SPP Southwest Power Pool

Facility Study For Generation Interconnection Request GEN-2010-005

SPP Tariff Studies

(#GEN-2010-005)

February 2011

Summary

Westar Energy (Westar) performed a detailed Facility Study at the request of Southwest Power Pool (SPP) for Generation Interconnection request GEN-2010-005. The interconnection of the 300 MW wind energy facility located in Barber County, Kansas is interconnecting into the Westar transmission system. 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.

Interconnection Customer Interconnection Facilities

The Interconnection Customer will utilize an earlier proposed radial 345 kV transmission line from the GEN-2007-025 generation facility to the Point of Interconnection (POI), a proposed substation on the Wichita to Woodring 345 kV transmission line. The proposed 345 kV substation is the interconnection substation for interconnection request GEN-2007-025. The customer will be responsible for reactive power compensation equipment to maintain 95% lagging (providing vars) and 95% leading (absorbing vars) power factor at the point of interconnection.

Transmission Owner Interconnection Facilities and Non-Shared Network Upgrades

Per the following Facility Study, the Interconnection Customer is responsible for **$26,000** of Transmission Owner Interconnection Facilities and non-shared network upgrades. If GEN-2007-025 (which is currently on suspension) withdraws from the queue, the Customer will have additional Transmission Owner Interconnection Facilities and Network Upgrade responsibilities.

Shared Network Upgrades

The interconnection customer was studied within the DISIS-2010-001-1 Impact Study (January 2011). At this time, the Interconnection Customer is allocated **$0** of the costs for shared network upgrades.

If higher queued interconnection customers withdraw from the queue, suspend or terminate their GIA, restudies will have to be conducted to determine the Interconnection Customers' allocation of shared network upgrades. All studies have been conducted on the basis of higher queued interconnection requests and the upgrades associated with those higher queued interconnection requests being placed in service.

Generation Interconnection Facilities Study

For

Generation Interconnection Request SPP-GEN-2010-005

December 20, 2010

Introduction

This report summarizes the results of a Generation Interconnection Facilities Study performed for the Southwest Power Pool (SPP) by Westar Energy to evaluate a generation interconnection request by [omitted Text] for 300 MW of wind-powered generation in Barber County, Kansas, to the transmission system of Kansas Gas and Electric Company (KGE). The proposed interconnection is on a proposed 345 kV generator lead from Flat Ridge to Viola. Prior to this were completed both a Feasibility Study and a System Impact Study. The requested in-service date of the generating facility is December 1, 2012.

Project Location and Existing Facilities

The project is located in Barber, Harper and Kingman Counties in south central Kansas. The interconnection will be on the proposed 345 kV generator lead from Flat Ridge to Viola. Figure 1 shows the Regional Transmission Facilities and Figure 2 shows the transmission facilities in the local area as well as the service areas of other utilities at the point of interconnection. The proposed project is not within the Westar Energy service area.

Interconnection Facilities

The GEN-2010-005 facility will be interconnected into the Flat Ridge II (GEN-2007-025) Interconnection Customer Interconnections facilities. No addition infrastructure will be required at the existing interconnection substation identified for Flat Ridge II. System Protection setting changes will be required

345 kV Ring Bus Substation (no metering or customer equipment included)

The project cost for GEN-2010-005 interconnection protection relaying settings changes and trap tuning at Wichita – Woodring 345 kV.

$26,000

The total cost estimate for Stand Alone Network Upgrade (345 kV Ring-bus Substation) is:

$26,000 345 kV Ring-bus Substation Stand Alone Network Upgrades

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.

Westar Energy also maintains its own Facility Connection Requirements, which may be found at (www.wr.com).

