

**THIRD QUARTERLY  
PROJECT TRACKING  
REPORT 2018**

July 2018

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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 regional grid reliability standards, firm transmission commitments, and Tariff cost recovery.

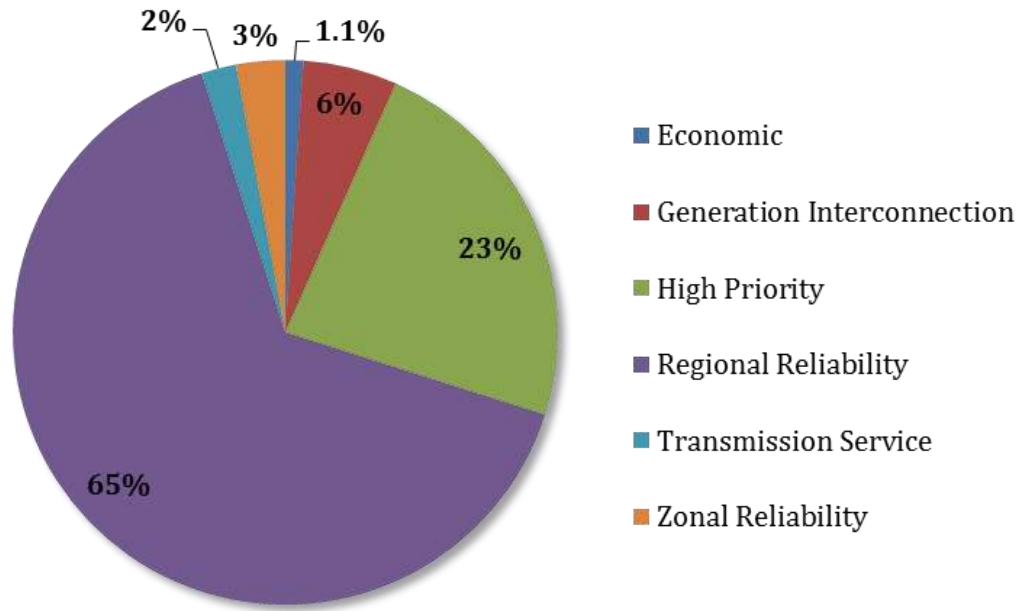
SPP staff solicits quarterly feedback from the project owners to determine the progress of each approved transmission project. This quarterly report charts the progress of all SPP Transmission Expansion Plan (STEP) projects approved by the SPP Board of Directors (Board) or through a FERC filed service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

The reporting period is February 1, 2018 through April 30, 2018. Table 1 provides a summary of all projects in the current Project Tracking Portfolio (PTP), which includes all Network Upgrades in which construction activities are ongoing, or construction has completed but not all the close-out requirements have been fulfilled in accordance with Section 13 of Business Practice 7060. The PTP includes all active Network Upgrades including transmission lines, transformers, substations, and devices.

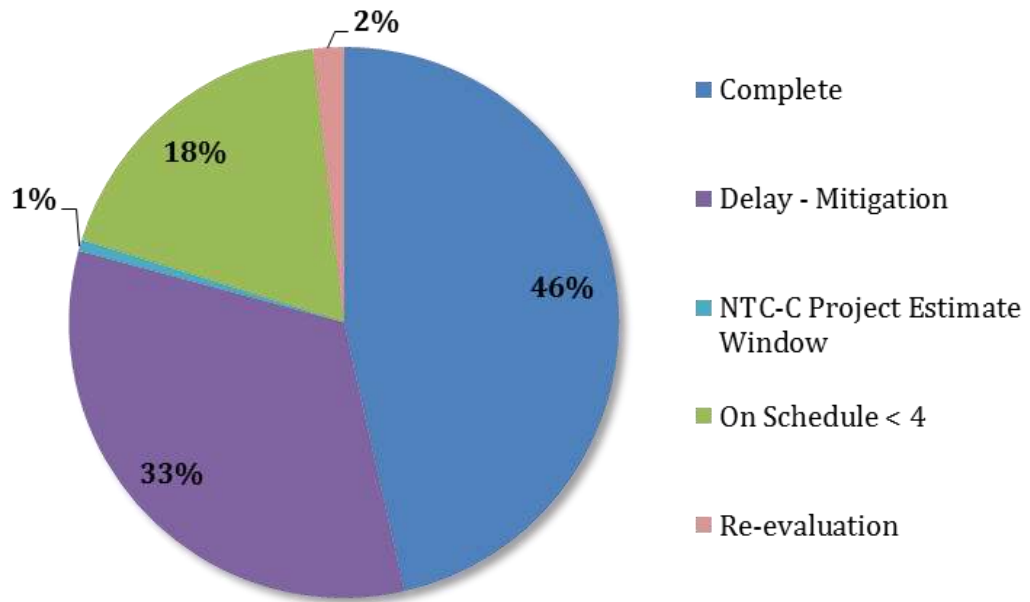
Table 1 below summarizes the PTP for this quarter. Figure 1 reflects the percentage cost of each upgrade type in the PTP. Figure 2 shows the percentage cost of each project status in the PTP.

