

SPP
Notification to Construct

January 27, 2009

SPP-NTC-20036

Mr. Sam McGarrah
Empire District Electric Company
PO Box 127
Joplin, MO 64802

RE: Transmission System Upgrade Notification to Construct Approved Appendix B projects in 2009-2018 SPP Transmission Expansion Plan

Dear Mr. McGarrah,

During its January 27, 2009 meeting, the Southwest Power Pool (SPP) Board of Directors approved and directed Network Upgrades to be constructed and cancelled upgrades that are no longer needed for reliability to be withdrawn. The Network Upgrades are divided into three types:

- 1) New Network Upgrades with no previously issued Notification to Construct (NTC).
- 2) Network Upgrades with previously issued NTCs that require modification to scope and/or timing.
- 3) Network Upgrades with previously issued NTCs that are being withdrawn since they are no longer required for reliability.

As a result, based on Section VIII.4 of Attachment O of the SPP Open Access Transmission Tariff (OATT) dated January 1, 2009, SPP is notifying Empire District Electric Company, as the upgrade owner, to move forward with the development of the following upgrades/mitigations to alleviate associated reliability concerns:

New Network Upgrades

Project ID: 537

Project Name: Multi: Substation 383 - Monett 161 kV - Monett 5 161 kV and Monett 5 161/69 kV transformer

RTO Determined Need Date for Project: 6/1/2015

Estimated Cost for Project: \$15,369,319

Upgrade ID: 10685

Upgrade Description: Install new line from Substation 383 to new Substation Monett 5.

Categorization: Regional reliability

Upgrade Justifications: To address overload due to the loss of Aurora (Substation 124) - Monett HT (Substation 383) 161 kV line.

Source of Funding for Upgrade: Full Base Plan funding

Estimated Cost Source: EMDE

Upgrade ID: 10686

Upgrade Description: Install new line from Substation 383 to new Substation Monett 5. Install 3-winding transformer from 161 kV new bus to Monett city south 69 kV.

Categorization: Regional reliability

Upgrade Justifications: To address overload due to the loss of Aurora (Substation 124) - Monett HT (Substation 383) 161 kV line.

Source of Funding for Upgrade: Full Base Plan funding

Estimated Cost Source: EMDE

Project ID: 638

Project Name: Line - Substation 170 Nichols - Substation 80 Sedalia 69 kV

RTO Determined Need Date for Project: 6/1/2012

Estimated Cost for Project: \$3,520,000

Upgrade ID: 10839

Upgrade Description: Reconductor Nichols - Sedalia 69 kV with 556 ACSR. Upgrade CTs.

Categorization: Regional reliability

Upgrade Justifications: To address the overload of the Nichols - Sedalia 69 kV line from the loss of the Dadeville - East Bolivar 161 kV line.

Source of Funding for Upgrade: Full Base Plan funding

Estimated Cost Source: EMDE

Upgrades with Modifications

Previous NTC number: 20010

Previous NTC Issue Date: 2/13/2008

Project ID: 202

Project Name: Line - Substation 436 - Webb City Cardinal - Substation 110 - Oronogo Junction 1 69 kV

RTO Determined Need Date for Project: 6/1/2014

Estimated Cost for Project: \$400,000

Upgrade ID: 10258

Upgrade Description: Reconductor 1.0 Mile of 4/0 ACSR with 336 ACSR for 65 MVA Rate B.

Reason For Change: Modify timing. Empire District Electric Company provided a new operating guide that displaced the RTO Determined Need Date for the project from 6/1/2008 to 6/1/2014.

Categorization: Regional reliability

Upgrade Justifications: To address overload of the Oronogo Junction - Webb City Cardinal line in the base case or the for outage of the Carthage Northwest (Substation 108) - Atlas (Substation 109) line.

Source of Funding for Upgrade: Full Base Plan funding

Estimated Cost Source: EMDE

Previous NTC number: 20010

Previous NTC Issue Date: 2/13/2008

Project ID: 203

Project Name: Line - Substation 109 - Atlas Junction - Substation 108 - Carthage Northwest 69 kV

RTO Determined Need Date for Project: 6/1/2018

Estimated Cost for Project: \$1,277,935

Upgrade ID: 10259

Upgrade Description: Reconductor 3.497 Miles of 4/0 ACSR with 336 ACSR for 65 MVA Rate B.

Reason For Change: Modify timing. Empire District Electric Company provided a new operating guide that displaced the RTO Determined Need Date for the project from 6/1/2008 to 6/1/2018.

Categorization: Regional reliability

Upgrade Justifications: To address overload of the Carthage to Atlas line for the outage of Oronogo Junction (Substation 110) - Webb City Cardinal (Substation 436) 69 kV line.

