CAWG MEETING  
June 27, 2007  
Hyatt Regency DFW  
Dallas, TX  
11:00 am – 5:00 pm

AGENDA

1. Introductions 11:00 - 11:10

2. Jurisdictional utilities proposed Cost allocation method for Economic Upgrades  
   Discussion lead by Bary Warren  
11:10 – 12:00

3. Lunch Break 12:00 – 12:45

4. SPP staff Economic Upgrade Strawman cost proposal  
   Discussion lead by Jay Caspary  
12:45 – 1:30

5. AECC proposed Cost allocation method for Economic Upgrades  
   Discussion lead by Robert Shields  
1:30 – 2:00

6. Economic Portfolio and EHV Collaboration  
   Discussion lead by Charles Cates  
2:00 – 3:00

7. 15 minute break 3:00 – 3:15

8. EDE Waiver Request  
   Discussion lead by Bary Warren  
3:15 – 3:45

9. SPP staff recommendation for EDE Waiver Request  
   Discussion lead by John Mills  
3:45 – 4:30

10. Plans for next meetings 4:30 – 5:00

Southwest Power Pool
Helping our members work together to keep the lights on... today & in the future

Economic Upgrades

Proposed Cost Allocation Method: A Strawman from the SPP Staff
Transmission Concepts

- **Enabler** - Transmission enables ability to achieve critical objectives

- **Hedge** - Sufficient transmission provides “hedge” to mitigate the economic consequences of a variety of planned or unplanned scenarios that may or may not occur

- **Flexibility** - Sufficient transmission provides operational “flexibility” for overall electric system

- **Reliability** - Inherent ability of networks to withstand and reinforce operation of grid versus other alternatives

Additional Factors to Consider when Quantifying Transmission Benefits

- **Losses**
  - Energy
  - Capacity

- **Reduced Congestion**

- **Reduced Planning Reserves**

- **Storm Hardening**
  - Price risk mitigation
  - Insurance Value

- **Environmental Impacts**
  - Emissions credits
  - Carbon Tax

- **Societal Benefits**
  - Homeland Security - Critical Infrastructure

- **Black Start – Voltage Control & Ancillary Services**
Quantifying Losses

- **Losses: Energy**
  - Comparing SCED results will capture incremental impacts of transmission expansion projects on energy losses

- **Losses: Capacity**
  - Determine loss reduction on peak - multiply by member/stakeholder agreed-upon Generation capacity cost

Quantifying Congestion

- **Security Constrained Economic Dispatch Analysis**
  - Model various alternatives
  - Compare resultant nodal price differences for marginal energy
  - (Congestion points can be verified with manual powerflow analysis.)
Quantifying Planning Reserves

- Use standard Loss Of Load Expectation (LOLE) methodology based upon First contingency Incremental Transfer Capability (FCITC) values from various alternatives
  - Determine capacity reduction
  - Allocate reduction across base, intermediate, and peaking load

Actual & Forecast Capacity Margins

![Chart showing actual and forecast capacity margins from 2001 to 2015. The chart displays the percentage change over time, with actual values indicated by green squares and forecast values by lines with different colors for each year.]
Quantifying Storm Hardening

- Use Monte Carlo technique to force various combinations of transmission outages
  - Run Economic model for each alternative
  - Compare the costs
- Insurance approach
  - Compute probabilities of various, unplanned combinations of contingencies – pick combinations that are severe
  - Apply insurance valuation techniques

Quantifying Environmental

- SCED runs provide direct computation of:
  - SO₂
  - Carbon
  - Other emissions such as NOₓ
  - For credits: Multiply by stakeholder-accepted price (may need to calculate a range)
  - For carbon: Multiply by tax rates under discussion to create a valuation range ($ 25/ton)
Quantifying Societal Benefits

- California ISO approach - Modified WECC Societal Benefit Calculation, which is net of:
  - Reduction in prod cost (customer benefit)
  - Increase in producer surplus (generator benefit)
  - Increased transmission rent (TO benefit)

- Supplement with other costs such as:
  - Reduced un-served energy amounts
  - Economic development attributes
  - Value to neighboring systems