Upgrade Type	No. of Upgrades	Estimated Cost	Miles of New	Miles of Rebuild	Miles of Voltage Conversion
Economic	19	\$50,138,316	0.7	0.0	28.8
Generation Interconnection	3	\$7,215,757	0.0	0.0	0.0
High Priority	61	\$1,098,947,442	755.8	5.1	0.0
Regional Reliability	356	\$2,838,492,912	1444.0	510.6	560.7
Transmission Service	13	\$97,171,040	12.9	14.0	0.0
Zonal Reliability	7	\$137,322,476	28.0	26.9	0.0
<b>NTC Projects Subtotal</b>	<b>459</b>	<b>\$4,229,287,943</b>	<b>2241.4</b>	<b>556.7</b>	<b>589.5</b>
Generation Interconnection	90	\$257,382,299	0.0	0.0	0.0
Regional Reliability	13	\$244,278,627	204.3	0.0	0.0
TO - Sponsored	4	\$23,815,402	10.7	0.0	0.0
<b>Non-NTC Projects Subtotal</b>	<b>107</b>	<b>\$525,476,328</b>	<b>215.0</b>	<b>0.0</b>	<b>0.0</b>
<b>Total</b>	<b>566</b>	<b>\$4,754,764,271</b>	<b>2456.4</b>	<b>556.7</b>	<b>589.5</b>

**Table 1: Q3 2018 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 Practice 7060, SPP issues Notifications to Construct (NTCs) to Designated Transmission Owners (DTOs) to begin work on Network Upgrades that have been approved or endorsed by the SPP Board 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 Notifications to Construct with Conditions (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.**

