FACILITY STUDY
FOR
SOUTHWEST POWER POOL
GENERATION INTERCONNECT STUDY

SPP-GEN-2001-28

>Text Omitted< 520 MW Generating Plant
161kV Interconnections
In Miami County, KS

Prepared By: KCPL Transmission Planning
801 Charlotte
Kansas City, MO

November 22, 2002

Interconnection Facilities

OVERVIEW

The proposed >Text Omitted< plant will be interconnected with the KCPL 161kV-transmission system by a new terminal position on the existing 161/34kV station near Paola, in Miami County, KS. The existing Paola 161kV Substation will be expanded to the east to accommodate the new terminal position on its southeast corner. The new terminal position will consist of a single 161kV circuit breaker added to the planned ring bus and associated switches, relaying, metering, and communication equipment. Approximately 2500 feet of new 161kv transmission line will connect the Paola Substation with the >OMITTED TEXT< generation site immediately south of the KCPL Osawatomie generating plant. >OMITTED TEXT< will construct and own the generating plant and maintain the equipment including the 161kV disconnect switches at the point of interconnection. KCPL will retain ownership and operating authority of the 161kV switchyard at Paola and the new 161kV line up to the >OMITTED TEXT< 161kV disconnect switch at the point of interconnection.

Construction will be complete and facilities operational 12 months after authorization to start. >OMITTED TEXT< will bear the costs of the design and construction of the new terminal position at Paola Substation and the 161kV transmission line. KCPL will provide credits toward transmission service charges for >OMITTED TEXT< to recover these costs. >OMITTED TEXT< will ensure that the interface equipment at the point of interconnection with KCPL is constructed in accordance with design specifications provided by KCPL.

An itemized cost estimate is listed in Table 1 below and includes only work associated with the transmission improvements described above. The estimated total cost for the project is $890,000. This amount does not include any additional charges of approximately 18-25% resulting from contribution in aid to construction (CIAC) fees.

These are the minimum facilities necessary to interconnect the >Omitted Text< generating facility to the KCPL transmission system. They do not guarantee the availability of transmission service necessary to deliver the >OMITTED TEXT< generation to any specific point inside or outside the KCPL transmission system. These facilities may not be adequate to deliver the full >OMITTED TEXT< generation output to the transmission system. If >OMITTED TEXT< requests firm transmission service at a future date, additional facility upgrades or new construction may be required to provide the requested service.

Table 1 – 2005 Recommended Interconnection Facilities for >OMITTED TEXT< at 161kV ** Costs do not include any adders for CIAC*	
Description	Cost
Paola Substation – new 161kV terminal	$454,000
2500 ft of new 161kV transmission line	$436,000
Estimated Total >OMITTED TEXT< Interconnection Cost	$890,000

It is estimated that the construction of the interconnection facilities can be completed within 12 months after authorization to start.

DISCUSSION of PROJECT COMPONENTS

Paola 161kV Switchyard

i) Property: The property for the Paola Substation will be owned by KCPL.

ii) Site: KCPL is responsible for site zoning, grading and drainage etc.

iii) Bus design: The bus will consist of a 161kV circuit breaker added to the southeast corner of the ring bus which will be capable of 2000 amp capacity.

iv) Control Enclosure: The planned control enclosure will contain relay, metering, communication equipment and battery power supply.

v) Switchyard: KCPL will maintain the 161kV switchyard with a chain-link perimeter fence and a crushed stone surface.