Quantifying Homeland Security - Critical Infrastructure

- Provides improved redundancy in networks
- Appropriate planning will alleviate critical infrastructure
- Monte Carlo techniques described for storm hardening could be applied here
Quantifying Black Start - Voltage Control & Ancillary Services

• A more robust grid will:
  • Have more cranking paths for Black Start, without disrupting high voltage grid
  • Provide a better system - less need to prop up voltage
  • Allow better balancing of customers to self-supply ancillary services

Methodology for Quantifying Benefits

• SPP staff contemplating methodology to be used for additional factors presented
  • Benefit/cost based on 10 year savings based on net present worth
  • Weighted factor analysis based on estimated benefit to the SPP footprint
Economic Upgrades

- Elective upgrades are screened in SPP Transmission Expansion Plan that have potential economic benefit to SPP Region, but are not required for reliability
  - 2006 SPP Transmission Expansion Plan noted 41 Economic Upgrades - 23 are 345 kV +
  - For each potential Economic Upgrade, SPP estimates construction cost and 10-year savings based on net present worth of total production cost savings
  - Potential Economic Upgrades ranked in decreasing order based on ratio of 10-year savings to estimated construction costs

SPP Current Tariff Handling of Economic Upgrades

- SPP Tariff allows Project Sponsor to build Economic Upgrade and receive credits based on Transmission Customer use
- Currently, SPP tracks these credits for the service life of Economic Upgrade
- Based on credits paid from Base Plan Funding, the allocation of 33% to entire SPP region and 67% to benefiting SPP zones (load ratio share) would be applied
Economic Upgrades

- Regional Benefits based on voltage levels
- Economic transmission line upgrades provide regional benefit to the SPP footprint

1. 345 kV Analysis
   A. 82 - 345 kV lines
   B. On average, 12 of 13 (93%) control areas impacted by 345 kV lines - 59% impact all 13 areas
   C. Average total area MW-mile impact is 66,500
   D. Highest total area impact is 300,000 (Finney to Potter 345 kV)

2. 230 kV Analysis
   a) 71 - 230 kV lines
   b) On average, 9 of 13 (69%) control areas impacted by 230 kV lines - 17% impact all 13 areas
   c) Average total area MW-mile impact is 22,500
   d) Highest total impact is 90600 (Amarillo to Swisher 230 kV)
Economic Upgrades

- Economic transformer and other terminal upgrades provide local benefit to SPP footprint
- No MW-Mile impact

Based on Two Transmission Owner’s Data

- $100 Million in economic upgrades for 345 kV transmission lines would only increase residential customer cost by $ 0.09 or 0.1% per month (based on 1033 kW-hr)

- $100 Million in economic upgrades for 345 kV transmission lines would only increase residential Customer cost by $ 0.08 or 0.1% per month (based on 1000 kW-hr)
345 kV Economic Upgrades with Benefit/Cost > 1

(Using current calculation methodology)

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Project Cost ($ Million)</th>
<th>Dispatch Savings (10 Year Estimate Cost Savings)</th>
<th>Ratio (x 100)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cleveland-Sooner 345 kV</td>
<td>27.0</td>
<td>42</td>
<td>1.55</td>
</tr>
<tr>
<td>Iatan - Nashua 345 kV</td>
<td>28.5</td>
<td>35</td>
<td>1.23</td>
</tr>
</tbody>
</table>

345 kV + Economic Upgrades with Benefit/Cost Ratio < 1

(Using current calculation methodology)

- 21 Economic Upgrades with benefit/cost ratio < 1
- As a portfolio, average benefit/cost ratio is 0.28 for the 21 projects
- Based on “additional factors to consider” when quantifying transmission benefits, several might have increased benefit > 1
SPP Staff Strawman Proposal

- Postage Stamp all transmission upgrades 345 kV+
- Annual E&C cost cap of $500 million
- Transformers and other terminal equipment required to connect Economic Upgrade shall be cost allocated to the local zone
- Based on the benefit calculations using additional items discussed, benefit/cost analysis will be > 1
- Transmission service associated with these Economic Upgrades will continue through the normal OASIS reservation and Aggregate study process
- Portfolio of projects are determined and approved by the SPP Transmission Expansion Planning (STEP) process (as is done currently)
- Projects would have a benefit/cost ratio > 1

Questions?
Jay Caspary
Director, Engineering
501-614-3220
jcaspary@spp.org
Economic Portfolio and EHV Collaboration

A discussion on the relationship of the EHV Overlay Study and the Economic Portfolio
Disclaimer

- Material in this presentation is preliminary and not considered final. Material is provided for discussion purposes only.

