Interconnection Facilities Study

Costs associated with ERAS-2025-007 & ERAS-2025-013

April 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 ERAS-2025-001 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	170809	Mullin Creek 345 kV Substation ERAS-2025-007 Interconnection (TOIF) (Evergy)	$ 2,122,145.00	48 months
Interconnection	170810	Mullin Creek 345 kV Substation ERAS-2025-013 Interconnection (TOIF) (Evergy)	$ 2,122,145.00	48 months
Interconnection	170819	Mullin Creek 345 kV Substation ERAS-2025-007/013 Interconnection (Shared NU) (Evergy)	$ 24,108,835.00	48 months

Mullin Creek 345 kV Substation ERAS-2025-007 Interconnection (TOIF) (Evergy)

345kV Substation

TOIF for accommodating Evergy ERAS-2025-007 (450.6MW/Thermal) at Mullin Creek 345kV Substation. This estimate is the cost associated with the Transmission Owner Interconnection Facilities for a new line terminal at the Mullin Creek 345kV substation for ERAS-2025-007. UID 170809

Total Cost

The total cost estimate for this Network Upgrade is:

$	0	Transmission Line
$	1,937,129	Substation
$	6,347	AFUDC
$	178,668	Contingency
$	2,122,145	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.

Mullin Creek 345 kV Substation ERAS-2025-013 Interconnection (TOIF) (Evergy)

345kV Substation

TOIF for accommodating Evergy ERAS-2025-013 (450.6MW/Thermal) at Mullin Creek 345kV Substation. This estimate is the cost associated with the Transmission Owner Interconnection Facilities for a new line terminal at the Mullin Creek 345kV substation for ERAS-2025-013. UID 170810

Total Cost

The total cost estimate for this Network Upgrade is:

$	0	Transmission Line
$	1,937,129	Substation
$	6,347	AFUDC
$	178,668	Contingency
$	2,122,145	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	48	Months
Procurement Time	48	Months
Construction Time	48	Months
Total Project Length	48	Months

Mullin Creek 345 kV Substation ERAS-2025-007&013 Interconnection (Shared NU) (Evergy)

345kV Substation

Network Upgrades required at Mullin Creek 345kV substation to accommodate Evergy ERAS-2025-007(450.6MW/Thermal) & ERAS-2025-013 (450.6MW/Thermal). Transmission estimate includes relocating approximately 0.25-mile of double circuit 69kV. Substation estimate includes substation expansion and installation of 345kV equipment to serve the ERAS-2025-007 & ERAS-2025-013. UID 170819

Total Cost

The total cost estimate for this Network Upgrade is:

$	2,209,200	Transmission Line
$	20,023,057	Substation
$	61,509	AFUDC
$	1,815,067	Contingency
$	24,108,835	Total

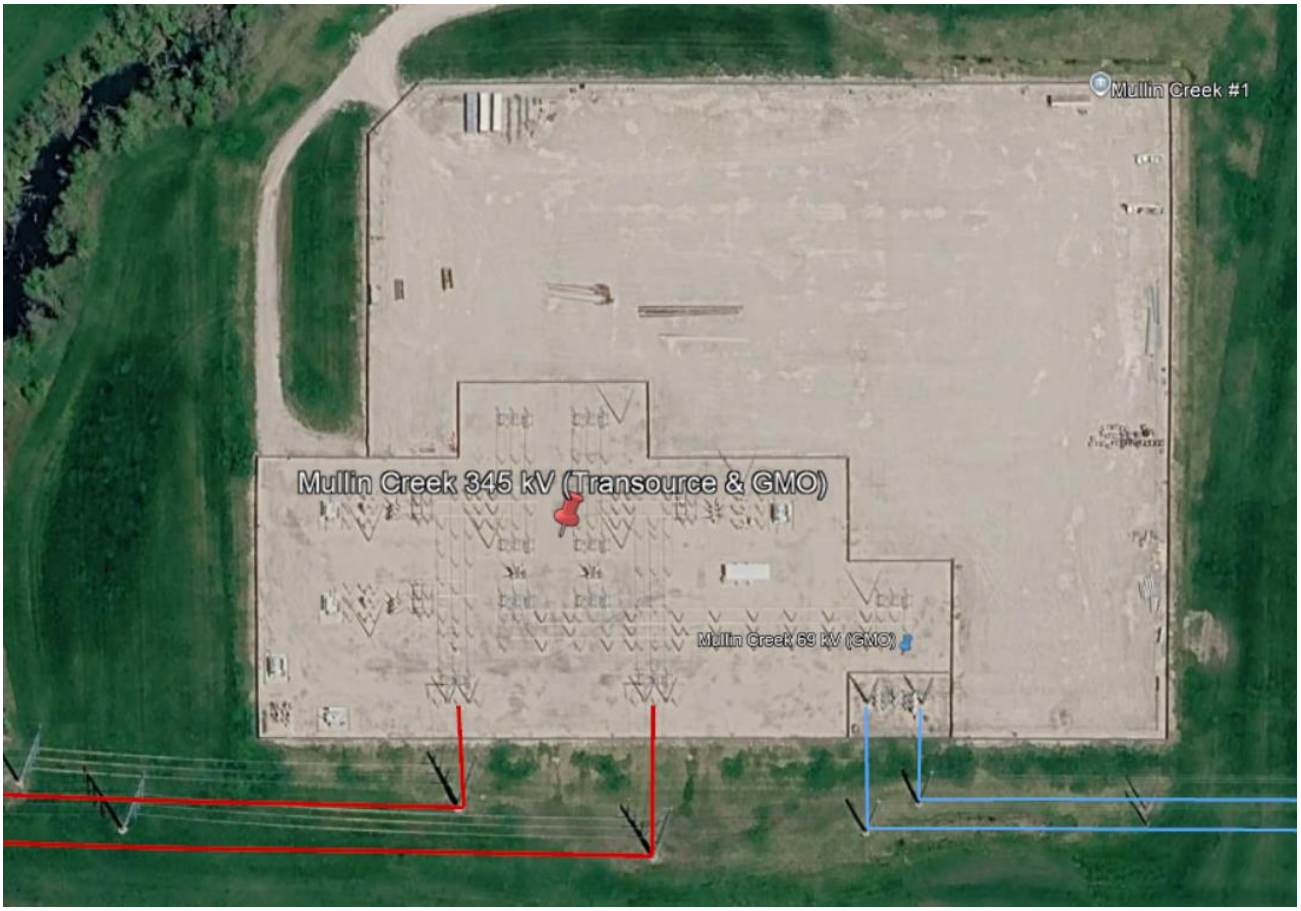
This estimate is accurate to +/- twenty (20) percent, based on current prices, in accordance with Attachment A of Appendix 4 of the Interconnection Facilities Study Agreement. However, recent cost fluctuations in materials are very significant and the accuracy of this estimate at the time of actual settings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

