

**SECOND QUARTERLY
PROJECT TRACKING
REPORT 2017**

April 2017

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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 November 1, 2016 through January 31, 2017. 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
Balanced Portfolio	0	\$0	0.0	0.0	0.0
Economic	23	\$73,158,088	1.2	0.0	28.8
High Priority	61	\$1,149,286,431	757.7	5.1	0.0
Regional Reliability	313	\$3,147,319,404	1549.3	377.9	449.1
Transmission Service	19	\$91,158,550	12.9	15.3	0.0
Zonal Reliability	9	\$147,436,190	34.7	26.9	0.0
NTC Projects Subtotal	425	\$4,608,358,663	2355.8	425.1	477.9
Generation Interconnection	86	\$283,692,302	0.0	0.0	0.0
Regional Reliability - Non OATT	1	\$7,107,090	0.0	0.0	0.0
TO - Sponsored	3	\$15,977,001	10.7	0.0	0.0
Non-NTC Projects Subtotal	90	\$306,776,393	10.7	0.0	0.0
Total	515	\$4,915,135,056	2366.5	425.1	477.9

Table 1: Q2 2017 Portfolio Summary

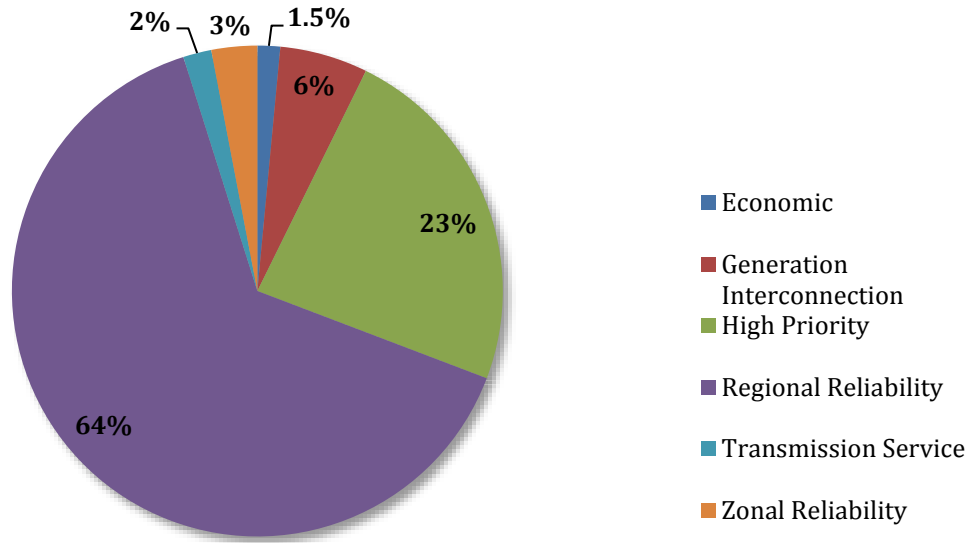


Figure 1: Percentage of Project Type on Cost Basis

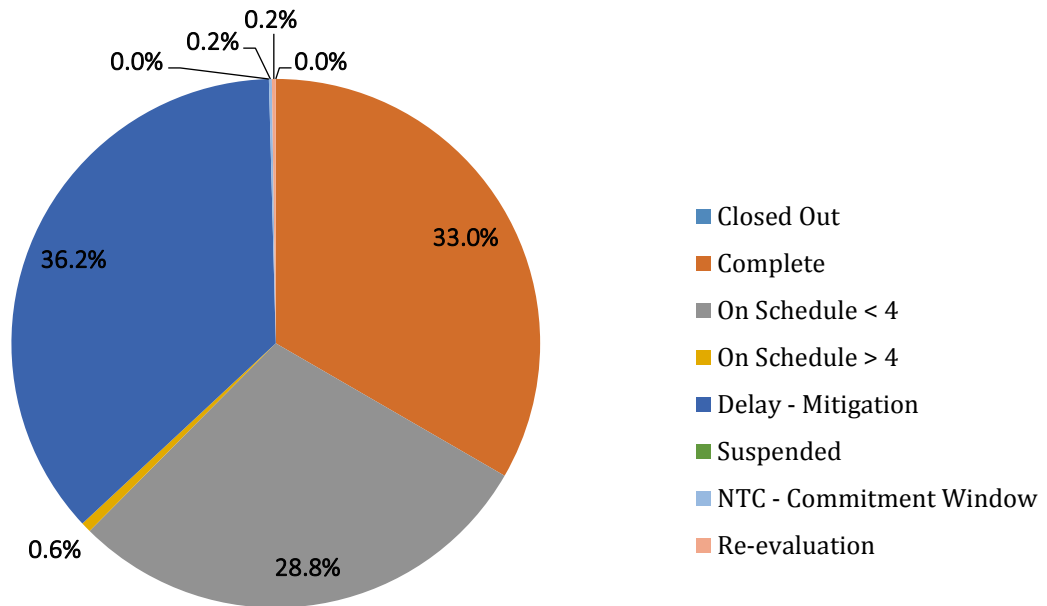


Figure 2: Percentage of Project Status on Cost Basis

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.**

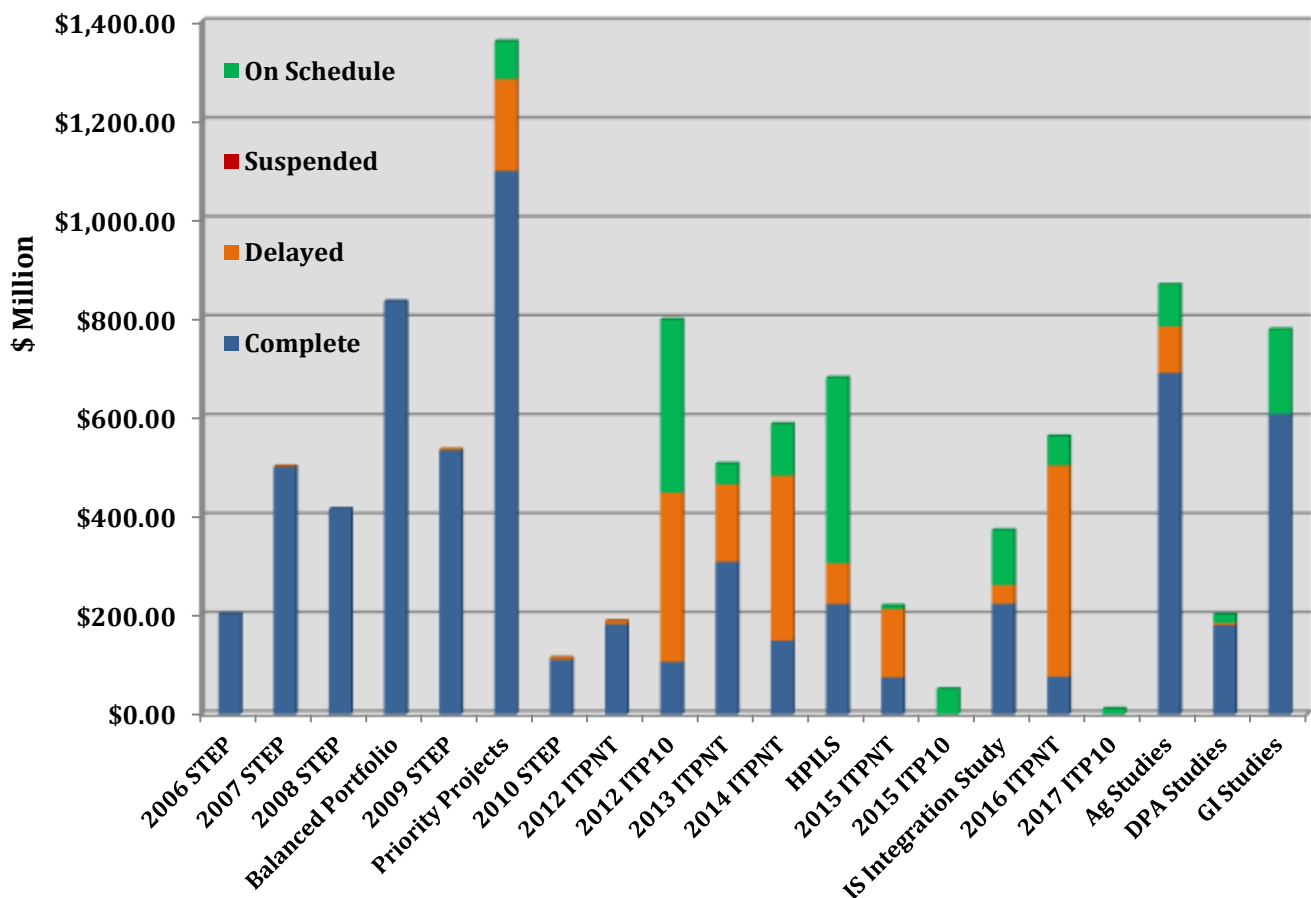


Figure 3: Project Status by NTC Source Study

Source Study	Complete	Delayed	Suspended	On Schedule	Total