EHV Overlay Study

- EHV Overlay Study provides a long-range strategic assessment regarding long-term reliability and capacity needs through the use of the EHV transmission system to the SPP footprint and beyond

- EHV Overlay used the 2016 SPP Transmission Expansion Plan (STEP) case as a starting point for topology

- InfraSource and PowerWorld constructed a 2026 case from this basis

- Reliability analysis performed only on 230+ kV.

- Very simplified economics considered (estimated operating costs).

- SPP to conduct further economic analysis in house
EHV Overlay Study Details

• With the assistance of stakeholder feedback gathered at the TWG and other meetings, the 2026 scenario considered:

  • 13,000 MW of nameplate wind capacity in the SPP footprint in the base, and a high wind sensitivity of 24,000 MW
  
  • Expansion of nuclear power at Wolf Creek
  
  • Significant increased gas generation in southeastern and central SPP
  
  • High load growth centers (Ozarks, Kansas City, Oklahoma City, Wichita, Tulsa, etc)

EHV Overlay Study Details (continued)

• Increased interchanges of energy between SPP and the eastern interconnect, ERCOT and WECC

• Additionally, Ozark area reinforcements were added to select cases in the study based off existing SPP analysis

• Sensitivities including: High Nuclear, No New Nuclear, High Gas, High Load Growth, Low Load Growth, Coal Retirement Scenarios and High Wind

• Base case conditions include: Western Half of the X-Plan, 1500/600 MW CREZ Scenario, Holcomb East, Iatan 2
EHV Overlay Alternatives

- The EHV Overlay Study determined 6 alternatives as potential candidates for EHV Expansion -
  - Alternative 1 – 500 kV Loop ($4.8B)
  - Alternative 2 – 765 kV Loop ($4.9B)
  - Alternative 3 – 765 kV Simulation Method ($4.5B)
  - Alternative 4 – 765 kV Network ($7B)
  - Alternative 5 – 765 kV Loop Optimized ($4.9B)
  - Alternative 6 – 500 kV Loop Optimized ($4.7B)
Alt 2 – 765 kV Loop

Alt 3 – 765 kV Simulation Method
Alt 4 – 765 kV Network

Alt 5 – 765 kV Loop Optimized

Information taken from EHV Overlay Study
EHV Overlay Study Results

- The Economic Portfolio results are still pending further evaluation as to the sensitivity of certain metrics

- Preliminary results rank the projects as follows:
  - Alternative 5 – 765 kV Loop Optimized
  - Alternative 2 – 765 kV Loop
  - Alternative 4 – 765 kV Network
  - Alternative 6 – 500 kV Loop Optimized
  - Alternative 1 – 500 kV Loop
  - Alternative 3 – 765 kV Simulation Method
EHV Overlay Study Results (cont.)

- All plans in the EHV Overlay Study performed very well
- Top-performing plan was Alternative 5, with the Ozarks additions
- Alternative 5 includes 765 kV loop with extensions into MISO/PJM, and extensive integration of 500 kV systems in MO, AR, and TX between SPP and Entergy systems
- Preliminary cost estimates of $4.9B

Economic Portfolio & EHV Overlay

- The Economic Portfolio is a hypothetical portfolio of economic upgrades that have benefit to the SPP region and beyond
- Economic Portfolio has a 10 year horizon - EHV Overlay Study has 20+ years horizon
- However....... certain patterns are emerging
- The Economic Portfolio and EHV Overlay both attempt to capture the best fit solution for the SPP region (and beyond)
- The Economic Portfolio and EHV Overlay share many common connection points and transmission elements for expansion
Economic Portfolio & EHV Overlay

- The Economic Portfolio should be a stand alone set of projects that provide benefit in their own right.

