



# First Quarterly Project Tracking Report 2014

January 2014



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## Executive Summary

SPP actively monitors and supports the progress of transmission expansion projects, emphasizing the importance of maintaining accountability for areas such as grid regional reliability standards, firm transmission commitments and tariff cost recovery.

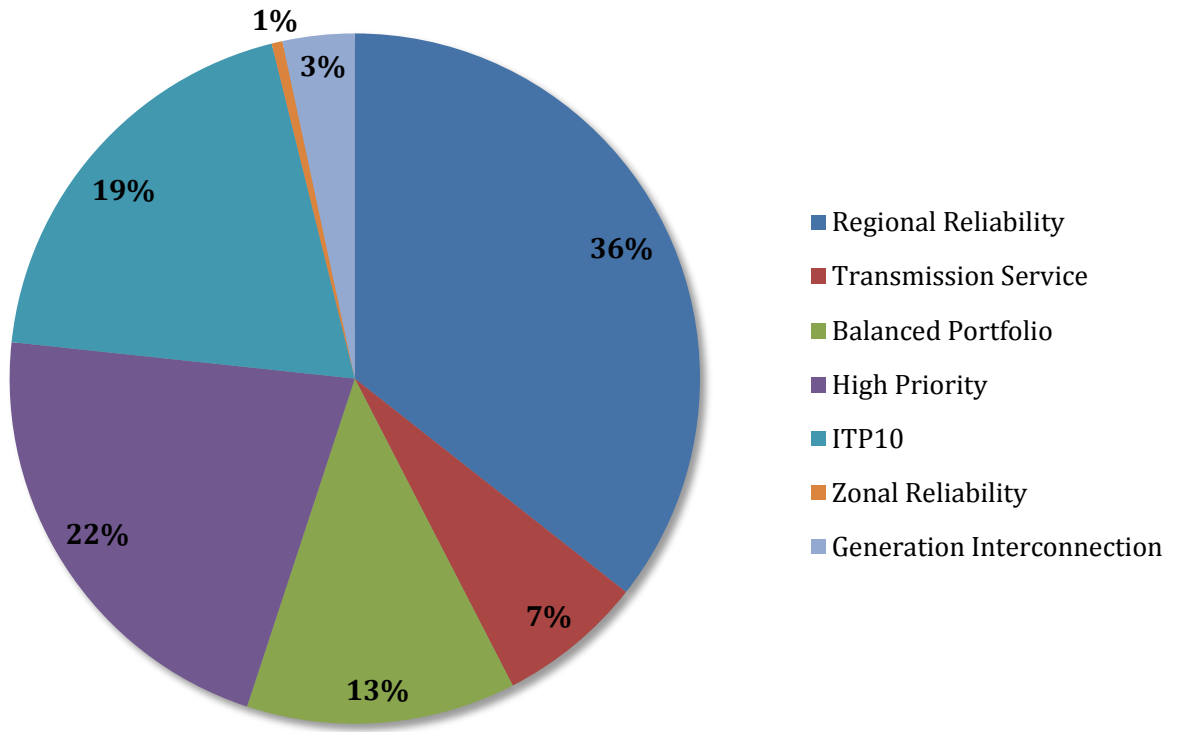
Each quarter SPP staff solicits feedback from the project owners to determine the progress of each approved transmission project. This quarterly report charts the progress of all SPP Transmission Expansion Plan (STEP) projects approved either directly by the SPP Board of Directors (BOD) or through a FERC filed service agreement under the SPP Open Access Transmission Tariff (OATT).

The reporting period for this report is August 1, 2013 through October 31, 2013. Table 1 provides a summary of all projects in the current Project Tracking Portfolio (PTP), which includes all Network Upgrades that have been completed since January 1, 2012. The PTP includes all active Network Upgrades including transmission lines, transformers, substations, and devices.

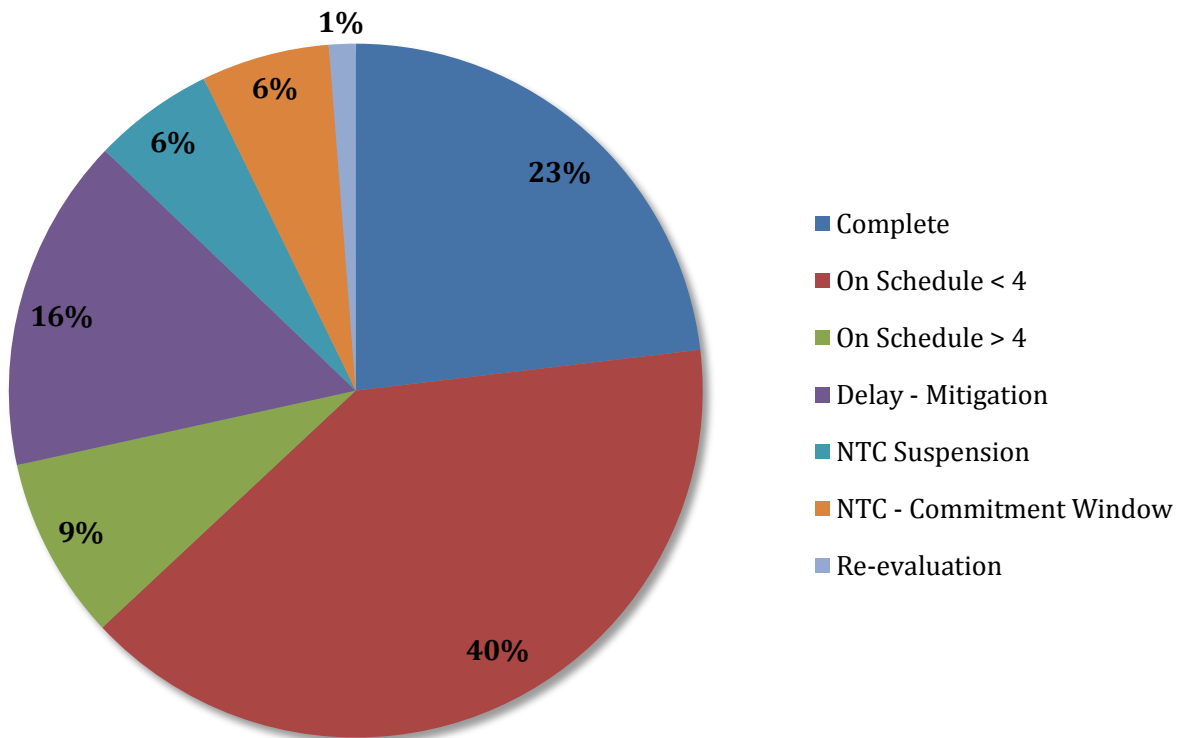
Table 1 below summarizes the PTP for this quarter. Figure 1 reflects the percentage cost of each upgrade type in the PTP. Figure 2 shows the percentage cost of each project status in the PTP.

