted on OASIS.

Paragraph 78 - Re-studies should not be optional, nor should limitations be applied to how many can be conducted. When a re-study is triggered, it is most definitely necessary. Limiting the number of re-studies a Transmission Provider can conduct in a month will have a huge adverse effect and further contribute to queue backlog issues, prolonging the time needed to complete studies.

Paragraph 79 - Tri-State agrees the commission should maintain an option in the pro-forma LGIP for some Interconnection Requests to be processed outside of the annual cluster study process, which is extremely beneficial to resource planning entities. Tri-State currently allows for a Resource Solicitation Cluster Process, which allows for Interconnection Requests to enter the queue outside of the Customer Request Window when a Resource Planning Entity

initiates a cluster and identifies projects that are being evaluated as a part of a Resource Plan, such as that required for Tri-State under the laws and regulations of Colorado. The Resource Solicitation Cluster Process follows the same timing as the cluster study process.

Paragraph 83 - Tri-State supports the proposed allocation of cluster study costs.

Paragraph 89 - Tri-State is supportive of the proportional impact method and already employs a comparable process to assign costs for Network Upgrades associated with addressing steady state thermal and voltage violations. Tri-State does not apply a proportional method to transient stability driven Network Upgrades, which cannot be measured using a proportional impact approach. Rather, Tri-State utilizes and proposes a megawatt pro rata method approach to be used when cost allocating transient stability driven Network Upgrades.

Paragraph 98 - Reallocation of costs to subsequent cluster study participants could become challenging with projects continually entering and withdrawing from the queue. Further, for clarity, FERC should provide a detailed example of the process proposed in the NOPR. The proposed process is not overly clear for those who do not currently follow a comparable process.

Paragraph 110 - Tri-State has no major concerns with the proposed study deposit amounts other than the smaller projects will end up paying a lower deposit than what Tri-State is currently charging.

Paragraph 116 - Tri-State supports the queue entry requirement of 100% site control to avoid cluttering of the queue by projects that have not yet completed critical due diligence. Tri-State agrees with FERC's premise that the site control requirement will help identify projects that are more ready to move forward with interconnection evaluation.

Tri-State notes the importance of clearly stating the acreage requirements per fuel type. However, Tri-State advocates the acreage requirements are better suited to be documented in Transmission Providers' business practices versus their tariffs. The reason being that as technology advances, Transmission Providers need more flexibility to adjust these types of requirements outside of a tariff filing, to address new situations, new fuel types and hybrid projects as they arise.

Paragraph 121 - Tri-State agrees the only instance where a deposit in lieu of site control should be allowed, is in the case where an Interconnection Customer is seeking to develop a project on state or federally controlled land that has a regulatory limitation on securing site control. A deposit of no less than \$500,000 and no more than \$2,000,000, calculated at \$10,000 per MW would be acceptable, to continue to ensure advanced-stage projects are able to continue to move toward interconnection. Tri-State suggests, however, the site control for state or federally controlled land must still be fully attained at the time of LGIA execution. For example, in Colorado a state land Planning Lease (which doesn't meet the FERC pro-forma definition of Site Control) could be used with a financial deposit during the cluster study process, and a state land Production Lease (which does meet the FERC pro-forma definition of Site Control) would be needed prior to LGIA execution.

Paragraph 122 - Tri-State supports the Commission adjusting the definition of “Site Control” to account for regulatory requirements; for instance, the Colorado State Land Board currently has such a limitation regarding state planning leases.

Tri-State agrees exceptions may be appropriate to site control requirements for Interconnection Customers seeking to develop projects on state/federally controlled land. Commission’s objective to eliminate speculative projects and simultaneously support means to treat projects that incorporate state and federal land leases in an equitable way needs addressed. If the commission implements a deposit in lieu of site control only when regulatory limitations prohibit such—the deposit should be substantial and should not be applied to interconnection study costs (and should only be refunded once the site control is satisfied). The developer should have to demonstrate 100% site control (not deposit in lieu of) concurrent with execution of the LGIA (not execution of the facilities study). Tri-State also supports a requirement for an officer’s affidavit like what is required by MISO to justify the regulatory limitation.