- The Economic Portfolio should also provide strong support for future EHV Overlay expansion.

- Transmission Owners need to consider right of way acquisition beyond 345 kV construction standards for corridors of interest.

Alternative 3 – Simulation Driven

- Alternative 3 of the EHV Overlay Study used a method of planning that utilizes computer decision making to analyze every possible combination of expansion and attempts to find ideal locations for expansion by rating that locations effect on congestion.

- Alternative 3 analyzed the benefit of 82,000 possible line combinations across multiple scenarios.

- For this presentation, this method will be referred to as the Weighted Facility Loading Reduction (WFLR) method.
**Weighted Facility Loading Reduction (WFLR)**

- WFLR method looks at all the transmission lines and ranks them according to total congestion for every possible outage scenario
  - Weaker lines have higher congestion ranking
  - Total congestion aggregated across all scenarios and years of interest
  - Ranking is based on the amount of MVA loading over the emergency rating of the line in question

- Next, the method considers injecting 1 MW at every location
  - Impact of the 1 MW addition on system congestion is recorded
  - Analysis will rank each location according to how positively additional support would improve congestion on entire system

**WFLR and Enhanced Region Planning (ERP)**

- WFLR is a good starting point for locations to consider for both Demand Side Management (DSM) and Integrated Resource Planning (IRP) as well as new transmission upgrades

- Ideally, transmission would be between locations with a high positive impact on congestion and locations that have a negative impact on congestion

- For DSM and IRP, locations that have a positive effect on congestion are ideal from a transmission perspective
WFLR Drivers and Challenges

- **Drivers**
  - Process considers system wide impact of expansion for both transmission and resources
  - Capable of looking at combinations not traditionally considered

- **Challenges**
  - Process tends to favor short lines
  - Process does not consider constructability
  - Algorithm only considers next single element and what was added before that element

- Engineering judgment can be used to augment and enhance the process for more precise EHV development

Next Steps

- WFLR is only the first step for an initial look at potential areas of expansion

- The WFLR tool is available in the latest version of PowerWorld currently in house at SPP

- Staff will use WFLR technique on several other futures

- Output from the WFLR process is the starting point for economic analysis

- For IRP, locations need to be checked for feasibility against previous check list presented in March to the CAWG
Questions?

Charles Cates
Planning Engineer
501-614-3551
ccates@spp.org
May 21, 2007

Mr. John Mills  
Manager, Tariff Studies  
Southwest Power Pool, Inc.  
415 North McKinley Street  
#140 Plaza West  
Little Rock, Arkansas 72205

Re: Empire Request For Waiver (#1) Per Attachment J of the SPP OATT  
For OASIS Requests: #973355, #973373, and #1032183

Dear John,

Pursuant to Section III C. 1(Waiver Process) of Attachment J of the Southwest Power Pool (SPP) Open Access Transmission Tariff, The Empire District Electric Company (Empire) is requesting a waiver, in whole, of SPP determined direct assignment Network Upgrade facilities associated with Empire transmission service OASIS requests:

#973355(Iatan II-100MW): SPP-2006-AG2-AFS-4  
#973373(Plum Point-50MW): SPP-2005-AG2-AFS-3  
#1032183(Plum Point-50MW): SPP-2006-AG1-AFS-4

This waiver request of $9.7 Million is being requested for all reservations due to the fact that each request requires the construction of the same facilities on the Empire system and/or 3rd party facilities and relates to new designated resources (DRs) that are new coal fired base load generation facilities that are scheduled to be in service in the same year, 2010.

Empire is a joint owner of a new Iatan II facility (800MW to 850MW) currently under construction within the Kansas City Power and Light (KCPL) balancing area, and is also a joint owner of a new Plum Point facility (665MW) currently under construction by LS Power, Inc. in the Entergy Arkansas area near Osceola, Arkansas (north of Memphis, Tennessee).

