Interconnection Facilities Study

Costs associated with DISIS-2023-001 GEN-2023-033

January 2026

Introduction

This report summarizes the scope of the Interconnection Facilities Analysis for Network Upgrade(s) to determine costs related to the addition of the SPP-GI DISIS-2023-001 Interconnection Request(s). Evergy, as a TO, is receiving an unprecedented amount of GI interconnect requests. The cost estimates and interconnect information supplied are based on current system configuration. There are many cases of multiple GI's requesting POIs at the same substation. Ongoing changes in Evergy's transmission system configuration could affect the required system upgrades and costs necessary to meet any particular GI interconnect request in the future.

Southwest Power Pool Generation Interconnection Request:

Per the SPP Generator Interconnection Procedures (GIP), SPP has requested that Evergy perform an Interconnection Facilities Study (IFS) for Network Upgrade(s) in accordance with the Scope of Interconnection Facilities Study GIP Section 8.10 and the Interconnection Facilities Study Procedures in accordance with GIP Section 8.11 for the following Interconnection Request(s):

Upgrade Type	UID	Upgrade Name	DISIS Cost Estimate	DISIS Lead Time
Interconnection	158734	Liberty South 161 kV Substation GEN-2023-033 Interconnection (TOIF) (Evergy)	$ 940,805.00	36 months
Interconnection	158735	Liberty South 161 kV Substation GEN-2023-033 Interconnection (Non-Shared NU) (Evergy)	$ 1,265,761.00	36 months

Liberty South 161 kV Substation GEN-2023-033 Interconnection (TOIF) (Evergy)

161kV Substation

TOIF for accommodating GridStor GEN-2023-033 (200MW/Battery/Storage) at Liberty South 161 kV Substation. This estimate is the cost associated with the Transmission Owner Interconnection Facilities for a terminal at the Liberty South 161 kV substation for GEN-2022-004. UID 158734

Total Cost

The total cost estimate for this Network Upgrade is:

$	0	Transmission Line
$	859,577	Substation
$	2,813	AFUDC
$	78,414	Contingency
$	940,805	Total

This estimate is accurate to +/- twenty (20) percent, based on current prices, in accordance with Attachment A of Appendix 4 of the Interconnection Facilities Study

Agreement. However, recent cost fluctuations in materials are very significant and the accuracy of this estimate at the time of actual settings cannot be assured.

Time Estimate

Time estimates are based on current version of the project schedule and some processes of each category run concurrently.

Engineering Time	36	Months
Procurement Time	36	Months
Construction Time	36	Months
Total Project Length	36	Months

Liberty South 161 kV Substation GEN-2023-033 Interconnection (Non-Shared NU) (Evergy)

161kV Substation

Network Upgrades required at Liberty South 138kV substation to accommodate GridStor GEN-2023-033 (200MW/Battery/Storage). This estimate includes installing a new 161kV breaker and switches in the existing ring bus to serve the GEN-2023-033 Line Terminal. UID 158735

Total Cost

The total cost estimate for this Network Upgrade is:

$	0	Transmission Line
$	1,153,572	Substation
$	3,785	AFUDC
$	108,402	Contingency
$	1,265,761	Total

This estimate is accurate to +/- twenty (20) percent, based on current prices, in accordance with Attachment A of Appendix 4 of the Interconnection Facilities Study Agreement. However, recent cost fluctuations in materials are very significant and the accuracy of this estimate at the time of actual settings cannot be assured.

Time Estimate

Time estimates are based on current version of the project schedule and some processes of each category run concurrently.

Engineering Time	36	Months
Procurement Time	36	Months
Construction Time	36	Months
Total Project Length	36	Months

Figure 1 – Liberty South 161/69kV Substation