Upgrade Type	No. of Upgrades	Estimated Cost	Miles of New	Miles of Rebuild	Miles of Voltage Conversion
Regional Reliability	336	\$2,271,921,798	978.2	409.5	394.2
Transmission Service	56	\$435,500,623	177.0	150.2	0.0
Balanced Portfolio	17	\$805,101,779	716.0	0.0	0.0
High Priority	22	\$1,379,999,102	1103.3	0.0	0.0
ITP10	28	\$1,240,379,215	849.1	7.0	0.0
Zonal Reliability	11	\$32,291,220	16.7	0.0	0.0
<b>NTC Projects Subtotal</b>	<b>470</b>	<b>\$6,165,193,738</b>	<b>3840.3</b>	<b>566.7</b>	<b>394.2</b>
Generation Interconnection	38	\$214,829,753	82.5	11.1	40.0
Regional Reliability - Non OATT	16	\$58,023,986	33.6	0.0	0.0
Zonal - Sponsored	45	\$159,244,472	51.3	5.1	77.1
<b>Non-NTC Projects Subtotal</b>	<b>99</b>	<b>\$432,098,211</b>	<b>167.4</b>	<b>16.2</b>	<b>117.1</b>
<b>Total</b>	<b>569</b>	<b>\$6,597,291,948</b>	<b>4007.7</b>	<b>582.8</b>	<b>511.3</b>

*Table 1: Q1 2014 Portfolio Summary*



**Figure 1: Percentage of Project Type on Cost Basis**

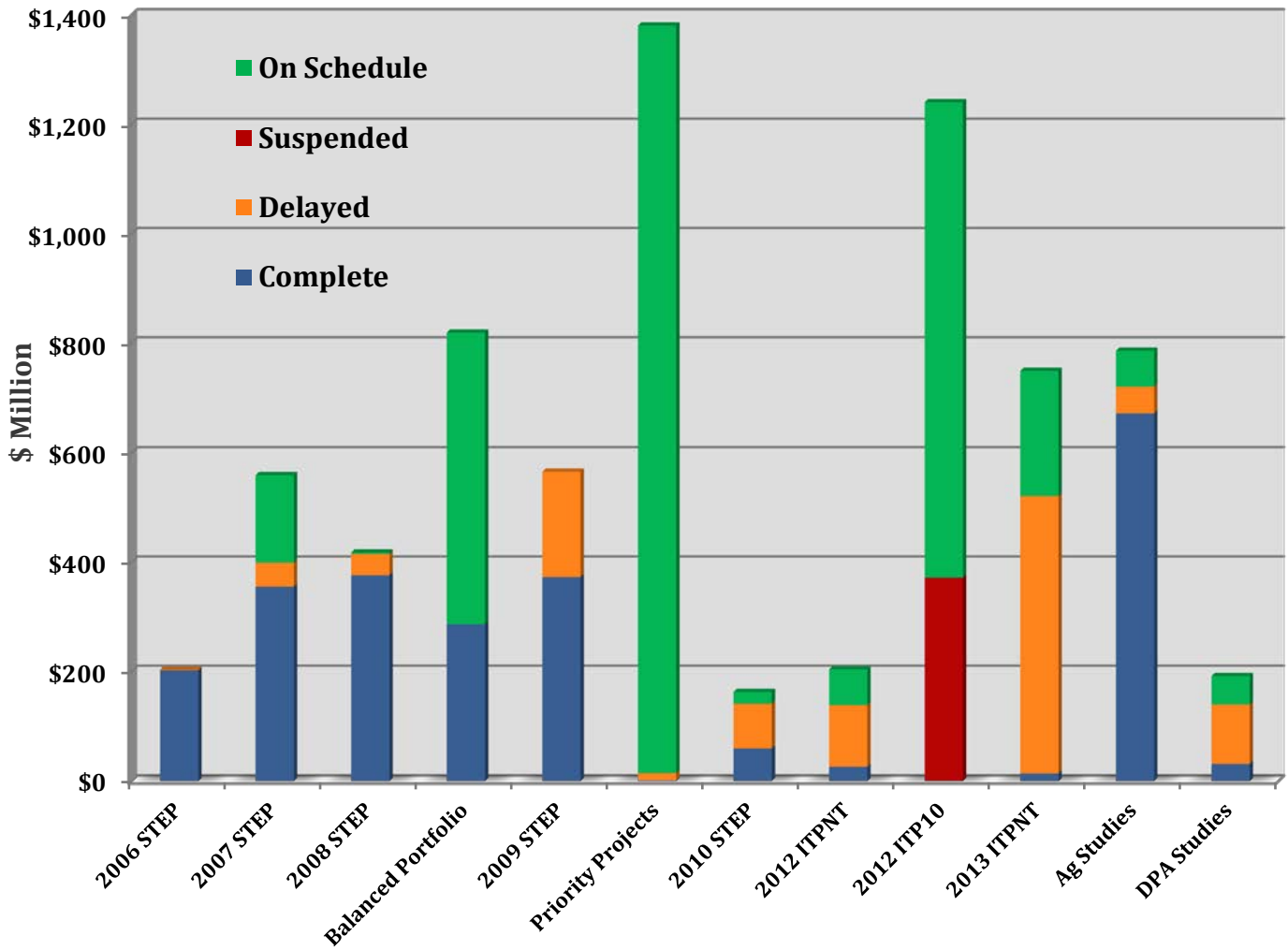


**Figure 2: Percentage of Project Status on Cost Basis**

# NTC Project Summary

In adherence to the OATT and Business Practices 7050 and 7060, SPP issues Notifications to Construct (NTCs) to Designated Transmission Owners (DTOs) to commence the construction of Network Upgrades that have been approved or endorsed by the SPP Board of Directors (BOD) intended to meet the construction needs of the STEP, OATT, or Regional Transmission Organization (RTO).