Paragraph 123 - Tri-State currently allows less than 100% site control in the initial phases of the interconnection study process. However, Tri-State is supportive of 100% site control in the initial phases of the interconnection study process, except for instances that involve state or federally controlled land which creates a regulatory limitation on securing site control. The use of 100% site control is consistent with the spirit of a first-ready, first served process and will help prevent un-ready, speculative projects from entering the interconnection study process.

A deposit should not be allowed in lieu of Site Control unless the Interconnection Customer can't provide exclusive site control due to the land being owned by a state or federal entity (e.g. state planning leases) that has a regulatory limitation on securing exclusive site control.

Paragraph 137 - Tri-State 's transition to its first-ready, first served LGIP facilitated clearing its backlogged interconnection queue. However, the subsequent 2021 and 2022 request windows resulted in more than 60 application requests, totaling more than 9GW of nameplate generation. Notably this is approximately three times Tri-State 's Network Load, demonstrating the continued influx of speculative, un-ready interconnection requests. Although the DISIS, first-ready, first-served approach offers much improvement over a serial, first-come first-served approach, there is still room for improvement. Tri-State believes adding an additional requirement of a site-specific purchase order for generating equipment, which is in addition to the term sheet or PPA and is not an alternative option, would be advantageous to helping detour speculative projects. This would be in addition to 100% site control, unless the Interconnection Customer is unable to obtain exclusive site control due to the land being owned by a state or federal entity (e.g. state planning leases) that has a regulatory limitation on securing exclusive site control.

Tri-State 's revised LGIP allows for the Interconnection Customer to provide additional financial security in lieu of providing one of the following: (1) an executed term sheet, (2) evidence the project has been selected in a Resource Plan or Resource Solicitation Process, or (3) a Large Generator Interconnection Agreement accepted for filing at FERC. Markedly, all 53 applications in 2022 elected to provide additional financial security at Phase 1 instead of one of

the three milestone options listed above. This clearly demonstrates the lack of effectiveness of the demonstrations of readiness to deter unready projects.

The Commission proposes the “Executed term sheet or comparable evidence related to a contract, binding upon the parties to the contract, for sale of” needs to make sure language explicitly notes the transaction between a load-serving entity. Otherwise, an Interconnection Customer could provide a PPA with another affiliate of the Interconnection Customer. In addition, the PPA needs to be for the entire output of the generating facility and if a hybrid facility, both resources of such facility.

Tri-State expresses concerns allowing a party to terminate a term sheet or PPA if a condition precedent is not satisfied other than due to limited reasons. Tri-State recommends the penalty should be higher.

Paragraph 144 - The proposed withdrawal penalties are less than what Tri-State is implementing and may not be substantial enough to detour speculative projects from entering the queue. Tri-State encourages increasing the withdrawal penalties. As previously discussed, Tri-State’s 2021 and 2022 request windows resulted in more than 60 application requests, totaling more than 9GW of nameplate generation which is approximately three times Tri-State’s Network Load, demonstrating the continued influx of speculative, un-ready interconnection request. Tri-State recommends the following penalties at each agreement:

- At time of execution of the Facilities Study Agreement –the higher of the below table and a percentage of the amount of the Network Upgrades.

- At time of execution of the LGIA –the higher of the below table and a higher percentage of the amount of the Network Upgrades.

Phase of Withdrawal	Commercial Readiness Demonstration Provided	Total Withdrawal Penalty (if greater than study deposit)	Withdrawal Penalty Cap
1	Yes	1 times study costs	No Cap
2	Yes	1 times study costs	No Cap
3	Yes	1 times study costs	No Cap
LGIA	Yes	9 times study costs	No Cap
1	No	2 times study costs	\$1 Million
2	No	3 times study costs	\$1.5 Million
3	No	5 times study costs	\$2 Million
LGIA	No	9 times study costs	No Cap

Paragraph 149 - Transition process does not discuss a transition required for entities already implementing a first-ready, first-served cluster process. Tri-State believes a transition period will also be necessary, even for those entities already employing a first-ready, first-served approach, given the changes to study processes and requirements beyond the overarching base structure of the queue. For example, if the Commission institutes a requirement for 100% Site Control (except for case of federal or state-controlled land limitations) Interconnection Customers should be required to provide 100% Site Control to proceed in a transitional cluster.