Figure 1 – Westar Energy Regional Transmission

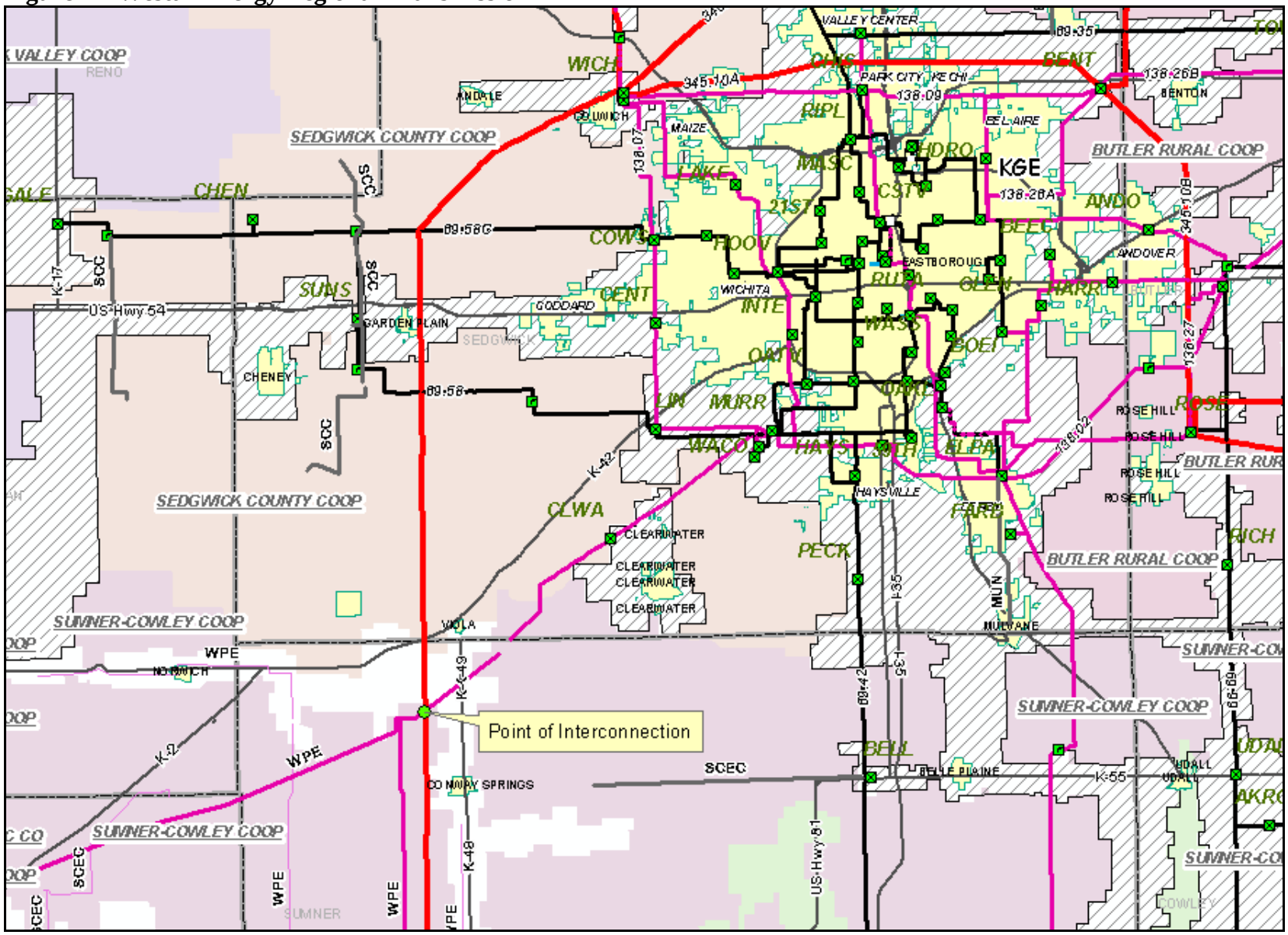
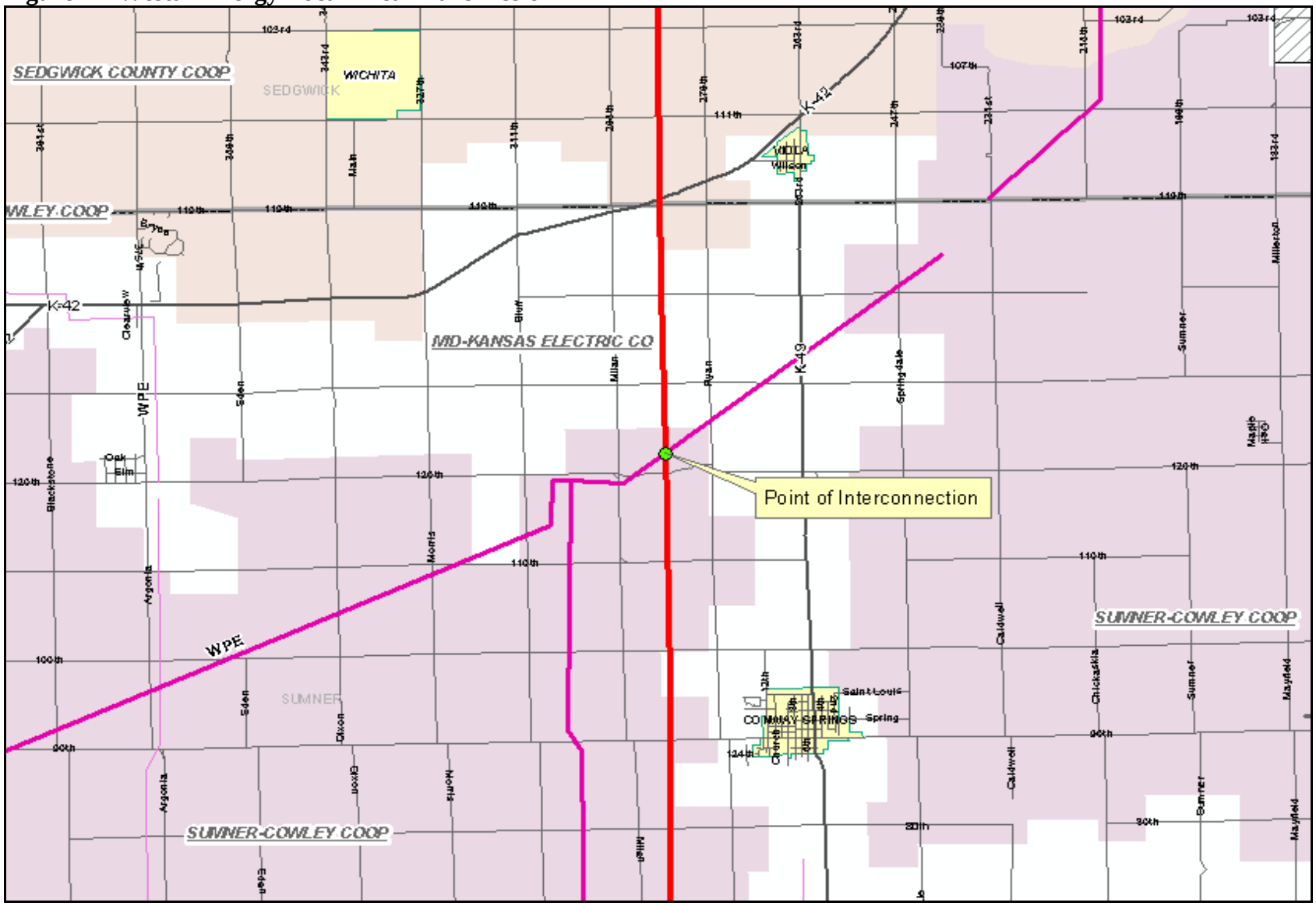


Figure 2 – Westar Energy Local Area Transmission



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