

SPP-NTC-20123

SPP
Notification to Construct

February 14, 2011

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

RE: Notification to Construct Approved Reliability Network Upgrades

Dear Mr. McGarrah,

Pursuant to Section 3.3 of the Southwest Power Pool, Inc. ("SPP") Membership Agreement and Attachment O, Section VI, of the SPP Open Access Transmission Tariff ("OATT"), SPP provides this Notification to Construct ("NTC") directing Empire District Electric Company ("EDE"), as the Designated Transmission Owner, to construct the Network Upgrade(s).

On January 25, 2011, the Southwest Power Pool ("SPP") Board of Directors approved the Network Upgrade(s) listed below to be constructed.

New Network Upgrades

Project ID: 422

Project Name: Multi – Nichols 170 - Republic 345 - Republic 451 - Republic 359 69 kV

Need Date for Project: 6/1/2015

Estimated Cost for Project: \$4,550,000

Network Upgrade ID: 10548

Network Upgrade Description: Reconductor 9.85 miles of 69 kV 1/0 Cu between Nichols Sub 170 and Republic Sub 345 with 556 ACSR.

Network Upgrade Owner: EDE

MOPC Representative: Bary Warren

TWG Representative: Sam McGarrah

Categorization: Regional reliability

Network Upgrade Specification: Upgrade line to 72 MVA emergency rating.

Network Upgrade Justification: To address overloads between Nichols 170, Republic 345, and Republic 451 for loss of Sub 221 Billings Northeast - Sub 359 Republic East 69 kV Ckt 1, Billings Sub 446 Chesapeake 69 kV Ckt 1 and Chesapeake 161/69 kV transformer.

Need Date for Network Upgrade: 6/1/2015

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Estimated Cost for Network Upgrade (current day dollars): \$2,973,000
Cost Allocation of the Network Upgrade: Base Plan
Estimated Cost Source: EDE

Network Upgrade ID: 50348
Network Upgrade Description: Reconductor 3.58 miles of 69 kV 1/0 Cu between Republic Sub 345 and Republic Sub 451 with 556 ACSR.
Network Upgrade Owner: EDE
MOPC Representative: Bary Warren
TWG Representative: Sam McGarrah
Categorization: Regional reliability
Network Upgrade Specification: Upgrade line to 72 MVA emergency rating.
Network Upgrade Justification: To address overloads between Nichols 170, Republic 345, and Republic 451 for loss of Sub 221 Billings Northeast - Sub 359 Republic East 69 kV Ckt 1, Billings Sub 446 Chesapeake 69 kV Ckt 1 and Chesapeake 161/69 kV transformer.
Need Date for Network Upgrade: 6/1/2015
Estimated Cost for Network Upgrade (current day dollars): \$1,100,500
Cost Allocation of the Network Upgrade: Base Plan
Estimated Cost Source: EDE

Network Upgrade ID: 50352
Network Upgrade Description: Reconductor 1.55 miles of 69 kV 1/0 Cu between Republic Sub 451 and Republic Sub 359 with 556 ACSR.
Network Upgrade Owner: EDE
MOPC Representative: Bary Warren
TWG Representative: Sam McGarrah
Categorization: Regional reliability
Network Upgrade Specification: Upgrade line to 72 MVA emergency rating.
Network Upgrade Justification: To address overloads between Nichols 170, Republic 345, and Republic 451 for loss of Sub 221 Billings Northeast - Sub 359 Republic East 69 kV Ckt 1, Billings Sub 446 Chesapeake 69 kV Ckt 1 and Chesapeake 161/69 kV transformer.
Need Date for Network Upgrade: 6/1/2015
Estimated Cost for Network Upgrade (current day dollars): \$476,500
Cost Allocation of the Network Upgrade: Base Plan
Estimated Cost Source: EDE

Project ID: 472
Project Name: Line – Explorer Spring City Tap - Joplin Southwest 69 kV Ckt 1
Need Date for Project: 6/1/2014
Estimated Cost for Project: \$1,550,000

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Network Upgrade ID: 10608

Network Upgrade Description: Reconductor 2.85-mile Explorer Spring City Tap – Joplin Southwest 69 kV line from 1/0 Cu to 556 ACSR.

