SPP Southwest Power Pool

System Facilities Study
For The Designation of a New Network Resource

OASIS Request # 634282, 634284, and 634285.

Requested by Empire District Electric Company

In The Requested Amount Of 150 MW

From 1/1/2005 to 1/1/2025

With 150MW deferral with Redispatch or Curtailment

for the period of 10/1/2005 to 10/1/2025

With 150MW deferral without Redispatch or Curtailment

for the period of 4/1/2007 to 4/1/2027

SPP Tariff Studies
#SPP-2004-001-1
Created February 10, 2005

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Executive Summary

At the request of Empire District Electric Company (EMDE) (Transmission Customer), the Southwest Power Pool (Transmission Provider) developed this Facilities Study to summarize the operating limits and to determine the financial characteristics associated with Transmission Service Requests OASIS # 634282, 634284, and 634285. Facility Study SPP-2004-001-1 is for the designation of a new network resource in the Westar Control Area for 150MW to serve EMDE Network load in the EMDE Control Area. The requested term of this Transmission Service is 20 years from 1/1/2005 to 1/1/2025.

To complete the request for Transmission Service, the Transmission Customer must provide a letter agreement for redispatch or curtailment of service to relieve the impact on the Chamber Springs- Tontitown 161kV line to be implemented beginning 12/1/05, and confirm this request on the Transmission Provider's OASIS pursuant to the results of this Facilities Study within 15 days of receipt of this study. Options for curtailment of previously confirmed service and/or the redispatch of units as an option for relieving the additional impacts on this facility have been identified and provided to the Customer in the corresponding impact study SPP-2004-001-3 Tables 3 and 4 posted on OASIS on February 10, 2005.

The Bull Shoals-Bull Shoals HES 161kv line limits service to 0MW for the Summer 2005 season. The current estimated completion date for the planned upgrades relieving the Bull Shoals-Bull Shoals HES 161kv facility is 6/1/2006. Therefore this upgrade is not assignable to the customer.

For third-party facilities listed in Table 8, the Transmission Customer is responsible for obtaining arrangements for the necessary upgrades of the facilities per Section 21.1 of the Transmission Provider's OATT. The Transmission Customer is responsible for the cost of upgrading all identified third-party facilities that are overloaded due to the requested service. Eight third-party facilities were identified. Seven facilities are owned by Entergy and one facility by AECI. Entergy overloaded facilities will be alleviated by planned

projects and are not assignable to the Transmission Customer. The AECI Jamesville Transformer overload limits service to 0MW beginning in the 2005 Summer Peak. The EMDE planned upgrades for relieving the facility have an estimated in-service date of 6/1/2007. An AECI mitigation plan will be in effect for the 2005 and 2006 Summer Peak prior to the completion of the EMDE upgrades.

Annual available transfer capability (ATC) allocated to the Transmission Customer is determined by the least amount of seasonal ATC within each year of a reservation period. The minimum ATC for the requested term of service is during the period of 1/1/05 to 4/1/07 at 0 MW.

The Chamber Springs – Tontitown 161kV line was identified as a limit to service for the 2005 and 2006 Summer and Winter Seasons. This facility is scheduled to be upgraded by AEP by 5/1/2007. Expediting the upgrade is not possible to accommodate the requested start date for the WR to EMDE service. Options for curtailment of previously confirmed service and/or the redispatch of units as an option for relieving the additional impacts on this facility have been identified and provided to the Customer in the corresponding impact study SPP-2004-001-3 Tables 3 and 4 posted on OASIS on February 10, 2005. As this facility is base case overloaded beginning with the 2005 Summer case, no ATC is available until the facility is upgraded or relieved by redispatch or curtailment of existing firm service. If a curtailment or redispatch option is agreed upon for relieving the impact on the Chamber Springs – Tontitown 161kv Line to be implemented beginning 12/1/05, the start date of the requested service will be 10/1/2005, otherwise if redispatch or curtailment of service option's are not agreed upon and implemented, the start date of the requested service will be delayed until 4/1/2007.

