



**SPP**

*Southwest  
Power Pool*

*System Facilities Study  
For Transmission Service Requests  
260470 & 260471*

*Requested By  
Western Resources Generation Services*

*From Western Resources  
To Entergy*

*For The Reserved Amount Of 100MW*

*From November 1, 2001  
To November 1, 2002*

*SPP Transmission Planning  
(#SPP-2001-211-1)  
Created October 29, 2001*

## Table of Contents

Executive Summary	3
Introduction	4
Third-Party Facilities	8
Financial Analysis	8
Conclusion	12
Table 1: Estimated Network Upgrade Costs, Lead Times & In-Service Dates	14
Table 2: Estimated Network Upgrade Costs, Lead Times & In-Service Dates For Previously Assigned Facilities Requiring Only Additional Upgrades	15
Table 3: Estimated Network Upgrade Costs, Lead Times & In-Service Dates For Previously Assigned Facilities Requiring Only Accelerated In-Service Dates	16
Table 4: Estimated Network Upgrade Costs, Lead Times & In-Service Dates For Previously Assigned Facilities Requiring Both Additional Upgrades And Accelerated In-Service Dates	17
Table 5: Transfer Limits Given Engineering And Construction Lead Times	18
Table 6: Network Elements Assigned To Previous Reservations That Limit The ATC To Less Than That Requested Due To Engineering And Construction Schedules	19
Table 7: Network Elements Assigned To This Reservation That Limit The ATC To Less Than That Requested Due To Engineering And Construction Schedules	20
Table 8: Summary Of Available Transfer Capability With All Network Upgrades	21
Table 9: Summary Of Available Transfer Capability & Estimates Of Base Rate Transmission Service Charges Only	22
Table 10: Summary Of Available Transfer Capability & Estimates Of Revenue Requirements For Network Upgrades Only	23
Table 11: Identified Third-Party Facilities	24

**Southwest Power Pool**  
**Transmission Service Request #260470 & 260471**  
**SPP System Facilities Study SPP-2001-211-1**

**Executive Summary**

At the request of Western Resources Generation Services (WRGS), the Southwest Power Pool developed this Facilities Study for the purpose of evaluating the financial characteristics of Transmission Service Requests 260470 and 260471. These requests are for 50MW each of Firm Point-To-Point Transmission Service from Western Resources (WR) to Entergy (EES). The requested term of this Transmission Service is from November 1, 2001 to November 1, 2002.

The projected base rate transmission service charges (excluding charges for ancillary services) are \$828,000 during the applicable portion of the reservation period based on the available transfer capability (ATC) of the existing transmission system with Network Upgrades. The Transmission Customer is required to pay the higher of either the base rate transmission service charges or the revenue requirements associated with the Network Upgrades. The estimated levelized revenue requirements for providing the necessary Network Upgrades to accommodate the Transmission Service request are \$205,680. As the estimated base rate transmission service charges are greater than the estimated revenue requirements for Network Upgrades, WRGS shall pay the base rate transmission service charges.

Annual ATC allocated to the Transmission Customer is determined by the least amount of seasonal ATC on an annual basis. Allocated ATC and associated revenue requirements are based on items received by November 15, 2001 including 1) an executed Service Agreement and letter of credit received by SPP, and 2) authorization to proceed with engineering and construction received by Transmission Owners from SPP. In the event that the Transmission Customer does not provide SPP with an executed Service Agreement and letter of credit by November 15, 2001, then the ATC of the existing transmission system with Network Upgrades will have to be reevaluated due to

subsequent delays in scheduling engineering and construction for the required Network Upgrades.

SPP as the Transmission Provider must receive an unconditional and irrevocable letter of credit, in the amount of \$200,000, before the Transmission Owners incur initial engineering and construction costs. Also, this study provides no assurance of the availability of transmission capacity or the adequacy of existing or planned transmission facilities for Transmission Service in excess of the requested 100MW.

The Transmission Customer is responsible for the cost of upgrading all identified third-party facilities that are overloaded due to the requested service. In this case, third-party facilities were identified. Not all third-party facilities were monitored during the development of the corresponding Impact Study. Therefore, additional third-party facilities upgrades may be required to accommodate the requested Transmission Service.