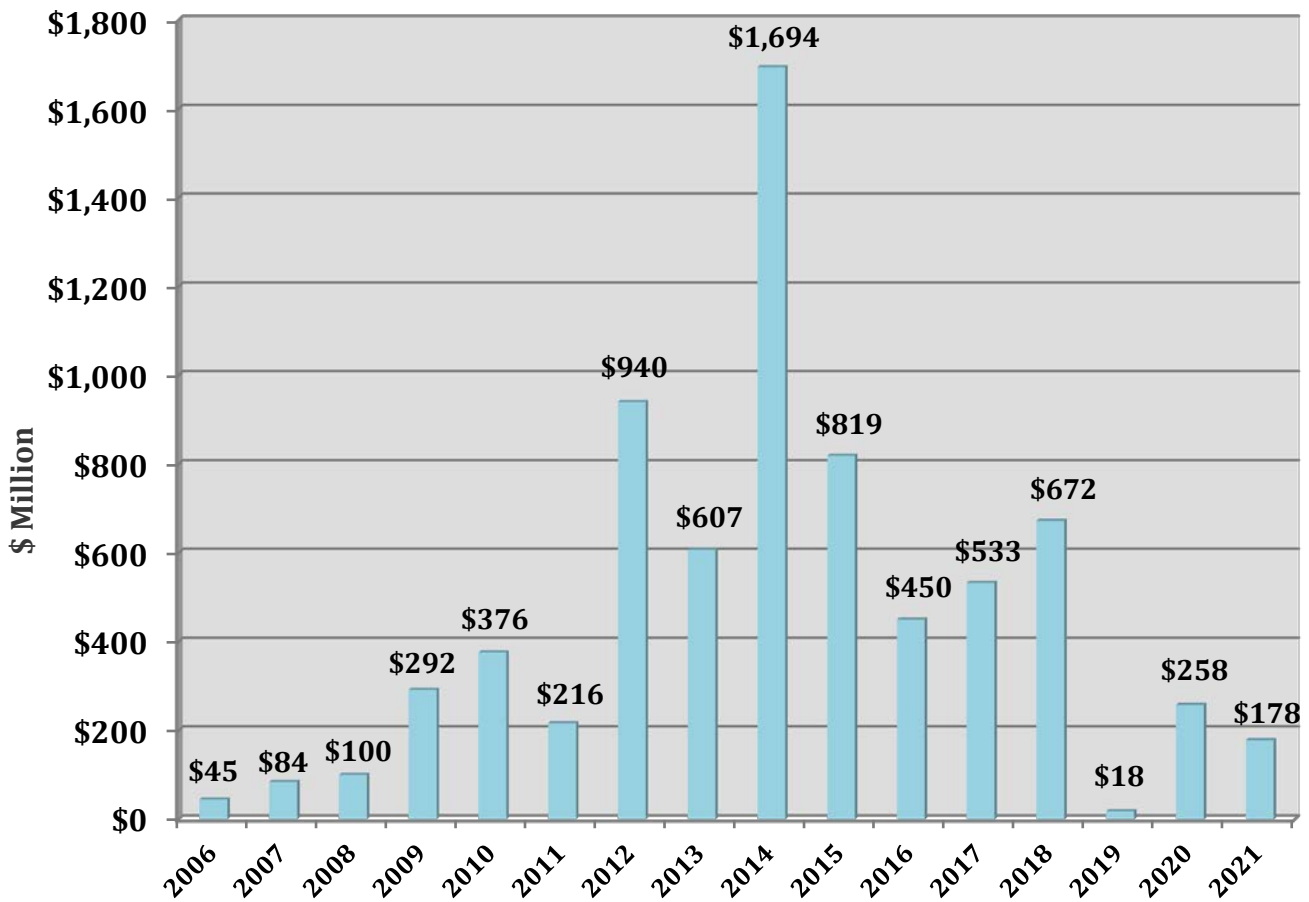
Figure 3 reflects project status within each source study, and Table 2 provides the supporting data. Figure 4 shows the amount of estimated cost by in-service year for all Network Upgrades that have been issued an NTC or NTC-C. **Note: Figures 3 and 4 and Table 2 provide data for all projects for which SPP has issued an NTC or NTC-C, regardless of completion date, and therefore include data from Network Upgrades no longer included in PTP.**



*Figure 3: Project Status by NTC Source Study*

Source Study	Complete	Delayed	Suspended	On Schedule	Total
2006 STEP	\$202,202,401	\$912,000			\$203,114,401
2007 STEP	\$355,429,480	\$43,783,000		\$160,151,000	\$559,363,480
2008 STEP	\$376,130,694	\$39,145,504		\$2,393,000	\$417,669,198
Balanced Portfolio	\$286,356,280			\$532,700,359	\$819,056,639
2009 STEP	\$372,818,606	\$192,698,269			\$565,516,875
Priority Projects	\$960,895	\$13,649,558		\$1,366,349,544	\$1,380,959,997
2010 STEP	\$59,390,848	\$81,960,928		\$21,117,300	\$162,469,076
2012 ITPNT	\$26,088,701	\$112,712,574		\$65,149,068	\$203,950,343
2012 ITP10			\$371,648,177	\$868,731,038	\$1,240,379,215
2013 ITPNT	\$13,872,171	\$507,303,984		\$227,782,478	\$748,958,633
Ag Studies	\$672,215,399	\$47,929,867		\$65,643,184	\$785,788,450
DPA Studies	\$31,431,637	\$108,570,962		\$51,605,674	\$191,608,273
<b>Total</b>	<b>\$2,396,897,111</b>	<b>\$1,148,666,646</b>	<b>\$371,648,177</b>	<b>\$3,361,622,645</b>	<b>\$7,278,834,579</b>

*Table 2: Project Status by NTC Source Study*



*Figure 4: Estimated Cost for NTC Projects per In-Service Year*

## **NTC Issuance**

Six NTCs were issued during the reporting period for new and previously approved projects with a total cost estimate of the included Network Upgrades totaling \$370.9 million.