The ATC listed in Table 5 is insufficient to provide the Transmission Customer with reliable service for a portion of the requested reservation period without impairing or degrading reliability to existing firm services. Therefore, the Deferral of Service as provided for in section 15.5 of the Transmission Provider's Open Access Transmission Tariff (OATT) was deemed applicable to this request for Transmission Service. The

period in which a twenty year term of requested Transmission Service of 150MW may be provided is from April 1, 2007 to April 1, 2027. This deferral of service is required if neither redispatch or curtailment of existing firm service can be established to relieve loading on the Chamber Springs-Tontitown 161kV facility.

A Transmission Owner may require that a Transmission Customer pre-pay for all assignable Network Upgrades which it designs and constructs. These pre-payments are in the amount of the Transmission Owner's estimated engineering and construction costs. Pre-payments will be required prior to the scheduled in-service dates. The Southwestern Power Administration is the only Transmission Owner that requires these pre-payments.

Assignable Network Upgrades will be required on the Empire District Electric (EMDE) Neosho-Neosho South Jct. 161kv facility. The engineering and construction cost estimates for assignable Network Upgrades total $800,000.

For new Network Integrated Transmission Service, the Transmission Customer is required to pay the revenue requirements associated with all Network Upgrades. This request is to designate a new network resource in the Westar Control Area for EMDE to serve existing native network load. Only those Network Upgrades outside the EMDE control area are included in the total revenue requirements for this request. EMDE Network Upgrade costs for this request are not recovered through the Transmission Provider present worth analysis of revenue requirements methodology. The total levelized cost of revenue requirements for this request to designate a new network resource is $0 due to upgrade assignment of only EMDE facilities.

However, EMDE Network Upgrades assigned in this study must be completed prior to the new network resource serving network load. Other rates and charges for Network Integrated Transmission Service are specified per section 34 of the Transmission Providers OATT.

The total estimated revenue requirements of the Transmission Customer on a monthly basis are listed in **Table 6**. A list of the average annual Transmission Service costs is in Table 7. A summary of all costs is included in Table 9.

Beyond the initial reservation period within the current planning horizon, there are no overloaded transmission facilities identified in the corresponding impact study.

If the Transmission customer confirms this request on the Transmission Provider's OASIS pursuant to the results of this Facilities Study within 15 days, Network Integrated Transmission Service may be provided on approximately April 1, 2007 given no unexpected delays in design, permitting, and construction. Transmission Service may be provided starting October 1, 2005 if a curtailment or redispatch option is agreed upon and implemented beginning 12/1/05 for relieving the impact on the Chamber Springs – Tontitown 161kv Line.

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 this allocated capacity.

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. In this study, no levelized costs were assignable due to upgrade assignment of only EMDE facilities.

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.

A corresponding Impact Study SPP-2004-001-3 posted on February 10, 2005 identified limitations and required modifications of the Transmission Provider system necessary to provide the specified Transmission Service. Network Upgrades are assigned based on SPP criteria 4.2.3. The Network Upgrades that were not assigned to a previous request and are required to provide the specified Transmission Service are listed in Table 1. Due to the in-service dates of these Network Upgrades, some may limit and delay the requested Transmission Service. The minimum ATC values and associated case season with only transfer-limiting upgrades are listed in Table 4. The date upgrade is needed is based on season of first impact.

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.

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 3.

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. These facilities are listed in Table 2. This table also includes overloaded facilities in the current planning horizon that limit the rollover rights of the Transmission Customer.

Given the estimated dates when Network Upgrades will be required for the specified Transmission Service to be provided, there are facility limits that may either delay the start date of the service or limit the ATC to less than that requested. Transfer-limiting facilities are listed in Tables 3 and 4. Seasonal and annual transfer limits given engineering and construction lead times are also listed in these tables. A summary of ATC throughout the reservation period is included in Table 5.

The Transmission Provider does not accept requests for firm Transmission Service without restrictions if the design criteria specified in the corresponding Impact Study are not met. However, the Transmission Provider may accept a request with either or both of the following: 1) a reduction of provided capacity to designated levels within the

specified time frames, and 2) a deferral of service, as listed in Table 5. The Transmission Provider accepts this request for Transmission Service given this allocation of capacity during the term of service of April 1, 2007 through April 1, 2027.