## **Introduction**

The principal objective of this Facilities Study is to identify the costs of Network Upgrades that must be added or modified to provide the requested Transmission Service while maintaining a reliable transmission system. This study includes a good faith estimate of the Transmission Customer's assigned cost for the required Network Upgrades and the time required to complete such construction and to initiate the requested service. No Direct Assignment facilities are included in this study as none were identified to provide the requested Transmission Service.

Another objective is to estimate the levelized revenue requirement for all identified Network Upgrades by Transmission Owner. The levelized revenue requirement is based on cost components of each upgrade including depreciation, weighted cost of capital, composite income tax, other tax, and deferred income tax credit. This information will be used to allocate revenue to Transmission Owners even if it is not the basis for billing the Transmission Customer pursuant to "or" pricing.

Facilities identified as limiting the requested Transmission Service have been reviewed to determine the required in-service date of each Network Upgrade. The year that each Network Upgrade is required to accommodate a request is determined by interpolating between the applicable model years given the respective loading data. Both previously assigned facilities and the facilities assigned to this request for Transmission Service were evaluated.

In some instances due to lead times for engineering and construction, Network Upgrades may not be available when required to accommodate a request for Transmission Service. When this occurs, the ATC with available Network Upgrades will be less than the capacity requested during either a portion of or all of the requested reservation period. As a result, the lowest seasonal ATC within each annual period will be offered to the Transmission Customer on an applicable annual basis within the reservation period.

The staff of SPP completed System Impact Study SPP-2001-211 that identified system limitations and required modifications to the SPP system necessary to provide the requested Transmission Service. The Network Upgrades that were not assigned to a previous request and are required to provide the requested Transmission Service are listed in Table 1. One Network Upgrade will be required on the WR transmission system. Due to the in-service date of this Network Upgrade, no limit or delay of the requested Transmission Service is expected. The ATC values associated with only transfer-limiting upgrades are listed in Table 7.

All Network Upgrades assigned to previous Transmission Service requests that have not yet been constructed were monitored to determine whether the previously assigned upgrades are adequate to support this additional request. To accommodate a new request for Transmission Service, a previously assigned Network Upgrade may require capacity in addition to that previously specified. A previously assigned Network Upgrade may be required to be in service at an earlier date than previously indicated to accommodate a

new request. With regard to the capacity and in-service date of a previously assigned Network Upgrade, an upgrade may require both additional capacity and an earlier in-service date to accommodate this request for Transmission Service.

Network Upgrades that were previously assigned and will require only additional capacity to accommodate this request for Transmission Service are listed in [Table 2](#). To accommodate this request, no previously assigned Network Upgrades will require capacity in addition to that previously specified. Due to the in-service dates of these Network Upgrades, some may limit and delay the requested Transmission Service. The ATC values associated with only transfer-limiting upgrades are listed in [Table 6](#).

Network Upgrades that were previously assigned and will require only accelerated in-service dates to accommodate this request for Transmission Service are listed in [Table 3](#). To accommodate this request, no previously assigned Network Upgrade will require an earlier in-service date than previously indicated. Due to the in-service dates of these Network Upgrades, some may limit and delay the requested Transmission Service. The ATC values associated with only transfer-limiting upgrades are listed in [Table 6](#).

Network Upgrades that were previously assigned and will require both additional capacity and accelerated in-service dates to accommodate this request for Transmission Service are listed in [Table 4](#). To accommodate this request, no previously assigned Network Upgrades will require both capacity in addition to that previously specified and an earlier in-service date than previously indicated. Due to the in-service dates of these Network Upgrades, some may limit and delay the requested Transmission Service. The ATC values associated with only transfer-limiting upgrades are listed in [Table 6](#).

Some constraints identified in the Impact Study are not addressed in this Facilities Study as the Transmission Owners determined that upgrades are not required due to various reasons. WR's Golden Plains Junction to Hesston 69kV overload is considered a local area problem and the line is to be rebuilt prior to the 2005 summer peak period. The

overloads to both the West McPherson to Philips Junction South 115kV and the Hutchinson Gas Turbine Station to Hutchinson Energy Center 69kV lines may be eliminated using transmission operating directives 613 and 1204 respectively. An upgrade to the Pentagon to Craig Junction 115kV line is not required as a transformer in the Spring Hill 161/115kV Substation will be replaced prior to the 2002 summer peak.

