## **Tennessee Valley Authority**

## Order No. 2023 Implementation Frequently Asked Questions (FAQ) October 10, 2024

Section references are in relation to TVA's revised Large Generator Interconnection Procedures (LGIP) – November 2024 Edition unless otherwise specified.

If there are any conflicts between this FAQ and the LGIP, the LGIP will control.

### General

Q. Will TVA adopt FERC's Order Nos. 2023 and 2023-A ("Order 2023")?

A. Yes, TVA will substantially align to FERC's provisions in Order 2023.

### Q. When will TVA implement Order 2023?

A. TVA's revised LGIP was posted on October 1, 2024, and will be effective on November 1, 2024.

### Q. Will TVA revise the Small Generator Interconnection Procedures (SGIP)?

A. Yes, TVA plans to work on a revision to the SGIP in 2025.

Q. What Interconnection Requests will be subject to the LGIP November 2024 Revision?

A. All large generator Interconnection Requests submitted after October 1, 2024, will be subject to the revised LGIP. Requests submitted prior to October 1, 2024, and that have a queue assignment will be subject to the transition process as provided in the revised LGIP (Section 5.1).

## Q. Will TVA offer Energy Resource Interconnection Service (ERIS) and Network Resource Interconnection Service (NRIS)?

A. Yes, TVA will offer both ERIS and NRIS (Section 3.2).

### Transition

# Q. What Interconnection Requests will be eligible to connect with the existing LGIP (March 2022 edition)?

A. Interconnection Requests that have received a draft Interconnection Facilities Study Report (progressive or detailed) before November 1, 2024, will be tendered a LGIA under the existing procedures and will not enter the transition process (Section 5.1.1).

# Q. What Interconnection Requests will be eligible to participate in the Transitional Serial Study?

A. Interconnection Requests that have been tendered an Interconnection Facilities Study Agreement before November 1, 2024, will be tendered a Transitional Serial Interconnection Facilities Study Agreement and will be eligible to participate in the Transitional Serial Study (Section 5.1.1.1).

# Q. What Interconnection Requests will be eligible to participate in the Transitional Cluster Study?

A. Interconnection Requests that have been assigned a Queue Position before November 1, 2024 but do not yet have a finalized SIS and tendered a Facility Study Agreement, will be tendered a Transitional Cluster Study Agreement and will be eligible to participate in the Transitional Cluster Study (Section 5.1.1.2).

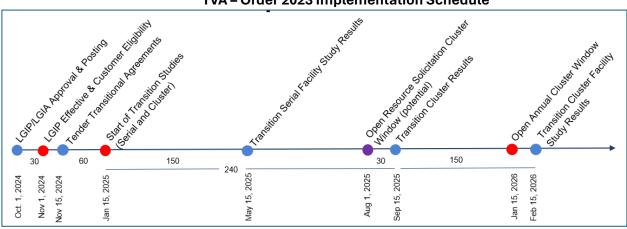
# Q. What is the process for Interconnection Requests that do not have a Queue Position assigned prior to November 1, 2024?

A. Interconnection Requests without a Queue Position on November 1, 2024, are not eligible to participate in a transitional study and must wait until the opening of an annual cluster or resource solicitation cluster window.

## Q. What is the schedule for the implementation and transition to Order 2023?

A. Implementation began with the posting of the LGIP on October 1, 2024. Transition eligibility will be determined on November 1, 2024. The first Annual Cluster Window will open on January 15, 2026.

Additional details of the transition are shown below.



### TVA – Order 2023 Implementation Schedule

Note: dates for study results are estimations.

## Q. Will Interconnection Requests that are eligible for the Transitional Serial Study or Transitional Cluster Study that choose not to execute the necessary transitional agreements be subject to penalties?

A. Interconnection Requests that choose not to execute the transitional agreement will not be subject to any new withdrawal penalties. Interconnection Customers will

have 60 Calendar Days to execute the transitional agreements (approximately January 14, 2025). Transitional agreements will be provided by November 15, 2024 (Section 5.1.1). During the transitional process, penalties assessed under the existing LGIP (e.g., if an Interconnection Customer was assessed Commercial Readiness penalty prior to November 1) will still apply.

Interconnection Customers that are eligible to continue under the existing LGIP will be assessed penalties based on the practices in the LGIP – March 2022 Edition.

Interconnection Customers will be refunded or invoiced for appropriate Pre-Order 2023 activities after the end of the transitional agreement deadline and project closure.

