FACILITY STUDY

for

Generation Interconnect Request GEN-2022-098

200MW Solar Generating Facility
Johnston County
Oklahoma

November 3, 2025

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Summary

Pursuant to the tariff and at the request of the Southwest Power Pool (SPP), Oklahoma Gas and Electric (OG&E) performed the following Facility Study to satisfy the Facility Study Agreement executed by the requesting customer for SPP Generation Interconnection request GEN-2022-098. The request for interconnection was placed with SPP in accordance with SPP's Open Access Transmission Tariff, which covers new generation interconnections on SPP's transmission system. The requirements for interconnection consist of installing a new 345kV terminal, metering, and associated equipment at Bison Substation. In addition, meters will be installed at the Interconnection Customer's collector substation for the purpose of revenue metering of the solar generation. Network upgrades at Bison Substation consist of installing switches, breakers, and associated equipment. The total cost of OKGE is estimated at **$4,058,522.**

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Introduction

The Southwest Power Pool has requested a Facility Study for the purpose of interconnecting a Solar generating facility within the service territory of OG&E Electric Services (OKGE) in Johnston County, Oklahoma. The proposed 345kV point of interconnection is at Bison Substation in Johnston County. This substation is owned by OKGE. The cost for installing a new 345kV terminal, one breaker, switches, and other associated equipment, is estimated at **$4,058,522**.

Interconnection Facilities

The primary objective of this study is to identify attachment facilities. The requirements for interconnection consist of installing a new 345kV terminal and associated metering equipment at Bison Substation. Network upgrades consisting of installing a new breaker, switches, and associated equipment are also required for interconnection. This 345kV upgrade shall be constructed and maintained by OKGE. It is assumed that obtaining all necessary right-of-way for the line to the perimeter of the existing OKGE 345kV substation will be performed by the interconnection customer.

The total cost for OKGE to add a new 345kV terminal and network upgrades at Bison substation is estimated at **$4,058,522**. This cost does not include the building of the 345kV line from the customer substation to the transmission dead-end structure at the perimeter into Bison substation. This does not include the Customer's 345-34.5kV substation and the cost estimate should be determined by the Customer.

This Facility Study does not guarantee the availability of transmission service necessary to deliver the additional generation to any specific point inside or outside the Southwest Power Pool (SPP) transmission system. The transmission network facilities may not be adequate to deliver the additional generation output to the transmission system. If the customer requests firm transmission service under the SPP Open Access Transmission Tariff at a future date, Network Upgrades or other new construction may be required to provide the service requested under the SPP OATT.

The costs of interconnecting the facility to the OKGE transmission system are listed in Table 1.

Short Circuit Fault Duty Evaluation

It is standard practice for OG&E to recommend replacing a circuit breaker when the current through the breaker for a fault exceeds 100% of its interrupting rating with re-closer de-rating applied, as determined by the ANSI/IEEE C37.5-1979, C37.010-1979 & C37.04-1979 breaker rating methods.

For this generator interconnection, no breakers were found to exceed their interrupting capability after the addition of the Customer's 200 MW generation and related facilities. OG&E found no breakers that exceeded their interrupting capabilities on their system. Therefore, there is no short circuit upgrade costs associated with the GEN-2022-098 interconnection.

Table 1: Required Interconnection Network Upgrade Facilities

Facility	ESTIMATED COST (2025 DOLLARS)
Lead time	36 Months
OKGE – **Interconnection Facilities (UID 158076)**- New 345kV terminal, metering equipment consisting of CT/PTs, and associated equipment	$1,909,985
OKGE – **Network Upgrades (UID 158077)-** Install one 345kV Breaker, Switches, and associated equipment	$2,148,537
OKGE – **Land or ROW**	$0
Total	**$4,058,522**