Given the estimated dates when Network Upgrades will be required for the requested Transmission Service to be provided, there are no facility limits that will either delay the start date of the service or limit the ATC to less than that requested. Transfer-limiting facilities are listed in Tables 6 and 7. Seasonal and annual transfer limits given engineering and construction lead times are listed in Table 5. A summary of ATC throughout the reservation period is included in Table 8. The estimated time required to complete the engineering and construction of the only transfer-limiting facility in the fall peak period of 2002 is 6 months after WR's receipt of authorization to proceed from SPP. WR's Hoyt to Hoyt HTI Switching Junction 115kV transmission line has a 6 month construction lead time and this upgrade is scheduled to be completed June 1, 2002. The constraint is due to the outage of the Clifton to Concordia 115kV line during the 2002 fall peak period. The minimum ATC during the 2002 fall peak, from October 1 to December 1, is 43MW.

Firm Point-To-Point Transmission Service may be provided to WRGS during a fall peaking period in the amount requested after the Hoyt to Hoyt HTI Switching Junction facility upgrade is in service. If a completed Service Agreement is received by SPP on or before November 15, 2001, then the requested Transmission Service may be provided immediately given no unexpected delays in design, permitting, and construction.

SPP does not accept requests for firm Transmission Service without restrictions if the design criteria specified in the corresponding Impact Study are not met. However, SPP may accept a request with a reduction of provided capacity to designated levels within the specified time frames as listed in Table 8. SPP accepts this request for Transmission

Service given this allocation of capacity of which is equal to that requested through October 2003.

Tables 5, 8, 9 and 10 include lists of capacity of which is less than that requested through the reservation period. Table 9 includes the ATC and the estimate of base rate transmission service charges. The ATC and the estimate of levelized revenue requirements for Network Upgrade are provided in Table 10. The Transmission Customer shall pay the higher of the base rate transmission service charges or the levelized revenue requirements for the Network Upgrades.

### **Third-Party Facilities**

For third-party facilities listed in Table 11, the Transmission Customer is responsible for obtaining arrangements for the necessary upgrades of the facilities per Section 21.1 of the SPP OATT. If requested, SPP is willing to undertake reasonable efforts to assist the Transmission Customer in making arrangements for necessary engineering, permitting, and construction of the third-party facilities.

All facilities within SPP, of which are currently modeled, were monitored during the development of the corresponding Impact Study. Third-party facilities must be upgraded when it is determined that they are overloaded while accommodating the requested Transmission Service. Third-party facilities include those owned by members of SPP who have not placed their facilities under SPP's OATT.

### **Financial Analysis**

The revenue requirements associated with each assigned Network Upgrade is calculated using the estimated installed cost for each Network Upgrade reflected herein and the annual fixed charge rate of the constructing Transmission Owner. A present worth analysis is conducted, based on each Transmission Owner's annual fixed charge rates including weighted cost of capital, to determine the levelized revenue requirement of each

Network Upgrade. The levelized revenue requirements of all applicable Network Upgrades are summed to determine the total revenue requirements for Network Upgrades associated with the Transmission Service request.

Each request for Transmission Service is evaluated independently as the cost associated with each Network Upgrade is assigned to a request. For new facilities, the Transmission Customer shall pay the total cost through the reservation period including engineering and construction costs and other annual operating costs. When upgrading facilities, the Transmission Customer shall, throughout the reservation period, 1) pay the total engineering and construction costs and other annual operating costs associated with the new facilities, and 2) receive credits associated with the depreciated book value of removed usable facilities, salvage value of removed non-usable facilities, and the carrying charges, excluding depreciation, associated with all removed facilities based on their respective book values.

The amortization period for Network Upgrades and Direct Assignment facilities shall be the lesser of 1) the reservation period, or 2) the period between the completion of construction within the reservation period and the end of the reservation period. The annual fixed charge rate for each Transmission Owner shall be based on the sum of expenses for a previous calendar year, including weighted cost of capital, composite income tax, other tax, and deferred income tax credit, divided by the plant investment for the same year.

Categories of costs and credits associated with Network Upgrades and Direct Assignment facilities shall include those specified below. The costs allocated to the Transmission Customer throughout the entire reservation period shall be the sum of the levelized present worth of each of the identified cost and credit components based on each Transmission Owner's weighted cost of capital.