2006 STEP	\$202,372,436	\$0	\$0	\$0	\$202,372,436
2007 STEP	\$499,918,131	\$1,050,000	\$0	\$0	\$500,968,131
2008 STEP	\$415,126,157	\$0	\$0	\$0	\$415,126,157
Balanced Portfolio	\$834,724,320	\$0	\$0	\$0	\$834,724,320
2009 STEP	\$533,469,214	\$1,441,050	\$0	\$0	\$534,910,264
Priority Projects	\$1,098,163,516	\$185,751,250	\$0	\$76,500,000	\$1,360,414,766
2010 STEP	\$109,968,783	\$4,041,273	\$0	\$0	\$114,010,056
2012 ITPNT	\$182,110,561	\$6,267,544	\$0	\$0	\$188,378,105
2012 ITP10	\$105,901,240	\$342,148,981	\$0	\$349,533,784	\$797,584,005
2013 ITPNT	\$308,160,510	\$156,573,802	\$0	\$41,462,612	\$506,196,924
2014 ITPNT	\$148,805,523	\$333,441,181	\$0	\$104,460,095	\$586,706,799
HPILS	\$222,670,305	\$82,435,100	\$0	\$375,416,679	\$680,522,083
2015 ITPNT	\$74,216,215	\$138,043,914	\$0	\$6,976,873	\$219,237,001
2015 ITP10	\$0	\$0	\$0	\$50,456,697	\$50,456,697
IS Integration Study	\$223,284,902	\$38,000,000	\$0	\$111,000,000	\$372,284,902
2016 ITPNT	\$75,638,261	\$427,408,902	\$0	\$58,833,456	\$561,880,619
2017 ITP10	\$0	\$0	\$0	\$10,956,278	\$10,956,278
Ag Studies	\$689,925,798	\$94,155,412	\$0	\$84,141,193	\$868,222,403
DPA Studies	\$179,911,397	\$4,608,805	\$0	\$16,842,293	\$201,362,495
GI Studies	\$607,025,143	\$20,000	\$0	\$171,181,204	\$778,226,347
Total	\$6,511,392,412	\$1,815,387,213	\$0	\$1,457,761,162	\$9,784,540,787