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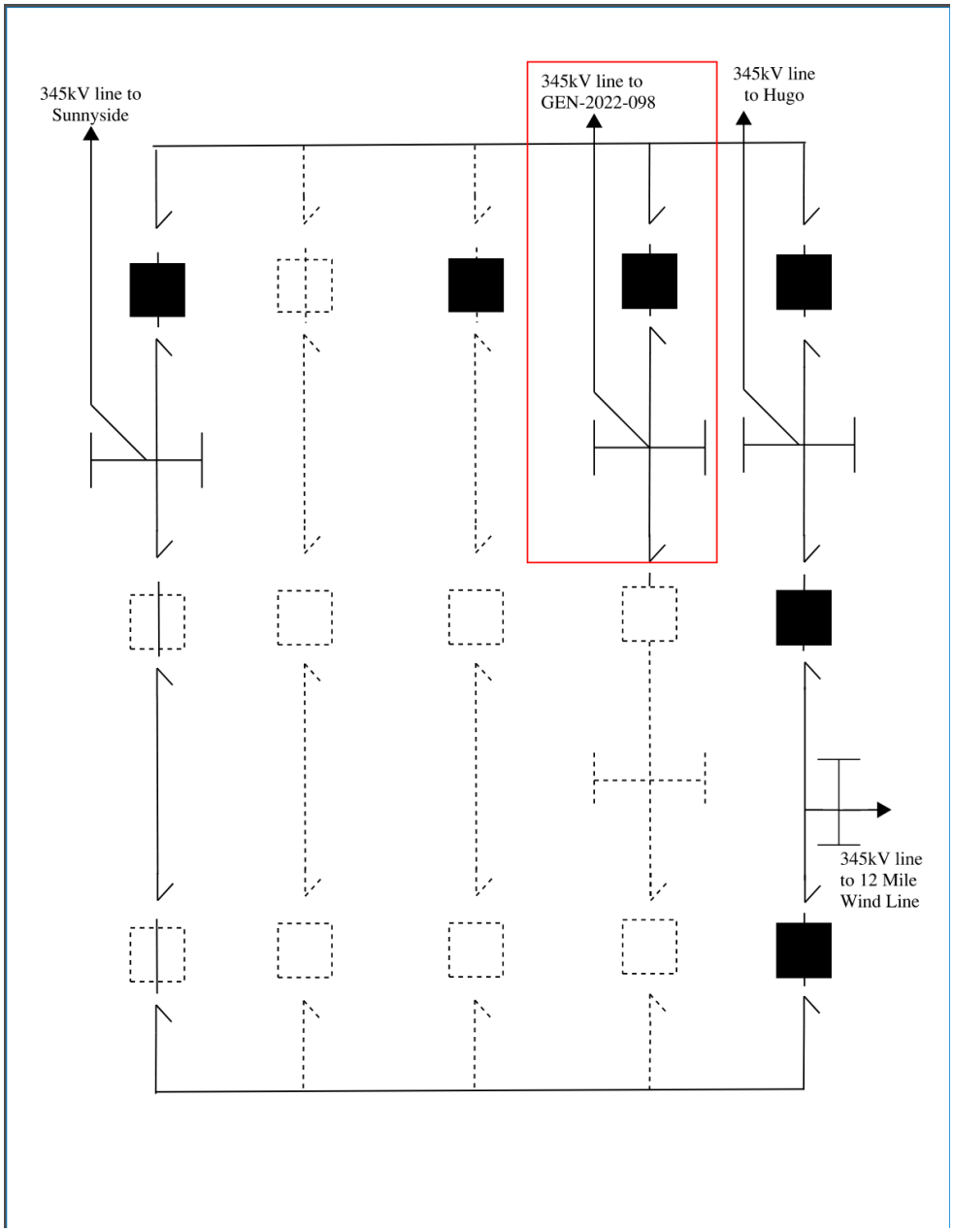
Bison Substation



AEP Generation Interconnection

Facilities Study Report

for

DISIS-2022-001

Welsh to Wilkes 345 kV Line Rebuild

Morris County, Texas

November 2025

1 Facilities Study Summary

American Electric Power (AEP) Southwest Transmission Planning performed the following study at the request of the Southwest Power Pool (SPP) for SPP Generation Interconnection request DISIS-2022-001. Per the SPP Generator Interconnection Procedures (GIP), SPP requested that AEP perform an Interconnection Facilities Study (IFS) for Network Upgrade(s) in accordance with Attachment V, Section 8.11 of the Generator Interconnection Procedures (GIP).

Welsh to Wilkes 345 kV

- Rebuild the approx. 12.1-mile line section to achieve the desired 1000 MVA summer emergency rating.

1.1 Project Description

Per the DISIS-2022-001 study request, AEP proposes to rebuild a section of the Welsh to Wilkes 345 kV line (Figure 1) in Morris County, Texas.

1.2 AEP's Scope of Work to Facilitate Interconnection

- To accommodate the desired summer emergency rating of 1000 MVA requested for the Welsh to Wilkes 345 kV line, an existing approx. 12.1-mile line section will be rebuilt.
- The design and construction of the new equipment will meet all AEP specifications for transmission lines. AEP will own, operate, and maintain the Welsh to Wilkes 345 kV line.
- It is understood that the Interconnection Customers are responsible for the cost of all of this work.

1.3 Short Circuit Evaluation

- It is standard practice for AEP to recommend replacing a circuit breaker when the current through the breaker for a fault exceeds 100% of its interrupting rating with recloser de-rating applied, as determined by the ANSI/IEEE C37.5-1979, C37.010-1979 & C37.04-1979 breaker rating methods.
- In the AEP system, no breakers were found to exceed their interrupting capability after the addition of this equipment. Therefore, there are no additional short circuit upgrade costs associated with the DISIS-2022-001, UID 170696 interconnection.

1.4 Interconnection Cost of Facilities Included in the Facilities Study:

Rebuild an approx. 12.1-mile section of the Welsh to Wilkes 345 kV line	$68,578,606
Total Cost	$68,578,606

The estimates do not include the impact that delays in obtaining ROW, permits, or other approvals may have.

1.5 Project Lead time

Project in-service date is projected to be 48 months after the issuance of Authorization to Proceed from the Interconnection Customer.

Figure 1