1. Amortized engineering and construction costs associated with the new facilities.

2. Annual carrying charges, excluding depreciation, based on the product of 1) total engineering and construction costs associated with the new facilities, and 2) annual fixed charge rate (per-unit).
3. Amortized existing facility credit associated with the replaced facilities including the sum of the depreciated book values of only the reusable facilities within the respective remaining depreciation periods.
4. The salvage value credit of non-usable facilities.
5. Annual carrying charge credits, excluding depreciation, based on the product of 1) book values associated with all replaced facilities, and 2) annual fixed charge rate (per-unit).

In the event that the engineering and construction of a previously assigned Network Upgrade may be expedited, with no additional upgrades, to accommodate a new request for Transmission Service, then the levelized present worth of only the incremental expenses though the reservation period of the new request, excluding depreciation, shall be assigned to the new request. These incremental expenses, excluding depreciation, include 1) the levelized difference in present worth of the engineering and construction expenses given the change in date to complete construction to account for additional interest expense and reduced engineering and construction expense due to inflation, 2) the levelized present worth of all expediting fees, and 3) the levelized present worth of the incremental annual carrying charges, excluding depreciation and interest, during the new reservation period taking into account both a) the reservation in which the project was originally assigned, and b) a reservation, if any, in which the project was previously expedited.

If the capacity of a previously assigned Network Upgrade is insufficient to accommodate a new request for Transmission Service, expediting the upgrade may be needed, and sufficient time is available for the Transmission Owner to accomplish necessary re-design and construction of the upgrade with additional capacity while accommodating previous requests, then the levelized present worth of only the incremental expenses though the

reservation period of the new request, including depreciation, shall be assigned to the new request. These incremental expenses include 1) if expediting, the levelized difference in present worth of the previously assigned engineering and construction expenses given the change in date to complete construction to account for additional interest expense and reduced engineering and construction expense due to inflation, 2) if expediting, the levelized present worth of all expediting fees, 3) the levelized present worth of the incremental annual carrying charges associated with the previously assigned upgrade, excluding depreciation and interest, during the new reservation period taking into account both a) the reservation in which the project was originally assigned, and b) a reservation, if any, in which the project was previously expedited, and 4) the levelized present worth of the incremental annual carrying charges, including depreciation, associated with the additional capacity through the reservation period of the new request.

The zone interfaced to the sink with the lowest zonal rate for Firm Point-To-Point Transmission Service is Southwestern Power Administration (SWPA). The current zonal rate of SWPA is \$690/MW-Month. Table 8 includes a summary of ATC values with all assigned Network Upgrades energized by the Date In Service specified in Tables 6 and 7. Given the lesser of these values of ATC and the requested capacity, corresponding base rate transmission service charges are listed on a monthly basis in Table 9. The base rate transmission service charges from the requested Transmission Service are estimated to be \$828,000.

The estimate of total revenue requirements listed in Table 10 for the required Network Upgrades throughout the requested transaction period is \$205,680. The estimated revenue requirements for the required Network Upgrades are less than the projected base rate transmission service charges over the requested transaction period. Therefore, the Transmission Customer will be responsible for the base rate transmission service charges of which are estimated to be \$828,000 throughout the transaction period.

The Southwest Power Pool and WR as the affected Transmission Owner shall use due diligence to add necessary facilities or upgrade the Transmission System to provide the requested Transmission Service, provided WRGS agrees to compensate SPP for such costs pursuant to the terms of Section 27 of the SPP Open Access Transmission Tariff. Partial Interim Service is available to WRGS per Section 19.7 of the SPP Open Access Transmission Service Tariff.

Engineering and construction of all new facilities and modifications will not start until after an executed Service Agreement has been received by SPP and the affected Transmission Owners receive the appropriate authorization to proceed from SPP. In accordance with section 19.4 of the SPP Open Access Transmission Service Tariff, the Transmission Customer shall provide and maintain in effect, during the term of the Transmission Service Agreement, an unconditional and irrevocable letter of credit to the SPP in the amount of no less than \$200,000 for the initial engineering and construction costs to be incurred by the Transmission Owners. This amount does not include or offset other letters of credit or deposits as may be required under the tariff.