Table 2: Project Status by NTC Source Study

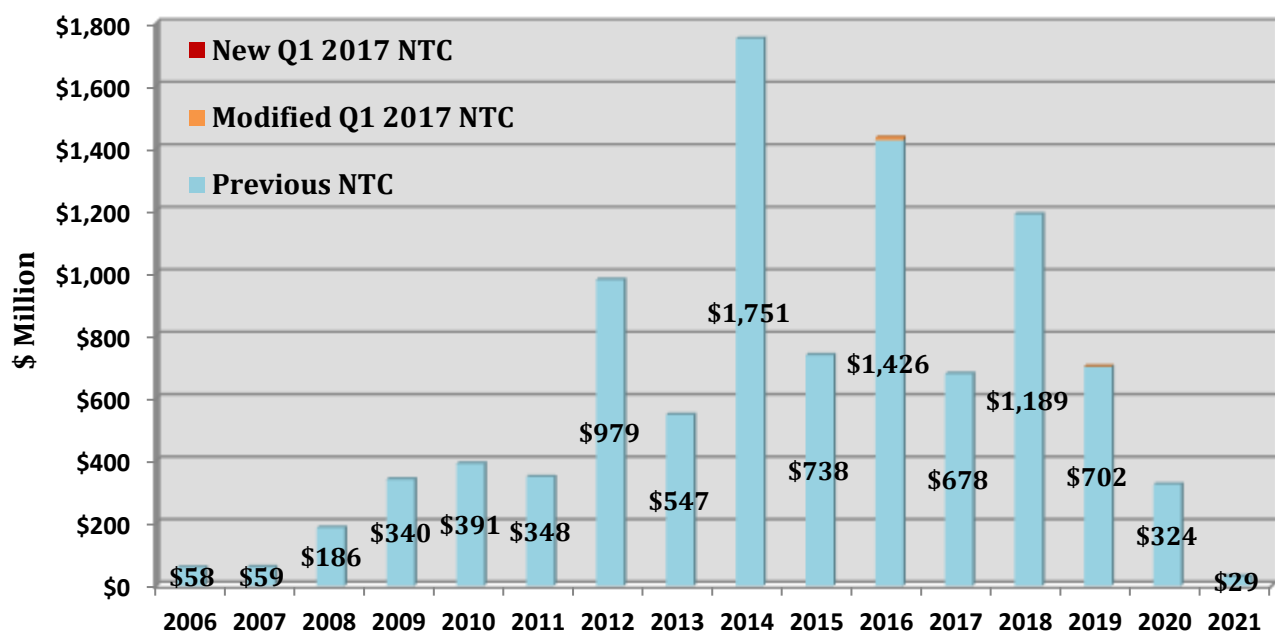


Figure 4: Estimated Cost for NTC Project per In-Service Year

NTC ISSUANCE

Sixteen new NTCs were issued since the last quarterly report totaling an estimated \$77.7 million.

Six new NTCs were issued as a result of Aggregate Studies 2015-AG1-AFS-6, 2015-AG2-AFS-3, and 2016-AG1-AFS-3. Total estimated costs for upgrades resulting from those NTCs was \$47.5 million.

Eight new NTCs were issued as a result of the Board's approval of the 2017 Integrated Transmission Planning 10-Year Assessment (ITP10). Total estimated cost of upgrades described in those NTCs was \$9.6 million.

One new NTC was issued as a result of the Board approval of the 2017 Integrated Transmission Planning Near-Term Assessment (ITPNT). Total estimated cost of the Network Upgrades described in this NTC is \$23.1 million.

NTC ID	Owner	NTC Issue Date	Upgrade Type	Source Study	No. of Upgrades	Estimated Cost of New Upgrades	Estimated Cost of Previously Approved Upgrades
200422	WR	1/11/17	Regional Reliability	2016-AG1-AFS-3	1	\$ 23,683,317	
200421	SPS	1/12/17	Regional Reliability	2015-AG2-AFS-3	1	\$ 3,790,207	
200420	SPS	1/12/17	Regional Reliability	2015-AG1-AFS-6	5	\$ 5,778,860	
200423	OGE	1/12/17	Regional Reliability	2016-AG1-AFS-3	1	\$ 37,638	
200426	BEPC	1/16/17	Regional Reliability	2016-AG1-AFS-3	2	\$ 11,557,720	
200437	MIDW	2/8/17	Regional Reliability	2015-AG2-AFS-3	1	\$ -	\$ 2,663,963
200430	WR	2/21/17	Economic	2017 IPT10	2	\$ 350,010	
200434	OGE	2/21/17	Economic	2017 IPT10	1	\$ 16,000	
200433	WFEC	2/21/17	Economic	2017 IPT10	1	\$ 100,000	
200431	AEP	2/21/17	Economic	2017 IPT10	1	\$ 4,780,000	
200432	GRDA	2/21/17	Economic	2017 IPT10	1	\$ 279,400	
200429	MIDW	2/22/17	Economic	2017 IPT10	3	\$ 3,306,360	
200428	KCPL	2/22/17	Economic	2017 IPT10	1	\$ 500,000	
200444	SPS	2/22/17	Economic	2017 IPT10	5	\$ 356,757	
200436	SPS	2/22/17	High Priority	2017 ITPNT	2		\$ 20,502,997
Total					28	\$54,536,269	\$23,166,960

Table 3: Q2 2017 NTC Issuance Summary

NTC WITHDRAW

Seven NTCs were withdrawn for four Network Upgrades since the last quarterly report, totaling an estimated \$37.7 million.