Tables 3 and 4 include lists of capacity of which may be less than that requested through the reservation period. The ATC and the estimate of levelized revenue requirements plus any pre-payments for Network Upgrade are provided in Table 6.

Third-Party Facilities

For third-party facilities listed in Table 8, the Transmission Customer is responsible for obtaining arrangements for the necessary upgrades of the facilities per Section 21.1 of the Transmission Provider's OATT. Eight third-party facilities were identified. Seven facilities are owned by Entergy and one facility by AECI. Entergy overloaded facilities will be alleviated by planned projects and are not assignable to the Transmission Customer. The AECI Jamesville Transformer overload will be alleviated by planned EMDE projects and is not assignable to the Transmission Customer. If requested, the Transmission Provider 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. Third-party facility upgrade engineering and construction cost estimates are not utilized to determine the present worth value of levelized revenue requirements for SPP system Network Upgrades.

All modeled facilities within the Transmission Provider system 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 the Transmission Provider who have not placed their facilities under the Transmission Provider's OATT.

Financial Methodology

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. In this study, no levelized costs were assignable.

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 facilities are upgraded throughout the reservation period, the Transmission Customer shall 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 usable 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 1) amortized engineering and construction costs associated with the new facilities, 2) annual carrying charges, excluding depreciation, based on the product of a) applicable gross and net engineering and construction costs associated with the new facilities, and b) 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 a) applicable gross and net book values associated with all replaced usable facilities, and salvage value of non-usable, and b) annual fixed charge rate (per-unit). 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.

A Transmission Owner may require that a Transmission Customer pre-pay for all assignable Network Upgrades which it designs and constructs. These pre-payments are the Transmission Owner's estimated engineering and construction costs. Pre-payments will be required prior to the scheduled in-service dates. Pre-payment dates and costs are listed in Table 1.

The Southwestern Power Administration is the only Transmission Owner that requires these pre-payments.

Financial Analysis

Table 6 includes a summary of ATC values with all assigned Network Upgrades energized by the Date In Service specified in Tables 3 and 4.

The estimate of total revenue requirements for the required Network Upgrades throughout the reservation period is determined on a levelized basis. A Transmission Owner may require that a Transmission Customer pre-pay for all assignable Network Upgrades which it designs and constructs in the amount of estimated engineering and construction costs. Pre-payment dates and costs are listed in Table 1 with a total estimated cost of $0.

The sum of the estimated monthly revenue requirements listed in Table 6 for the required Network Upgrades throughout the reservation period is $0. A list of the average annual Transmission Service costs is in Table 7. A summary of all costs is included in Table 9. The total levelized cost of revenue requirements for this request to designate a new network resource is $0 due to upgrade assignment of only EMDE facilities.

The Transmission Provider and the affected Transmission Owners shall use due diligence to add necessary facilities or upgrade the Transmission System to provide the requested Transmission Service, provided the Transmission Customer agrees to compensate the Transmission Provider for such costs pursuant to the terms of Section 27 of the Open Access Transmission Tariff. Partial Interim Service is available per Section 19.7 of the Open Access Transmission Tariff.

Engineering and construction of all new facilities and modifications will not start until the affected Transmission Owners receive the appropriate authorization to proceed from the Transmission Provider.

Conclusion

If a curtailment or redispatch option is agreed upon and implemented beginning 12/1/05 for relieving the impact on the Chamber Springs – Tontitown 161kv Line, the start date of the requested service will be 10/1/2005, otherwise if redispatch or curtailment of service option's are not agreed upon and implemented, the start date of the requested service will be delayed until 4/1/2007.

Assignable Network Upgrades will be required on the Empire District Electric (EMDE) Neosho-Neosho South Jct. 161kv facility. The engineering and construction cost estimates for assignable Network Upgrades total $800,000.

The total levelized cost of revenue requirements for this request to designate a new network resource is $0 due to upgrade assignment of only EMDE facilities.

