Interconnection Facilities Study

Costs associated with DISIS-2022-001 GEN-2022-100

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	158276	Overton - Sedalia East 161 kV Substation GEN-2022-100 Interconnection (TOIF) (EM)	$ 1,043,206.00	48 Months
Interconnection	158277	Overton - Sedalia East 161 kV Substation GEN-2022-100 Interconnection (Non-Shared NU) (EM)	$ 16,371,914.00	48 Months

Overton - Sedalia East 161 kV Substation GEN-2022-100 Interconnection (TOIF) (EM)

161kV Substation

TOIF for accommodating RES GEN-2022-100 (80MW of Hybrid) at a greenfield 161kV Substation on the Overton-Sedalia East 161kV line. This estimate is the cost associated with the Transmission Owner Interconnection Facilities for a terminal at a new substation on the Overton-Sedalia East 161kV line for GEN-2022-100. UID 158276

Total Cost

The total cost estimate for this TOIF is:

$	0	Transmission Line
$	953,326	Substation
$	3,120	AFUDC
$	86,760	Contingency
$	1,043,206	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

Overton - Sedalia East 161 kV Substation GEN-2022-100 Interconnection (Non-Shared NU) (EM)

161kV Substation

Network Upgrades to construct a greenfield 161kV ring bus substation on the Overton-Sedalia East 161kV line to accommodate RES GEN-2022-100 (80MW of Hybrid). The transmission line estimate assumes that the substation will be located directly adjacent to the existing line, with no additional easements required. UID 158277

Total Cost

The total cost estimate for this Network Upgrade is:

$	1,408,365	Transmission Line
$	13,612,427	Substation
$	47,846	AFUDC
$	1,303,276	Contingency
$	16,371,914	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 – Overton-Sedalia East 161kV Line