Upgrades included in NTCs listed in Table 4 were determined to no longer be needed as a part of the 2017 ITPNT Assessment. The Board approved the withdrawals at its January 2017 meeting.

Table 4 lists the NTC Withdraw activity from January 1, 2017 through March 31, 2017. NTC ID values in **bold** font indicate NTC-Cs.

NTC ID	Owner	NTC Withdraw Date	Upgrade Type	Source Study	No. of Upgrades	Estimated Cost of Withdrawn Upgrades
200435	SPS	2/22/17	Regional Reliability	2017 ITPNT	5	\$ 5,362,750
200436	SPS	2/22/17	High Priority	2017 ITPNT	4	\$ 26,708,255
200443	GRDA	2/22/17	Regional Reliability	2017 ITPNT	2	\$ 295,000
200442	OPPD	2/22/17	Regional Reliability	2017 ITPNT	1	\$ 3,141,600
200440	WR	2/22/17	Zonal Reliability	2017 ITPNT	1	\$ 1,390,166
200439	WR	2/22/17	Zonal Reliability	2017 ITPNT	1	\$ 767,165
200438	SPS	2/22/17	Regional Reliability	2017 ITPNT	1	Costs included in PID 30914
Total					15	\$ 37,664,936

Table 4: Q2 2017 NTC Withdraw Summary

COMPLETED PROJECTS

Seven Network Upgrades with NTCs and four Generation Interconnection Network Upgrades were verified as completed during the reporting period, totaling an estimated \$342.5 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
11238	Sibley - Mullin Creek 345 kV	TSMO	Priority Projects	\$ 173,500,000
11240	Nebraska City - Mullin Creek 345 kV (OPPD)	OPPD	Priority Projects	\$ 70,361,776
50429	Elm Creek - Summit 345 kV Ckt 1 (WR)	WR	2012 ITP10	\$ 52,996,990
50520	Mingo 345/115 kV Ckt 2 Transformer	SEPC	2015 ITPNT	\$ 8,229,189
51117	Darlington - Roman Nose 138 kV Ckt 1 (OGE)	OGE	HPILS	\$ 12,701,091
51180	Mingo 345 kV Terminal Upgrades	SEPC	2015 ITPNT	\$ 4,151,656
51345	GRDA3 345kV - Tonnece Relays	GRDA	GI Studies	Costs included in UID 51343
51363	Terry Road 345kV Station (TOIF)	AEP	GI Studies	\$ 1,869,249
51364	Terry Road 345kV Station (NU)	AEP	GI Studies	\$ 13,026,889
51524	Comanche Tap - Tosco 69 kV Ckt 1 Rebuild	AEP	2016 ITPNT	\$ 4,365,864
51575	Tap Wichita - Thistle 345 kV Ckt 1 & 2 - GEN-2015-024 Addition (TOIF)	WR	GI Studies	\$ 1,261,334
Total				\$ 342,464,038

Table 5: Q2 2017 Completed Network Upgrades

Upgrade Type	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Total
Regional Reliability	18	14	14	10	56
Regional Reliability	\$169,506,516	\$171,496,818	\$166,199,657	\$102,742,394	\$609,945,385
Transmission Service	1	1	2	0	4
Transmission Service	\$146,944	\$6,072,000	\$561,758	\$0	\$6,780,702
Balanced Portfolio	0	0	0	0	0
Balanced Portfolio	\$0	\$0	\$0	\$0	\$0
High Priority	4	4	0	8	16
High Priority	\$19,711,656	\$22,480,119	\$0	\$534,020,371	\$576,212,146
Economic	0	0	0	0	0
Economic	\$0	\$0	\$0	\$0	\$0
Zonal Reliability	0	0	0	0	0
Zonal Reliability	\$0	\$0	\$0	\$0	\$0
Generation Interconnection	2	4	19	13	38
Generation Interconnection	\$360,000	\$19,938,164	\$64,322,751	\$41,189,932	\$125,810,847