The waiver pertains to SPP’s initially interpreted Empire violation of Section III B.2 Capacity Margin (125%) Condition:

2. In the first year (2010) the Designated Resource is planned to be used by the Transmission Customer, the accredited capacity of the Transmission Customer’s existing Designated Resources plus the lesser of: (a) the planned maximum net dependable capacity applicable to the Transmission Customer or (b) the requested capacity, “shall not” exceed 125% of the Transmission Customer’s projected system peak responsibility determined pursuant to SPP Criteria 2 (Capacity Margin);
With respect to Condition 1-Commitment, all 3 requests are for at least 20 years with ownership of at least 150MW of the 200MW. As described in Section III B.3, the Safe Harbor Limit for the above requests are $18 Million(100MW), $9 Million(50MW), and $9 Million(50MW) respectively, for a total of $36 Million in eligible funding.

Based on the SPP initially interpreted 2010 Capacity Margin for Empire to be approximately 134% (taken from Empire submitted EIA-411 2005 and 2006 information) which includes a continuation of Empire’s existing 162MW purchase of capacity and energy from Westar’s Jeffrey Power Station, Empire would be ineligible for “any” Base Plan Funding for the Network Upgrades required for the 200MW of service and directly assigned the estimated $9.7 Million costs, unless a waiver is secured. Empire is “not” requesting a waiver of the 125% “bright line” Capacity Margin in 2010, but rather a re-consideration of Condition 2 Capacity Margin calculation of 134%, based on a) termination of the Jeffrey designated resource in 2010 and b) updated 2007 EIA-411 information.

As described in Section III C.1 of the Waiver Process, the Transmission Customer must submit its request for a waiver to SPP “simultaneous” with its designation of a new or “changed” Designated Resource to be included in the SPP Transmission Expansion Plan. A copy of a Termination of Designated Resource is attached.

With submittal of this Waiver Request, Empire is simultaneously providing SPP an official “change” or termination in an existing Designated Resource (Jeffrey), thus significantly changing Empire’s Capacity Margin/Condition 2 analysis from 134% to 117% (based on updated/projected 2007 EIA-411 information for 2010). Even with i) inclusion of the Jeffrey’s designated resource, ii) 15MW of SPP determined wind capacity (Empire believes the dependable capacity value to be near 0% based on 1st summer of operation), and iii) updated 2007 EIA information, the Condition 2 Capacity Margin would be 125.3%.

Also attached is the Condition 2 Capacity Margin Analysis referred to above, for the SPP staff, CAWG, MOPC, and Board of Directors consideration of the Waiver. Service agreements for the 3 requests have not been finalized and will be affected with the Board of Directors’ decision on this Waiver request.

Empire provides the analysis in this manner to illustrate how this Condition evaluated only at the first year of service and implemented in a “bright light/all or nothing manner may need further evaluation with respect to a pro-ration of eligible funding and capacity margin over the term of the SPP Transmission Expansion Plan or in the event circumstances change for the transmission customer.

Based on the results of the Aggregate Facility Studies for the transmission service requests, the facilities required are allocated to the Iatan II 100MW request and Plum Point 50MW request. The 2nd Plum Point 50MW request has impacted on those same facilities and it is our understanding credits from use of those facilities would need to determined, if a waiver was not approved.
Network upgrades include a new 161KV circuit north of Joplin, Missouri to Riverton, Kansas ($5.4 Million) and a new 161/69/12.5kV power transformer ($4.3 Million).

In light of the Safe Harbor Limit of Engineering and Construction costs (E&C) for the 200MW of designated resources being $36 Million, the term of the reservations being in excess of 20 years, and the more accurate re-evaluation of Condition 2 lowers Empire’s Capacity Margin to less than 125%, Empire specifically requests that:

a) SPP staff distribute the Waiver Request to the MOPC and CAWG as soon as possible;
b) the directly assigned transmission costs of the Network Upgrades required to be constructed prior to the January 1, 2010 in-service date of the transmission service (estimated to be $9.7 Million E&C) be reviewed by the CAWG, MOPC, RSC, and SPP Board of Directors no later than the end of July and;
c) the Network Upgrades required for the 3 requests be determined and approved by the Board of Directors to be Base Plan Upgrades with the final actual costs of the upgrades be fully Base Plan funded and allocated as set forth in Attachment J Section III-A.