Paragraph 172 - Eliminating the “Reasonable Efforts” and penalizing Transmission Provider for delayed studies is contradictory to FERC recognizing the lack of qualified engineers to study projects. The assignment of penalties should be reasonable and equitable between both Transmission Providers and the Interconnection Customer. The proposed language does not recognize that study delays can often be caused by errors in modeling data provided by

Interconnection Customers. As a result, there should be allowances for delays that are outside the control of the Transmission Providers.

Tri-State respectfully opposes the Commission's proposal to implement hefty late study fines targeted at Transmission Providers and argues the fines would inevitably result in higher rates to native load customers. Adding penalties to late studies is a superficial remedy to the speed at which studies are completed and merely suggests that only Transmission Providers should be held accountable for late studies. When in fact, sometimes studies are late due to a lack of or inadequate modeling information from Interconnection Customers, or the effect of snowballed re-studies. Implementing late study penalties in the LGIP process is not equitable, compared to other sections of the OATT, which doesn't monetarily penalize late studies. The existing late study penalties in the OATT are only enforced when a Transmission Provider is late for consecutive quarters. If the Commission moves forward with penalties for late studies, additional language should be added requiring Interconnection Customers to provide needed information within a specified time frame in order to complete the studies. Tri-State believes enforcing penalties for late studies would disincentivize quality and accuracy to achieve the accelerated timelines.

Furthermore, language in the proposed Appendix 15: Affected System Study Agreement should be considered when the Interconnection Customer fails to cure deficient information needed to perform the studies.

Paragraph 173 - The proposed penalty doesn't take into consideration when a cluster study is delayed due to a higher queued cluster needing to be restudied, which would be unreasonable to penalize. If a study is delayed due to a higher queued cluster going through re-study, it

shouldn't trigger a penalty. Further, penalties should not be triggered if a study is delayed due to information provided by the Interconnection Customer (i.e., bad models).

There is no incentive for Interconnection Customers who have agreed to a study deadline to re-negotiate and mutually agree upon an extended deadline. The choice for deadline change resides solely at the discretion of the Interconnection Customer.

Paragraph 173 – The NOPR says the Transmission Provider would not be subject to penalties until after the completion of the transition process and the first cluster study cycle. However, no clarity is provided for Transmission Provider who perhaps may be already implementing a similar process.

Paragraph 190 – “In subsection 9.6 of the pro forma LGIP, the transmission provider acting as the affected system must provide the affected system interconnection customer with affected system study results within 90 calendar days after the receipt of the executed affected system study agreement.” TSGT recommends the addition of “after the receipt of the executed affected system study agreement and deposit.”

Paragraph 191 – “The affected system interconnection customer would then be required to notify the transmission provider within five business days of executing its generating interconnection agreement with its host transmission provider whether it would like to execute the affected system facilities construction agreement or request it to be filed unexecuted with the Commission.” TSGT believes the Affected System Interconnection Customer should be required to execute or file an unexecuted Affected System facilities construction agreement with the Commission; rather, the agreement should not be optional.

Paragraph 192 - The proposed affected systems study process does not address non-jurisdictional entities. The Front Range of Colorado alone has 3 jurisdictional and multiple non-jurisdictional Transmission Providers. Tri-State questions how FERC will address non-jurisdictional Affected Systems.

Paragraph 202 - Tri-State questions whether paying back Affected System's Interconnection Customers for upgrades to its system, when in certain cases they take transmission service from another Transmission Provider. This would result in Tri-State's native load customers, which are rural, low-income households, to pay increased transmission rates for upgrades that provide no material benefit to them. Upgrades should only be reimbursed by an Affected System if transmission service is secured on the Affected System. Further, language in Appendix 16, Section 2.2.3 Consequences of Termination, which states the "Affected System Interconnection Customer is responsible for the cost of additional facilities that is caused to another Interconnection Customer due to the termination of this Agreement, another Affected System Interconnection Customer's LGIA, or any of any other Affected System Interconnection Customer's other Affected System Facilities Construction Agreement(s)." The result could be an exorbitant amount of money owed by the Affected System Interconnection Customer.

