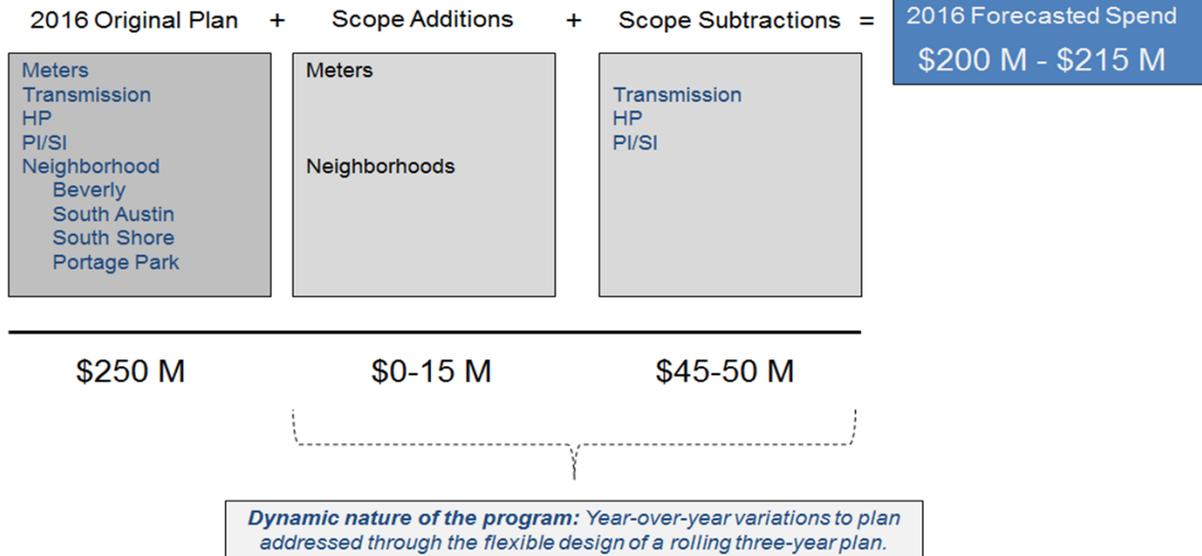


## System Modernization Program (SMP)

### Preliminary Report

**Data Date:**  
Month-end June, 2016  
**Version History:** 1.0

The 2016 plan has an original budget of \$250 million. Based on planning improvements, the current pace of construction, and scope changes, Peoples Gas expects actual spend to be between \$200-\$215 million. These variations are addressed by a rolling three year plan that provides flexibility to accommodate year-over-year fluctuations as a result of the dynamic nature of the program.



#### Additional References

Appendix A

For neighborhood rankings criteria, refer to page 4 in the Appendix to the SMP Three-Year Plan.

#### Sources

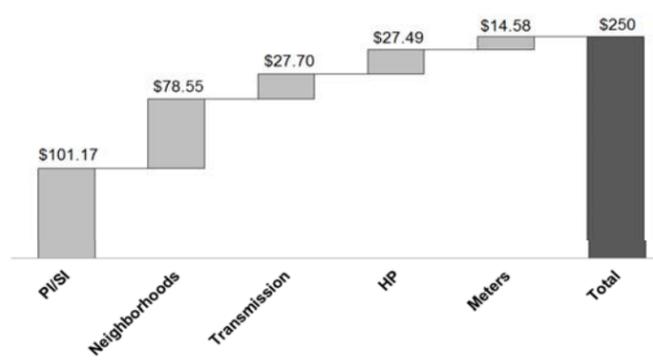
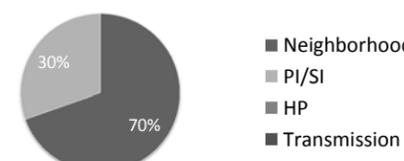
The data illustrated in this report is sourced from Peoples Gas' SMP Three-Year Plan as well as the 2016 Capital Construction baseline. The plan detailed in this report was developed in the fourth quarter of 2015.

The data in this report is not derived from Rider QIP filings, which are based on costs associated with plant in service.

