FCS-2008-001 Shared Facility Study for Transmission Facilities in OGE

(Sooner Wind to Woodward 138 kV Ckt1--12 Mile Rebuild)

SPP Tariff Studies

(#FCS-2008-001)

March 2010

Summary

Oklahoma Gas and Electric (OG&E) performed the following Study at the request of the Southwest Power Pool (SPP) for certain Generation Interconnection requests included in FCS-2008-001. The requests for interconnection were placed with SPP in accordance SPP's Open Access Transmission Tariff, which covers new generation interconnections on SPP's transmission system.

Pursuant to the tariff, Oklahoma Gas and Electric was asked to perform a detailed Facility Study of the generation interconnection requests to satisfy the Facility Study Agreement executed by the requesting customers and SPP.

Shared Interconnection Upgrade Facilities Costs

The FCS-2008-001 Interconnection Customers are included in the 1st Cluster Study approved in FERC Docket #ER09-262. The Interconnection Customers' shared upgrade costs are $4,500,000 and are broken down as follows for each project:

GEN-2006-006:	$134,000
GEN-2007-005:	$103,000
GEN-2007-008:	$57,000
GEN-2007-021:	$241,000
GEN-2007-034:	$81,000
GEN-2007-038:	$134,000
GEN-2007-044:	$360,000
GEN-2007-045:	$45,000
GEN-2007-046:	$116,000
GEN-2007-048:	$151,000
GEN-2007-050:	$458,000
GEN-2007-057:	$17,000
GEN-2007-062:	$1,306,000
GEN-2008-003:	$272,000
GEN-2008-008:	$30,000
GEN-2008-009:	$33,000
GEN-2008-014:	$53,000
GEN-2008-016:	$123,000
GEN-2008-017:	$173,000
GEN-2008-018:	$256,000
GEN-2008-019:	$360,000

This cost allocation is subject to change for restudies conducted by the Transmission Provider in response to the higher queued customers or other customers in the 1st Cluster that withdraw their interconnection request or suspend, terminate, or request unexecuted filings of their LGIAs.

FACILITY STUDY

for

Facility Request FCS-2008-001

138kV Transmission Line
From Woodward District Substation
Near
Woodward, Oklahoma
To
FP&L Substation
Near
Mooreland, Oklahoma

February 24, 2010

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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 for SPP Facility request FCS-2008-001. A request for interconnection was placed with SPP in accordance SPP's Open Access Transmission Tariff, which covers new interconnections on SPP's transmission system. The requirements of this Facilities Study are to estimate the cost to rebuild 12 miles of 138kV transmission line. The total cost for OKGE to rebuild 12 miles of 138kV transmission line is estimated at $4,500,000.

The proposed time line for construction would be approximately thirty months once an NTC is received by OG&E to begin Engineering, construction and completion.

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Introduction

The Southwest Power Pool has requested a Facility Study for the purpose of rebuilding an existing 138kV transmission line within the service territory of OG&E Electric Services (OKGE) in Woodward County Oklahoma, the 138kV transmission line from OKGE Woodward District Substation to OKGE FP&L Switch substation.

The cost for OKGE to rebuild 12 miles of 138kV transmission line is estimated at $4,500,000.

Other Network Constraints in the surrounding systems may be verified with a transmission service request and associated studies.

Interconnection Facilities

The primary objective of this study is to identify the cost to rebuild 12 miles of 138kV transmission line.

There is no substation work needed at Woodward District Substation for this transmission line rebuild.

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 additional generation output to the transmission system. Network Upgrades or other new construction may be required to provide the service requested under the SPP OATT.

The costs of rebuilding OKGE transmission facilities 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 recloser de-rating applied, as determined by the ANSI/IEEE C37.5-1979, C37.010-1979 & C37.04-1979 breaker rating methods.

For this project, no breakers were found to exceed their interrupting capability after the addition of the 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 FCS-2008-001 interconnection.