Four of the NTCs were issued as a result of Transmission Owners submitting updated cost estimates in response to Notifications to Construct with Conditions (NTC-Cs). The NTC-Cs were issued as a result of the 2013 ITP Near-Term Assessment approved in January. For these projects, all cost estimates were found to meet the conditional requirements of the NTC-C, and therefore were issued NTCs without the NTC-C conditions.

The two other new NTCs were issued as a result of the completed Delivery Point Addition Study.

Table 3 summarizes the NTC activity during the reporting period.

<b>NTC ID</b>	<b>DTO</b>	<b>NTC Issue Date</b>	<b>Upgrade Type</b>	<b>Source Study</b>	<b>No. of Upgrades</b>	<b>Estimated Cost of New Upgrades</b>	<b>Estimated Cost of Previously Approved Upgrades</b>
200228	WR	9/10/2013	Regional Reliability	2013 ITPNT	7	N/A	\$142,225,956
200229	SPS	9/10/2013	Regional Reliability	2013 ITPNT	4	N/A	\$59,458,827
200230	NPPD	9/10/2013	Regional Reliability	2013 ITPNT	3	N/A	\$35,000,000
200231	AEP	9/23/2013	Regional Reliability	2013 ITPNT	4	N/A	\$101,930,622
200226	OGE	10/22/2013	Regional Reliability	DPA Study	5	\$28,352,184	N/A
200234	WFEC	10/28/2013	Regional Reliability	DPA Study	3	\$3,910,008	N/A
<b>Total</b>					<b>26</b>	<b>\$32,262,192</b>	<b>\$338,615,405</b>

***Table 3: Q1 2014 NTC Issuance Summary***

## Completed Projects

Fifteen Network Upgrades with NTCs were completed during the reporting period, totaling an estimated \$52.8 million. Southwestern Public Service Company (SPS) reported the completion of the installation of a 345/230 kV transformer on the 2<sup>nd</sup> circuit at the Tuco substation. The Network Upgrade was originally included as a part of the Balanced Portfolio, but was later identified as needed for reliability in the 2009 STEP Reliability Assessment. The reported cost estimate for the Upgrade is \$16.2 million.

Table 4 lists the Network Upgrades completed during the reporting period. Table 5 summarizes the completed projects over the previous year. Figure 5 reflects the completed projects by upgrade type on a cost basis for the current year and the following year based on current projected in-service dates. Tables 6 and 7 summarize all Network Upgrades that include construction of transmission lines, both for the current year and the following year. **Note: Previous quarter's updated results are listed as the Transmission Owners may make adjustments to final costs and status of projects completed during the year.**

UID	Upgrade Name	Upgrade Owner	NTC Source Study	Cost Estimate
10309	GOLDSBY - OU SW 138KV CKT 1	WFEC	2007 STEP	\$2,753,800
10310	CANADIAN SW - GOLDSBY 138KV CKT 1	WFEC	2007 STEP	\$2,250,000
10311	OU SW 138/69KV TRANSFORMER CKT 1	WFEC	2007 STEP	\$5,000,000
10385	KANSAS TAP - WEST SILOAM SPRINGS 161KV CKT 1	GRDA	Ag Study	\$4,372,000
10386	SILOAM CITY - WEST SILOAM SPRINGS 161KV CKT 1	GRDA	Ag Study	\$1,831,000
10796	CASHION - TWIN LAKES 138KV CKT 1	WFEC	2008 STEP	\$3,164,000
10843	KILGORE - VBI 69KV CKT 1 #2	OGE	2008 STEP	\$19,783
10865	Reeding - Twin Lakes SW 138 kV Ckt 1	WFEC	2010 STEP	\$1,971,000
10993	Harper - Milan Tap 138 kV Ckt 1	MKEC	2013 ITPNT	\$45,451
11085	TUCO INTERCHANGE 345/230KV TRANSFORMER CKT 2	SPS	2009 STEP	\$16,234,558
11421	HOOKS - LONESTAR ORDINANCE TAP 69KV CKT 1	AEP	2010 STEP	\$2,100,000
50234	BURLINGTON JUNCTION - WOLF CREEK 69KV CKT 1	WR	Ag Study	\$3,535,570
50403	Folsom & Pleasant Hill - Sheldon 115 kV Rebuild Ckt 2	LES	2012 ITPNT	\$6,382,777
50512	St. Joseph 161 kV Reactor	GMO	2013 ITPNT	\$440,733
50591	Howard 115/69 kV Transformer Ckt 2	SPS	DPA Study	\$2,709,236
<b>Total</b>				<b>\$52,809,908</b>

**Table 4: Q1 2014 Completed Network Upgrades**



<b>Upgrade Type</b>	<b>Q1 2013</b>	<b>Q2 2013</b>	<b>Q3 2013</b>	<b>Q4 2013</b>	<b>Total</b>
<b>Regional Reliability</b>	20 \$72,580,035	14 \$46,038,547	25 \$147,830,638	13 \$33,039,780	<b>72</b> <b>\$299,489,000</b>
<b>Transmission Service</b>	4 \$17,798,680	3 \$11,469,766	7 \$38,558,199	1 \$3,535,570	<b>15</b> <b>\$71,362,215</b>
<b>Balanced Portfolio</b>	5 \$171,715,352	0 \$0	0 \$0	1 \$16,234,558	<b>6</b> <b>\$187,949,910</b>
<b>High Priority</b>	0 \$0	0 \$0	0 \$0	0 \$0	<b>0</b> <b>\$0</b>
<b>ITP10</b>	0 \$0	0 \$0	0 \$0	0 \$0	<b>0</b> <b>\$0</b>
<b>Zonal Reliability</b>	5 \$18,932,704	0 \$0	0 \$0	0 \$0	<b>5</b> <b>\$18,932,704</b>
<b>Generation Interconnection</b>	10 \$37,782,787	3 \$6,768,543	0 \$0	0 \$0	<b>13</b> <b>\$44,551,330</b>