**System Modernization Program**  
2016 Summary

Data Date:  
Month-end June, 2016  
Version History: 1.0

All costs and quantities reflected within this report are capital only.

2016 Proposed Program Budget (\$M)		SMP 2016 Project Breakdown (June Month-End Actuals vs. Planned To Date)																							
		<b>1 Neighborhood Program (AMRP)<sup>1</sup></b>			<b>3 High Pressure (HP) Installation Program<sup>1,2,3</sup></b>																				
Neighborhood	Main Install	Actual-to-date Planned-to-date	\$13.82 M \$13.04 M	7.6 miles 5.4 miles	\$1.81 M / mile \$2.40 M / mile	HP	Main Install	Actual-to-date Planned-to-date	\$1.55 M \$8.54 M	0.0 miles 0.6 miles	Pending Qty \$13.30 M / mile														
	Main Retirement	Actual-to-date Planned-to-date	\$1.93 M \$1.82 M	15.6 miles 41.1 miles	\$0.12 M / mile \$0.04 M / mile		Main Retirement	Actual-to-date Planned-to-date	\$0.00 M \$0.00 M	0.0 miles 0.2 miles	Pending Qty N/A														
	Service Install	Actual-to-date Planned-to-date	\$3.55 M \$3.35 M	623 services 1098 services	\$5,705 / service \$3,054 / service		Service Install	Actual-to-date Planned-to-date	\$0.01 M \$0.03 M	0 services 0 services	Pending Qty N/A														
	Service Retirement	Actual-to-date Planned-to-date	\$2.56 M \$2.42 M				Service Retirement	Actual-to-date Planned-to-date	\$0.00 M \$0.00 M																
	Restoration	Actual-to-date Planned-to-date	\$13.16 M \$12.41 M				Restoration	Actual-to-date Planned-to-date	\$0.02 M \$0.29 M																
<b>Meters</b>		<b>2 Public Improvement (PI) / System Improvement (SI)<sup>1,4</sup></b>			<b>4 Transmission Upgrades<sup>1,2</sup></b>																				
<table border="1"> <thead> <tr> <th>Meter Install</th> <th>YTD Cost</th> <th>YTD Quantities</th> <th>\$ / Meter</th> </tr> </thead> <tbody> <tr> <td></td> <td>\$9.62 M</td> <td>7628 meters</td> <td>\$ 1,260</td> </tr> <tr> <td>Planned-to-date</td> <td>\$5.96 M</td> <td>5964 meters</td> <td>\$ 1,000</td> </tr> </tbody> </table> 		Meter Install	YTD Cost	YTD Quantities	\$ / Meter		\$9.62 M	7628 meters	\$ 1,260	Planned-to-date	\$5.96 M	5964 meters	\$ 1,000	PI / SI	Main Install	Actual-to-date Planned-to-date	\$20.80 M \$29.06 M	8.9 miles 13.1 miles	\$2.33 M / mile \$2.22 M / mile	Transmission	Main Install	Actual-to-date Planned-to-date	\$1.57 M \$4.46 M	0.0 miles 0.1 miles	TBD N/A
Meter Install	YTD Cost	YTD Quantities	\$ / Meter																						
	\$9.62 M	7628 meters	\$ 1,260																						
Planned-to-date	\$5.96 M	5964 meters	\$ 1,000																						
Main Retirement	Actual-to-date Planned-to-date	\$2.84 M \$3.97 M	5.3 miles 6.7 miles	\$0.53 M / mile \$0.59 M / mile	Main Retirement	Actual-to-date Planned-to-date	\$0.00 M \$0.00 M	0.0 miles 0.0 miles	TBD N/A																
Service Install	Actual-to-date Planned-to-date	\$2.42 M \$3.39 M	758 services 1157 services	\$3,198 / service \$2,928 / service	Restoration	Actual-to-date Planned-to-date	\$0.01 M \$0.04 M																		
Service Retirement	Actual-to-date Planned-to-date	\$0.75 M \$1.05 M																							
Restoration	Actual-to-date Planned-to-date	\$4.99 M \$6.97 M																							

**Assumptions:**  
1. Cost per mile or cost per service are for a partial year and may not be indicative of program performance.  
2. HP and Transmission work involve minimal amounts of main installation / replacement mileage; therefore, cost per mile metrics are not appropriate.  
3. For HP, planned dollars include vault installations and projects without known footage at the time of plan development.  
4. PI/SI work reflects revised bidding strategy for contract pricing.