To complete the request for Transmission Service, the Transmission Customer must confirm this request on the Transmission Provider's OASIS pursuant to the results of this Facilities Study within 15 days of receipt of this study and provide a letter agreement for redispatch or curtailment of service to relieve the impact on the Chamber Springs-Tontitown 161kV line beginning 12/1/05. The Transmission Provider will then authorize the applicable Transmission Owners to proceed with the engineering and construction of the Network Upgrades assigned to this request.

Given the constraints identified in the corresponding Impact Study, 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 when the Transmission Provider notifies the Transmission Owners to proceed with the necessary projects.

Based on the results of the corresponding Impact Study, Network Upgrades that were identified as required to provide the requested Transmission Service are listed in Tables 1 & 3. Table 1 includes the Network Upgrades and costs assigned to the Transmission Customer to accommodate its Transmission Service Request. Table 3 includes the Network Upgrades assigned to previous reservations.

Throughout the reservation period of the specified Transmission Service, the estimate of the pre-payment requirements for the required Network Upgrades is $0 for Transmission Service Requests 634282, 634284, and 634285. 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 6.

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
Assigned Network Upgrades

Facility & Network Upgrade	Transmission Owner	Engineering & Construction Costs ($)	Eng. & Const. Lead Time (Months)	Const. Only Lead Time (Months)	Date Needed (M/D/Y)	Scheduled Date In Service (M/D/Y)	Pre-Payment Date (M/D/Y)
NEOSHO - SUB 184 - NEOSHO SOUTH JCT. 161KV Rebuild 161 kV line from 336 ACSR to 795 ACSR and replace terminal equipment.	EMDE	800,000	12		6/1/2010	6/1/2010	

Note: Pre-payment dates are only specified when applicable.

Table 1 (Continued)
Assigned Network Upgrades

Facility & Network Upgrade	Transmission Owner	Engineering & Construction Costs ($)	Eng. & Const. Lead Time (Months)	Const. Only Lead Time (Months)	Date Needed (M/D/Y)	Scheduled Date In Service (M/D/Y)	Pre-Payment Date (M/D/Y)
Subtotal for AEPW							
Subtotal for EMDE	EMDE	800,000					
Subtotal for GRRD							
Subtotal for KACP							
Subtotal for MIDW							
Subtotal for OKGE							
Subtotal for SPRM							
Subtotal for SWPA							
Subtotal for SWPS							
Subtotal for WFEC							
Subtotal for WR							
Total		800,000					

Note: Pre-payment dates are only specified when applicable.

Table 2
Facilities Requiring No Upgrades Or Limiting Rollover Rights

Facility	Transmission Owner	Reason For No Upgrade	Reservation Rollover Limit In Planning Horizon Where Applicable (M/D/Y)
SUB 389 - JOPLIN SOUTHWEST - SUB EXPLORER SPRING CITY TAP 69KV	EMDE	During peak loading conditions, load at bus 59563 will be removed since it is an interruptible load.	
BULL SHOALS-BULL SHOALS HES 161KV LINE	SPA	Planned tie line to be in service by 6/1/2006 to relieve loading.	

Table 3
Facilities That Limit Transmission Service
And Have Network Upgrades Assigned To Previous Reservations

Previous Reservations								This Reservation			
					Possible (1)		Scheduled				
Reservation / Study (No.)	Facility & Network Upgrade, Plus Summary Of Restricted Operating Period	Trans. Owner	Eng. & Const. Lead (Month)	Const. Only Lead (Month)	Date Available (M/D/Y)	Delay (Month)	In Service (2) (M/D/Y)	ATC (MW)	Impact Study (Model)	Upgrade Needed (M/D/Y)	Changes Required (3)
AEP Planned Project	Chamber Springs-Tontitown 161kV. Install 14 mi. new 345 kV line , ROW and terminal equipment at Chamber Springs	AEP	24				5/1/07	0	05SP	6/1/05	Requirement of Redispatch or curtailment of firm service impacting this facility beginning 12/1/05 to meet requested service start date of 10/1/05. Otherwise service will begin 4/1/07.