Network Upgrade Owner: EDE

MOPC Representative: Bary Warren

TWG Representative: Sam McGarrah

Categorization: Regional reliability

Network Upgrade Specification: Upgrade line to 65 MVA emergency rating.

Network Upgrade Justification: To address the overload of Joplin 389 - Explorer Tap 449 69 kV Ckt 1 for the loss of Neosho South Junction - Neosho 314 69 kV line.

Need Date for Network Upgrade: 6/1/2014

Estimated Cost for Network Upgrade (current day dollars): \$1,550,000

Cost Allocation of the Network Upgrade: Base Plan

Estimated Cost Source: EDE

Project ID: 537

Project Name: Multi – Monett South

Need Date for Project: 6/1/2017

Estimated Cost for Project: \$14,560,319 (the project cost contains Network Upgrade in another part of this NTC)

Network Upgrade ID: 50316

Network Upgrade Description: Build new 1.04-mile 69 kV line from new Monett South substation to existing 69 kV.

Network Upgrade Owner: EDE

MOPC Representative: Bary Warren

TWG Representative: Sam McGarrah

Categorization: Regional reliability

Network Upgrade Specification: Build line to 92 MVA emergency rating.

Network Upgrade Justification: To address base case overload of Sub 376 Monett City South – Sub 383 Monett 69 kV Ckt 1, overload of Chesapeake 161/69 kV transformer for loss of Aurora - Sub 383 Monett 161 kV and various other overloads and voltage violations for nearby contingencies.

Need Date for Network Upgrade: 6/1/2017

Estimated Cost for Network Upgrade (current day dollars): \$468,000

Cost Allocation of the Network Upgrade: Base Plan

Estimated Cost Source: SPP

Network Upgrade ID: 50326

Network Upgrade Description: Install 161/69 kV 3-winding transformer connecting Monett 376 161 kV bus to Monett 470 69 kV bus.

Network Upgrade Owner: EDE

MOPC Representative: Bary Warren

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TWG Representative: Sam McGarrah

Categorization: Regional reliability

Network Upgrade Specification: Install transformer of 100 MVA emergency rating.

Network Upgrade Justification: To address base case overload of Sub 376 Monett City South - Sub 383 Monett 69 kV Ckt 1, overload of Chesapeake 161/69 kV transformer for loss of Aurora - Sub 383 Monett 161 kV and various other overloads and voltage violations for nearby contingencies.

Need Date for Network Upgrade: 6/1/2017

Estimated Cost for Network Upgrade (current day dollars): \$2,250,000

Cost Allocation of the Network Upgrade: Base Plan

Estimated Cost Source: SPP

Network Upgrade ID: 50350

Network Upgrade Description: Build new 0.72-mile 69 kV line (first of double circuit) from new Monett South substation to existing 69 kV on the southwest corner of the city of Monett.

Network Upgrade Owner: EDE

MOPC Representative: Bary Warren

TWG Representative: Sam McGarrah

Categorization: Regional reliability

Network Upgrade Specification: Build line to 92 MVA emergency rating.

Network Upgrade Justification: To address base case overload of Sub 376 Monett City South – Sub 383 Monett 69 kV Ckt 1, overload of Chesapeake 161/69 kV transformer for loss of Aurora - Sub 383 Monett 161 kV and various other overloads and voltage violations for nearby contingencies.

Need Date for Network Upgrade: 6/1/2017

Estimated Cost for Network Upgrade (current day dollars): \$324,000

Cost Allocation of the Network Upgrade: Base Plan

Estimated Cost Source: SPP

Network Upgrade ID: 50353

Network Upgrade Description: Build new 1.06-mile 69 kV line (second of double circuit for approx 0.72 mi, then single circuit for 0.34 mi) from new Monett South substation to existing 69 kV on south side of the city of Monett which will tie radially to Purdy South 390 Substation.