# System Modernization Program

## Neighborhood Program

Data Date:  
Month-end June, 2016  
Version History: 1.0

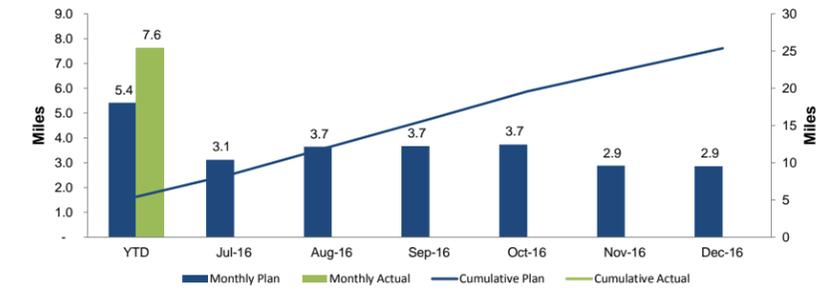
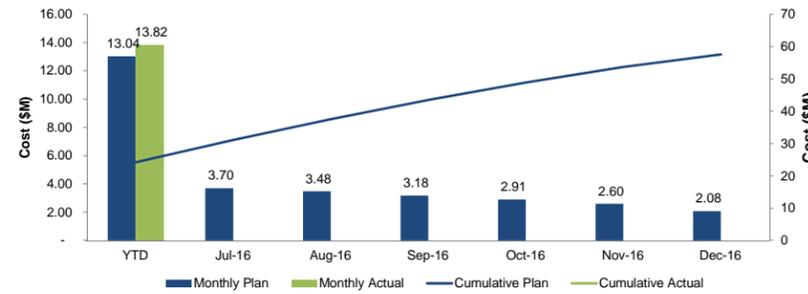
Neighborhood Replacement Program – Projects that Peoples Gas ranks, designs, and constructs based on the most at risk system components identified by the company’s neighborhood ranking tool . Neighborhood sequencing in the plan is also affected by coordination with other agencies as well as timeliness of permits and authorizations.

### Main Construction

Main Construction - Projected vs Actual Cost (\$M)

Main Construction - Projected vs Actual Mileage

	Cost	Quantity	Unit Cost
Main Installment Actual-to-date	\$13.82 M	7.6 miles	\$1.81 M / mile
Planned-to-date	\$13.04 M	5.4 miles	\$2.40 M / mile
Main Retirement Actual-to-date	\$1.93 M	15.6 miles	\$0.12 M / mile
Planned-to-date	\$1.82 M	41.1 miles	\$0.04 M / mile



Activity		YTD (\$M)	Jul-16 (\$M)	Aug-16 (\$M)	Sep-16 (\$M)	Oct-16 (\$M)	Nov-16 (\$M)	Dec-16 (\$M)	Total (\$M)
Main Installment	PLAN	13.04	3.70	3.48	3.18	2.91	2.60	2.08	30.99
	ACT	13.82	-	-	-	-	-	-	13.82
Main Retirement	PLAN	1.82	0.52	0.49	0.44	0.41	0.36	0.29	4.32
	ACT	1.93	-	-	-	-	-	-	1.93

Activity		YTD (mi)	Jul-16 (mi)	Aug-16 (mi)	Sep-16 (mi)	Oct-16 (mi)	Nov-16 (mi)	Dec-16 (mi)	Total (mi)
Main Installment	PLAN	5.4	3.1	3.7	3.7	3.7	2.9	2.9	25.4
	ACT	7.6	-	-	-	-	-	-	7.6
Main Retirement	PLAN	41.1	11.5	10.0	9.5	5.2	4.6	4.6	86.5
	ACT	15.6	-	-	-	-	-	-	15.6