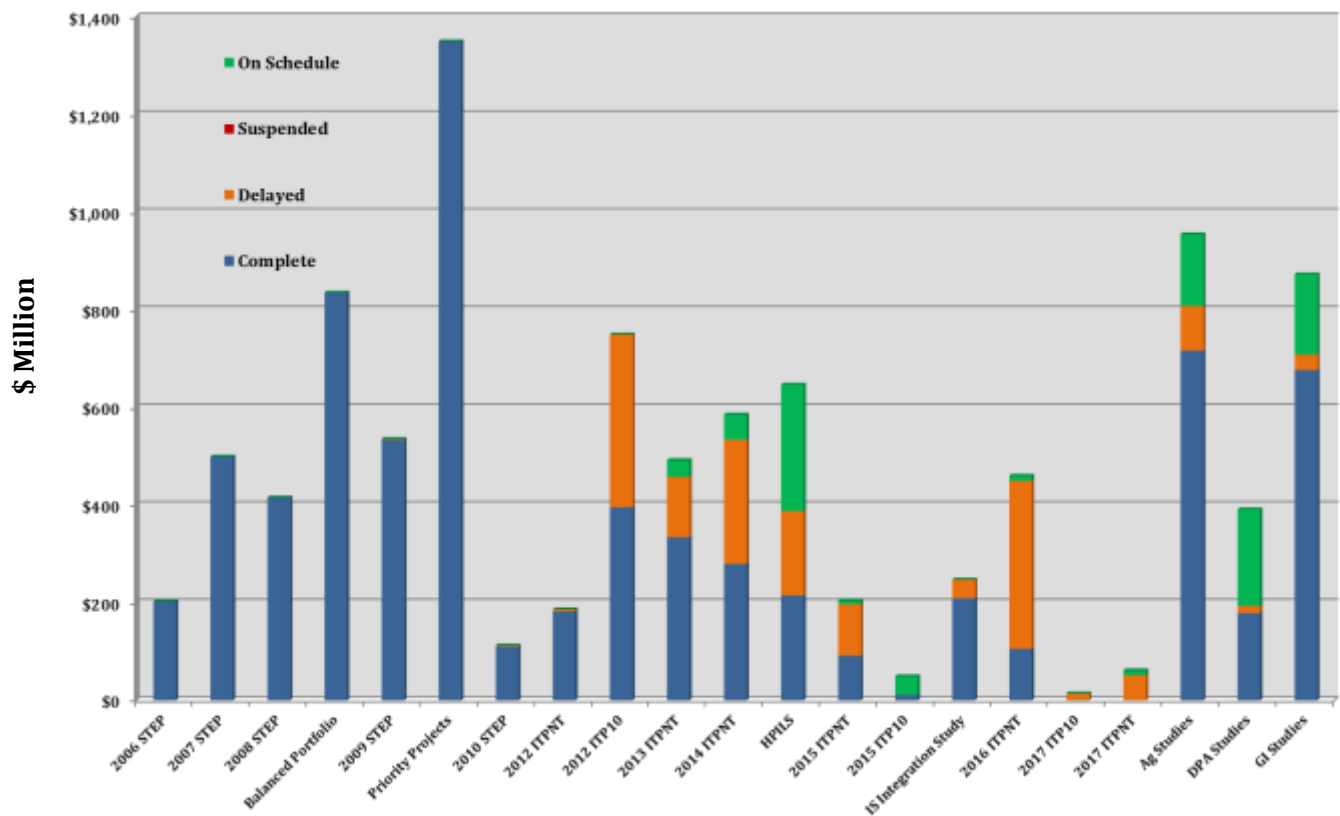


Figure 3: Project Status by NTC Source Study

Source Study	Complete	Delayed	Suspended	On Schedule	Total
2006 STEP	\$202,493,500	\$0	\$0	\$0	\$202,493,500
2007 STEP	\$498,942,112	\$0	\$0	\$0	\$498,942,112
2008 STEP	\$415,126,157	\$0	\$0	\$0	\$415,126,157
Balanced Portfolio	\$834,720,484	\$0	\$0	\$0	\$834,720,484
2009 STEP	\$533,469,214	\$1,441,050	\$0	\$0	\$534,910,264
Priority Projects	\$1,349,223,655	\$0	\$0	\$0	\$1,349,223,655
2010 STEP	\$109,968,782	\$2,087,292	\$0	\$0	\$112,056,074
2012 ITPNT	\$182,110,561	\$4,294,271	\$0	\$0	\$186,404,832
2012 ITP10	\$395,522,426	\$353,555,881	\$0	\$0	\$749,078,307
2013 ITPNT	\$334,212,230	\$123,589,601	\$0	\$33,911,364	\$491,713,195
2014 ITPNT	\$279,266,187	\$254,649,204	\$0	\$51,139,683	\$585,055,074
HPILS	\$214,658,160	\$172,851,277	\$0	\$258,504,238	\$646,013,675
2015 ITPNT	\$91,294,295	\$105,662,170	\$0	\$7,342,119	\$204,298,583
2015 ITP10	\$11,000,000	\$0	\$0	\$37,823,697	\$48,823,697
IS Integration Study	\$208,843,318	\$38,000,000	\$0	\$0	\$246,843,318
2016 ITPNT	\$105,444,254	\$343,838,435	\$0	\$10,483,834	\$459,766,522
2017 ITP10	\$500,000	\$13,215,764	\$0	\$305,000	\$14,020,764
2017 ITPNT	\$152,500	\$51,224,525	\$0	\$9,728,078	\$61,105,103
Ag Studies	\$715,841,984	\$91,808,848	\$0	\$148,530,933	\$956,181,765
DPA Studies	\$178,484,649	\$14,786,770	\$0	\$197,452,103	\$390,723,521
GI Studies	\$676,404,780	\$31,748,724	\$0	\$163,759,944	\$871,913,448
<b>Total</b>	<b>\$7,337,679,247</b>	<b>\$1,602,753,812</b>	<b>\$0</b>	<b>\$918,980,991</b>	<b>\$9,859,414,050</b>