Network Upgrade Owner: EDE

MOPC Representative: Bary Warren

TWG Representative: Sam McGarrah

Categorization: Regional reliability

Network Upgrade Specification: Build line to 32 MVA emergency rating.

Network Upgrade Justification: To address base case overload of Sub 376 Monett City South – Sub 383 Monett 69 kV Ckt 1, overload of Chesapeake 161/69 kV transformer for

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loss of Aurora - Sub 383 Monett 161 kV and various other overloads and voltage violations for nearby contingencies.

Need Date for Network Upgrade: 6/1/2017

Estimated Cost for Network Upgrade (current day dollars): \$4,149,000

Cost Allocation of the Network Upgrade: Base Plan

Estimated Cost Source: SPP

Project ID: 677

Project Name: Multi – Stateline - Joplin - Reinmiller conversion

Need Date for Project: 6/1/2018

Estimated Cost for Project: \$14,168,250

Network Upgrade ID: 10891

Network Upgrade Description: Tear down the existing Riverton - Joplin 59 69 kV line. Rebuild and convert to 161 kV from Stateline to outside Joplin 59 substation.

Network Upgrade Owner: EDE

MOPC Representative: Bary Warren

TWG Representative: Sam McGarrah

Categorization: Regional reliability

Network Upgrade Specification: Upgrade line to 268 MVA emergency rating.

Network Upgrade Justification: To address overload of the Joplin 389 transformer for loss of Sub 292 Tipton Ford - Sub 389 Joplin Southwest 161 kV Ckt 1 and addresses the overload of the Reinmiller 393 transformer for loss of Neosho - Sub 282 Tipton Ford 161 kV.

Need Date for Network Upgrade: 6/1/2018

Estimated Cost for Network Upgrade (current day dollars): \$3,591,000

Cost Allocation of the Network Upgrade: Base Plan

Estimated Cost Source: SPP

Network Upgrade ID: 10894

Network Upgrade Description: Rebuild and convert Pillsbury - Reinmiller 69 kV line to 161 kV service.

Network Upgrade Owner: EDE

MOPC Representative: Bary Warren

TWG Representative: Sam McGarrah

Categorization: Regional reliability

Network Upgrade Specification: Upgrade line to 268 MVA emergency rating.

Network Upgrade Justification: To address overload of the Joplin 389 transformer for loss of Sub 292 Tipton Ford - Sub 389 Joplin Southwest 161 kV Ckt 1 and addresses the overload of the Reinmiller 393 transformer for loss of Neosho - Sub 282 Tipton Ford 161 kV.

Need Date for Network Upgrade: 6/1/2018

Estimated Cost for Network Upgrade (current day dollars): \$2,011,500

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Cost Allocation of the Network Upgrade: Base Plan
Estimated Cost Source: SPP

Network Upgrade ID: 50322

Network Upgrade Description: Rebuild and convert Joplin 422 - Joplin 59 69 kV line to 161 kV service.

Network Upgrade Owner: EDE

MOPC Representative: Bary Warren

TWG Representative: Sam McGarrah

Categorization: Regional reliability

Network Upgrade Specification: Upgrade line to 268 MVA emergency rating.

Network Upgrade Justification: To address overload of the Joplin 389 transformer for loss of Sub 292 Tipton Ford - Sub 389 Joplin Southwest 161 kV Ckt 1 and address the overload of the Reinmiller 393 transformer for loss of Neosho - Sub 282 Tipton Ford 161 kV.

Need Date for Network Upgrade: 6/1/2018

Estimated Cost for Network Upgrade (current day dollars): \$1,647,000

Cost Allocation of the Network Upgrade: Base Plan

Estimated Cost Source: SPP

Network Upgrade ID: 50323

Network Upgrade Description: Rebuild and convert Joplin 422 - Pillsbury 69 kV line to 161 kV service.

Network Upgrade Owner: EDE

MOPC Representative: Bary Warren

TWG Representative: Sam McGarrah

Categorization: Regional reliability

Network Upgrade Specification: Upgrade line to 268 MVA emergency rating.

