Interconnection Facilities Study

Costs associated with
DISIS-2022-001
GEN-2022-102

October 2025

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-2022-001 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	158214	Liberty West 161 kV GEN-2022-102 Interconnection (TOIF) (EM)	$ 1,061,551.00	48 Months
Interconnection	158215	Liberty West 161 kV GEN-2022-102 Interconnection (Non-Shared NU) (EM)	$ 2,176,169.00	48 Months

Liberty West 161 kV GEN-2022-102 Interconnection (TOIF) (EM

161kV Substation

TOIF for accommodating Barbacoa Battery Storage, LLC GEN-2022-102 (100MW of Battery/Storage) at Liberty West 161kV Substation. This estimate is the cost associated with the Transmission Owner Interconnection Facilities for a terminal at the Liberty West 161kV substation for GEN-2022-102. UID 158214

Total Cost

The total cost estimate for this TOIF is:

$	0	Transmission Line
$	968,999	Substation
$	3,175	AFUDC
$	89,377	Contingency
$	1,061,551	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	36-48	Months
Procurement Time	36-48	Months
Construction Time	36-48	Months
Total Project Length	36-48	Months

Liberty West 161 kV GEN-2022-102 Interconnection (Non-Shared NU) (EM)

161kV Substation

Network Upgrades required at Liberty West 161kV substation to accommodate Barbacoa Battery Storage, LLC GEN-2022-102 (100MW of Battery/Storage). This estimate includes re-terminating the Liberty West-Hallmark 161kV line to eliminate line crossing and a new 161kV breaker and switches in the existing ring bus. UID 158215

Total Cost

The total cost estimate for this Network Upgrade is:

$	938,910	Transmission Line
$	1,124,923	Substation
$	5,760	AFUDC
$	106,576	Contingency
$	2,176,169	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	36-48	Months
Procurement Time	36-48	Months
Construction Time	36-48	Months
Total Project Length	36-48	Months

Figure 1 – Liberty West 161kV Substation