Source of Funding for Upgrade: Full Base Plan funding

Estimated Cost Source: EMDE

Previous NTC number: 20010

Previous NTC Issue Date: 2/13/2008

Project ID: 420

Project Name: Line - Jamesville - Blackhawk Junction 69 kV

RTO Determined Need Date for Project: 6/1/2017

Estimated Cost for Project: \$50,000

Upgrade ID: 10546

Upgrade Description: Replace jumpers on breaker #6950 at Blackhawk Junction with 556 ACSR for rates 73/89 MVA.

Reason For Change: Modify timing. 2008 STEP identified new RTO Determined Need Date. Previous RTO Determined Need Date was 6/1/2012.
Categorization: Regional reliability
Upgrade Justifications: To address overload caused by the outage of the Ozark S - Ozark 434 69 kV line.
Source of Funding for Upgrade: Full Base Plan funding
Estimated Cost Source: EMDE

Previous NTC number: 20010
Previous NTC Issue Date: 2/13/2008
Project ID: 421
Project Name: Line - Substation 124 - Aurora H.T. - Substation 152 - Monett H.T. 69 kV
RTO Determined Need Date for Project: 6/1/2009
Estimated Cost for Project: \$5,000

Upgrade ID: 10547
Upgrade Description: Change CT ratio on breaker #6936 at Aurora Substation 124.
Reason For Change: Modify timing. 2008 STEP identified new RTO Determined Need Date. Previous RTO Need Date was 6/1/2011.
Categorization: Regional reliability
Upgrade Justifications: To address overload due to the loss of the Monett 161/69 kV transformer.
Source of Funding for Upgrade: Full Base Plan funding
Estimated Cost Source: EMDE

Previous NTC number: 20010
Previous NTC Issue Date: 2/13/2008
Project ID: 440
Project Name: Line - Diamond Junction - Sarcoxie Southwest 69 kV
RTO Determined Need Date for Project: 6/1/2009
Estimated Cost for Project: \$2,274,000

Upgrade ID: 10571
Upgrade Description: Reconductor 7.55 miles of 1/0 Cu to 336 ACSR.
Reason For Change: Modify timing. 2008 STEP identified new RTO Determined Need Date. Previous RTO Determined Need Date was 6/1/2013.
Categorization: Regional reliability
Upgrade Justifications: To address overload caused by Monett transformer 161/69/12.5 kV contingency.
Source of Funding for Upgrade: Full Base Plan funding
Estimated Cost Source: SPP

Previous NTC number: 20010
Previous NTC Issue Date: 2/13/2008
Project ID: 30067
Project Name: Device - Quapaw Capacitor 69 kV
RTO Determined Need Date for Project: 6/1/2018
Estimated Cost for Project: \$1,500,000

Upgrade ID: 50073
Upgrade Description: Install 12 Mvar capacitor bank at Quapaw substation 377 69 kV.
Reason For Change: Modify timing. 2008 STEP identified new RTO Determined Need Date for Project. Previous RTO Determined Need Date was 6/1/2008.
Categorization: Regional reliability
Upgrade Justifications: To address voltage violation caused by Substation 377 - Quapaw (Eagle Picher) to Substation 404 - Hockerville 69 kV contingency.
Source of Funding for Upgrade: Full Base Plan funding
Estimated Cost Source: EMDE

Withdrawal of Upgrades

Previous NTC number: 20010
Previous NTC issue Date: 2/13/2008
Project ID: 204
Project Name: Line - Webb City Cardinal - Carthage 69 kV

Upgrade ID: 10260
Upgrade Description: Reconductor 8.85 miles of 1/0 Cu to 336 ACSR. Change CT settings at Substation 108 for Rate B 56 MVA.
Reason For Change: Empire District Electric Company provided a new operating directive to open Boston to Richland Tie.

Previous NTC number: 20010
Previous NTC issue Date: 2/13/2008
Project ID: 205
Project Name: Line - Boston East - Jasper West Tap 69 kV

Upgrade ID: 10261
Upgrade Description: Replace 1/0 ACSR bus conductor at Substation 403 with 336 ACSR for Rate B 39 MVA.
Reason For Change: Empire District Electric Company provided a new operating directive to open Boston to Richland Tie.

Previous NTC number: 20010
Previous NTC issue Date: 2/13/2008
Project ID: 210
Project Name: Line - Boston East - Richland 69 kV rating change

Upgrade ID: 10269
Upgrade Description: Change ratings to present ratings of 33/39 MVA.
Reason For Change: Modeling error.

Previous NTC number: 20010
Previous NTC issue Date: 2/13/2008
Project ID: 381
Project Name: Line - Boston East - Jasper West Tap 69 kV Rebuild

Upgrade ID: 10494
Upgrade Description: Reconductor 8.7 miles of 1/0 Du to 336 ACSR and replace bus conductor at Substation 249 with 336 ACSR for Rate B 57 MVA.
Reason For Change: Empire District Electric Company provided a new operating directive to open Boston to Richland Tie.