Network Upgrade Justification: To address overload of the Joplin 389 transformer for loss of Sub 292 Tipton Ford - Sub 389 Joplin Southwest 161 kV Ckt 1 and address the overload of the Reinmiller 393 transformer for loss of Neosho - Sub 282 Tipton Ford 161 kV.

Need Date for Network Upgrade: 6/1/2018

Estimated Cost for Network Upgrade (current day dollars): \$1,201,500

Cost Allocation of the Network Upgrade: Base Plan

Estimated Cost Source: SPP

Network Upgrade ID: 50324

Network Upgrade Description: Rebuild and convert Joplin 391 - Gateway 69kV line to 161 kV service.

Network Upgrade Owner: EDE

MOPC Representative: Bary Warren

TWG Representative: Sam McGarrah

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Categorization: Regional reliability

Network Upgrade Specification: Upgrade line to 268 MVA emergency rating.

Network Upgrade Justification: To address overload of the Joplin 389 transformer for loss of Sub 292 Tipton Ford - Sub 389 Joplin Southwest 161 kV Ckt 1 and address the overload of the Reinmiller 393 transformer for loss of Neosho - Sub 282 Tipton Ford 161 kV.

Need Date for Network Upgrade: 6/1/2018

Estimated Cost for Network Upgrade (current day dollars): \$749,250

Cost Allocation of the Network Upgrade: Base Plan

Estimated Cost Source: SPP

Network Upgrade ID: 50325

Network Upgrade Description: Rebuild and convert Gateway - Joplin 389 69 kV line to 161 kV service.

Network Upgrade Owner: EDE

MOPC Representative: Bary Warren

TWG Representative: Sam McGarrah

Categorization: Regional reliability

Network Upgrade Specification: Upgrade line to 268 MVA emergency rating.

Network Upgrade Justification: To address overload of the Joplin 389 transformer for loss of Sub 292 Tipton Ford - Sub 389 Joplin Southwest 161 kV Ckt 1 and address the overload of the Reinmiller 393 transformer for loss of Neosho - Sub 282 Tipton Ford 161 kV.

Need Date for Network Upgrade: 6/1/2018

Estimated Cost for Network Upgrade (current day dollars): \$4,968,000

Cost Allocation of the Network Upgrade: Base Plan

Estimated Cost Source: SPP

Upgrades with Modifications

Previous NTC number: 20075, 20036

Previous NTC Issue Date: 2/8/2010

Project ID: 537

Project Name: Multi – Monett South

Need Date for Project: 6/1/2017

Estimated Cost for Project: \$14,560,319 (the project cost contains Network Upgrades in another part of this NTC)

Network Upgrade ID: 10685

Network Upgrade Description: Build new 6-mile Monett Sub 383 - Monett South 161 kV line.

Network Upgrade Owner: EDE

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MOPC Representative: Bary Warren

TWG Representative: Sam McGarrah

Reason For Change: Modify timing. 2010 STEP identified new RTO Determined Need Date. The previous RTO Determined Need Date was 6/1/2019.

Categorization: Regional reliability

Network Upgrade Specification: Build line to 268 MVA emergency rating.

Upgrade Justification: To address base case overload of Monett City South - Monett 69 kV Ckt 1, overload of Chesapeake 161/69 kV transformer for loss of Aurora - Monett 161 kV and various other overloads and voltage violations for nearby contingencies.

Need Date for Network Upgrade: 6/1/2017

Estimated Cost for Network Upgrade (current day dollars): \$7,369,319

Cost Allocation of the Network Upgrade: Base Plan

Estimated Cost Source: EDE

Withdrawal of Upgrades

Previous NTC number: 20036, 20010

Previous NTC issue Date: 1/27/2009

Project ID: 202

Project Name: Line – Webb City Cardinal - Oronogo Jct. 69 kV Ckt 1

Network Upgrade ID: 10258

Network Upgrade Description: Reconductor 1-mile Webb City - Oronogo Junction 69 kV line from 4/0 ACSR to 336 ACSR.