Time Estimate

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

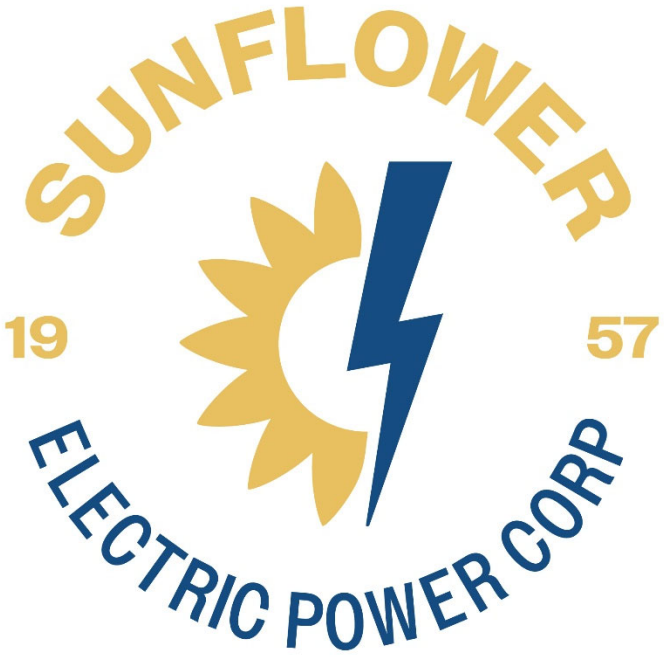
Engineering Time	48	Months
Procurement Time	48	Months
Construction Time	48	Months
Total Project Length	48	Months

Figure 1 – Mullin Creek 69/345kV Substation



Sunflower
ELECTRIC POWER CORP

Interconnection Facilities Study
for ERAS-2025-001 Network Upgrade:
Build the HOLCOMB7 to HOLCOMB3 345 kV Transformer 2



April 20, 2026

TABLE OF CONTENTS

STUDY OVERVIEW:

The Southwest Power Pool has requested a Facility Study for a Network Upgrade from Sunflower Electric Power Corporation (Sunflower). The Network Upgrade identified includes a new 345/115 kV transformer at the existing Holcomb Substation.

The cost of Sunflower's portion of building a new 345/115 kV transformer at the existing Holcomb Substation and associated upgrades is estimated at $26,301,311 (UID: 172046).

SPP's ERAS-2025-001 identified Network Upgrades included with this Facilities Study are associated with the following:

- ERAS-2025-015
  - $13,150,655.50
- ERAS-2025-017
  - $13,150,655.50

The purpose of this study is to provide estimated costs of facilities required for interconnection of the proposed generation to Sunflower's transmission system and to identify scope and estimated costs for network upgrades required on Sunflower's transmission system to allow the generation to run at the full requested capacity.