Table 6: Completed Project Summary as of 2nd Quarter 2017

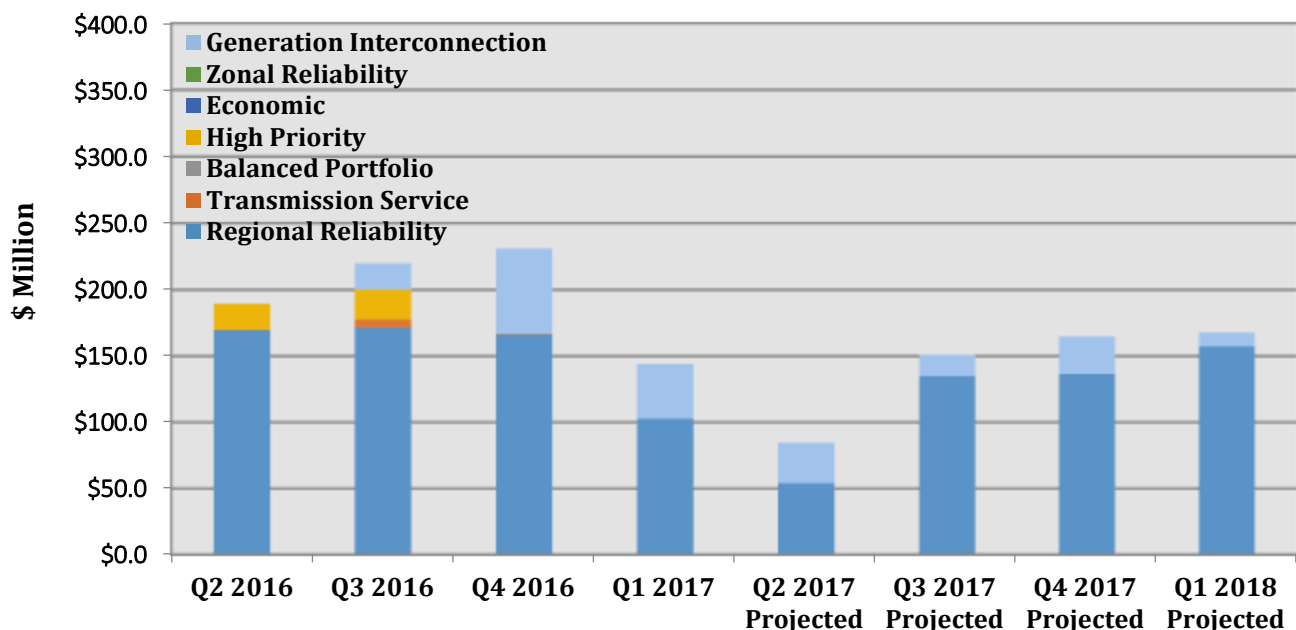


Figure 5: Completed Upgrades by Type per Quarter

Voltage Class	Number of Upgrades	New	Rebuild/Reconductor	Voltage Conversion	Estimated Cost
69	5	5.2	25.2	69.0	\$ 18,591,627.87
115	9	111.7	11.4	0.0	\$ 109,335,042.80
138	7	53.8	26.2	21.8	\$ 63,173,447.37
161	0	0.0	0.0	0.0	\$ -
230	0	0.0	0.0	0.0	\$ -
345	7	376.7	0.0	0.0	\$ 645,787,970.00
Total	28	547.4	62.7	90.8	\$ 836,888,088.04

Table 7: Line Upgrade Summary for Previous 12 Months

Voltage Class	Number of Upgrades	New	Rebuild/Reconductor	Voltage Conversion	Estimated Cost
69	5	4.7	23.9	0.0	\$ 43,541,651.00
115	23	157.9	54.6	6.0	\$ 207,764,258.95
138	4	26.8	16.5	138.0	\$ 42,958,424.97
161	1	0.0	11.1	0.0	\$ 12,705,537.22
230	3	48.8	0.0	0.0	\$ 73,100,000.00
345	1	58.0	0.0	0.0	\$ 86,000,000.00
Total	37.0	296.3	106.1	144.0	\$ 466,069,872.14

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 a cost basis.

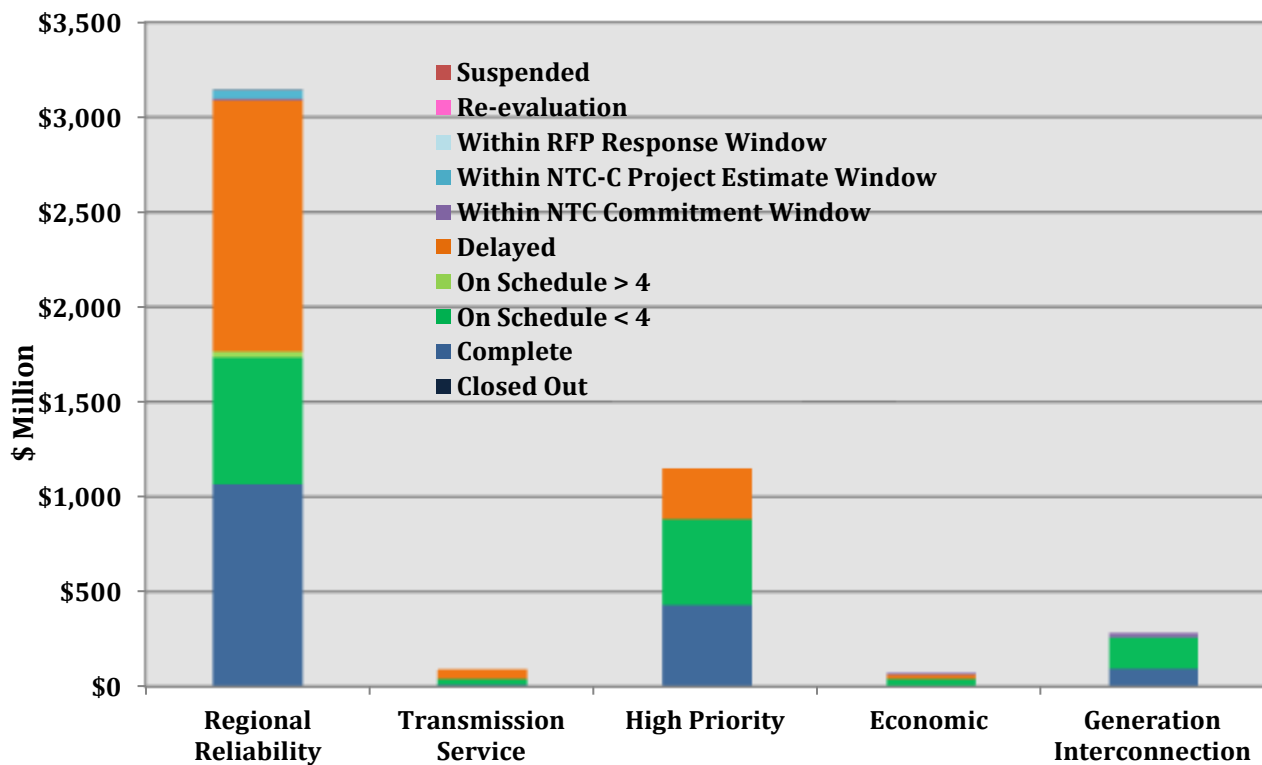


Figure 6: Project Status Summary on a Cost Basis

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 702 miles of new 345 kV transmission line to the SPP system.