### **Conclusion**

Given the constraints identified in the System Impact Study SPP-2001-211, estimated engineering and construction costs in addition to lead times for construction of Network Upgrades are provided. These estimated costs are for facilities required to provide the requested Transmission Service. The lead times do not include any allowances for possible delays due to outage conflicts during construction, conflicts with construction during the summer peak, engineering and construction manpower constraints, etc. The lead times are based on engineering starting when SPP provides the Transmission Owners approval to start on the projects.

Based on the results of the Impact Study SPP-2001-211, Network Upgrades that were identified as required to provide the requested Transmission Service are listed in Tables 1 through 4. Table 1 includes the Network Upgrades and costs assigned to the WRGS to

accommodate Transmission Service Requests 260470 and 260471 from WR to Entergy. Table 2 includes previously assigned Network Upgrades requiring only additional capacity to accommodate this request. Table 3 includes previously assigned Network Upgrades requiring only accelerated in-service dates. Table 4 includes previously assigned Network Upgrades requiring both additional capacity and accelerated in-service dates to accommodate this request.

Throughout the transaction period of the requested Transmission Service, the estimate of the levelized revenue requirements for the required Network Upgrades is \$205,680 for Transmission Service Requests 260470 and 260471. ATC allocated to the Transmission Customer is determined by the least amount of seasonal ATC on an annual basis. A listing of ATC values and monthly revenue requirements for the required Network Upgrades is in Table 10. The base rate transmission service charges are estimated to be \$828,000 and the monthly revenue requirements are listed in Table 9. As the base rate transmission service charges are greater than the revenue requirements for the required Network Upgrades, the revenue requirements from the Transmission Customer are for the base rate transmission service charges.

To complete the request for Transmission Service, SPP must receive the following items from the Transmission Customer within 15 days of receipt of this study: 1) an executed Service Agreement, and 2) an unconditional and irrevocable letter of credit regarding the engineering and construction of Network Upgrades. The Transmission Customer must also confirm this request on Southwest Power Pool's OASIS pursuant to the results of this Facilities Study. Upon receipt of these items by SPP and confirmation by the Transmission Customer, SPP will authorize the applicable Transmission Owner to proceed with the engineering and construction of the Network Upgrades assigned to this request.

In the event that Transmission Customers do not confirm other requests for Transmission Service that have previously assigned Network Upgrades, the assignment of applicable Network Upgrades will need to be reevaluated.

**Table 1**

**Estimated Network Upgrade Costs, Lead Times & In-Service Dates  
For Facilities Assigned To Only This Request For Transmission Service  
For Requests 260470 & 260471 From WR To Entergy  
During The Period From November 1, 2001 To November 1, 2002**

NETWORK UPGRADE	COSTS TO ENGINEER & CONSTRUCT (\$2001)	ENG. & CONST. LEAD TIME (MONTHS)	DATE NEEDED (M/D/Y)	POSSIBLE DATE IN SERVICE (M/D/Y) (1)	SCHEDULED DATE IN SERVICE (M/D/Y) (2)
Hoyt – Hoyt HTI Switching Junction 115kV: Rebuild 0.79 miles 795KCMIL ACSR by WR.	200,000	6	10/1/02	5/16/02	6/1/02

Note: (1) When the projected completion of Network Upgrades is 1) between June 1 and September 15, or 2) between September 15 and 4.5 months thereafter, then 4.5 months are added as these facilities will not be taken out of service during the summer peaking period. Therefore, the possible end of construction is February 1 or later of the next year.

(2) The scheduled date is based on when continuous annual service may be started after the possible in-service date. If N/A, then the facility upgrade/addition is not required, due to its lead time for engineering and construction, as 1) continuous annual service above the ATC limit may be provided only after the requested reservation period, or 2) the facility is not required at a later time within the reservation period due to reduced loading of the facility below its emergency rating.