Previous NTC number: 20010
Previous NTC issue Date: 2/13/2008
Project ID: 383
Project Name: Line - Substation 152 - Monett H.T. - Substation 383 - Monett 69 kV

Upgrade ID: 10496
Upgrade Description: Replace 4/0 Cu jumpers with 500 MCM Cu new rates: 54/65 MVA.
Reason For Change: 2008 STEP analysis determined this project would not be required in years 2009-2018.

Previous NTC number: 20010
Previous NTC issue Date: 2/13/2008
Project ID: 422
Project Name: Multi: Substation 170 - Nichols St. - Substation 359 - Republic East 69 kV

Upgrade ID: 10548
Upgrade Description: Reconductor 9.712 miles of 69 kV 1/0 Cu between Substation 170 and Substation 345 with 556 ACSR.
Reason For Change: 2008 STEP analysis determined this project would not be required in years 2009-2018.

Upgrade ID: 10549

Upgrade Description: Reconductor 5.152 miles of 69 kV 1/0 Cu between Substation 345 and Substation 359 with 556 ACSR.

Reason For Change: 2008 STEP analysis determined this project would not be required in years 2009-2018.

Previous NTC number: 20010

Previous NTC issue Date: 2/13/2008

Project ID: 439

Project Name: Multi: Joplin 59 - Joplin 26th St. 161/69 kV transformer; Substation 439 Stateline 161 kV

Upgrade ID: 10569

Upgrade Description: Install 3-winding transformer from Joplin 59 161 kV to Substation 59 Joplin 26th St. 69 kV.

Reason For Change: Replaced by Stateline - Joplin - Reinmiller 161 kV conversion, which has a RTO Determined Need Date of 2015 and falls outside the NTC four year financial window.

Upgrade ID: 10570

Upgrade Description: Install new line from Substation 439 to new Substation Joplin 59.

Reason For Change: Replaced by Stateline - Joplin - Reinmiller 161 kV conversion, which has a RTO Determined Need Date of 2015 and falls outside the NTC four year financial window.

Previous NTC number: 20010

Previous NTC issue Date: 2/13/2008

Project ID: 30091

Project Name: Device - Aurora Capacitor 69 kV

Upgrade ID: 50097

Upgrade Description: Add (3) 22 Mvar capacitor bank at Aurora 69 kV bus.

Reason For Change: 2008 STEP analysis determined this project would not be required in years 2009-2018.

Previous NTC number: 20010

Previous NTC issue Date: 2/13/2008

Project ID: 30101

Project Name: Device - Republic East Capacitor 69 kV

Upgrade ID: 50107

Upgrade Description: Add (1) 12 Mvar capacitor bank at Republic East bus.
Reason For Change: 2008 STEP analysis determined this project would not be required in years 2009-2018.

The RTO Determined Need Date represents the timing required for the upgrade to address the identified need. If this date is not feasible, we would appreciate your prompt attention to the formulation and approval of any necessary mitigation plans. For projects being withdrawn, please stop any further work on these projects, collect any cost associated with these projects and provide this information to SPP.

Please keep SPP advised of any inability on Empire District Electric Company part to complete the approved upgrades. Please send SPP written commitment to construct these projects within 90 days in addition to providing a construction schedule for the accepted upgrade(s). To track the status of these upgrades, SPP will make quarterly requests for updates to the schedule status. Please send status updates to SPPprojecttracking@spp.org. SPP's project tracking reports will be shared at our quarterly SPP Board of Directors meetings.

As soon as the upgrade is complete and in-service, Empire District Electric Company shall submit certification of commercial operation for each listed upgrade to SPP. Please provide SPP with the actual costs of these upgrades as soon as possible after completion of construction. This will facilitate the timely billing by SPP based on actual costs.

If it is anticipated that the completion of any approved project will be delayed past the RTO Determined Need Date, SPP requires a mitigation plan be filed within 60 days of determining the expected delay in the project schedule.

Don't hesitate to contact me if you have any questions or comments about these requests. Thank you for the important role that you play in maintaining the reliability of our electric grid.

Sincerely,

A handwritten signature in black ink that reads "P. Jay Caspary".

P. Jay Caspary
Director, Engineering
Phone (501) 614- 3220 • Fax: (501) 666-0376 • jcaspary@spp.org



HELPING OUR MEMBERS WORK TOGETHER
TO KEEP THE LIGHTS ON... TODAY AND IN THE FUTURE

cc: Barry Warren, Les Dillahunty, Carl Monroe, Bruce Rew, Pat Bourne,
SPPprojecttracking@spp.org.