Reason For Change: With the 2010 STEP model's circuit configuration and load forecast the upgrade is no longer required.

Previous NTC number: 20075, 20036, 20010

Previous NTC issue Date: 2/8/2010

Project ID: 203

Project Name: Line – Atlas Jct. - Carthage Northwest 69 kV Ckt 1

Network Upgrade ID: 10259

Network Upgrade Description: Reconductor 3.5-mile Atlas Junction - Carthage Northwest 69 kV line from 4/0 ACSR to 336 ACSR.

Reason For Change: With the 2010 STEP model's circuit configuration and load forecast the upgrade is no longer required.

Previous NTC number: 20036, 20010

Previous NTC issue Date: 2/8/2010

Project ID: 440

Project Name: Line – Diamond Jct. - Sarcoxie SW 69 kV Ckt 1

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Network Upgrade ID: 10571

Network Upgrade Description: Reconductor 7.55-mile Diamond Jct. - Sarcoxie Southwest 69 kV line from 1/0 Cu to 336 ACSR.

Reason For Change: With the 2010 STEP model's circuit configuration and load forecast the upgrade is no longer required.

Previous NTC number: 20075, 20036

Previous NTC issue Date: 2/8/2010

Project ID: 537

Project Name: XFR – Monett 161 kV - Monett City South 69 kV transformer Ckt 1

Network Upgrade ID: 10686

Network Upgrade Description: Install 161/69 kV 3-winding transformer connecting new 161 kV bus to Monett City South 69 kV bus.

Reason For Change: Replaced by PID 537, UID 50326 -- Monett 161/69 kV transformer.

Withdrawal of Network Upgrade

EDE has been made aware of all Network Upgrades withdrawn through the expansion plan process. This letter is the formal notification to stop any further work on this Network Upgrade(s), collect any cost associated with the Network Upgrade(s), and provide this information to SPP within 90 days of the date of this NTC.

Commitment to Construct

Please provide to SPP a written commitment to construct the Network Upgrade(s) within 90 days of the date of this NTC, pursuant to Attachment O, Section VI.6 of the SPP OATT, in addition to providing a construction schedule for the Network Upgrade(s). Failure to provide a sufficient written commitment to construct as required by Attachment O could result in the Network Upgrade(s) being assigned to another entity.

Mitigation Plan

The Need Date represents the timing required for the Network Upgrade(s) to address the identified need. Your prompt attention is required in the formulation and approval of any necessary mitigation plans for the Network Upgrade(s) included in the Network Upgrade(s) if the Need Date is not feasible. Additionally, if it is anticipated that the completion of any Network Upgrade will be delayed past the Need Date, SPP requires a mitigation plan be filed within 60 days of the determination of expected delays.

Notification of Commercial Operation

Please submit a notification of commercial operation for each listed Network Upgrade to SPP as soon as the Network Upgrade is complete and in-service. Please provide SPP with the actual

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costs of these Network Upgrades as soon as possible after completion of construction. This will facilitate the timely billing by SPP based on actual costs.


Notification of Progress

On an ongoing basis, please keep SPP advised of any inability on EDE's part to complete the approved Network Upgrade(s). For project tracking purposes, SPP requires EDE to submit updates on the status of the Network Upgrade(s) on a quarterly basis in conjunction with the SPP Board of Directors meetings. However, EDE shall also advise SPP of any inability to comply with the Project Schedule as soon as the inability becomes apparent.

All terms and conditions of the SPP OATT and the SPP Membership Agreement shall apply to this Project, and nothing in this NTC shall vary such terms and conditions.

Don't hesitate to contact me if you have questions or comments regarding these instructions. 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 'Lanny Nickell'.

Lanny Nickell
Vice President, Engineering
Phone (501) 614-3232 • Fax: (501) 821-3198 • lnickell@spp.org

cc: Carl Monroe, Katherine Prewitt, Bary Warren, Richard McCord