**Table 2**

**Estimated Network Upgrade Costs, Lead Times & In-Service Dates  
For Previously Assigned Facilities Requiring Only Additional Capacity  
For Requests 260470 & 260471 From WR To Entergy  
During The Period From November 1, 2001 To November 1, 2002**

PREVIOUSLY ASSIGNED NETWORK UPGRADE	NEW ADDED UPGRADE	PREVIOUS REQUEST (NO.)	PREVIOUS ENG. & CONST. COSTS (\$)	CURRENT TOTAL ENG. & CONST. COST (\$2001)	ENG. & CONST. LEAD TIME (MONTHS)	DATE NEEDED (M/D/Y)	PREVIOUSLY SCHEDULED DATE IN SERVICE (M/D/Y)
None							
SUBTOTAL			\$0	\$0			

**Table 3**

**Estimated Network Upgrade Costs, Lead Times & In-Service Dates  
For Previously Assigned Facilities Requiring Only Accelerated In-Service Dates  
For Requests 260470 & 260471 From WR To Entergy  
During The Period From November 1, 2001 To November 1, 2002**

PREVIOUSLY ASSIGNED NETWORK UPGRADE	PREVIOUS REQUEST (NO.)	ENGINEERING & CONSTRUCTION COSTS (\$)	ENG. & CONST. LEAD TIME (MONTHS)	DATE NEEDED (M/D/Y)	PREVIOUS DATE IN SERVICE (M/D/Y)	POSSIBLE DATE IN SERVICE (M/D/Y) (1)	SCHEDULED DATE IN SERVICE (M/D/Y) (2)
None							
SUBTOTAL		\$0					

- Note: (1) When the projected completion of Network Upgrades is 1) between June 1 and September 15, or 2) between September 15 and 4.5 months thereafter, then 4.5 months are added as these facilities will not be taken out of service during the summer peaking period. Therefore, the possible end of construction is February 1 or later of the next year.
- (2) The scheduled date is based on when continuous annual service may be started after the possible in-service date. If N/A, then the facility upgrade/addition is not required, due to its lead time for engineering and construction, as 1) continuous annual service above the ATC limit may be provided only after the requested reservation period, or 2) the facility is not required at a later time within the reservation period due to reduced loading of the facility below its emergency rating.

**Table 4**

**Estimated Network Upgrade Costs, Lead Times & In-Service Dates  
For Previously Assigned Facilities Requiring Both Additional Capacity And Accelerated In-Service Dates  
For Requests 260470 & 260471 From WR To Entergy  
During The Period From November 1, 2001 To November 1, 2002**

PREVIOUSLY ASSIGNED NETWORK UPGRADE	NEW ADDED UPGRADE	PREVIOUS REQUEST (NO.)	PREVIOUS ENG. & CONST. COSTS (\$)	CURRENT TOTAL ENG.& CONST. COST (\$2001)	ENG. & CONST. LEAD TIME (MONTHS)	DATE NEEDED (M/D/Y)	PREVIOUS DATE IN SERVICE (M/D/Y)	POSSIBLE DATE IN SERVICE (M/D/Y) (1)	SCHEDULED DATE IN SERVICE (M/D/Y) (2)
None									
SUBTOTAL			\$0	\$0					

- Note: (1) When the projected completion of Network Upgrades is 1) between June 1 and September 15, or 2) between September 15 and 4.5 months thereafter, then 4.5 months are added as these facilities will not be taken out of service during the summer peaking period. Therefore, the possible end of construction is February 1 or later of the next year.
- (2) The scheduled date is based on when continuous annual service may be started after the possible in-service date. If N/A, then the facility upgrade/addition is not required, due to its lead time for engineering and construction, as 1) continuous annual service above the ATC limit may be provided only after the requested reservation period, or 2) the facility is not required at a later time within the reservation period due to reduced loading of the facility below its emergency rating.

**Table 5  
Transfer Limits Given Engineering And Construction Lead Times  
Of Previously Assigned Facilities And Facilities Assigned To This Request  
For Requests 260470 & 260471 From WR To Entergy  
During The Period From November 1, 2001 To November 1, 2002**

PREVIOUS OR THIS RESERVATION		THIS RESERVATION		PREVIOUS OR THIS RESERVATION		CALCULATED		POSSIBLE (1)		SCHEDULED (2)
NETWORK ELEMENT	TRANS. OWNER	ATC (MW)	ATC (MODEL)	DATE UPGRADE NEEDED (M/D/Y)	ENG. & CONST. LEAD TIME (MONTH)	DATE AVAIL-ABLE (M/D/Y)	DELAY (MONTH )	DATE AVAIL-ABLE (M/D/Y)	DELAY (MONTH )	DATE AVAILABLE (M/D/Y)
This Request 260470 + 260471, SPP-2001-211-1, with a contract date of 11/15/2001.										
Hoyt – Hoyt HTI Switching Junction 115kV: Rebuild 0.79 miles 795KCMIL ACSR.	WR	43 (3)	02FA	10/1/02	6	5/16/02		5/16/02		6/1/02
Minimum 10/1 – 11/1:		43								