Empire representatives will be personally available to discuss our Waiver request at future CAWG, RSC, RTWG, MOPC and BOD meetings.

Thank you for your assistance and we look forward to SPP’s recommendation and finalization of the service agreements related to these new designated resources for the customers of The Empire District Electric Company.

Sincerely,

Rick McCord
Director, Supply Management

cc. Harold Colgin, II, Empire Vice President of Energy Supply
    Bary Warren, Empire Director of Transmission Policy and Compliance
    Pat Bourne, SPP Director of Transmission and Regulatory Policy
## Base Plan Funding Attachment J - B.2 125% Capacity Margin Condition Analysis for EDE For Transmission Service Requests:

973355(Ilatan 8-100MW(O)), 973373(Plumpoint-60MW (O)), and 1332183(Plumpoint-50MW-(P))

<table>
<thead>
<tr>
<th>Year</th>
<th>Designated Capacity Resources</th>
<th>Total Designated Capacity Resources with Wind</th>
<th>System Peak Responsibility</th>
<th>Existing w/o Jeffries Capacity Margin</th>
<th>Existing + Requested w/o Jeffries Purchase Capacity Margin</th>
<th>Existing + Requested w/o Jeffries Purchase Capacity Margin (Total w/Wind - Peak)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ownership requested OR</td>
<td>Total w/Wind</td>
<td>2007(BA)</td>
<td>2008(BA)</td>
<td>Total with Wind - Peak</td>
<td>2007(BA)</td>
</tr>
<tr>
<td>2006</td>
<td>1130</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2007</td>
<td>1256</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2008</td>
<td>1256</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2009</td>
<td>1256</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2010</td>
<td>1256</td>
<td>50</td>
<td>50</td>
<td>0</td>
<td>15</td>
<td>1462</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>1256</td>
<td>50</td>
<td>50</td>
<td>0</td>
<td>15</td>
<td>1462</td>
</tr>
<tr>
<td>2012</td>
<td>1256</td>
<td>50</td>
<td>50</td>
<td>0</td>
<td>15</td>
<td>1462</td>
</tr>
<tr>
<td>2013</td>
<td>1256</td>
<td>50</td>
<td>50</td>
<td>0</td>
<td>15</td>
<td>1462</td>
</tr>
<tr>
<td>2014</td>
<td>1256</td>
<td>50</td>
<td>50</td>
<td>0</td>
<td>15</td>
<td>1462</td>
</tr>
<tr>
<td>2015</td>
<td>1256</td>
<td>50</td>
<td>50</td>
<td>0</td>
<td>15</td>
<td>1462</td>
</tr>
<tr>
<td>2016</td>
<td>1256</td>
<td>50</td>
<td>50</td>
<td>0</td>
<td>15</td>
<td>1462</td>
</tr>
</tbody>
</table>

*Note: 15(MW)(10%) of capacity assigned by SPP for 150MW E & River Wind Farm for Capacity Margin determination. EDE believes dependable capacity value is closer to 0%.
May 21, 2007

Mr. L. Patrick Bourne  
Director, Transmission  
and Regulatory Policy  
Southwest Power Pool, Inc.  
415 N. McKinley  
#140 Plaza West  
Little Rock, Arkansas  72205

Re: Termination of Network Resource

Dear Pat,

We are officially notifying SPP of a change in Empire’s future resource designations.

Empire currently has an agreement\(^1\) for 162MW of capacity from Westar’s Jeffrey Energy Center that is delivered to Empire under a grandfathered transmission arrangement\(^2\). The agreement with Westar is scheduled to expire on 6/01/2010.

Based on the current status and Empire’s commitments to Iatan 2 and Plum Point, a partial or full renewal of the agreement with Westar is very unlikely to occur.

Therefore, pursuant to Section 30.3 of the SPP OATT, Empire hereby terminates the full amount of the Westar capacity and energy purchase as a designated network resource effective 6/01/2010.