Table 1: Required Interconnection Network Upgrade Facilities

Facility	ESTIMATED COST (2010 DOLLARS)
OKGE – **Transmission line** rebuild with steel H frame, 795ACSR, 1200A, steel shield wire, 12 miles	**$4,500,000**
Total	**$4,500,000**

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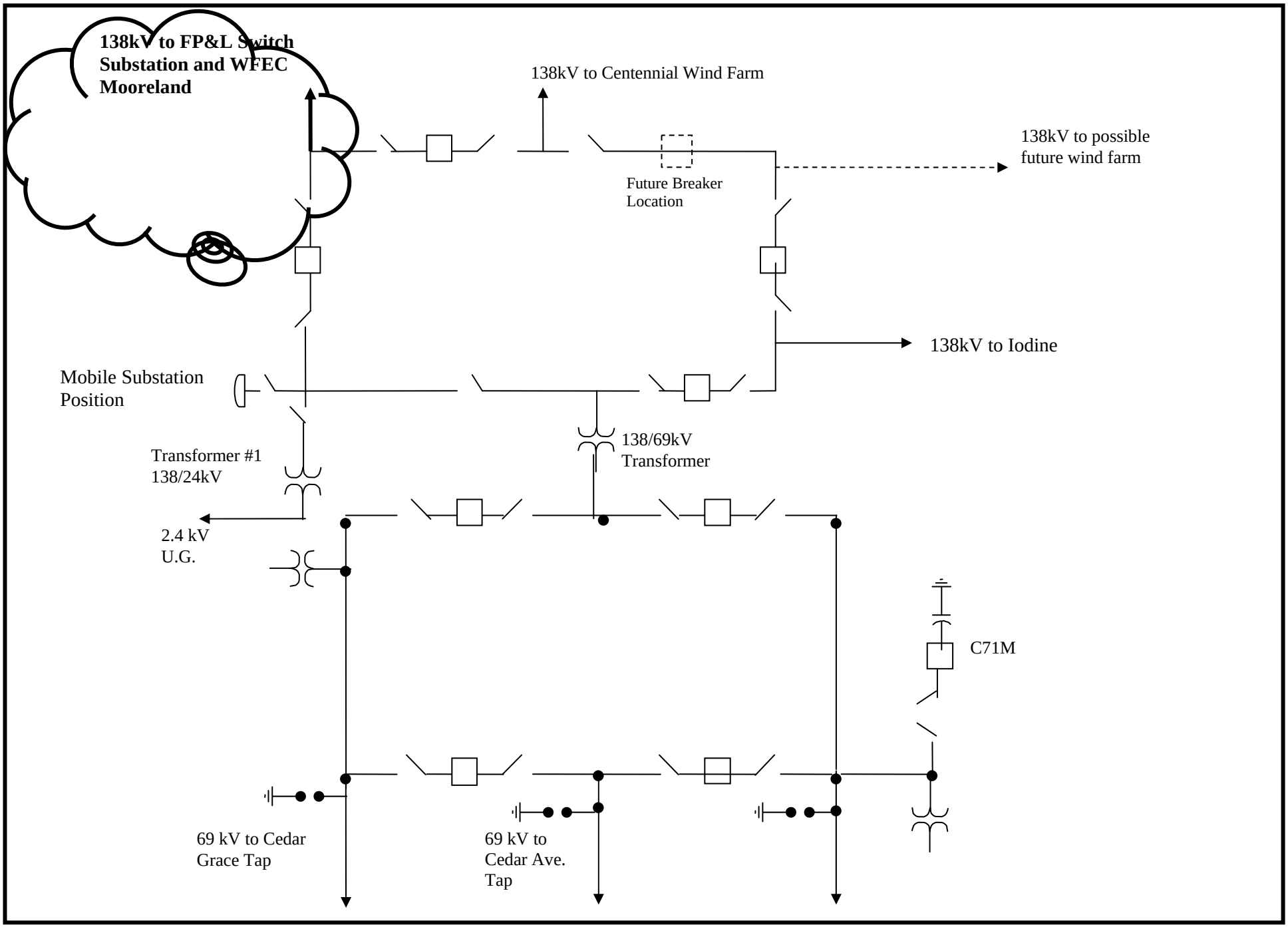
February 24, 2010

Reviewed by:

Philip L Crissup 2/24/2010

Philip L. Crissup
Director, Regional Transmission Affairs


138kV to FP&L Switch Substation and WFEC Mooreland
138kV to Centennial Wind Farm
138kV to possible future wind farm
Future Breaker Location
138kV to Iodine
Mobile Substation Position
Transformer #1 138/24kV
138/69kV Transformer
2.4 kV U.G.
C71M
69 kV to Cedar Grace Tap
69 kV to Cedar Ave. Tap

Transmission Line to be Rebuilt
From Woodward District Substation to
FP&L Switch substation