Table 2: Project Status by NTC Source Study

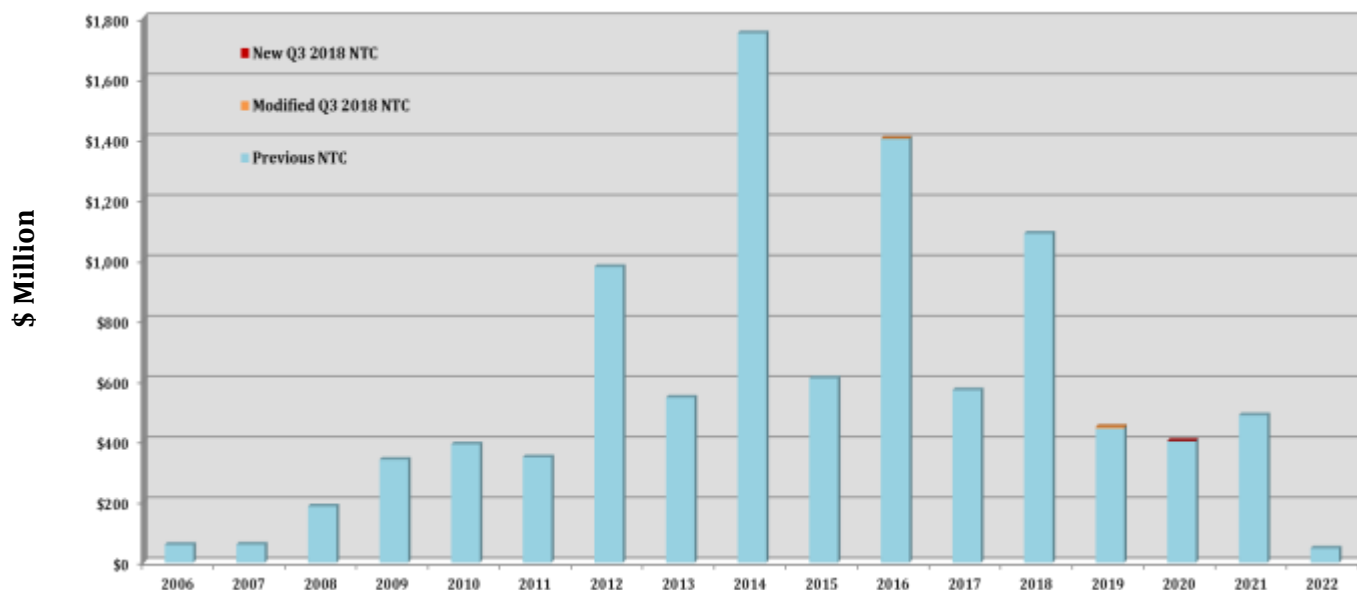


Figure 4: Estimated Cost for NTC Project per In-Service Year

**NTC ISSUANCE**

One new NTC was issued as a result of SPP Aggregate Study 2016-AG2-AFS-2. Total estimated cost of the upgrade listed is \$3.6 million.

Six new NTCs were issued as a result of Delivery Point Addition studies 2016-December-703, 2017-August-767-774-776 and 2017-May-746. Total estimated costs for upgrades listed in these NTCs are \$232.9 million.

Four NTCs were issued as a result of requested scope modifications by DTOs. The modifications were evaluated by Staff and determined to cause no adverse impact to the SPP Transmission System.

Table 3 lists the NTCs issued during the reporting period. NTC IDs in **bold** font indicate NTC-Cs.

NTC ID	Transmission Owner	NTC Issue Date	Upgrade Type	Source Study	No. of Upgrades	Estimated Cost of New Upgrades	Estimated Cost of Previously Approved Upgrades
200474	SPS	2/27/2018	High Priority	HPILS	1		\$4,250,000
200475	WR	2/21/2018	Regional Reliability	2014 ITPNT	1		\$6,740,273
200476	WAPA	2/21/2018	Regional Reliability	2017 ITPNT	1		\$5,000
200477	NPPD	2/21/2018	Regional Reliability	DPA-2016-December-703	6	\$39,300,207	
200479	KPP	2/27/2018	Regional Reliability	SPP-2016-AG2-AFS-2	1	\$3,600,000	
<b>200481</b>	WFEC	2/27/2018	Regional Reliability	DPA-2017-August-767-774-776	19	\$88,800,000	
200482	WFEC	2/27/2018	Regional Reliability	DPA-2017-August-767-774-776	2	\$1,500,000	
200483	OPPD	2/27/2018	Regional Reliability	DPA-2017-May-746	1	\$14,770,262	
210483	WFEC	4/26/2018	Regional Reliability	DPA-2017-May-746	18	\$88,500,000	
210484	SPS	4/27/2018	Regional Reliability/ High Priority	HPILS	2		\$19,074,464
<b>Total</b>					<b>52</b>	<b>\$236,470,469</b>	<b>\$30,069,737</b>

**Table 3: NTC Issuance Summary**

**NTC WITHDRAW**

Three NTCs were withdrawn for three Network Upgrades during the reporting period, totaling an estimated \$54 million. Upgrades withdrawn in NTCs 200469 and 200480 required by

Transmission Service Studies SPP-2016-AG2-AFS-2 and SPP-2008-AGP1-AFS-9, respectively. NTC 200473 withdraws an upgrade originally approved by the SPP Board of Directors in the 2016 ITP Near-Term report. These upgrades were evaluated by SPP staff and determined to no longer be needed.

Table 4 lists the NTC Withdraw activity during the reporting period.

NTC ID	Transmission Owner	NTC Withdraw Date	Upgrade Type	Source Study	No. of Upgrades	Estimated Cost of Withdrawn Upgrades
200469	WR	2/27/2018	Regional Reliability	SPP-2016-AG2-AFS-2	1	\$1,467,084
200473	BEPC	2/27/2018	Regional Reliability	2016 ITPNT	1	\$52,312,877
200480	OGE	2/27/2018	Transmission Service	SPP-2008-AGP1-AFS-9	1	\$225,000
<b>Total</b>					<b>3</b>	<b>\$54,004,961</b>

**Table 4: NTC Withdraw Summary**

### **COMPLETED UPGRADES**

Fourteen Network Upgrades with NTCs were verified as completed during the reporting period, totaling an estimated \$234.1 million.