\*Graph representative of Main Installment costs only

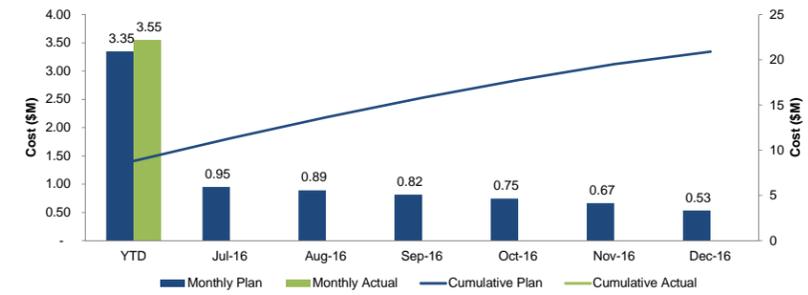
\*Graph representative of Main Installment mileage only

### Service Construction

Service Construction - Projected vs Actual Cost (\$M)

Service Construction - Projected vs Actual Services

	Cost	Quantity	Unit Cost
Service Installment Actual-to-date	\$3.55 M	623 services	\$5,705 / service
Planned-to-date	\$3.35 M	1098 services	\$3,054 / service
Service Retirement Actual-to-date	\$2.56 M		
Planned-to-date	\$2.42 M		



Activity		YTD (\$M)	Jul-16 (\$M)	Aug-16 (\$M)	Sep-16 (\$M)	Oct-16 (\$M)	Nov-16 (\$M)	Dec-16 (\$M)	Total (\$M)
Service Installment	PLAN	3.35	0.95	0.89	0.82	0.75	0.67	0.53	7.97
	ACT	3.55	-	-	-	-	-	-	3.55
Service Retirement	PLAN	2.42	0.69	0.64	0.59	0.54	0.48	0.39	5.74
	ACT	2.56	-	-	-	-	-	-	2.56

Activity		YTD (services)	Jul-16 (services)	Aug-16 (services)	Sep-16 (services)	Oct-16 (services)	Nov-16 (services)	Dec-16 (services)	Total (services)
Service Installment	PLAN	1,098	271	304	281	270	230	230	2,685
	ACT	623	-	-	-	-	-	-	623

\*Graph representative of Service Installment costs only

### Restoration

Restoration - Projected vs Actual Spend (\$M)

	Cost
Restoration Actual-to-date	\$13.16 M
Planned-to-date	\$12.41 M

Activity		YTD (\$M)	Jul-16 (\$M)	Aug-16 (\$M)	Sep-16 (\$M)	Oct-16 (\$M)	Nov-16 (\$M)	Dec-16 (\$M)	Total (\$M)
Restoration	PLAN	12.41	3.53	3.31	3.03	2.77	2.47	1.98	29.50
	ACT	13.16	-	-	-	-	-	-	13.16

**System Modernization Program**  
*Public Improvement (PI) / System Improvement (SI)*

Data Date:  
Month-end June, 2016  
Version History: 1.0

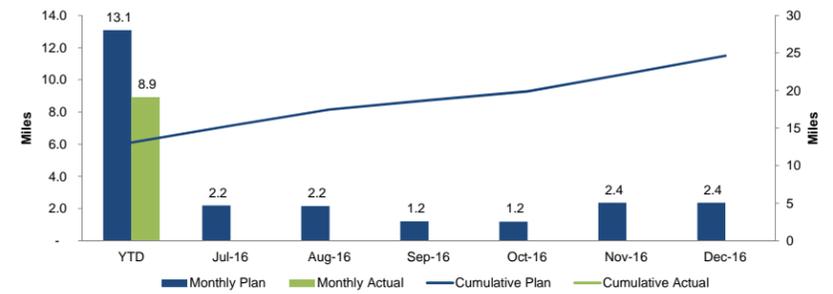
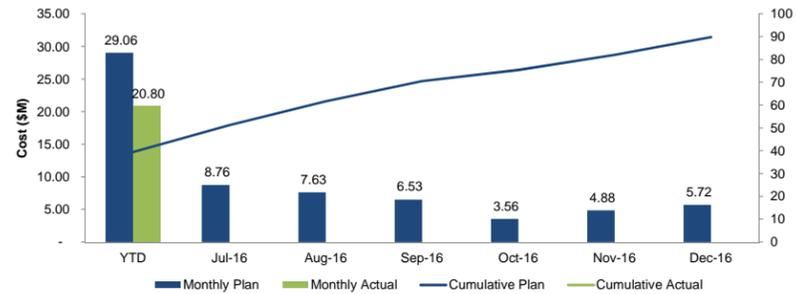
Projects similar to the Neighborhood Replacement Program, but other factors require the upgrade or relocation of existing vulnerable material. In most cases Peoples Gas is responding to a third party request to relocate or replace facilities due to conflicts with a PI project or addressing capacity or reliability concerns.

