Interconnection Facilities Study

Costs associated with
DISIS-2022-001
GEN-2022-007

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	158193	Lang - Reading 115 kV Transmission Line GEN-2022-007 Interconnection (TOIF) (EKC)	$ 1,160,062.00	48 Months
Interconnection	158194	Lang - Reading 115 kV Transmission Line GEN-2022-007 Interconnection (Non-Shared NU) (EKC)	$ 17,017,590.00	48 Months

Lang - Reading 115 kV Transmission Line GEN-2022-007 Interconnection (TOIF) (EKC)

115kV Substation

TOIF for accommodating Evergy GEN-2022-007 (135MW of Solar) at a greenfield 115kV Substation. This estimate is the cost associated with the Transmission Owner Interconnection Facilities for a terminal at the new 115kV substation for GEN-2022-214. UID 158193

Total Cost

The total cost estimate for this TOIF is:

$	0	Transmission Line
$	1,059,614	Substation
$	3,470	AFUDC
$	96,978	Contingency
$	1,160,062	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

Lang - Reading 115 kV Transmission Line GEN-2022-007 Interconnection (Non-Shared NU) (EKC)

115kV Substation

Network Upgrades to construct a greenfield 115kV ring bus on the Lang-Reading 115kV line to accommodate Invenergy GEN-2022-007 (135MW of Solar). The transmission line estimates assume that the substation will be located directly adjacent to the existing line, with no additional easements required. UID 158194

Total Cost

The total cost estimate for this Network Upgrade is:

$	2,358,000	Transmission Line
$	13,334,620	Substation
$	49,961	AFUDC
$	1,275,009	Contingency
$	17,017,590	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 – Lang-Reading 115kV Line