- Note: (1) When the projected completion of Network Upgrades is 1) between June 1 and September 15, or 2) between September 15 and 4.5 months thereafter, then 4.5 months are added as these facilities will not be taken out of service during the summer peaking period. Therefore, the possible end of construction is February 1 or later of the next year.
- (2) The scheduled date is based on when continuous annual service may be started after the possible in-service date. If N/A, then the facility upgrade/addition is not required, due to its lead time for engineering and construction, as 1) continuous annual service above the ATC limit may be provided only after the requested reservation period, or 2) the facility is not required at a later time within the reservation period due to reduced loading of the facility below its emergency rating.
- (3) Not limiting as the scheduled completion of the upgrade is before it is required to accommodate this request for Transmission Service.

**Table 6  
Network Elements Assigned To Previous Requests For Transmission Service  
That Limit The ATC To Less Than That Requested  
Due To Engineering And Construction Schedules  
For Requests 260470 & 260471 From WR To Entergy  
During The Period From November 1, 2001 To November 1, 2002**

PREVIOUSLY ASSIGNED NETWORK UPGRADE	PREVIOUS REQUEST (NO.)	DATE IN SERVICE (M/D/Y)	ATC (MW)	ATC MODEL	RESTRICTED OPERATING PERIOD (M/D - M/D) (YEAR)
None					

ATC Models

Example Season Designation: From Date – To Date (M/D/Y), Season Description

02AP: 4/1/02 – 6/1/02, Spring Minimum

02FA: 10/1/02 – 12/1/02, Fall Peak

02G: 4/1/02 – 6/1/02, Spring Peak

02WP: 12/1/02 – 4/1/03, Winter Peak

02SP: 6/1/02 – 10/1/02, Summer Peak

**Table 7  
Network Elements Assigned To This Transmission Service Request  
That Limit The ATC To Less Than That Requested  
Due To Engineering And Construction Schedules  
For Requests 260470 & 260471 From WR To Entergy  
During The Period From November 1, 2001 To November 1, 2002**

NETWORK UPGRADE	DATE IN SERVICE (M/D/Y)	ATC (MW)	ATC MODEL	RESTRICTED OPERATING PERIOD (M/D - M/D) (YEAR)
None				

Note: Date In Service is based on items received by November 15, 2001 including 1) a signed Service Agreement and Letter of Credit received by SPP, and 2) authorization to proceed with engineering and construction received by Transmission Owners from SPP.

ATC Models

Example Season Designation: From Date – To Date (M/D/Y), Season Description

- 02AP: 4/1/02 – 6/1/02, Spring Minimum
- 02FA: 10/1/02 – 12/1/02, Fall Peak
- 02G: 4/1/02 – 6/1/02, Spring Peak
- 02WP: 12/1/02 – 4/1/03, Winter Peak
- 02SP: 6/1/02 – 10/1/02, Summer Peak

**Table 8**  
**Summary Of Available Transfer Capability**  
**With All Network Upgrades Assigned To This And Previous Reservations**  
**For Requests 260470 & 260471 From WR To Entergy**  
**During The Period From November 1, 2001 To November 1, 2002**

OPERATING PERIOD (YEAR)	OPERATING PERIOD (M/D - M/D)	ATC (MW)
2001	11/1 – 12/31	100
2002	1/1 – 11/1	100

Note: Values of ATC are based on items received by November 15, 2001 including 1) a signed Service Agreement and letter of credit received by SPP, and 2) authorization to proceed with engineering and construction received by Transmission Owners from SPP. Annual ATC allocated to the Transmission Customer is determined by the least amount of seasonal ATC on an annual basis.