Empire, in terminating the Jeffrey Energy Center as a designated Network Resource, is also waiving, at this time, its grandfathered Section 2.2 transmission priority rights pursuant to FERC Order 888 and 890 beyond May 31, 2010. It is our understanding that the Westar(Jeffrey) to Empire transmission service priority is independent of whether Empire continues to purchase capacity and energy from Westar Energy or elects to purchase capacity and energy from another supplier.

\(^1\) Participation Power Agreement - FERC Rate Schedule 273, ER95-615  
\(^2\) Attachment W, Line 298 SPP OATT
To the extent that such termination of this designated network resource and waiver of priority transmission service rights will affect Empire’s allowable base plan funding for other Empire designated resources pursuant to Attachment J and the SPP Aggregate Study transmission service process, Empire respectfully requests SPP’s assistance in understanding such impacts and support in obtaining full eligibility for base plan funding for its Latan II, Plum Point, and any pending designated resource service requests.

If you have any questions, please do not hesitate to give me a call at 417-625-2340 or via email at rmccord@empiredistrict.com

Thank you for your assistance and service.

Sincerely,

Rick McCord
Director, Supply Management

cc.  Harold Colgin, II, Vice President of Energy Supply
     Brad Beecher, VP and COO
     John Mills, SPP
Empire District Electric Company Waiver
Background

- Empire waiver Request received May 22, 2007 in accordance with Section III.C.1 under SPP OATT Attachment J
- Associated OASIS Requests
  - 973355, Iatan II – 100 MW: SPP-2005-AG2-AFS-3,
  - 973373, Plum Point – 50 MW: SPP-2005-AG2-AFS-3
  - 1032183, Plum Point – 50 MW: SPP-2006-AG1-AFS-4
- All three reservations are 20 years or greater
- The 120 day deadline for Staff and MOPC recommendations to be sent to the Board of Directors for response to this waiver request expires Sept. 19, 2007.

Background

- Allocated Estimated E&C costs
  - 973355, Iatan II – 100 MW: $4,733,572; potential Base Plan Funding $3,502,843
  - 973373, Plum Point – 50 MW: $2,402,236; potential Base Plan Funding = zero
  - 1032183, Plum Point – 50 MW; no costs
- Waiver request $3,632,965
Background

• Termination of Network Resource
  • Empire has a grandfathered transmission agreement with Westar for 162 MW of capacity from Jeffery Energy Center until 6/1/2010
  • SPP OATT Section 30.3 allows Network Customers to terminate the designation of all or part of a generating resource at anytime.
  • Empire has requested termination of the full amount of the Westar capacity from Jeffery Energy Center
  • Empire waiving grandfathered Section 2.2 transmission rights beyond May 31, 2010

• Attachment J III.B Classifying Upgrades as Base Plan Upgrades
  • 1. The Transmission Customer's commitment to the Designated Resource has a duration of at least five years;
  • 2. In the first year the Designated Resource is planned to be used by the Transmission Customer, the accredited capacity of the Transmission Customer's existing Designated Resources plus the lesser of: (a) the planned maximum net dependable capacity applicable to the Transmission Customer or (b) the requested capacity; shall not exceed 125% of the Transmission Customer's projected system peak responsibility determined pursuant to SPP Criteria 2; and
  • 3. The cost of Network Upgrades associated with the new or changed Designated Resource is less than or equal to $180,000/MW times the lesser of: (a) the planned maximum net dependable capacity applicable to the Transmission Customer or (b) the requested capacity (the “Safe Harbor Cost Limit”).
SPP Staff Recommendation for Empire Waiver

- Based on termination of the Westar capacity from Jeffery Energy Center, SPP staff recalculated the Transmission Customer’s projected system peak responsibility determined pursuant to SPP Criteria 2 in accordance with Attachment J III. B. 2.
- SPP staff calculated the additional 200 MW based on the three reservations capacity as 122%
- SPP staff recommends that the Empire waiver be approved based on a) the reservations are greater than 5 years, b) the resource to load is less than 125% and c) the estimated E&C costs are less than the “Safe Harbor” limit.
- The planning models will not include 162 MW Jeffery capacity to Empire beyond 5/31/2010 but will include the Iatan II and the Plum Point capacity.
John Mills
Manager, Tariff Studies
501-614-3356
jmills@spp.org