## Q. What happens to Interconnection Requests or studies not completed as of November

- 2024? What happens to Interconnection Requests in the middle of steps/phases?
   A. The determination of continued work/analysis of Interconnection Requests will be determined based on transition eligibility.
- Work will cease on Interconnection Requests that have not completed deficiency review and have not received an interconnection queue assignment (i.e., Eligible for Annual Cluster Study). Note: Interconnection Requests that clear deficiency but awaiting on queue assignment on November 1 due to pending reviews will receive a queue assignment and be eligible to participate in the Transitional Cluster Study.
- Analysis will cease on Interconnection Requests that are in the queue assignment, Feasibility Study, or System Impact Study phases (i.e., Eligible for Transitional Cluster Study).
- Work will cease/pause on Interconnection Requests that are in Facilities Study phase (i.e., Eligible for Transitional Serial Study), but will resume upon execution of a Transitional Serial Agreement.
- Work will continue on Interconnection Requests that are in Engineering and Procurement phase (i.e., Eligible to continue with March 2022 Pre-Order 2023 LGIP).
  - Note: Work will cease for any withdrawn Interconnection Request.

# Q. What are the financial requirements and obligations of Interconnection Requests in the transition process?

A. The financial requirements for transition will be based on the applicable transition option, as set forth below:

Transition Options	Transition Deposit	Study Deposit	Penalty
Existing LGIP	n/a	n/a	per existing LGIP
Trans Serial	\$All upgrades	up to \$150k	9x study costs
Trans Cluster	\$5M	\$250k	9x study costs

Note: The financial requirements/obligations will be appropriately updated/documented in the applicable LGIA. (e.g., old readiness penalties could apply to existing LGIP projects, upgrade costs will be trued up at LGIA, etc.)

# Q. Are there exceptions to the withdrawal penalty for projects in the Transitional Serial or Transitional Cluster?

A. No, there are no exceptions to withdrawal penalties for an Interconnection Customer that executes the transitional agreement.

### Q. What forms of payment will be accepted for the transition process?

A. Transition Deposits must be in the form of an irrevocable letter of credit (LOC) or cash. Study deposits should be provided in cash.

The LOC should be submitted at least 30 days prior to the agreement execution deadline to account for legal and financial reviews.

#### **Annual Cluster**

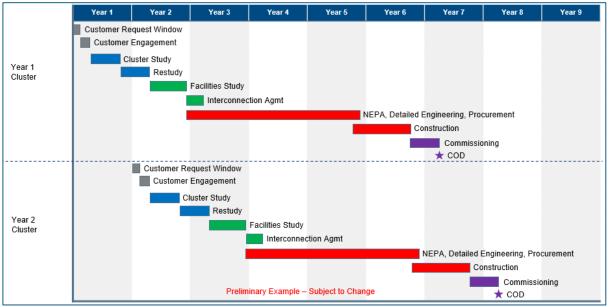
### Q. What are the requirements to enter into TVA's Annual Cluster Study?

A. The requirements to submit into the Annual Cluster Study are detailed in Sections 3.1 and 3.4 of the LGIP.

## Q. What is the expected timeline and duration between the Annual Cluster Window and LGIA execution?

A. The timeline from the opening of the Cluster Request Window to LGIA full execution is expected to take approximately 27 months with one assumed cluster restudy.

Additional details of the timeline are below. Timelines and durations may vary based on the specific cluster and projects within the cluster. This should be used as an example only.



#### TVA – Annual Cluster Study Timeline Example

# Q. What deposits are required throughout the Annual Cluster Study process and what are the potential penalties?

A. Deposits and other securities and penalties will increase based on where the Interconnection Request is in the process. The table below provides a summary of information.

Phase	Financial Requirements	Potential Penalties
Application Submittal	<ul> <li>Application fee = \$25k (all)</li> <li>Study deposit &lt; 75 MW = \$150k ≥ 75 MW &lt; 200 MW = \$200k ≥ 200 MW = \$300k</li> <li>Commercial Readiness deposit = 2 x study deposit</li> <li>Site control (regulatory limitation only) = Up to \$2M</li> </ul>	2x study deposit
Cluster Study Agmt	n/a	2x study deposit
Cluster Restudy Start	Commercial Readiness deposit = 5% of estimated Network Upgrade costs (cumulative)	5% of estimated Network Upgrade costs
Facilities Study Agmt	Commercial Readiness deposit = 10% of estimated Network Upgrade costs (cumulative)	10% of estimated Network Upgrade costs
LGIA	<ul> <li>Commercial Readiness deposit = 20% of estimated Network Upgrade costs (cumulative)</li> <li>Construction Security*</li> <li>Network Upgrade Security*</li> <li>Continuing Security*</li> <li>Working payments*</li> </ul>	20% of estimated Network Upgrade costs

\* Per terms of the LGIA

## Q. Will there be exceptions to Withdrawal Penalties in the Annual Cluster?

A. Yes, Withdrawal Penalty exceptions are detailed in Section 3.7.1 of the LGIP.

# **Q.** When will TVA offer a Resource Solicitation Process (RSC) and what will the requirements be?

A. TVA is currently considering implementation of an RSC. An RSC could open as early as August 2025. Note that nothing is definitive at this time. Details will be provided prior to the opening of any RSC window.