Paragraph 212 - Tri-State believes that an ERIS study may not capture the risk, especially in areas where transmission systems are highly interconnected with multiple Transmission Providers with separate tariffs, such as in Colorado. For example, within Colorado, there are multiple parallel paths in numerous localized areas with multiple

Transmission Providers (jurisdictional and non-jurisdictional). By assuming a generator interconnection project on a neighboring system is ERIS in Affected Systems studies, a Transmission Provider will effectively ignore the impact the project will have on its system resulting in additional curtailments and reliability impacts when the project comes online that should have been identified through the study process.

Paragraph 215 - The Commission proposes to require the Transmission Provider acting as the affected system to study Interconnection Requests using ERIS, but not all entities ERIS modeling standards are comparable. The Commission may be overlooking the risk associated with relying on an ERIS study process. The risks are larger in areas that are highly interconnected with multiple Transmission Providers such as in Colorado. The MISO example is based on an RTO/ISO and ignores the Western Interconnection. Furthermore, the proposed affected systems study process does not address non-jurisdictional entities. The Front Range of Colorado alone has 3 jurisdictional and multiple non-jurisdictional Transmission Providers. What does FERC propose to do with affected systems that are non-jurisdictional?

Paragraph 202 – Allowing the Affected System Interconnection Customer to terminate the affected system facilities construction agreement with 60 days' written notice could trigger re-studies for the Affected System Transmission Provider.

Paragraph 203 - The Affected Systems Facilities Construction Agreement proposes to require the Transmission Provider acting as the Affected System to repay the Affected System Interconnection Customer the full cost of Network Upgrades, plus interest in a term to be

mutually agreed upon but not to exceed 20 years. Network Customers end up paying for the Network Upgrade cost which benefits another system. Tri-State questions whether such payment responsibility is fair to Network Customers. Essentially, Tri-State 's rural customers could end up paying for upgrade costs from which they may never benefit. The Commission's proposal could negatively impact customers that cannot afford to carry the burden of increased costs.

Paragraph 237 - The proposed resource solicitation study would eliminate queue position that Tri-State currently grants in its LGIP, therefore there is no incentive to the process. Tri-State questions what reason a state agency would have to initiate a resource solicitation study since utilities are more commonly required to develop a resource plan with state review. Transmission Providers need to maintain the ability to align this information posting with any state resource planning requirements.

Paragraph 254 - Transient stability analysis would be required in cases where the dynamic performance differs from the existing/incumbent generator. Steady state analysis (thermal/voltage) would not be required.

Paragraph 288 - It is not appropriate to study charging of storage resources within a generator interconnection study. This type of analysis is best performed as a part of a transmission service study, which covers delivery of energy to load or charging of a storage resource.

Paragraph 295 - Advanced power flow control devices may serve a transmission function. These devices can help the system operator control power flows over a given path and can include phase shifting transformers; however, these devices may also push power onto other Affected Systems, which is a big problem in non-RTO/ISO scenarios.

Tri-State also strongly disagrees with incorporating Dynamic Line Ratings (DLR) into system impact and facilities studies. Interconnection studies are performed utilizing software that relies on static line ratings and a result there isn't the ability to leverage dynamic line ratings within the study software. Further, it is not clear what assumptions should be used in determining a dynamic line rating or how DLR should be considered on Affected Systems.

Tri-State questions whether the Commission's discussion of transmission switching and strategically removing or inserting transmission elements into the transmission topology is meant to be a Remedial Action Scheme (RAS) or create permanent normally open points on the system, which is problematic in highly interconnected systems not operating in an RTO/ISO. Further, these are tools utilized by system operations to ensure reliable operation of the power grid. By planning the system for additional transmission switching, it will result in reduced reliability on the transmission system.