The total cost estimate of \$831.4 million for the projects making up the Balanced Portfolio did not change from the previous quarter's total.

All the projects making up the Balanced Portfolio have been completed and placed into service. A final reallocation of Revenue Requirements for deficient Zone(s) will be performed once all actual costs have been reported.

Figure 7 below depicts a historical view of the total estimated cost of the Balanced Portfolio. Table 9 provides a project summary of the projects making up the Balanced Portfolio.

As of this report, all Balanced Portfolio upgrades are completed and have been closed out. This section will not be carried forward in future reports.

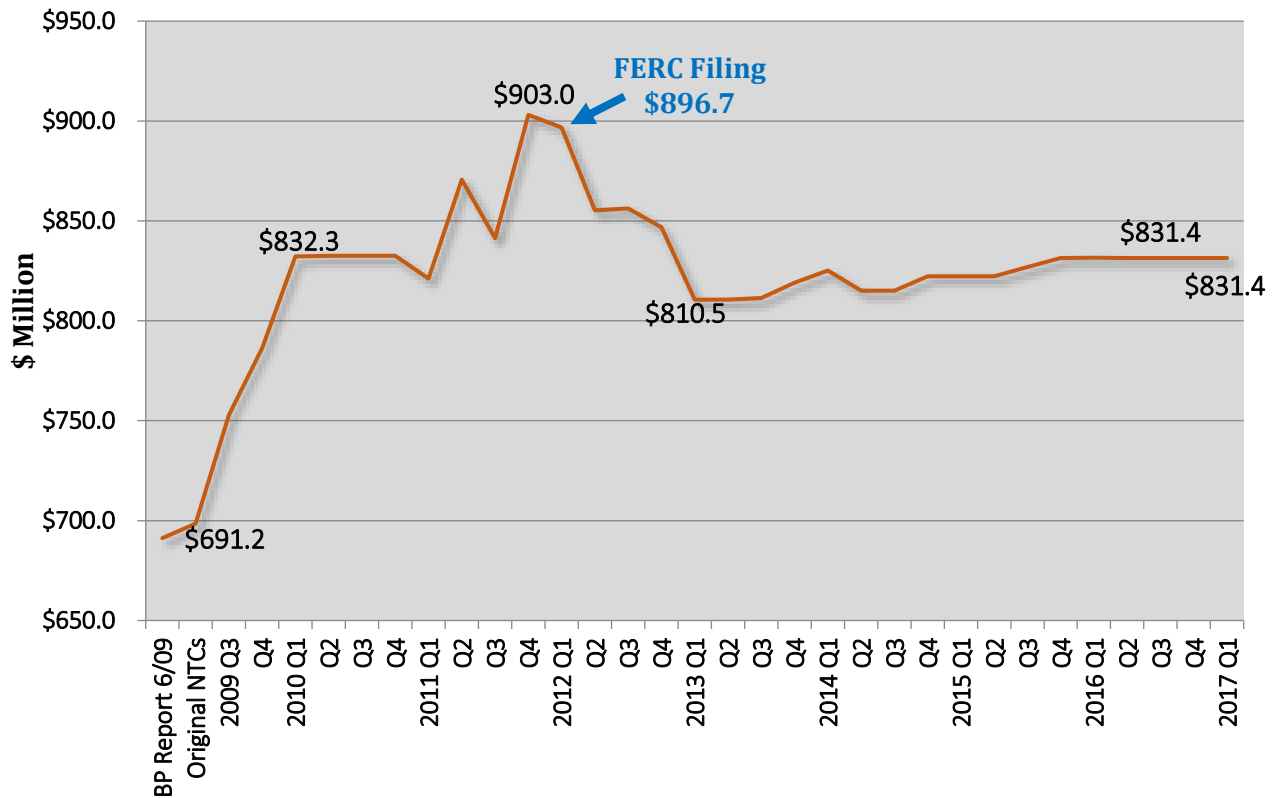


Figure 7: Balanced Portfolio Cost Estimate Trend

Project ID(s)	Project Owner(s)	Project Name	Line Length	Study Estimates	Q4 2016 Cost Estimates	Q1 2017 Cost Estimates	Var. %
705/709	WFEC/OGE	Gracemont Substation 345 kV	N/A	\$8,000,000	\$14,859,014	\$14,859,014	0.0%
707/708	ITCGP/NPPD	Spearville - Post Rock - Axtell 345 kV	226.9	\$236,557,015	\$206,798,467	\$206,798,467	0.0%
698/699	OGE/GRDA	Sooner - Cleveland 345 kV	36	\$33,530,000	\$50,269,871	\$50,269,871	0.0%
702	KCPL	Swissvale - Stilwell Tap 345 kV	N/A	\$2,000,000	\$2,875,727	\$2,875,727	0.0%
700	OGE	Seminole - Muskogee 345 kV	118	\$129,000,000	\$163,456,250	\$163,456,250	0.0%
701/704	OGE/SPS	Tuco - Woodward 345 kV	290.1	\$227,727,500	\$330,158,871	\$330,158,871	0.0%
703	GMO/KCPL	Iatan - Nashua 345 kV	30.9	\$54,444,000	\$62,949,252	\$62,949,252	0.0%
Total			701.9	\$691,258,515	\$831,367,452	\$831,367,452	0.0%

Table 9: Balanced Portfolio Cost Summary

PRIORITY PROJECTS

In April 2010, the Board 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 were estimated to add 291 miles of new single circuit 345 kV transmission line and 435 miles of double circuit 345 kV transmission to the SPP region.