## Site Control

# **Q.** What are the Site Control requirements when submitting an Interconnection Request?

A. All Interconnection Requests must provide 100% site control at the Generating Facility.

- Transitional Serial Study process:
  - Per Section 5.1.1.1, the Interconnection Request must demonstrate exclusive Site Control for one hundred percent (100%) of the proposed Generating Facility to qualify.
- Transitional Cluster Study:
  - Per Section 5.1.1.2, the Interconnection Request must demonstrate exclusive Site Control for one hundred percent (100%) of the proposed Generating Facility to qualify.
- Cluster Study:
  - Per Section 3.4.2, the Interconnection Request must demonstrate exclusive Site Control for one hundred percent (100%) of the Generating Facility to qualify. An Interconnection Request may utilize a deposit in lieu of Site Control only if it demonstrates, to TVA's satisfaction that regulatory limitations (e.g., receipt of necessary regulatory approvals from the applicable federal, state, and/or tribal entities) delay acquisition of Site Control beyond the application date.

# Q. What is the definition of Interconnection Facilities for Site Control? Does that include gen-ties, or is it limited to project substations and POI?

A. TVA's definition of Interconnection Facilities is aligned to the FERC *pro forma* LGIP and includes all equipment below the POI that is necessary to physically and electrically interconnect.

## Q. What are the Acreage Requirements for Generating Facilities.

A. Definitive acreage requirements will be posted on OASIS, but a preliminary guide is set forth below:

Solar	6 acres/MW	
Battery Storage	0.1 acre/MW	
Conventional	15 acres	
Hydro	1 acre	
Wind	30 acres/MW	
Hybrid/Co-location	Meet each min	

Note: These are minimum requirements. There could be a need for additional acreage based on the specific site selection and/or technology. Limited exceptions may be considered if adequate documentation is submitted for TVA's review.

### Material Modification

### Q. Will TVA allow a project size reduction prior to Cluster Study and Cluster Restudy?

A. A 60% reduction is allowed prior to execution of the Cluster Study Agreement and a 15% reduction prior to execution of the Interconnection Facilities Study Agreement.

### Q. Will TVA allow modifications beyond the standard size reductions?

A. Section 4.4.3 provides that "Prior to making any modification other than those specifically permitted by Sections 4.4.1, 4.4.2, and 4.4.5 of this LGIP, Interconnection Customer may first request that TVA evaluate whether such modification is a Material Modification. In response to Interconnection Customer's request, TVA shall evaluate the proposed modifications prior to making them and inform Interconnection Customer in writing of whether the modifications would constitute a Material Modification."

### Q. What is the process for adding or removing Battery Energy Storage System (BESS)?

A. Consistent with the existing process, adding a grid-charging BESS after queue assignment is not allowed. Non-grid-charging may be permitted, on a case-by-case basis, considering the total nameplate capacity of the project before and after the proposed change. Any proposed changes would need to follow the modification process detailed in Section 4.4.

### Grid Enhancing Technologies (GETs)

### Q. Will TVA utilize GETS?

A. Section 7.3 provides that "the Cluster Study will evaluate static synchronous compensators, static VAR compensators, advanced power flow control devices, transmission switching, synchronous condensers, voltage source converters, advanced conductors, and tower lifting. TVA shall evaluate each identified alternative transmission technology and determine whether the above technologies should be used, consistent with Good Utility Practice, Applicable Reliability Standards, and Applicable Laws and Regulations."

# Q. Does TVA anticipate studying GETs in each cluster or do Interconnection Customers have to propose them?

A. TVA will evaluate GETS/alternative technologies pursuant to Section 7.3 of the LGIP.

### Q. Has TVA used GETS in the past?

A. TVA has varying levels of experience with GETs. For example, TVA has installed static VAR compensators and advanced power flow control devices. TVA has been using advanced conductors for many years and continues to push the initiative in this area. TVA is currently conducting pilot demonstrations with dynamic line ratings to better understand their capabilities, methods, benefits, and drawbacks.