Note: (1) Some existing facilities may not be taken out of service during the summer peaking period. When a facility may not be taken out of service and the projected completion of a Network Upgrade is between either 1) June 1 and September 15, or 2) September 15 and the date when construction ends given construction starts September 15, then the construction time is added to September 15. However, the Possible Date Available is limited to June 1 of the following year. Delay is the difference of the Possible Date Available and the Upgrade Needed date for the previous reservation.

(2) The Scheduled In Service date is based on when continuous annual service may be started that is on or after the Possible Date Available. If N/A, then the facility upgrade/addition is not required, due to its lead time for engineering and construction, as a) continuous annual service above the ATC limit may be provided only after the requested reservation period, or b) the facility is not required at a later time within the reservation period due to reduced loading of the facility below its emergency rating. The Scheduled In Service date may be later than the Possible Date Available when either a) another facility with a lower value of associated ATC has a longer Engineering & Construction Lead time, or b) the start of the season, in which the Network Upgrade is required, is later than the Possible Date Available.

(3) Changes Required may include expediting the previously assigned Network Upgrade to an earlier Scheduled In Service date and providing additional capacity. The Scheduled In Service date is based on items received by an assumed date as documented in this study including authorization to proceed with engineering and construction received by the Transmission Owners from the Transmission Provider.

Impact Study 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 4
Facilities That Limit Transmission Service
And Have Network Upgrades Assigned To This Reservation

							Possible (1)		Scheduled
Facility & Network Upgrade, Plus Summary Of Restricted Operating Period	Trans. Owner	ATC (MW)	Impact Study (Model)	Upgrade Needed (M/D/Y)	Eng. & Const. Lead (Month)	Const. Lead Only (Month)	Date Available (M/D/Y)	Delay (Month)	In Service (2) (M/D/Y)
NEOSHO - SUB 184 - NEOSHO SOUTH JCT. 161KV. Rebuild 161 kV line from 336 ACSR to 795 ACSR and replace terminal equipment.	EMDE	66	10SP	6/1/2010	12				6/1/2010

Note: (1) Some existing facilities may not be taken out of service during the summer peaking period. When a facility may not be taken out of service and the projected completion of a Network Upgrade is between either a) June 1 and September 15, or b) September 15 and the date when construction ends given construction starts September 15, then the construction time is added to September 15. However, the Possible Date Available is limited to June 1 of the following year. Delay is the difference of the Possible Date Available and the Upgrade Needed date for this reservation.

(2) The Scheduled In Service date is based on when continuous annual service may be started that is on or after the Possible Date Available. If N/A, then the facility upgrade/addition is not required, due to its lead time for engineering and construction, as a) continuous annual service above the ATC limit may be provided only after the requested reservation period, or b) the facility is not required at a later time within the reservation period due to reduced loading of the facility below its emergency rating. The Scheduled In Service date may be later than the Possible Date Available when either a) another facility with a lower value of associated ATC has a longer Engineering & Construction Lead time, or b) the start of the season, in which the Network Upgrade is required, is later than the Possible Date Available. The Scheduled In Service date is based on items received by an assumed date as documented in this study including authorization to proceed with engineering and construction received by the Transmission Owners from the Transmission Provider.

Table 5
Summary Of Available Transfer Capability With Network Upgrades

Insufficient ATC (1)			Sufficient ATC		
Operating Period (Year)	Operating Period (M/D - M/D)	ATC (MW)	Operating Period (Year)	Operating Period (M/D - M/D)	ATC (MW)
1/1/2005	4/1/2007	0	4/1/2007	4/1/2027	150

Note: Annual ATC allocated to the Transmission Customer is determined by the least amount of seasonal ATC within each year of a reservation period.

(1) When the ATC is insufficient to provide the Transmission Customer with reliable service for a significant portion of the requested reservation period without impairing or degrading reliability to existing firm services, the Deferral of Service is applicable.

(2) Allocated ATC to the Transmission Customer on an annual basis.