**Table 9**  
**Summary Of Available Transfer Capability With All Network Upgrades**  
**And The Estimate Of Base Rate Transmission Service Charges Only,**  
**Excluding The Cost Of Network Upgrades,**  
**For Requests 260470 & 260471 From WR To Entergy**  
**During The Period From November 1, 2001 To November 1, 2002**

OPERATING PERIOD (MONTH)	2001 ATC (MW)	2001 BASE RATE REVENUES (\$)	2002 ATC (MW)	2002 BASE RATE REVENUES (\$)	2003 ATC (MW)	2003 BASE RATE REVENUES (\$)	2004 ATC (MW)	2004 BASE RATE REVENUES (\$)
January	N/A	0	100	69,000	N/A	0	N/A	0
February	N/A	0	100	69,000	N/A	0	N/A	0
March	N/A	0	100	69,000	N/A	0	N/A	0
April	N/A	0	100	69,000	N/A	0	N/A	0
May	N/A	0	100	69,000	N/A	0	N/A	0
June	N/A	0	100	69,000	N/A	0	N/A	0
July	N/A	0	100	69,000	N/A	0	N/A	0
August	N/A	0	100	69,000	N/A	0	N/A	0
September	N/A	0	100	69,000	N/A	0	N/A	0
October	N/A	0	100	69,000	N/A	0	N/A	0
November	100	69,000	N/A	0	N/A	0	N/A	0
December	100	69,000	N/A	0	N/A	0	N/A	0
<b>SUBTOTAL BY YEAR</b>		<b>\$138,000</b>		<b>\$690,000</b>		<b>\$0</b>		<b>\$0</b>
<b>TOTAL FOR ALL YEARS</b>	<b>\$828,000</b>							

Note: Values of ATC are based on items received by November 15, 2001 including 1) a signed Service Agreement and letter of credit received by SPP, and 2) authorization to proceed with engineering and construction received by Transmission Owners from SPP. Annual ATC allocated to the Transmission Customer is determined by the least amount of seasonal ATC on an annual basis.

**Table 10**  
**Summary Of Available Transfer Capability With All Network Upgrades**  
**And The Estimate Of Network Upgrade Revenue Requirements Only**  
**For Requests 260470 & 260471 From WR To Entergy**  
**During The Period From November 1, 2001 To November 1, 2002**

OPERATING PERIOD (Month)	2001 ATC (MW)	2001 NETWORK UPGRADE REVENUES (\$)	2002 ATC (MW)	2002 NETWORK UPGRADE REVENUES (\$)	2003 ATC (MW)	2003 NETWORK UPGRADE REVENUES (\$)	2004 ATC (MW)	2004 NETWORK UPGRADE REVENUES (\$)
January	N/A	0	100	17,140	N/A	0	N/A	0
February	N/A	0	100	17,140	N/A	0	N/A	0
March	N/A	0	100	17,140	N/A	0	N/A	0
April	N/A	0	100	17,140	N/A	0	N/A	0
May	N/A	0	100	17,140	N/A	0	N/A	0
June	N/A	0	100	17,140	N/A	0	N/A	0
July	N/A	0	100	17,140	N/A	0	N/A	0
August	N/A	0	100	17,140	N/A	0	N/A	0
September	N/A	0	100	17,140	N/A	0	N/A	0
October	N/A	0	100	17,140	N/A	0	N/A	0
November	100	17,140	N/A	0	N/A	0	N/A	0
December	100	17,140	N/A	0	N/A	0	N/A	0
<b>SUBTOTAL BY YEAR</b>		\$34,280		\$171,400		\$0		\$0
<b>TOTAL FOR ALL YEARS</b>	\$205,680							

Note: Values of ATC are based on items received by November 15, 2001 including 1) a signed Service Agreement and letter of credit received by SPP, and 2) authorization to proceed with engineering and construction received by Transmission Owners from SPP. Annual ATC allocated to the Transmission Customer is determined by the least amount of seasonal ATC on an annual basis.

**Table 11**

**Identified Third-Party Network Upgrades & Required In-Service Dates  
To Accommodate This Request For Transmission Service  
For Requests 260470 & 260471 From WR To Entergy  
During The Period From November 1, 2001 To November 1, 2002**

IDENTIFIED THIRD-PARTY NETWORK UPGRADE	DATE NEEDED (M/D/Y)
AECI: 96120 5THMHIL 161 to 96172 2TMHILL 69.0 CKT 1	4/1/02