**Table 5: Completed Project Summary through 4th Quarter 2013**

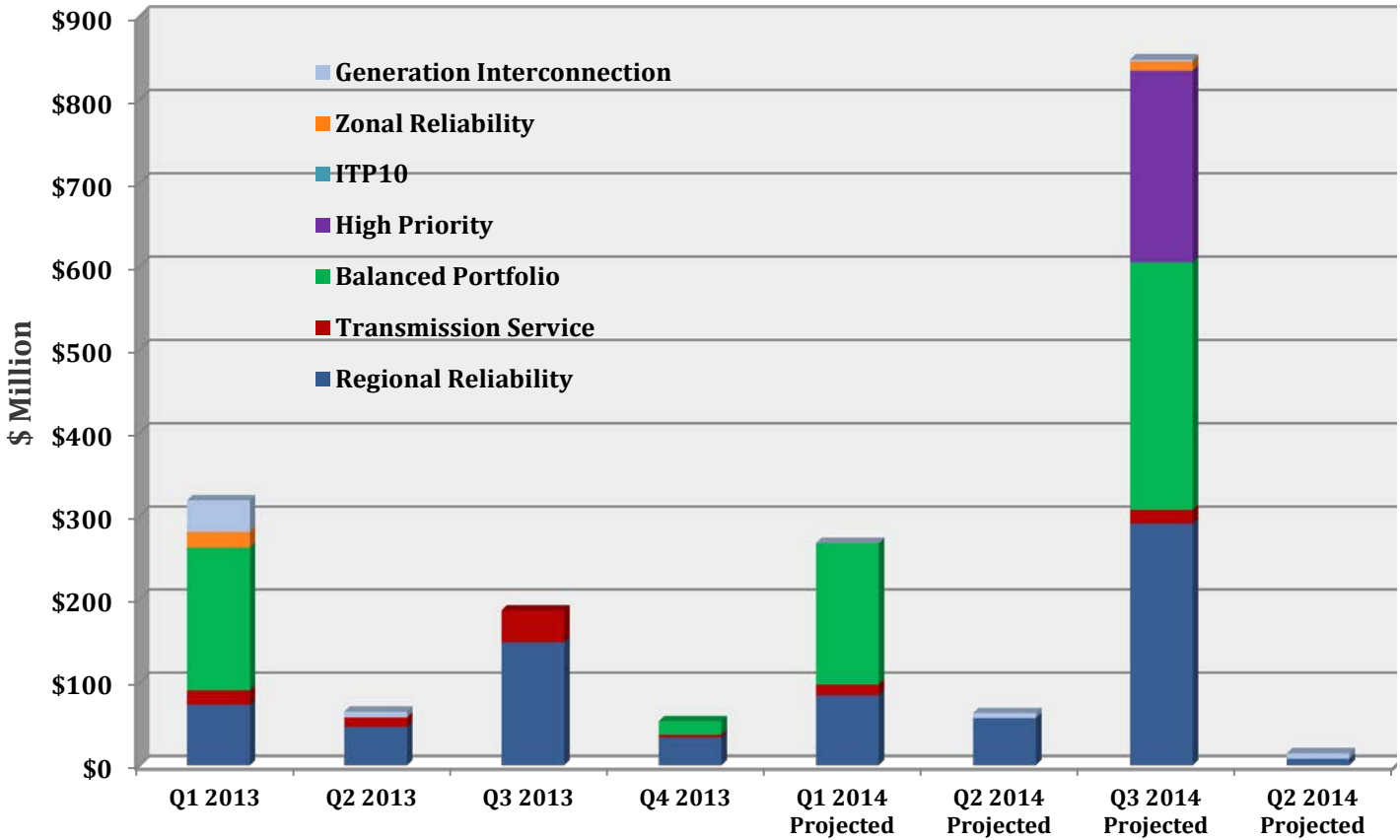


Figure 5: Completed Projects by Upgrade Type

Voltage Class	Number of Upgrades	Miles of New	Miles of Rebuild/ Reconductor	Miles of Voltage Conversion	Estimated Cost
69	7	0.0	34.8	0.0	\$26,259,915
115	14	18.3	71.3	19.3	\$76,444,985
138	12	6.5	45.3	42.4	\$74,946,671
161	8	13.3	15.1	5.6	\$30,779,275
230	3	56.0	0.0	40.0	\$49,482,311
345	3	169.0	0.0	0.0	\$166,074,373
<b>Total</b>	<b>47</b>	<b>263.07</b>	<b>166.49</b>	<b>107.33</b>	<b>\$423,987,530</b>

Table 6: Line Upgrade Summary for Previous 12 Months

<b>Voltage Class</b>	<b>Number of Upgrades</b>	<b>Miles of New</b>	<b>Miles of Rebuild/ Reconductor</b>	<b>Miles of Voltage Conversion</b>	<b>Estimated Cost</b>
69	18	37.8	102.6	0.0	\$87,866,070
115	11	34.7	61.4	18.7	\$84,173,638
138	23	74.3	33.2	120.1	\$114,191,854
161	4	10.5	6.3	0.0	\$18,388,592
230	1	1.1	0.0	0.0	\$10,786,344
345	9	689.1	0.0	0.0	\$729,451,266
<b>Total</b>	<b>66</b>	<b>847.47</b>	<b>203.46</b>	<b>138.73</b>	<b>\$1,044,857,764</b>