Table 6

Network Upgrade Revenue Requirements Including Pre-Payments

Operating Period	2006		2007		2008		2009	
(Month)	ATC (MW)	Network Upgrade Revenues ($)	ATC (MW)	Network Upgrade Revenues ($)	ATC (MW)	Network Upgrade Revenues ($)	ATC (MW)	Network Upgrade Revenues ($)
January	N/A	N/A	N/A	N/A	150	N/A	150	N/A
February	N/A	N/A	N/A	N/A	150	N/A	150	N/A
March	N/A	N/A	N/A	N/A	150	N/A	150	N/A
April	N/A	N/A	150	N/A	150	N/A	150	N/A
May	N/A	N/A	150	N/A	150	N/A	150	N/A
June	N/A	N/A	150	N/A	150	N/A	150	N/A
July	N/A	N/A	150	N/A	150	N/A	150	N/A
August	N/A	N/A	150	N/A	150	N/A	150	N/A
September	N/A	N/A	150	N/A	150	N/A	150	N/A
October	N/A	N/A	150	N/A	150	N/A	150	N/A
November	N/A	N/A	150	N/A	150	N/A	150	N/A
December	N/A	N/A	150	N/A	150	N/A	150	N/A
Subtotal By Year		$0		$0		$0		$0

Note: Annual ATC allocated to the Transmission Customer is determined by the least amount of seasonal ATC within each year of a reservation period.

A Transmission Owner may require that a Transmission Customer pre-pay for all assignable Network Upgrades which it designs and constructs. These pre-payments are in the amount of the Transmission Owner's estimated engineering and construction costs. Applicable refunds are also included. The estimated monthly revenue requirements listed in this table include these pre-payments and refunds. All estimated monthly revenue requirements excluding pre-payments and refunds are $0.

Table 6 (Continued)
Network Upgrade Revenue Requirements Including Pre-Payments

Operating Period	2010		2011		Intermediate Years 2012-2026		2027	
(Month)	ATC (MW)	Network Upgrade Revenues ($)	ATC (MW)	Network Upgrade Revenues ($)	ATC (MW)	Network Upgrade Revenues ($)	ATC (MW)	Network Upgrade Revenues ($)
January	150	N/A	150	N/A	150	N/A	150	N/A
February	150	N/A	150	N/A	150	N/A	150	N/A
March	150	N/A	150	N/A	150	N/A	150	N/A
April	150	N/A	150	N/A	150	N/A	N/A	N/A
May	150	N/A	150	N/A	150	N/A	N/A	N/A
June	150	N/A	150	N/A	150	N/A	N/A	N/A
July	150	N/A	150	N/A	150	N/A	N/A	N/A
August	150	N/A	150	N/A	150	N/A	N/A	N/A
September	150	N/A	150	N/A	150	N/A	N/A	N/A
October	150	N/A	150	N/A	150	N/A	N/A	N/A
November	150	N/A	150	N/A	150	N/A	N/A	N/A
December	150	N/A	150	N/A	150	N/A	N/A	N/A
Subtotal By Year		$0		$0		$0		$0
Total For All Years								$0

Note: Annual ATC allocated to the Transmission Customer is determined by the least amount of seasonal ATC within each year of a reservation period.

A Transmission Owner may require that a Transmission Customer pre-pay for all assignable Network Upgrades which it designs and constructs. These pre-payments are in the amount of the Transmission Owner's estimated engineering and construction costs. Applicable refunds are also included. The estimated monthly revenue requirements listed in this table include these pre-payments and refunds. All estimated monthly revenue requirements excluding pre-payments and refunds are $0.

Table 7
Annual Average Transmission Service Costs

Annual Average Transmission Service Costs Calendar Period (Year)	Maximum ATC (MW)	Average Of Allocated Monthly Peak ATC (MW)	Total Revenue Requirements ($)	Average Transmission Service Cost (1) (2) ($/MW-Month)
2006	0	0	0	0
2007	150	150	0	0
2008	150	150	0	0
2009	150	150	0	0
2010	150	150	0	0
2011	150	150	0	0
2012	150	150	0	0
2013	150	150	0	0
2014	150	150	0	0
2015	150	150	0	0
2016	150	150	0	0
2017-2026	150	150	0	0
2027	150	150	0	0
Total	150	150	0	0

Note: Annual ATC allocated to the Transmission Customer is determined by the least amount of seasonal ATC within each year of a reservation period.