**Main Construction**

Main Construction - Projected vs Actual Cost (\$M)

Main Construction - Projected vs Actual Mileage

	Cost	Quantity	Unit Cost
Main Installation Actual-to-date	\$20.80 M	8.9 miles	\$2.33 M / mile
Planned-to-date	\$29.06 M	13.1 miles	\$2.22 M / mile
Main Retirement Actual-to-date	\$2.84 M	5.3 miles	\$0.53 M / mile
Planned-to-date	\$3.97 M	6.7 miles	\$0.59 M / mile



Activity		YTD (\$M)	Jul-16 (\$M)	Aug-16 (\$M)	Sep-16 (\$M)	Oct-16 (\$M)	Nov-16 (\$M)	Dec-16 (\$M)	Total (\$M)
Main Installation	PLAN	29.06	8.76	7.63	6.53	3.56	4.88	5.72	66.15
	ACT	20.80	-	-	-	-	-	-	20.80
Main Retirement	PLAN	3.97	1.20	1.04	0.89	0.49	0.67	0.78	9.03
	ACT	2.84	-	-	-	-	-	-	2.84

Activity		YTD (mi)	Jul-16 (mi)	Aug-16 (mi)	Sep-16 (mi)	Oct-16 (mi)	Nov-16 (mi)	Dec-16 (mi)	Total (mi)
Main Installation	PLAN	13.1	2.2	2.2	1.2	1.2	2.4	2.4	24.6
	ACT	8.9	-	-	-	-	-	-	8.9
Main Retirement	PLAN	6.7	2.4	2.3	1.8	1.8	2.3	2.3	19.5
	ACT	5.3	-	-	-	-	-	-	5.3

\*Graph representative of Main Installation costs only

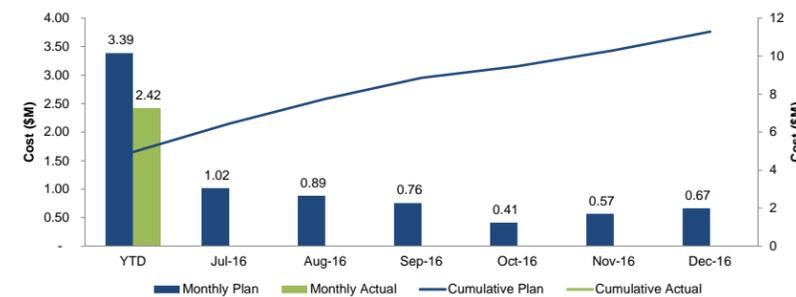
\*Graph representative of Main Installation mileage only

**Service Construction**

Service Construction - Projected vs Actual Cost (\$M)

Service Construction - Projected vs Actual Services

	Cost	Quantity	Unit Cost
Service Installation Actual-to-date	\$2.42 M	758 services	\$3,198 / service
Planned-to-date	\$3.39 M	1157 services	\$2,928 / service
Service Retirement Actual-to-date	\$0.75 M		
Planned-to-date	\$1.05 M		



Activity		YTD (\$M)	Jul-16 (\$M)	Aug-16 (\$M)	Sep-16 (\$M)	Oct-16 (\$M)	Nov-16 (\$M)	Dec-16 (\$M)	Total (\$M)
Service Installation	PLAN	3.39	1.02	0.89	0.76	0.41	0.57	0.67	7.71
	ACT	2.42	-	-	-	-	-	-	2.42
Service Retirement	PLAN	1.05	0.32	0.28	0.24	0.13	0.18	0.21	2.39
	ACT	0.75	-	-	-	-	-	-	0.75