Further, the proposal does not consider the likely outcome of a project advancing with a new technology, but one that would be sufficient for a subsequent project. As a result, the subsequent customer will be forced to fund costly Network Upgrades when it would be more equitable for the customers to split a single network upgrade.

Although the Commission believes the deployment of certain transmission technologies could reduce the interconnection costs by providing lower cost network upgrades to interconnect

new generating facilities, this may not necessarily be true in highly interconnected systems without an RTO/ISO

Paragraph 301 - A huge barrier exists between RTOs and highly interconnected, non-RTO Transmission Providers when considering the use of transmission technologies. The differences primarily revolve around power flow. For instance, in a non-RTO system there are issues pushing power onto affected parties. Additionally, traditional transmission planning software utilizes static line ratings, which is not compatible with dynamic line ratings. Further, if the software was modified to accommodate dynamic line ratings it is not clear when weather data is appropriate to use for variable/dynamic line ratings.

Paragraph 331 - Tri-State conveys the need for Interconnection Customer proposing non-synchronous generating facilities to submit models. Tri-State's tariff specifically references WECC approved models.

V. EXPLANATIONS FOR REDLINES WITHIN DEFINITIONS, BODY OF PROPOSED PRO FORMA LGIP AND FORM AGREEMENTS

Tri-State attached a redlined version of the LGIP definitions, proposed pro forma LGIP and form agreements. The following sections summarize the proposed changes.

Revisions to the LGIP Definitions:

Electric Storage Resource – shall mean a resource capable of receiving electric energy from the Transmission Provider’s Transmission System and storing it for later injection of electric energy back to the Transmission Provider’s Transmission System; however, the definition doesn’t not account for resources designed to be charged apart from the transmission system, such as solar or wind generating facilities that may charge an Electric Storage Resource.

Queue Position shall mean the order of a valid Interconnection Request, and Tri-State questions whether Interconnection Request also includes Surplus Interconnection Requests.

Site Control, “Site Control for any Co-Located Resource with different Interconnection Customers is demonstrated by a contract or other agreement demonstrating shared land use for all Co-Located Resources that meet the aforementioned provisions of this Site Control definition.”

Definition addresses different Interconnection Customer agreements for shared land use. Tri-State suggests revising the language to clarify a separate agreement is not necessary when both co-located resources belong to the same Interconnection Customer.

Stand Alone Network Upgrades shall mean Network Upgrades that are not part of an Affected System that an Interconnection Customer may construct without affecting day-to-day operations of the Transmission System during their construction and as indicated under proportional impact analysis, are only required for a single Interconnection Request.

Tri-State suggests adding Transmission Provider’s Interconnection Facilities may be shared by more than one Generating Facility in a given Cluster Study, including a Co-Located Resource.

Revisions to the Body of the LGIP Language

Section 3.1.1.2 Additional Study Deposits – “Simultaneously with the submission of an executed Interconnection Facilities Study Agreement, or with a request to Transmission Provider to file the LGIA unexecuted” – consider replacing LGIA with Interconnection Facilities Study Agreement.

Section 3.2.2 Network Resource Interconnection Service

Consider adding Section 3.2.2.1 - **The Product**. Transmission Provider must conduct the necessary studies and construct the Network Upgrades needed to integrate the Large Generating Facility (1) in a manner comparable to that in which Transmission Provider integrates its generating facilities to serve native load customers; or (2) in an ISO or RTO with market-based congestion management, in the same manner as Network Resources. Network Resource Interconnection Service allows Interconnection Customer's Large Generating Facility to be designated as a Network Resource, up to the Large Generating Facility's full output, on the same basis as existing Network Resources interconnected to Transmission Provider's Transmission System, and to be studied as a Network Resource on the assumption that such a designation will occur. If the Transmission Provider has not been notified pursuant to Section 29.2 of Part III of the Tariff that Interconnection Customer's proposed Generating Facility is to be designated as a Network Resource within Transmission Provider's Transmission System, the Interconnection Customer must provide the point of delivery or the geographic location on Transmission Provider's system at which Interconnection Customer intends to deliver output out of the Transmission Provider's Transmission System.