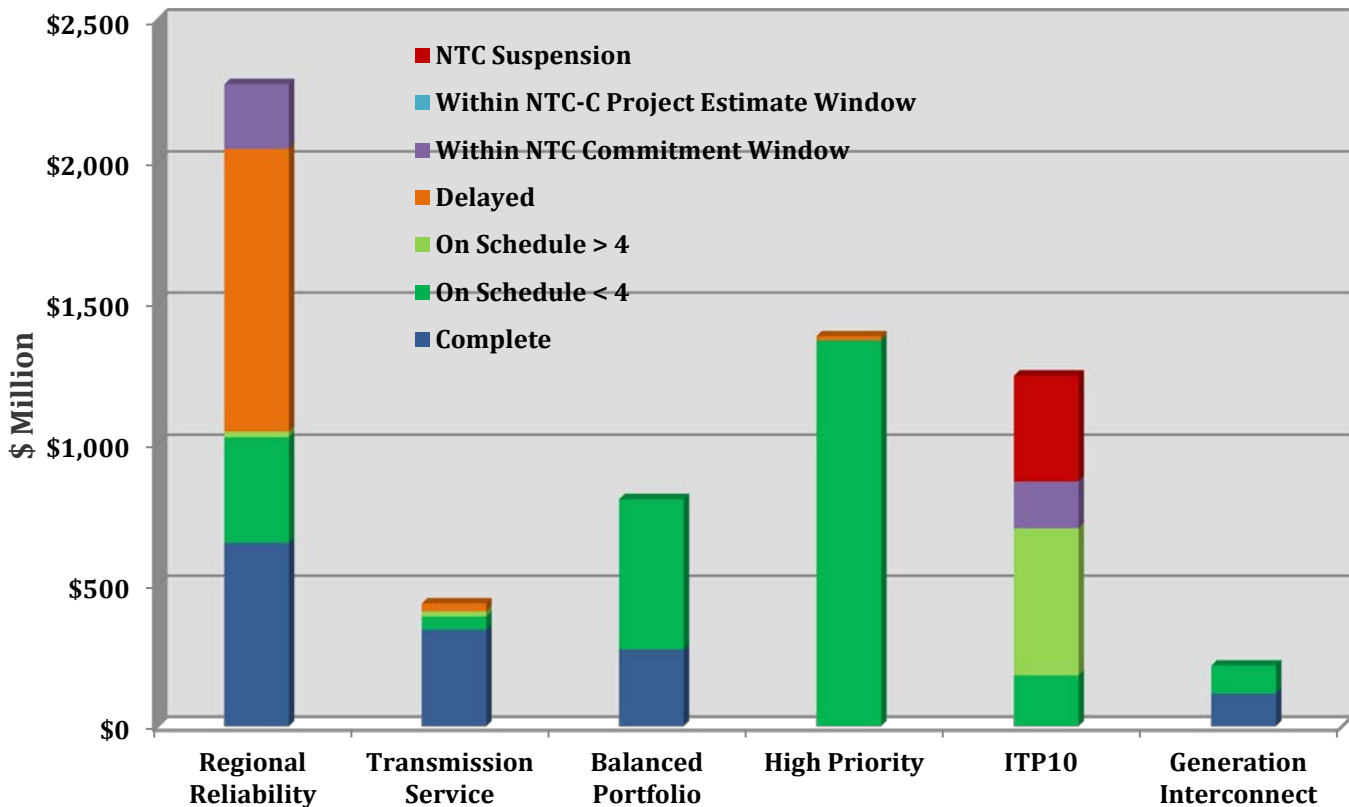
*Table 7: Line Upgrade Projections for Next 12 Months*

## Project Status Summary

SPP assigns a project status to all Network Upgrades based on the projected in-service dates provided by the DTOs relative to the Need Date determined for the project. Project status definitions are provided below:

- **Complete:** Construction complete and in-service
- **On Schedule < 4:** On Schedule within 4-year horizon
- **On Schedule > 4:** On Schedule beyond 4-year horizon
- **Delayed:** Projected In-Service Date beyond Need Date; interim mitigation provided or project may change but time permits the implementation of project
- **Within NTC Commitment Window:** NTC/NTC-C issued, still within the 90-day written commitment to construct window and no commitment received
- **Within NTC-C Project Estimate Window:** Within the NTC-C Project Estimate (CPE) window
- **NTC Suspension:** NTC/NTC-C suspended; pending re-evaluation

Figure 6 reflects a summary of project status by upgrade type on a cost basis.



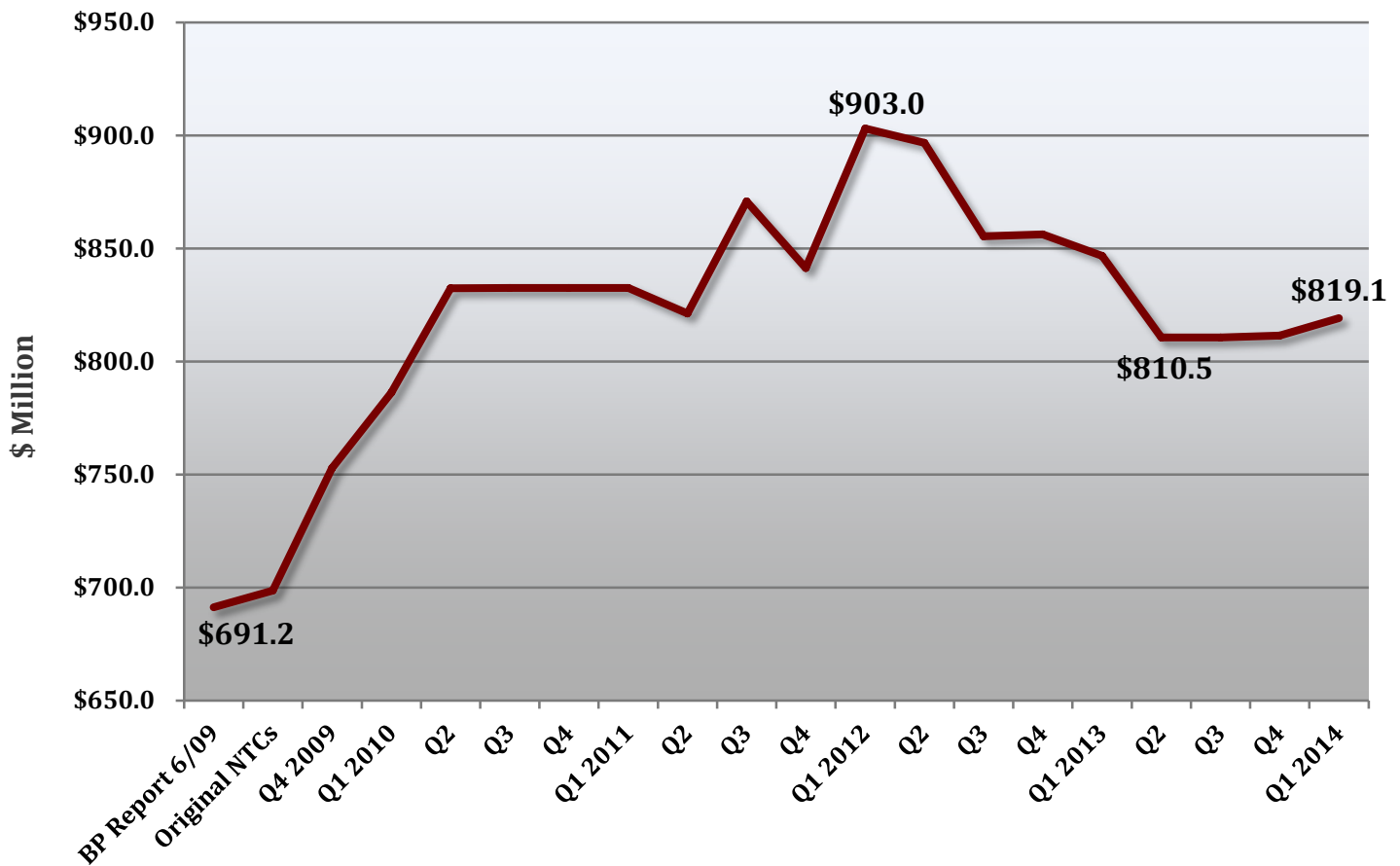
*Figure 6: Project Status Summary on a Cost Basis*