Activity		YTD (services)	Jul-16 (services)	Aug-16 (services)	Sep-16 (services)	Oct-16 (services)	Nov-16 (services)	Dec-16 (services)	Total (services)
Service Installation	PLAN	1,157	235	235	136	136	240	240	2,378
	ACT	758	-	-	-	-	-	-	758

\*Graph representative of Service Installation costs only

**Restoration**

Restoration - Projected vs Actual Spend (\$M)

	Cost
Main Restoration Actual-to-date	\$4.99 M
Planned-to-date	\$6.97 M

Activity		YTD (\$M)	Jul-16 (\$M)	Aug-16 (\$M)	Sep-16 (\$M)	Oct-16 (\$M)	Nov-16 (\$M)	Dec-16 (\$M)	Total (\$M)
Restoration	PLAN	6.97	2.10	1.83	1.57	0.85	1.17	1.37	15.86
	ACT	4.99	-	-	-	-	-	-	4.99

**System Modernization Program**  
**High Pressure (HP) Installation Program**

Data Date:  
Month-end June, 2016  
Version History: 1.0

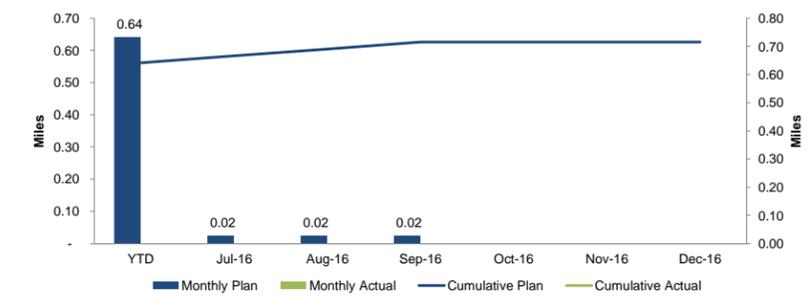
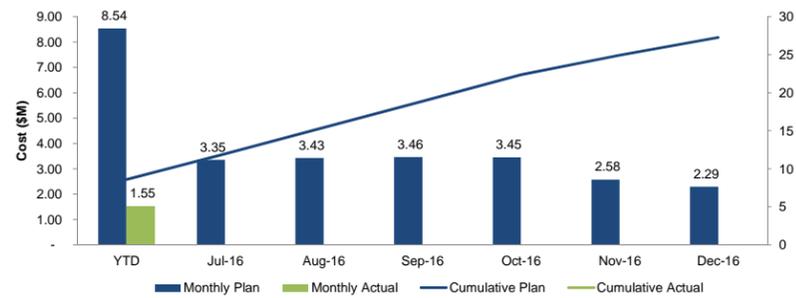
Projects that support the upgrade of low pressure (LP) distribution facilities to medium pressure (MP) facilities. The HP systems are required to provide an adequate supply of natural gas into the newly installed MP systems.

**Main Construction**

Main Construction - Projected vs Actual Cost (\$M)

Main Construction - Projected vs Actual Mileage

	Cost	Quantity	Unit Cost
Main Installment Actual-to-date	\$1.55 M	0.0 miles	Pending Qty
Planned-to-date	\$8.54 M	0.6 miles	\$13.30 M / mile
Main Retirement Actual-to-date	\$0.00 M	0.0 miles	Pending Qty
Planned-to-date	\$0.00 M	0.2 miles	N/A <sup>1</sup>



Activity		YTD (\$M)	Jul-16 (\$M)	Aug-16 (\$M)	Sep-16 (\$M)	Oct-16 (\$M)	Nov-16 (\$M)	Dec-16 (\$M)	Total (\$M)
Main Installment	PLAN	8.54	3.35	3.43	3.46	3.45	2.58	2.29	27.09
	ACT	1.55	-	-	-	-	-	-	1.55
Main Retirement	PLAN	-	-	-	-	-	-	-	-
	ACT	-	-	-	-	-	-	-	-