(1) The average transmission service cost is based on the average of the monthly peak ATC within the calendar year.

(2) If revenues are required of the Transmission Customer for Network Upgrade pre-payments and generation re-dispatching prior to the calendar year that includes the initial portion of the first operating year, then these costs are added to those in the first calendar year for the purpose of determining an Average Transmission Service Cost in the first calendar year. Therefore, all costs prior to and including the first calendar year, which includes all or the first portion of the first operating year, are accumulated for determining the Average Transmission Service Cost as listed for the first calendar year.

Table 8
Identified Third-Party Facilities

Facility & Network Upgrade	Transmission Owner	Engineering & Construction Costs ($)	Eng. & Const. Lead Time (Months)	Const. Only Lead Time (Months)	Date Needed (M/D/Y)
Jamesville 161kv XFMR- overload to be alleviated by EMDE planned projects and therefore not assignable to customer.	AECI				6/1/2005
Bullshoals 161kv –Flippin 161kv--overload to be alleviated by Entergy planned projects and therefore not assignable to customer	ENTR				6/1/2005
Quitman 161kv – Bee Branch 161kv -overload to be alleviated by Entergy planned projects and therefore not assignable to customer	ENTR				6/1/2010
Harrison South 161-Harrison East 161kv -overload to be alleviated by Entergy planned projects and therefore not assignable to customer	ENTR				6/1/2010
Harrison South 161-Harrison West 161kv161kv -overload to be alleviated by Entergy planned projects and therefore not assignable to customer	ENTR				6/1/2010
Flippin 161kv – Summit 161kv -overload to be alleviated by Entergy planned projects and therefore not assignable to customer	ENTR				6/1/2010
Green Forest 161-Harrison West 161kv -overload to be alleviated by Entergy planned projects and therefore not assignable to customer	ENTR				6/1/2010
Harrison East 161- Summit 161kv -overload to be alleviated by Entergy planned projects and therefore not assignable to customer	ENTR				6/1/2010

Table 9

Summary of Transmission Service Costs

Cost Components & Descriptions	Units	
Start Date	(M/D/Y)	April 1, 2007
End Date	(M/D/Y)	April 1, 2027
Term	(Years)	20 years
Maximum Allocated Capacity	(MW)	150
Average Of Allocated Monthly Peak Capacity Over Term	(MW)	150.00
Pricing Methodology	(And/Or)	Total cost of non-EMDE Network Upgrades
Base Rate Estimate		
Total Revenue Requirements	($)	N/A
Average Rate Over Term	($/MW-Month)	N/A
Network Upgrade Estimate		
SPP Total Assigned Eng. & Const. (Includes all Network Upgrades required)	($)	800,000
Expedited Eng. & Const.	($)	0
Total Levelized Cost excluding prepayments (Non EMDE Network Upgrades)	($)	0
Average Rate Over Term	($/MW-Month)	0
Average Indirect Cost Multiplier	(Per-Unit)	0
(Based On Assigned Eng. & Const.).		
Network Upgrades Requiring Pre-Payment	($)	0
(Included In Assigned Eng. & Const)		
Expedited Network Upgrades Requiring Pre-Payment & Refund	($)	0
(Included In Expedited Eng. & Const)		
Total Assigned Eng. & Const. for Third-Party Network upgrades (Levelized cost over term not applicable)	($)	0
Generation Re-Dispatching Estimate As Required For Construction Only		
Total	($)	0
Average Rate Over Term	($/MW-Month)	0.00
Network Upgrade & Generation Re-Dispatching		
Total Levelized Cost including prepayments	($)	0
Average Rate Over Term	($/MW-Month)	0
Total Transmission Service		
Total Estimate Of Allocable Levelized Costs including prepayments	($)	0
Average Rate Over Term	($/MW-Month)	0