Table 5 lists the Network Upgrades reported and confirmed as completed during the reporting period. Table 6 summarizes the completed projects over the previous year, including Network Upgrades not yet confirmed as completed. 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 7 and 8 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	Network Upgrade Name	Owner	NTC Source Study	Cost Estimate
50419	Chisholm - Gracemont 345 kV Ckt 1 (OGE)	OGE	2012 ITP10	\$37,541,440
50420	Tatonga - Woodward District EHV 345 kV Ckt 2	OGE	2012 ITP10	\$50,594,040
50421	Matthewson - Tatonga 345 kV Ckt 2	OGE	2012 ITP10	\$56,387,700
50425	Elm Creek - Summit 345 kV Ckt 1 (ITCGP)	ITCGP	2012 ITP10	\$42,024,978
50720	Hallsville - Longview Heights 69 kV Ckt 1 Rebuild	AEP	2014 ITPNT	\$11,571,330
50733	Kenmar - Northeast 69 kV Ckt 1 Rebuild	WR	2014 ITPNT	\$5,650,859
51271	Ellsworth 115 kV Cap Bank	SEPC	2016 ITPNT	\$2,687,615
51356	Border 345kV Substation - GEN-2011-049 Addition	OGE	GI Studies	\$2,554,395
51506	Plaza 115 kV Substation	BEPC	2016 ITPNT	\$3,918,000

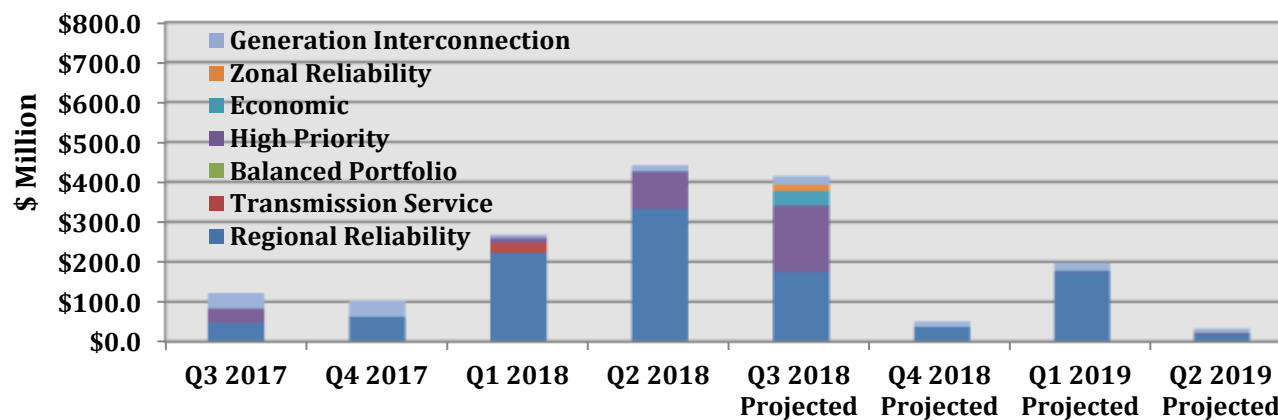


UID	Network Upgrade Name	Owner	NTC Source Study	Cost Estimate
51507	Blaisdell - Plaza 115 kV New Line	BEPC	2016 ITPNT	\$14,841,308
51508	Plaza 115 kV Cap Bank	BEPC	2016 ITPNT	\$283,000
51601	Border 345kV Substation - GEN-2011-049 Addition (TOIF)	OGE	GI Studies	\$1,099,958
51630	Northeast - Charlotte - Crosstown 161 kV Reactor	KCPL	2017 ITP10	\$500,000
51638	GEN-2015-063 Tap - Mathewson 345kV CKT 1	OGE	GI Studies	\$4,490,795
<b>Total</b>				<b>\$234,145,418</b>

**Table 5: Network Upgrades Completed During Reporting Period**

Upgrade Type	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Total
Regional Reliability	11	7	21	21	60
Regional Reliability	\$47,139,330	\$62,368,380	\$222,225,941	\$331,932,070	\$663,665,721
Transmission Service	0	0	1	0	1
Transmission Service	\$0	\$0	\$25,635,637	\$0	\$25,635,637
Balanced Portfolio	0	0	0	0	0
Balanced Portfolio	\$0	\$0	\$0	\$0	\$0
High Priority	5	0	1	7	13
High Priority	\$35,774,471	\$0	\$11,510,000	\$93,425,076	\$140,709,547
Economic	0	0	0	3	3
Economic	\$0	\$0	\$0	\$1,148,784	\$1,148,784
Zonal Reliability	0	0	0	0	0
Zonal Reliability	\$0	\$0	\$0	\$0	\$0
Generation Interconnection	11	14	4	7	36
Generation Interconnection	\$38,854,303	\$39,126,045	\$8,674,837	\$15,493,954	\$102,149,139