## Balanced Portfolio

Approved in April 2009, the Balanced Portfolio was an initiative to develop a group of economic transmission upgrades that benefit the entire SPP region, and to allocate those project costs regionally. The projects that were issued NTCs as a result of the study include a diverse group of projects, estimated to add approximately 717 miles of new 345 kV transmission line to the SPP system.

The total cost estimate for the projects making up the Balanced Portfolio increased by 0.9% from the previous quarter during the 1<sup>st</sup> quarter 2014 update cycle to a total of \$819.1 Million. No Balanced Portfolio projects were completed during the reporting period. The next project expected to be completed is the 100-mile 345 kV line from Seminole to Muskogee being constructed by OGE in east central Oklahoma.

Figure 7 below depicts a historical view of the total estimated cost of the Balanced Portfolio. Table 8 provides a project summary of the projects making up the Balanced Portfolio. Table 9 lists construction status updates for the Balanced Portfolio projects not yet completed.



**Figure 7: Balanced Portfolio Cost Estimate Trend**

Project ID(s)	Project Owner(s)	Project Name	Est. Line Length	BP Report Estimates (6/2009)	Q4 2013 Cost Estimates	Q1 2014 Cost Estimates	Var. %
705/709	WFEC/OGE	Gracemont Substation 345 kV	N/A	\$8,000,000	\$14,921,070	\$14,921,070	0.00%
707/708	ITCGP/NPPD	Spearville - Post Rock - Axtell 345 kV	223.0	\$236,557,015	\$203,559,673	\$203,559,673	0.00%
698/699	OGE/GRDA	Sooner - Cleveland 345 kV	36.0	\$33,530,000	\$49,718,139	\$49,718,139	0.00%
702	KCPL	Swissvale - Stilwell Tap 345 kV	N/A	\$2,000,000	\$1,922,840	\$1,922,840	0.00%
700	OGE	Seminole - Muskogee 345 kV	100.0	\$129,000,000	\$170,000,000	\$170,000,000	0.00%
701/704	SPS/OGE	Tuco - Woodward 345 kV	327.0	\$227,727,500	\$306,481,630	\$313,570,903	2.31%
703	KCPL/GMO	Iatan - Nashua 345 kV	31.0	\$54,444,000	\$64,800,000	\$65,364,014	0.87%
<b>Total</b>			<b>717.0</b>	<b>\$691,258,515</b>	<b>\$811,403,352</b>	<b>\$819,056,639</b>	<b>0.94%</b>

**Table 8: Balanced Portfolio Summary**

Project ID	Project Name	Projected In-Service Date	Engineering	Siting and Routing	Environmental Studies	Permits	Material Procurement	Construction		
700	Seminole - Muskogee 345 kV	12/31/13	C	C	C	C	C	C	C	Complete
701	Tuco - Woodward 345 kV (OGE)	05/19/14	C	C	C	C	C	IP	IP	In Progress
704	Tuco - Woodward 345 kV (SPS)	05/19/14	C	C	C	C	C	IP	NS	Not Started
703	Iatan - Nashua 345 kV	06/01/15	IP	IP	N/A	N/A	IP	IP	N/A	Not Applicable