In October 2010, the Board 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 of \$1.37 billion for the projects included in the Priority Projects report increased by 4.4% from the previous quarter's total.

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.

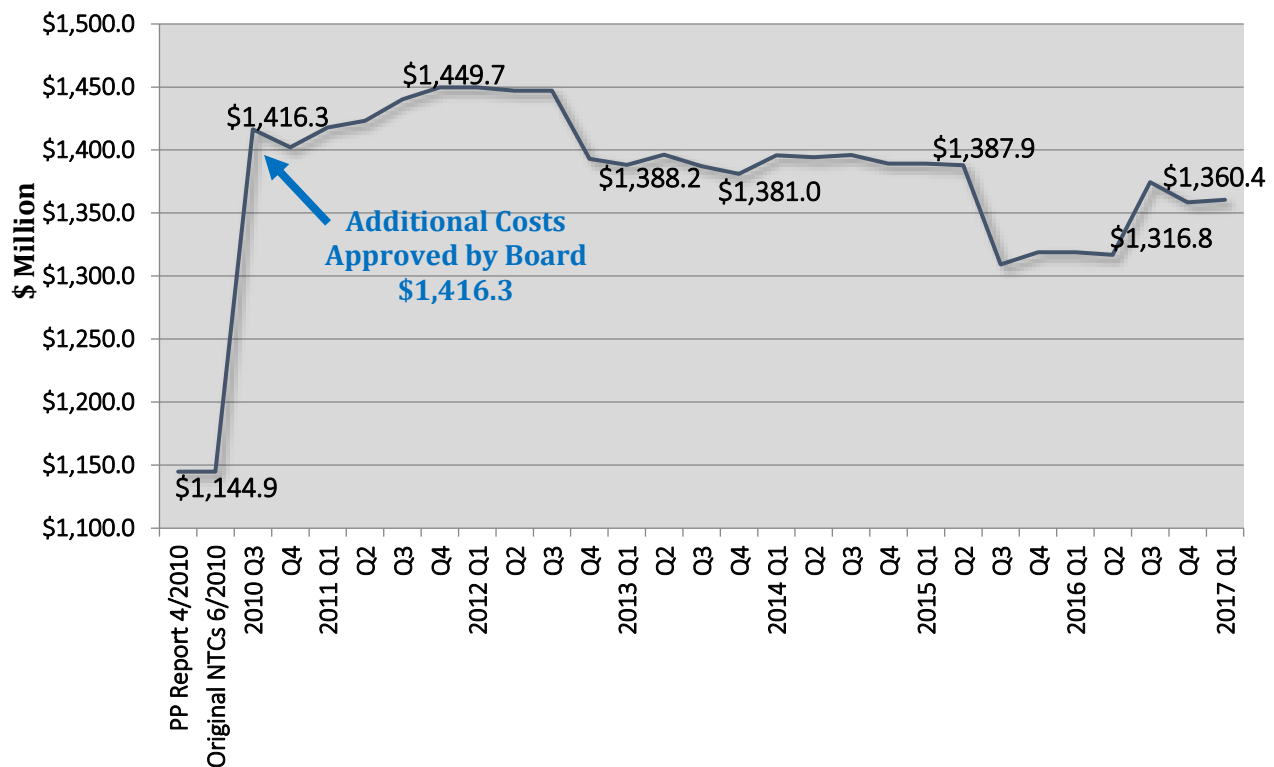


Figure 8: Priority Project Cost Estimate Trend

Project ID(s)	Project Owner (s)	Project	Est. Line Length	BOD Approved Estimates (10/2010)	Q4 2016 Cost Estimates	Q1 2017 Cost Estimates	Q4 v. Q1 Var. %
937	AEP	Tulsa Power Station 138 kV Reactor	N/A	\$842,847	\$614,753	\$614,753	0.0%
940/941	SPS/OGE	Hitchland – Woodward District 345 kV Dbl Ckt	128.8	\$221,572,283	\$229,667,207	\$229,797,229	0.1%
942/943	PW/OGE	Thistle – Woodward District 345 kV Dbl Ckt	106.6	\$201,940,759	\$185,315,142	\$185,403,885	0.0%
945	ITCGP	Spearville – Ironwood – Clark Co. – Thistle 345 kV Dbl Ckt	122.5	\$293,235,000	\$316,862,107	\$318,469,400	0.5%
946	PW/WR	Thistle – Wichita 345 kV Dbl Ckt	77.5	\$163,488,000	\$119,817,694	\$120,016,474	0.2%
936	AEP	Valliant – NW Texarkana 345 kV	76.3	\$131,451,250	\$185,751,250	\$185,751,250	0.0%
938/939	OPPD/G MO	Nebraska City – Mullin Creek – Sibley 345 kV	215	\$403,740,000	\$320,361,776	\$320,361,776	0.0%
Total			726.7	\$1,416,270,139	\$1,358,389,929	\$1,360,414,767	0.1%

Table 10: Priority Projects Summary

Project ID	Project Name	Projected In-Service Date	Engineering	Siting and Routing	Environmental Studies	Permits	Material Procurement	Construction	
936	Valliant – NW Texarkana 345 kV	12/16/2016	C	C	C	C	C	IP	C Complete
938	Nebraska City – Mullin Creek – Sibley 345 kV (TSMO)	12/31/2016	C	C	C	C	C	IP	IP In Progress
939	Nebraska City – Mullin Creek – Sibley 345 kV (OPPD)	12/31/2016	C	C	C	C	C	C	NS Not Started
									N/A Not Applicable

Table 11: Priority Projects Construction Status

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.

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

Project Cost Working Group did not review any out-of-bandwidth projects in this reporting period.