**Table 6: Completed Project Summary as of Q2 2018**



**Figure 5: Completed Upgrades by Type per Quarter**

Voltage Class	Number of Upgrades	New	Rebuild/Reconductor	Voltage Conversion	Estimated Cost
69	8	0.0	37.7	0.0	\$56,943,526
115	19	174.9	56.4	13.0	\$165,359,481
138	2	14.3	16.5	138.0	\$21,049,418
161	0	0.0	0.0	0.0	\$0
230	2	18.8	0.0	0.0	\$30,670,623
345	8	352.0	0.0	0.0	\$367,451,119
<b>Total</b>	<b>39</b>	<b>560.0</b>	<b>110.6</b>	<b>151.0</b>	<b>\$641,474,166</b>

Table 7: Line Upgrade Summary for Previous 12 Months

Voltage Class	Number of Upgrades	New	Rebuild/Reconductor	Voltage Conversion	Estimated Cost
69	5	7.1	19.5	69.0	\$42,055,366
115	13	44.4	16.0	10.3	\$69,142,236
138	13	157.8	2.4	0.0	\$151,890,927
161	1	19.4	0.0	0.0	\$20,690,401
230	0	0.0	0.0	0.0	\$0
345	5	38.7	0.0	28.8	\$86,623,318
<b>Total</b>	<b>37</b>	<b>267.4</b>	<b>37.9</b>	<b>108.2</b>	<b>\$370,402,248</b>

Table 8: 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
- **Closed Out:** Construction complete and in-service; all close-out requirements fulfilled
- **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
- **Within RFP Response Window:** RFP issued for the project
- **Re-evaluation:** Project active; pending re-evaluation
- **Suspended:** Project suspended; pending re-evaluation

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

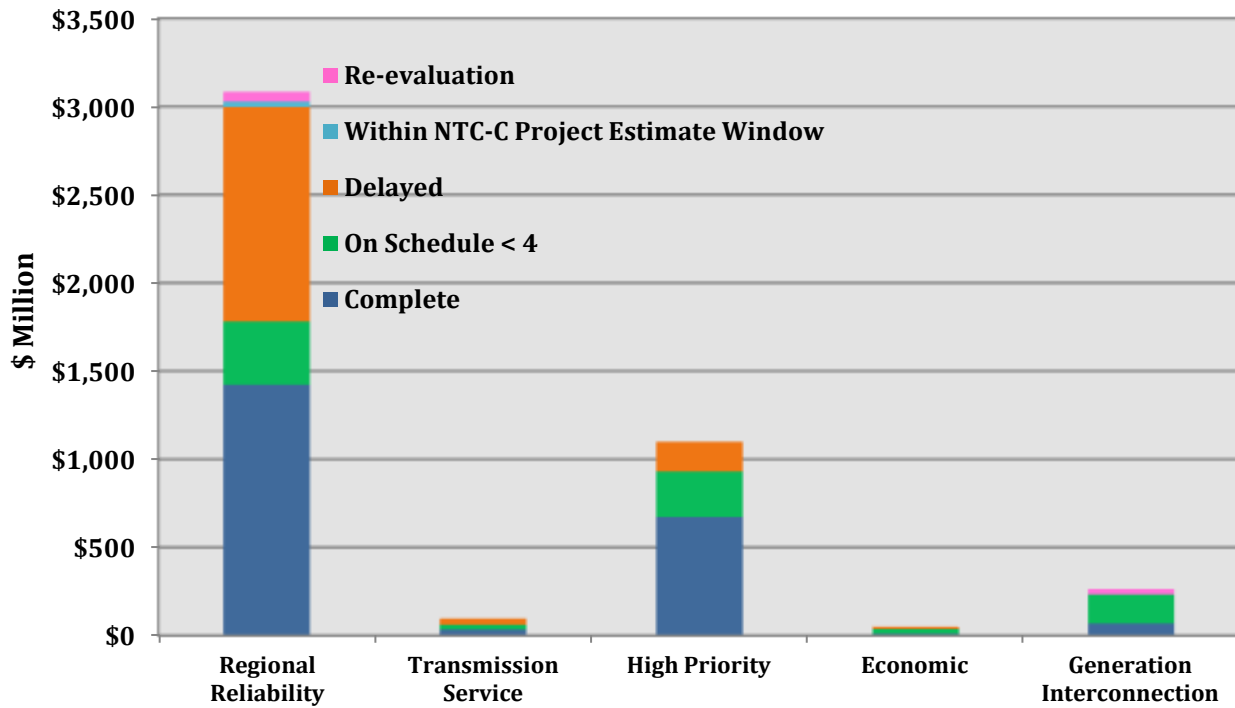


Figure 6: Project Status Summary on Cost Basis

## OUT-OF-BANDWIDTH PROJECTS

In adherence to the Business Practice 7060, SPP reports projects that have updated cost values that exceed their established baseline values based upon a  $\pm 20\%$  bandwidth. Variances are determined by total project cost.