\*Graph representative of Main Installment costs only

Activity		YTD (mi)	Jul-16 (mi)	Aug-16 (mi)	Sep-16 (mi)	Oct-16 (mi)	Nov-16 (mi)	Dec-16 (mi)	Total (mi)
Main Installment	PLAN	0.64	0.02	0.02	0.02	-	-	-	0.72
	ACT	-	-	-	-	-	-	-	-
Main Retirement	PLAN	0.19	0.38	0.38	0.38	-	-	-	1.32
	ACT	-	-	-	-	-	-	-	-

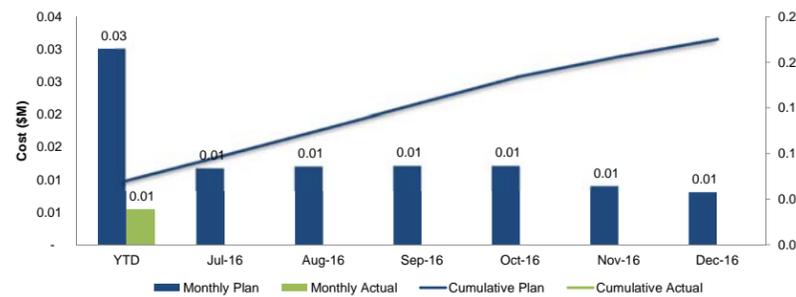
\*Graph representative of Main Installment mileage only

**Service Construction**

Service Construction - Projected vs Actual Cost (\$M)

Service Construction - Projected vs Actual Services

	Cost	Quantity	Unit Cost
Service Installment Actual-to-date	\$0.01 M	0 services	Pending Qty
Planned-to-date	\$0.03 M	0 services	N/A
Service Retirement Actual-to-date	\$0.00 M		
Planned-to-date	\$0.00 M		



Activity		YTD (\$M)	Jul-16 (\$M)	Aug-16 (\$M)	Sep-16 (\$M)	Oct-16 (\$M)	Nov-16 (\$M)	Dec-16 (\$M)	Total (\$M)
Service Installment	PLAN	0.03	0.01	0.01	0.01	0.01	0.01	0.01	0.10
	ACT	0.01	-	-	-	-	-	-	0.01
Service Retirement	PLAN	-	-	-	-	-	-	-	-
	ACT	-	-	-	-	-	-	-	-

\*Graph representative of Service Installment costs only

Activity		YTD (services)	Jul-16 (services)	Aug-16 (services)	Sep-16 (services)	Oct-16 (services)	Nov-16 (services)	Dec-16 (services)	Total (services)
Service Installment	PLAN	-	-	-	1	-	-	-	1
	ACT	-	-	-	-	-	-	-	-

**Restoration**

Restoration - Projected vs Actual Spend (\$M)

	Cost
Main Restoration Actual-to-date	\$0.02 M
Planned-to-date	\$0.29 M

Activity		YTD (\$M)	Jul-16 (\$M)	Aug-16 (\$M)	Sep-16 (\$M)	Oct-16 (\$M)	Nov-16 (\$M)	Dec-16 (\$M)	Total (\$M)
Restoration	PLAN	0.09	0.04	0.04	0.04	0.04	0.03	0.02	0.29
	ACT	0.02	-	-	-	-	-	-	0.02

1. No planned-to-date cost associated with Main Retirement.

4

**System Modernization Program**  
*Transmission Upgrades*

Data Date:  
Month-end June, 2016  
Version History: 1.0

Projects that address the replacement of high-risk HP transmission pipelines and associated facilities as well as establishing records and maximum allowable operating pressures.