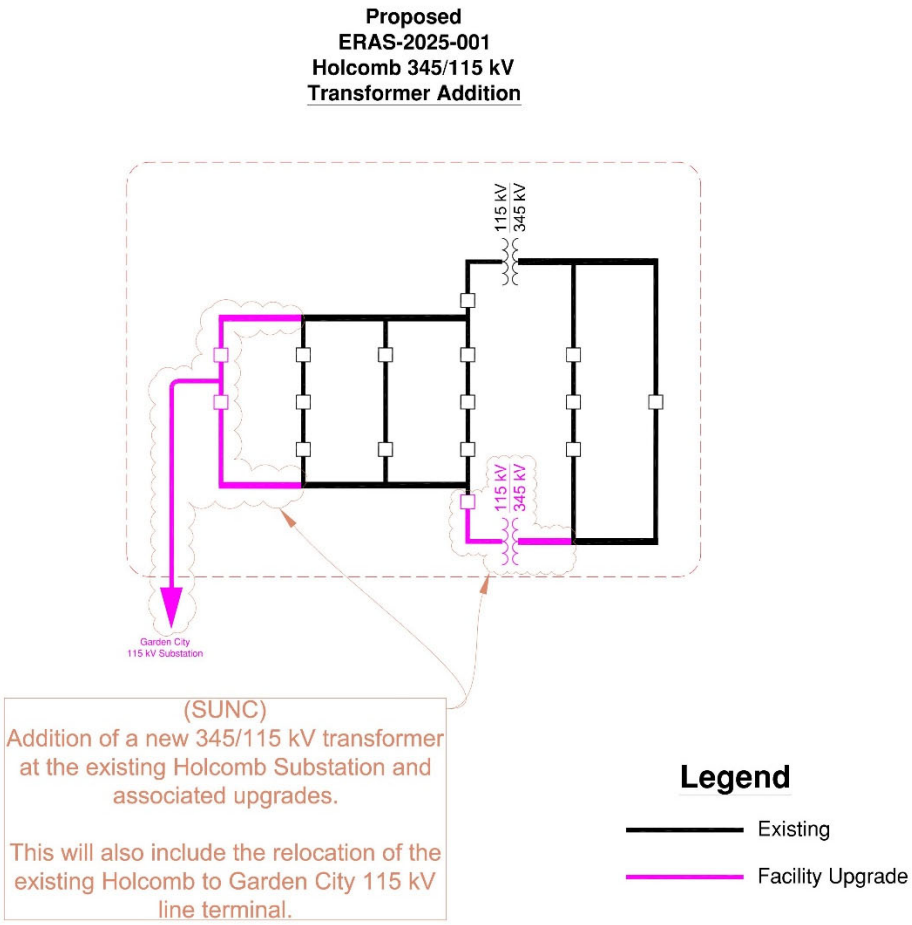
Additional network upgrades required for facilities of other transmission owners are not included in this study and will be identified by SPP.

SHARED NETWORK UPGRADES:

Network Upgrades included in this study consist of adding a new 345/115 kV transformer at the existing Holcomb Substation required by SPP. The new 345/115 kV transformer and associated upgrades shall be constructed and maintained by Sunflower.

The proposed arrangement for upgrades for ERAS-2025-001 is shown in Figure 1.

Figure 1: One-line Diagram Facilities for ERAS-2025-001



INTERCONNECTION COSTS:

Summary of interconnection costs for both Interconnection Facilities and Sunflower identified Network Upgrades can be found in the following table.

Upgrade Type	UID	Upgrade Name/Description	DISIS Cost Estimate	DISIS Lead Time
Current Study	172046	**Build the HOLCOMB7 to HOLCOMB3 345 kV Transformer 2** Construct the addition of a new 345/115 kV transformer at the existing Holcomb Substation required for **ERAS-2025-015**	$13,150,655.50	40
Current Study	172046	**Build the HOLCOMB7 to HOLCOMB3 345 kV Transformer 2** Construct the addition of a new 345/115 kV transformer at the existing Holcomb Substation required for **ERAS-2025-017**	$13,150,655.50	40
		Total Interconnection Cost:	**$26,301,311**	

PROJECT TIMELINE:

Specific construction schedule and milestones will be determined during the Generator Interconnection Agreement negotiations. Sunflower is estimating an engineering and construction schedule for this project as approximately 40 months. Other factors associated with clearances; equipment procurement delays and work schedules could cause additional delays. This is applicable after all required agreements are signed and internal approvals are granted.

Interconnection Facilities Study

Costs associated with ERAS-2025-001 Replace the existing SIBLEY 345/161kV transformer

April 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 ERAS-2025-001 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
Current Study	172063	Replace the SIBLEY 7 to SIBLEY 5 345kV Transformer 1	$ 13,571,142.00	48 months

Replace Sibley 345/161 kV Transformer (Current Study) (Evergy)

345/161kV Substation

Network Upgrades to replace the Sibley 345/161 kV Transformer 1. This estimate includes the replacement of the existing transformer with the standard MVA size accommodating the 510 MVA minimum rating. UID 172063

Total Cost

The total cost estimate for this Network Upgrade is:

$	0	Transmission Line
$	12,391,128	Substation
$	40,591	AFUDC
$	1,139,421	Contingency
$	13,571,142	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	48	Months
Procurement Time	48	Months
Construction Time	48	Months
Total Project Length	48	Months

Figure 1 – Sibley 345/161kV Substation