Section 3.4.[1]2 Initiating an Interconnection Request, para. iii – “An Interconnection Customer that submits a deposit in lieu of site control due to demonstrated regulatory limitations must demonstrate 100% Site Control for its Generating Facility prior to Transmission Provider commencing the Interconnection Facilities Study.”

Consider changing prior to execution of the LGIA.

Section 3.4.[3]4 Deficiencies in Interconnection Request – “Interconnection Customer shall provide Transmission Provider the additional requested information needed to constitute a valid request within ten (10) Business Days after receipt of such notice but no later than the close of the Cluster Request Window.”

Such addition doesn't account for the fact that most requests are not submitted until the last day of the request window, which makes the requested no later than the close of the Cluster Request Window irreverent.

Section 3.4[4]6 Cluster Study Scoping Meetings, para. 1 – “If requested by an Interconnection Customer [for the Scoping Meeting, and such date shall be no later than thirty (30) Calendar], Transmission Provider shall also hold individual customer-specific Scoping Meetings, which must be requested no later than fifteen (15) Business Days [from receipt of the valid Interconnection Request, unless otherwise mutually agreed upon by the Parties.] after the close of the Cluster Request Window.”

However, consider only one week to schedule the scoping meeting is left if the Interconnection Customer doesn't request a scoping meeting until the 15th Business Day.

Section 3.6.1 Initial Notification, para 3 - “When Transmission Provider acting as an Affected System receives notification of an impact on Transmission Provider’s Transmission System, Transmission Provider must respond in writing within fifteen (15) Business Days whether it intends to conduct an Affected System Study.”

Need to clarify to whom the notice is to be directed.

3.7.1.1 Calculation of the Withdrawal Penalty, (b) – “If Interconnection Customer withdraws or is deemed withdrawn during the Cluster Re-Study or after receipt of any applicable re-study reports issued pursuant to Section 7.5 of this LGIP, Interconnection Customer will be charged three (3) times its actual allocated cost of all studies performed for Interconnection Customers in the Cluster up until that point, regardless of any previous Withdrawal Penalty revenues received.”

Need to clarify meaning of “previous Withdrawal Penalty revenue received.”

Section 3.7.1.2 Distribution of the Withdrawal Penalty, para. 1 – “Withdrawal penalty revenues associated with section 3.7.1.1(c) of this LGIP shall not be distributed to the remaining Interconnection Customers in that Cluster until all Interconnection Customers in that Cluster have reached Commercial Operation and thereafter shall be distributed as described above.”

Need to clarify if this includes the paragraph after (c) regarding commercial operation.

Section 4.2.2 Optional Resource Solicitation Study

Commission needs to identify where it is stated the Interconnection Customer pays for the resource solicitation study and identify what agreement provides the Transmission Provider the authority to charge the Interconnection Customer as well as whether or an additional study deposit can be required by the Transmission Provider.

Tri-State believes that Optional Resource Solicitation studies should be allowed at any time, not just during the Cluster Request Window. Consider the fact that Energy Resource Plans may not always align with the Cluster Request Window.

Also, there are timing issues regarding the Optional Resource Solicitation Study. The Optional Resource Solicitation Cluster appears to be intended to provide information to help resource planning entities have better information about the interconnection requirements and potential network upgrade costs associated with bids. However, this does not align with the electric resource planning process within Colorado, and potentially other states. Within Colorado, Tri-State's electric resource plan includes only 120 days between identification of short list bids/projects and the filing of an implementation report to the state commission, which includes identification of a preferred portfolio of projects. As a result, the proposed Optional Resource Solicitation Study process would not fit into Colorado's electric resource planning process and therefore would not provide value in the evaluation of bids. Importantly, Transmission Providers within Colorado already offer a Resource Solicitation Cluster Process that grants queue position when initiated. As a result, resource planning entities within Colorado will initiate a Resource Solicitation Cluster once the state commission approves a resource portfolio. Thereby providing

value to customers by providing a path for selected projects to proceed through the generator interconnection procedures once approved.