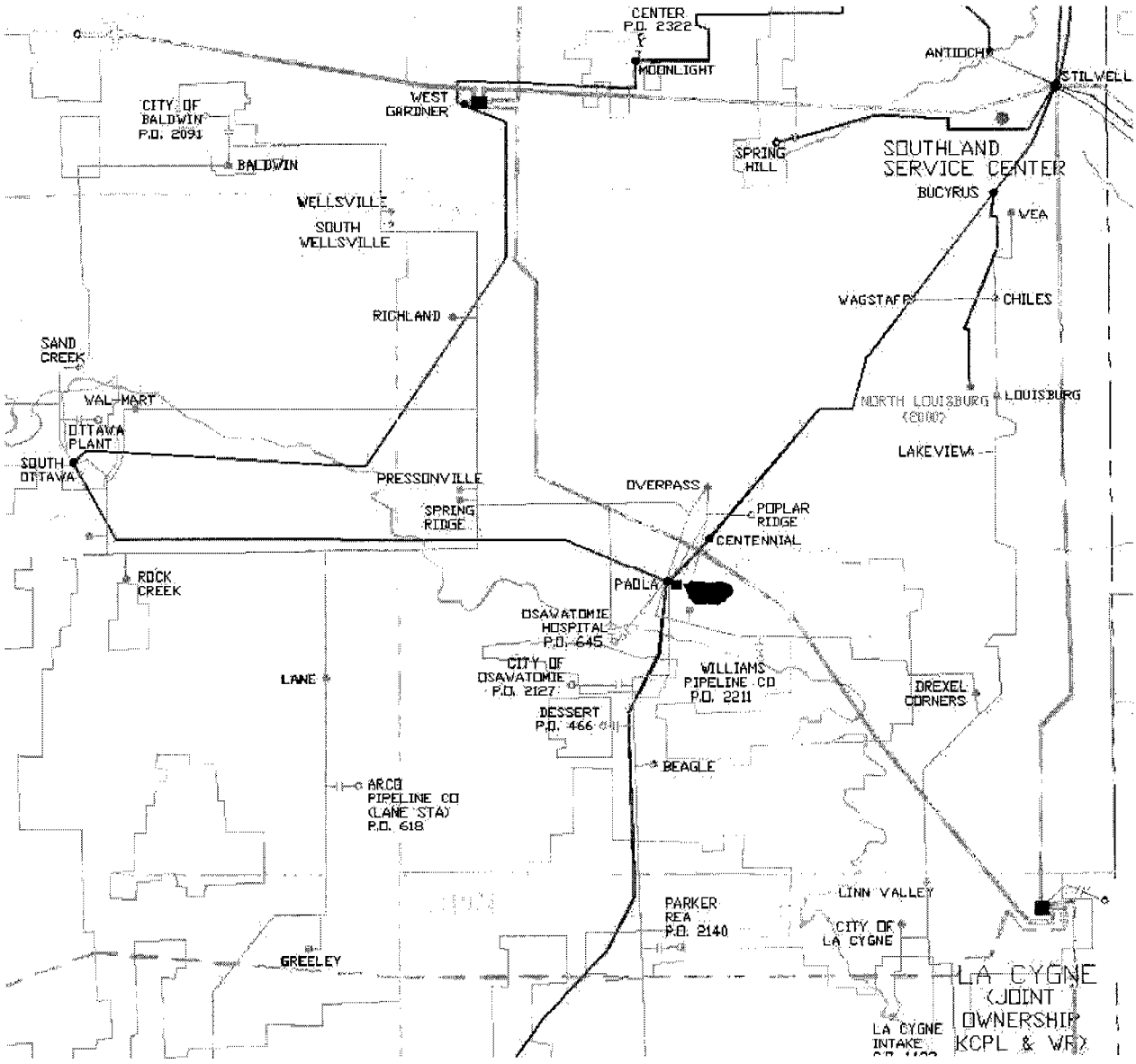
vi) Ground grid: A ground grid will be maintained to provide adequate station equipment grounding.

vii) Protection: Relaying will be provided for line and bus protection.

viii) Metering: Bi-Directional metering equipment will be installed at the point of interconnection to monitor plant output and off-line auxiliary load.

ix) Point of Interconnection: >OMITTED TEXT< will install one 161kV disconnect switch at the plant interface to the 161kV transmission line connecting to the Paola Substation. KCPL will provide transmission connections to that disconnect switch.

>Omitted Text< Facilities


CENTER
P.O. 2322
MOONLIGHT
ANTIOCH
STILWELL
CITY OF
BALDWIN
P.O. 2091
WEST
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SPRING
HILL
SOUTHLAND
SERVICE CENTER
BALDWIN
BUCYRUS
WEA
WELLSVILLE
SOUTH
WELLSVILLE
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CHILES
RICHLAND
SAND
CREEK
NORTH LOUISBURG
(COOP)
LOUISBURG
WAL-MART
OTTAWA
PLANT
LAKEVIEW
SOUTH
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OSAWATOMIE
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DESSERT
P.O. 466
BEAGLE
ARCO
PIPELINE CO
(LANE STA)
P.O. 618
LINN VALLEY
PARKER
REA
P.O. 2140
CITY OF
LA CYGNE
GREELEY
LA CYGNE
(JOINT
OWNERSHIP
KCPL & WR)
LA CYGNE
INTAKE

PROPOSED INTERCONNECTION PLAN FOR [redacted] MIAMI COUNTY GENERATING PLANT

PLAN [redacted]
summer 2005