**Facility Construction**

**Facility Construction - Projected vs Actual Spend (\$M)**

	Cost	Quantity	Unit Cost
Facility Installment Actual-to-date	\$1.57 M	0.0 miles	TBD
Planned-to-date	\$4.46 M	0.1 miles	N/A <sup>1</sup>
Facility Retirement Actual-to-date	\$0.00 M	0.0 miles	TBD
Planned-to-date	\$0.00 M	0.0 miles	N/A



Activity		YTD (\$M)	Jul-16 (\$M)	Aug-16 (\$M)	Sep-16 (\$M)	Oct-16 (\$M)	Nov-16 (\$M)	Dec-16 (\$M)	Total (\$M)
Main Installment	PLAN	4.46	3.08	5.06	5.95	6.25	1.79	0.89	27.48
	ACT	1.57	-	-	-	-	-	-	1.57
Main Retirement	PLAN	-	-	-	-	-	-	-	-
	ACT	-	-	-	-	-	-	-	-

\*Graph representative of Facility Installment costs only

**Restoration**

**Restoration - Projected vs Actual Spend (\$M)**

	Cost
Restoration Actual-to-date	\$0.01 M
Planned-to-date	\$0.04 M

Activity		YTD (\$M)	Jul-16 (\$M)	Aug-16 (\$M)	Sep-16 (\$M)	Oct-16 (\$M)	Nov-16 (\$M)	Dec-16 (\$M)	Total (\$M)
Restoration	PLAN	0.04	0.02	0.04	0.05	0.05	0.01	0.01	0.22
	ACT	0.01	-	-	-	-	-	-	0.01

1. Under the 2016 transmission upgrades, unit cost is not an appropriate metric as the facilities being built are of disparate types and segments.

# System Modernization Program

## Meters

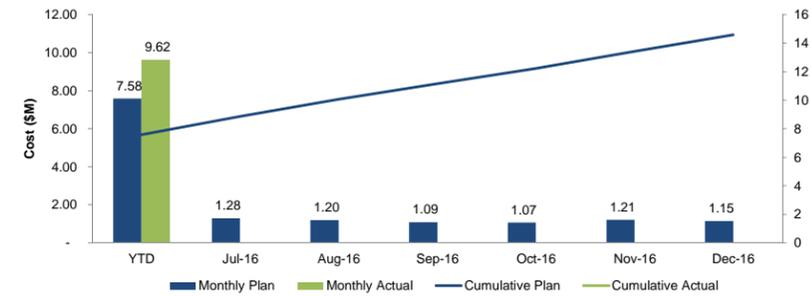
Data Date:  
Month-end June, 2016  
Version History: 1.0

### Meters

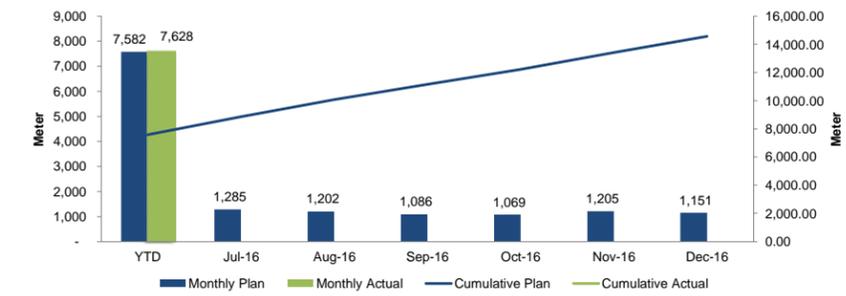
Meters - Projected vs Actual Cost (\$M)

Meters - Projected vs Actual Meter

	Cost	Quantity	Unit Cost
Meters Actual-to-date	\$9.62 M	7628 meters	\$1,260 / meter
Planned-to-date	\$7.58 M	7582 meters	\$1,000 / meter



Activity		YTD (\$M)	Jul-16 (\$M)	Aug-16 (\$M)	Sep-16 (\$M)	Oct-16 (\$M)	Nov-16 (\$M)	Dec-16 (\$M)	Total (\$M)
Meters	PLAN	7.58	1.28	1.20	1.09	1.07	1.21	1.15	14.58
	ACT	9.62	-	-	-	-	-	-	9.62



Activity		YTD (meters)	Jul-16 (meters)	Aug-16 (meters)	Sep-16 (meters)	Oct-16 (meters)	Nov-16 (meters)	Dec-16 (meters)	Total (meters)
Meters	PLAN	7,582	1,285	1,202	1,086	1,069	1,205	1,151	14,579
	ACT	7,628	-	-	-	-	-	-	7,628