Section 4.4.7 – “Prior to determining whether the addition of a Generating Facility with the same Point of Interconnection as indicated in the Interconnection Request to an Interconnection Request constitutes a Material Modification, Transmission Provider shall evaluate within sixty (60) Calendar Days the proposed addition of such a Generating Facility if it does not increase the requested Interconnection Service level.”

Tri-State questions how the 60-day time frame would work with the Cluster Study Process.

Section 6.2 Scope of Informational Interconnection [Feasibility]Study, para. 2 – “The Informational Interconnection Study will consider the Base Case as well as all generating facilities (and with respect to (iii), any identified Network Upgrades) that, on the date the Informational Interconnection Feasibility Study is commenced: (i) are directly interconnected to the Transmission System; (ii) are interconnected to Affected Systems and may have an impact on the Interconnection Request ; (iii) have a pending higher queued Interconnection Request to interconnect to the Transmission System; and (iv) have no Queue Position but have executed an LGIA or requested that an unexecuted LGIA be filed with FERC.”

The Commission needs to include the Affected System Interconnection Queue.

Section 7.1 [Interconnection System impact] Cluster Study Agreement, para. 1 – “[Unless otherwise agreed, pursuant to the Scoping Meeting provided in Section 3.4.4,

simultaneously with the delivery of the Interconnection Feasibility Study to Interconnection Customer] No later than five (5) Business Days after the close of a Cluster Request Window, Transmission Provider shall [provide]tender to each Interconnection Customer [an]that submitted a valid Interconnection[System Impact] Request a Cluster Study Agreement in the form of Appendix 3 to this LGIP.”

Tri-State stresses five (5) Business Days is an extremely tight time frame and is not feasible with requests queues greater than 50.

Section 7.2 Execution of [Interconnection System Impact] Cluster Study Agreement, para. 2, “...provided, however, such deficiency does not include failure to deliver the executed [Interconnection System impact] Cluster Study Agreement or deposit.”

Need to confirm/reiterate if the Interconnection Customer doesn't cure the deficiency, the request is considered withdrawn.

7.3 Scope of [Interconnection System Impact] Cluster Study, para. 2

Consider adding additional language to address situations with studies pending higher queued project cluster studies.

7.5 Cluster Re-Studies, (5) para 2 – Tri-State suggests removing “electronically” from language designating how the Transmission Provider notifies the Interconnection Customer in order to be consistent.

9.4 Execution of Affected System Study Agreement

Tri-State suggests adding language identifying protocol if deficiencies are not cured. Such as, “shall be deemed withdrawn pursuant to Section 3.7 of this LGIP.

9.9 Tender of Affected Systems Facilities Construction Agreement

Tri-State suggests adding language stating the Affected System Interconnection Customer must execute the Affected Systems Facilities Construction Agreement.

11.3 Execution and Filing – “Transmission Provider must not suspend the LGIA under LGIA Article 5.16 until Interconnection Customer has provided 1 and 2 to Transmission Provider.”

The Transmission Provider is not charged with the ability to suspend a project, rather the ability lies with the Interconnection Customer.

Comments and Explanations for Suggested Modifications to Form Documents

Appendix 16 to LGIP: Affected Systems Facilities Construction Agreement

Article 2 Term of Agreement

Tri-State suggests adding: No Transmission Delivery Service. The execution of this LGIA does not constitute a request for, nor the provision of, any transmission delivery service under Transmission Provider’s Tariff, and does not convey any right to deliver electricity to any specific customer or Point of Delivery.

Appendix 16 to LGIP: Affected Systems Facilities Construction Agreement, 2.2.2

Termination Upon Default.

Language was removed in accordance with a default only occurs after a Breach and failure to cure.

Appendix 16 to LGIP: Affected Systems Facilities Construction Agreement, 3.1.2.1

Tri-State suggests adding same language used in Article 3.1.2.1 Right to Suspend for Force Majeure Event to both LGIA and LGIP “Interest on amounts paid by Affected System Interconnection Customer to Transmission Provider for the design, procurement, construction, and installation of the Affected System Network Upgrades, shall not accrue during periods in which Affected System Interconnection Customer has suspended construction under this Article 3.1.2.”