The following projects with a cost estimate greater than \$5 million were identified as having exceeded the  $\pm 20\%$  bandwidth requirement during the reporting period.

Table 9 provides summary information and Table 10 lists cost detail for out-of-bandwidth projects for Q3 2018.

PID	Project Name	Owner	NTC Source Study	Upgrade Type	In-Service Date
30576	Line - Hallsville - Marshall 69 kV Ckt 1	AEP	2014 ITPNT	Regional Reliability	6/2/2017
30766	XFR - Yoakum County Interchange 230/115 kV Ckts 1 and 2	SPS	Ag Studies	Transmission Service	5/31/2019
30914	Multi - Road Runner 115 kV Loop Rebuild	SPS	2015 ITPNT	Regional Reliability	4/15/2019
30943	Multi - AVS - Charlie Creek 345 kV	BEPC	IS Integration Study	Regional Reliability	6/1/2016
30944	Multi - Charlie Creek - Judson - Williston 345/230 kV	BEPC	IS Integration Study	Regional Reliability	1/1/2016
31052	Multi - Tolk Yoakum Tap 230/115 kV Substation and Transformer	SPS	2016 ITPNT	Regional Reliability	12/15/2020
402	Multi - Granfield - Cache SW 138 kV	WFEC	2007 STEP	Regional Reliability	4/1/2016

**Table 9: Out-of-Bandwidth Project Summary**

PID	Baseline Cost Estimate	Baseline Cost Estimate Year	Baseline Cost Estimate with Escalation	Latest Estimate or Final Cost	Variance	Variance %
30576	\$15,248,925	2014	\$16,421,425	\$19,751,448	\$3,330,023	<b>20.28%</b>
30766	\$7,064,607	2014	\$7,798,004	\$5,284,545	(\$2,513,459)	<b>-32.23%</b>
30914	\$26,368,049	2015	\$28,325,454	\$21,866,137	(\$6,459,317)	<b>-22.8%</b>
30943	\$108,000,000	2014	\$113,467,500	\$58,376,741	(\$55,090,759)	<b>-48.55%</b>
30944	\$126,400,000	2014	\$132,260,875	\$61,893,823	(\$70,367,052)	<b>-53.2%</b>
31052	\$12,730,092	2016	\$13,374,553	\$10,493,251	(\$2,881,302)	<b>-21.54%</b>
402	\$13,431,000	2014	\$13,894,900	\$9,877,039	(\$4,017,861)	<b>-28.92%</b>

**Table 10: Out-of-Bandwidth Project Cost Detail**

## RESPONSIVENESS REPORT

Table 11 and Figures 7 and 8 provide insight into the responsiveness of DTOs constructing Network Upgrades within SPP in the Quarterly Project Tracking Report for Q3 2017. **Note: Network Upgrades with statuses of “Suspended”, “Re-evaluation”, “Within NTC Commitment Window”, “Within NTC-C Project Estimate Window”, and “Within RFP Response Window” were excluded from this analysis.**

Project Owner	Number of Upgrades	Number of Upgrades Reviewed	Reviewed %	In-Service Date Changes	ISD Change %	Cost Changes	Cost Change %
AEP	61	59	97%	1	2%	2	3%
BEPC	22	22	100%	1	5%	3	14%
CBPC	1	0	0%	0	0%	0	0%
CPEC	2	2	100%	0	0%	0	0%
EDE	3	1	33%	0	0%	0	0%
EREC	1	1	100%	0	0%	0	0%
GMO	2	2	100%	0	0%	0	0%
GRDA	7	5	71%	1	14%	1	14%
ITCGP	4	0	0%	0	0%	0	0%
KCPL	6	6	100%	3	50%	0	0%
KPP	1	0	0%	0	0%	0	0%
MEC	1	0	0%	0	0%	0	0%
MIDW	11	11	100%	0	0%	0	0%
MKEC	7	7	100%	0	0%	2	29%
NIPCO	2	0	0%	0	0%	0	0%
NPPD	44	27	61%	2	5%	2	5%
OGE	54	16	30%	10	19%	4	7%
OPPD	14	14	100%	1	7%	1	7%
SEPC	11	10	91%	2	18%	4	36%
SPS	190	186	98%	21	11%	43	23%
TEXLA	1	0	0%	0	0%	0	0%
TSMO	5	5	100%	0	0%	0	0%
WAPA	4	0	0%	0	0%	0	0%
WFEC	57	31	54%	4	7%	15	26%
WR	31	25	81%	2	6%	6	19%
<b>Total</b>	<b>542</b>	<b>430</b>	<b>79%</b>	<b>48</b>	<b>9%</b>	<b>83</b>	<b>15%</b>