**Table 9: Balanced Portfolio Construction Status**

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## Priority Projects

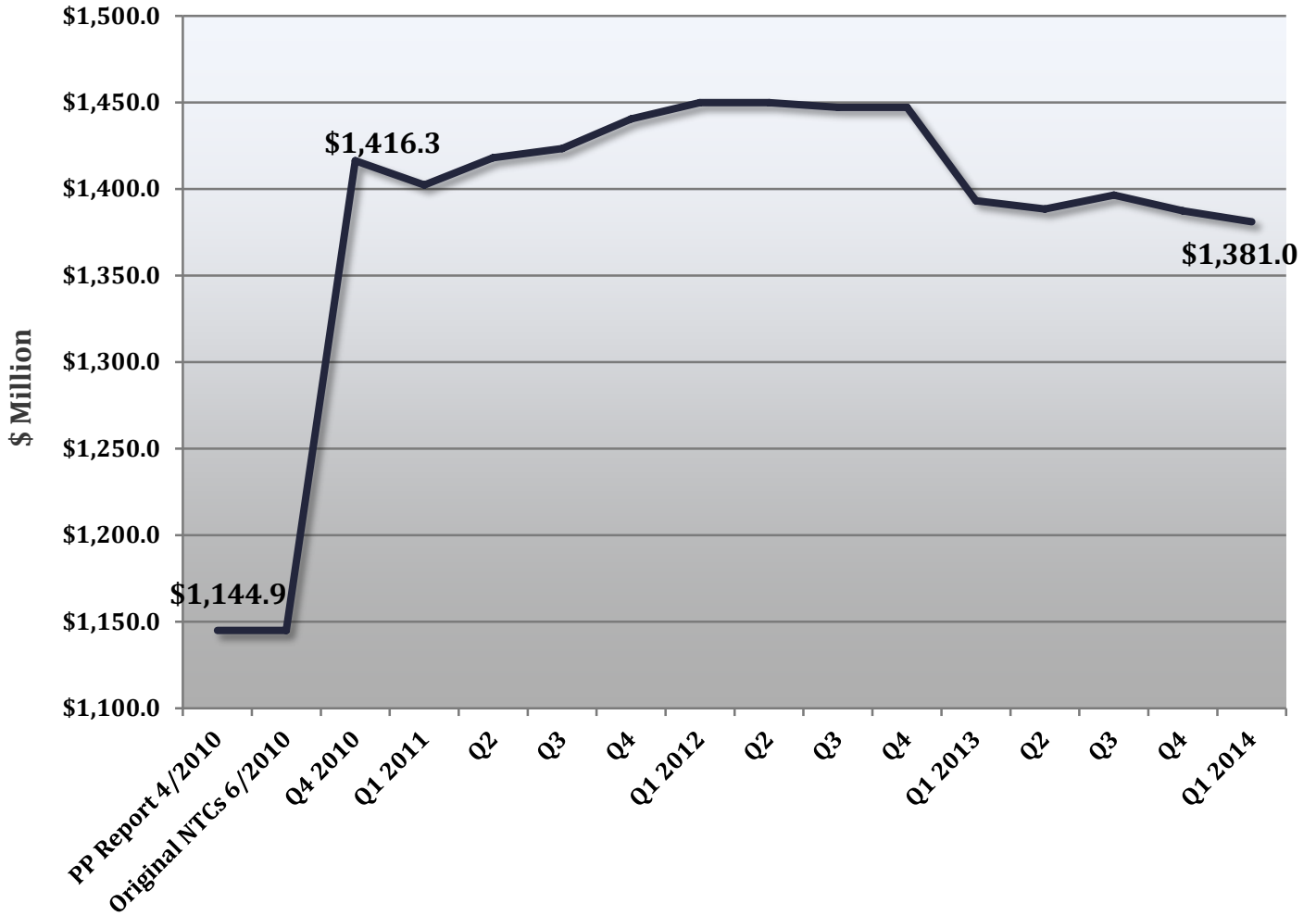
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In April 2010 the SPP Board of Directors and Members Committee approved for construction a group of "priority" high voltage electric transmission projects estimated to bring benefits of at least \$3.7 billion to the SPP region over 40 years. The projects issued NTCs as a result of the study are estimated to add 258 miles of new single circuit 345 kV transmission line and 422 miles of double circuit 345 kV transmission to the SPP region.

In October 2010 the SPP Board of Directors approved an overall cost increase for the Priority Projects due to line rerouting and addition costs for reactive compensation. The total cost estimate for the Priority Projects after the variances were approved was \$1.42 billion.

The total cost estimate for the projects making up the Priority Projects decreased by 0.5% from the previous quarter during the 1<sup>st</sup> quarter 2014 update cycle to a total of \$1.38 billion. No Priority Projects were completed during the reporting period. The next project expected to be completed is the 122-mile double circuit 345 kV line from Hitchland to Woodward District EHV being constructed by SPS and Oklahoma Gas and Electric Co. in western Oklahoma projected to complete by June 2014.

Figure 8 below depicts a historical view of the total estimated cost of the Priority Projects. Table 10 provides a project summary of the projects making up the Priority Projects. Table 11 lists construction status updates for the Priority Projects not yet completed.



*Figure 8: Priority Projects Cost Estimate Trend*



Project ID(s)	Project Owner(s)	Project	Est. Line Length	Study Estimates	Q4 2013 Cost Estimates	Q1 2014 Cost Estimates	Var. %
937	AEP	Tulsa Power Station 138 kV Reactor	N/A	\$842,847	\$960,895	\$960,895	0.00%
940/941	SPS/OGE	Hitchland – Woodward District 345 kV Dbl Ckt	120.0	\$221,572,283	\$229,530,070	\$230,019,879	0.21%
942/943	PW/OGE	Thistle – Woodward District 345 kV Dbl Ckt	109.4	\$201,940,759	\$195,540,000	\$192,640,000	-1.48%
945	ITCGP	Spearville – Ironwood – Clark Co. – Thistle 345 kV Dbl Ckt	113.5	\$293,235,000	\$285,024,557	\$285,024,557	0.00%
946	PW	Thistle – Wichita 345 kV Dbl Ckt	77.5	\$163,488,000	\$144,155,302	\$136,555,302	-5.27%
936	AEP	Valliant – NW Texarkana 345 kV	76.3	\$131,451,250	\$127,995,000	\$127,995,000	0.00%
938/939	OPPD/GMO	Nebraska City – Mullin Creek – Sibley 345 kV	181.2	\$403,740,000	\$404,036,666	\$407,764,364	0.92%
<b>Total</b>			<b>677.9</b>	<b>\$1,416,270,139</b>	<b>\$1,387,242,490</b>	<b>\$1,380,959,997</b>	<b>-0.45%</b>

**Table 10: Priority Projects Summary**

Project ID	Project Name	Projected In-Service Date	Engineering	Siting and Routing	Environmental Studies	Permits	Material Procurement	Construction	
940	Hitchland – Woodward District 345 kV Dbl Ckt (SPS)	6/30/2014	C	C	C	C	C	IP	C Complete
941	Hitchland – Woodward District 345 kV Dbl Ckt (OGE)	6/30/2014	C	C	C	C	C	IP	IP In Progress
942	Thistle – Woodward District 345 kV Dbl Ckt (OGE)	12/31/2014	IP	C	C	IP	IP	IP	NS Not Started
943	Thistle – Woodward District 345 kV Dbl Ckt (PW)	12/31/2014	C	C	C	IP	IP	IP	N/A Not Applicable
945	Spearville – Ironwood – Clark Co. – Thistle 345 kV Dbl Ckt	12/31/2014	IP	C	C	C	IP	IP	
946	Thistle – Wichita 345 kV Dbl Ckt	12/31/2014	C	C	C	C	C	IP	
936	Valliant – NW Texarkana 345 kV	5/1/2015	C	C	C	IP	IP	IP	
938	Nebraska City – Mullin Creek – Sibley 345 kV (GMO)	6/1/2017	IP	IP	IP	IP	IP	NS	
939	Nebraska City – Mullin Creek – Sibley 345 kV (OPPD)	6/1/2017	IP	C	IP	IP	NS	NS	

**Table 11: Priority Projects Construction Status**

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# Appendix I

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See accompanying Network Upgrade list