Appendix 16 to LGIP: Affected Systems Construction Agreement, Article 3.2.2.1

Repayment – “...or the Affected System Network Upgrades have been determined not to be needed pursuant to this Article 3.2.2.1.”

There is no reference in Article 3.2.2.1 that determines if Affected System Network Upgrades are not needed.

Appendix 16 to LGIP: Affected Systems Construction Agreement, Article 6.3.3 Pre-construction or Installation.

Tri-State suggests consolidating 6.3.3 Pre-construction or Installation with article 2.2.3

Appendix 16 to LGIP: Affected Systems Construction Agreement, Article 6.4 Survival

Rights

Tri-State redline removed language as it is duplicative of Article 2.4

Appendix 17 to LGIP, Shared Network Upgrades

Tri-State suggests making Shared Network Upgrades an attachment to the LGIA instead of an appendix to the LGIP.

Appendix D: Compilation of proposed changes to the pro forma LGIA

Tri-State recommends including the following language in the revised pro forma LGIA:

Written Notice. This LGIA may be terminated by Interconnection Customer after giving Transmission Provider ninety (90) Calendar Days advance written notice, or by Transmission Provider notifying FERC after the Generating Facility permanently ceases Commercial Operation. This LGIA shall be terminated by Transmission Provider if the Generating Facility or a portion of the Generating Facility fails to achieve Commercial Operation by the Commercial Operation Date established in accordance with Section 4.4.5 of the Revised LGIP, including any extension provided thereunder, or, having previously achieved Commercial Operation, has ceased Commercial Operation for three (3) consecutive years, beginning with the last date of Commercial Operation for the Generating Facility, after giving Interconnection Customer ninety (90) Calendar Days advance written notice. When only a portion of the Generating Facility fails to achieve Commercial Operation by the Commercial Operation Date established in accordance with Section 4.4.5 of the Revised LGIP, including any extension provided thereunder, Transmission Provider shall terminate only that portion of the LGIA. Notwithstanding the

foregoing, in the limited circumstance that the Interconnection Request is served by a Contingent Facility with an in-service date that is later than the Commercial Operation Date permitted under Section 4.4.5 of the Revised LGIP, Transmission Provider shall terminate this LGIA only for failure to achieve Commercial Operation by ninety (90) Calendar Days after that later in-service date of the Contingent Facility. The Generating Facility will not be deemed to have ceased Commercial Operation for purposes of this Article 2.3.1 if Interconnection Customer can document that it has taken other significant steps to maintain or restore operational readiness of the Generating Facility for the purpose of returning the Generating Facility to Commercial Operation as soon as possible.

Effect of Missed Interconnection Customer LGIA Milestones. If Interconnection Customer fails to provide notice of suspension pursuant to Article 5.16, and Interconnection Customer fails to fulfill or complete any Interconnection Customer LGIA Milestone provided in Appendix B (“LGIA Milestone”), this constitutes a Breach under this LGIA. Depending upon the consequences of the Breach and effectiveness of the cure pursuant to Article 17, Transmission Provider’s LGIA Milestones may be revised, following consultation with Interconnection Customer, consistent with Reasonable Efforts, and in consideration of all relevant circumstances. Parties shall employ Reasonable Efforts to maintain their remaining respective LGIA Milestones.

VI. CONCLUSION

WHEREFORE, Tri-State respectfully requests that the Commission accept its comments herein and issue a Final Rule consistent with the modifications suggested in the foregoing discussion.

Respectfully submitted,

Tri-State Generation and Transmission
Association, Inc.,

/s/ Timothy B Woolley

Timothy Woolley

Tri-State Generation and Transmission
Association, Inc.
1100 W. 116th Avenue
P.O. Box 33695
Denver, CO 80233-0695
Telephone: 303-254-3277

Counsel for Tri-State Generation &
Transmission Association, Inc.