RESPONSIVENESS REPORT

Table 14 and Figures 9 and 10 provide insight into the responsiveness of DTOs constructing Network Upgrades within SPP in the Quarterly Project Tracking Report for Q2 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 %	Number of ISD Changes	ISD Change %	Number of Cost Changes	Cost Change %
AEP	59	59	100%	7	12%	0	0%
BEPC	24	8	33%	1	4%	0	0%
GMO	2	2	100%	0	0%	0	0%
GRDA	11	7	64%	0	0%	0	0%
ITCGP	8	0	0%	0	0%	0	0%
KCPL	6	6	100%	2	33%	0	0%
LES	0	0	0%	0	0%	0	0%
MIDW	9	0	0%	0	0%	0	0%
MKEC	7	0	0%	0	0%	0	0%
NPPD	37	20	54%	0	0%	0	0%
OGE	45	6	13%	6	13%	0	0%
OPPD	14	14	100%	1	7%	0	0%
SPS	171	169	99%	2	1%	10	6%
TSMO	7	7	100%	1	14%	0	0%
WFEC	36	2	6%	2	6%	0	0%
WR	33	33	100%	2	6%	4	12%
Total	481	335	70%	26	5%	14	3%

Table 14: Responsiveness Summary by Project Owner

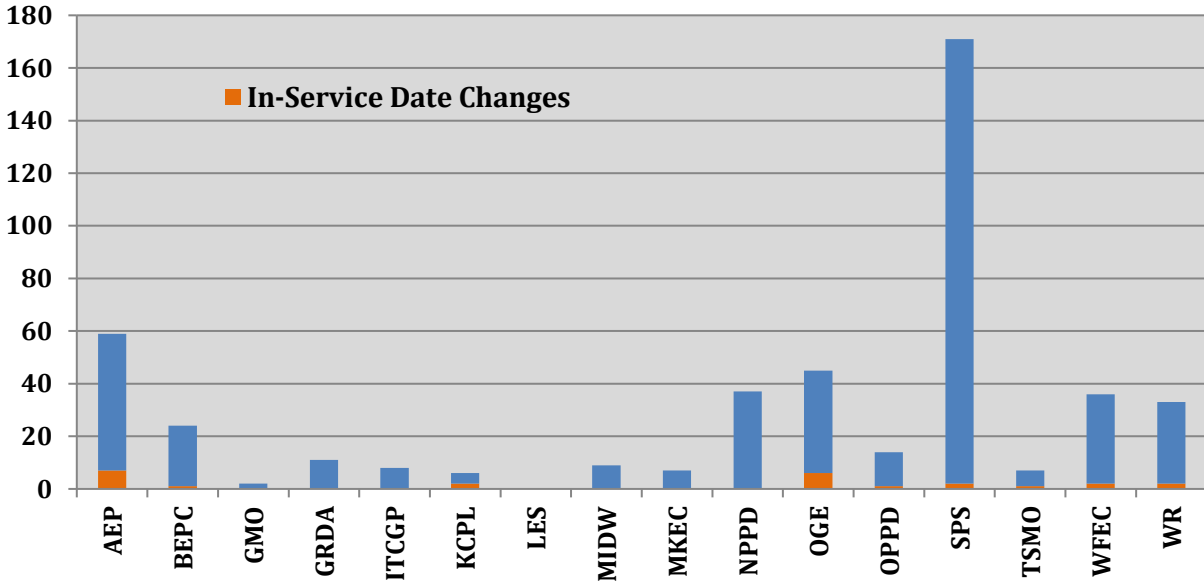


Figure 9: In-Service Date Changes by Project Owner

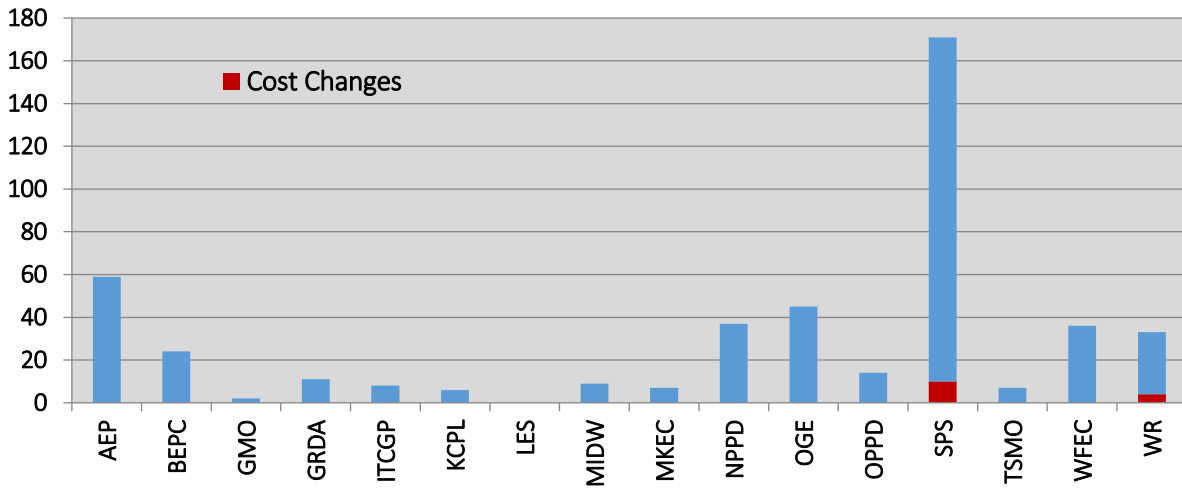


Figure 10: Cost Changes by Project Owner

APPENDIX 1

{See accompanying list of active Applicable Projects}