**Table 11: Responsiveness Summary by Project Owner**

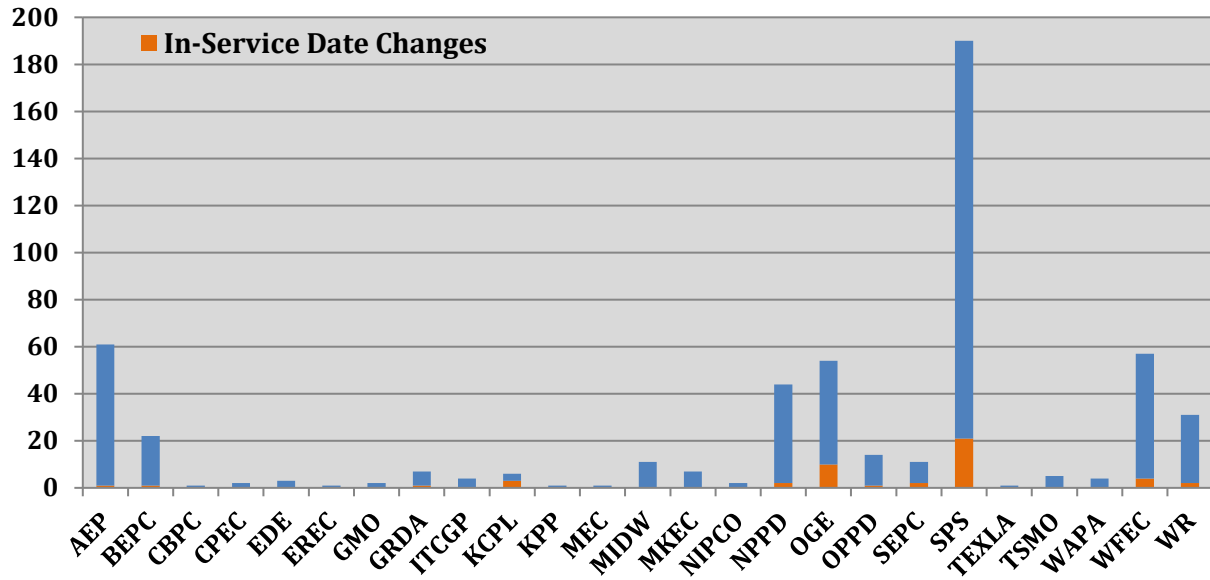


Figure 7: In-Service Date Changes by Project Owner

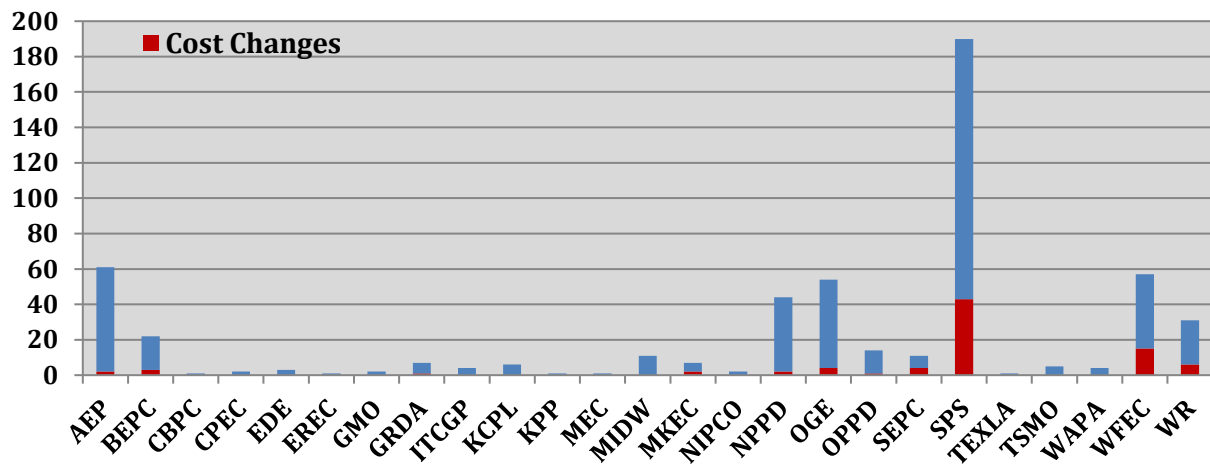


Figure 8: Cost Changes by Project Owner

## APPENDIX 1

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*{See accompanying list of active Applicable Projects}*