



FACILITY STUDY

for

Generation Interconnect Request GEN-2022-130

200MW Battery/Storage Generating Facility
Sebastian County
Arkansas

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-2022-130. 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 161kV terminal and associated metering equipment at Battlefield Substation. In addition, meters will be installed at the Interconnection Customer's collector substation for the purpose of revenue metering of the batteries/storage. Network upgrades at Battlefield Substation consists of expanding the yard, converting the station into a ring bus with five (5) 161kV breakers. The total cost of OKGE is estimated at **\$10,359,287**.

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Introduction

The Southwest Power Pool has requested a Facility Study for the purpose of interconnecting a Battery/Storage generating facility within the service territory of OG&E Electric Services (OKGE) in Sebastian County, Arkansas. The proposed 161kV point of interconnection is at Battlefield Substation in Sebastian County. This substation is owned by OKGE. The cost for installing a new 161kV terminal, five breakers, expanding the yard, and other associated equipment, is estimated at **\$10,359,287**.

Interconnection Facilities

The primary objective of this study is to identify attachment facilities. The requirements for interconnection consist of installing a new 161kV terminal and associated metering equipment at Battlefield Substation. Network upgrades consisting of expanding the yard and converting to a 5-breaker ring bus is also required for interconnection. This 161kV 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 161kV substation will be performed by the interconnection customer.

The total cost for OKGE to add a new 161kV terminal and network upgrades at Battlefield substation is estimated at **\$10,359,287**. This cost does not include the building of the 161kV line from the customer substation to the transmission dead-end structure at the perimeter into Battlefield substation. This does not include the Customer's 161-34.5kV 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-2022-130 interconnection.

Table 1: Required Interconnection Network Upgrade Facilities

Facility	ESTIMATED COST (2025 DOLLARS)
Lead time	36 Months
OKGE – Interconnection Facilities (UID 158066) - New 161kV terminal, metering equipment consisting of CT/PTs, and associated equipment	\$3,107,787
OKGE – Network Upgrades (UID 158067) - Convert the substation to a ring bus, (5) 161kV breakers, (18) Switches, and associated equipment	\$7,001,500
OKGE – Land or ROW – Expand the substation yard	\$250,000
Total	\$10,359,287

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Battlefield Substation

