

FEI Annual Review of 2018 Rates

Workshop

October 17, 2017



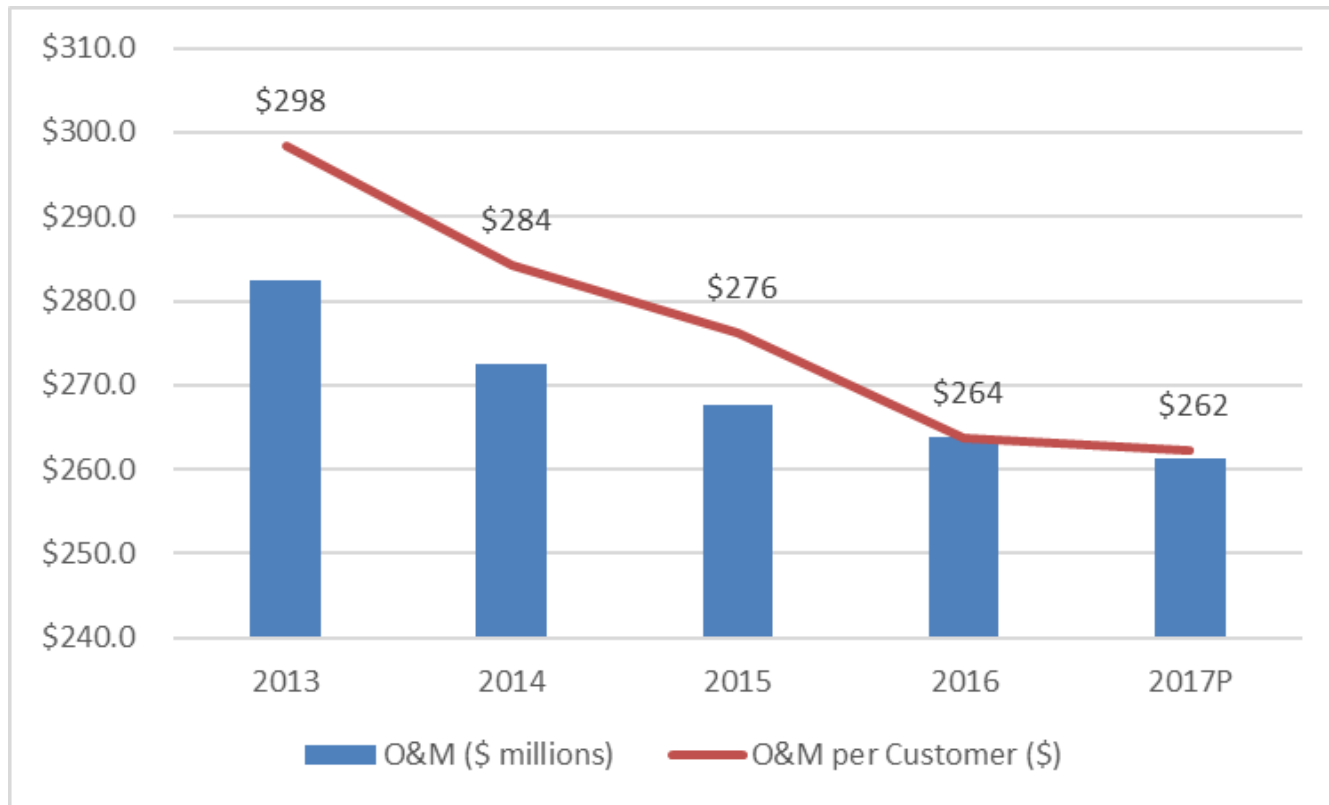
Agenda

PBR Overview	<i>Diane Roy</i>	<i>Vice President, Regulatory Affairs</i>
Revenue Requirements & Rates	<i>Rick Gosselin</i>	<i>Manager, Cost of Service</i>
Demand Forecast	<i>David Bailey</i>	<i>Customer Energy and Forecasting Manager</i>
Tilbury LNG Update	<i>Darren Julyan</i>	<i>Director, Gas Plant Operations & PMO</i>
Capital Expenditures	<i>Diane Roy</i> <i>Jason Wolfe</i> <i>Paul Chernikhowsky</i>	<i>Vice President, Regulatory Affairs</i> <i>Director, Energy Solutions</i> <i>Director, Engineering Services</i>
Service Quality Indicators (SQIs)	<i>James Wong</i> <i>John Himmel</i> <i>Suzana Prpic</i>	<i>Director, Strategic Initiatives & Budgeting</i> <i>Manager, Business Performance</i> <i>Director, Corporate Emergency Management and Security</i>
Open Question Period	<i>All</i>	

Approvals Sought

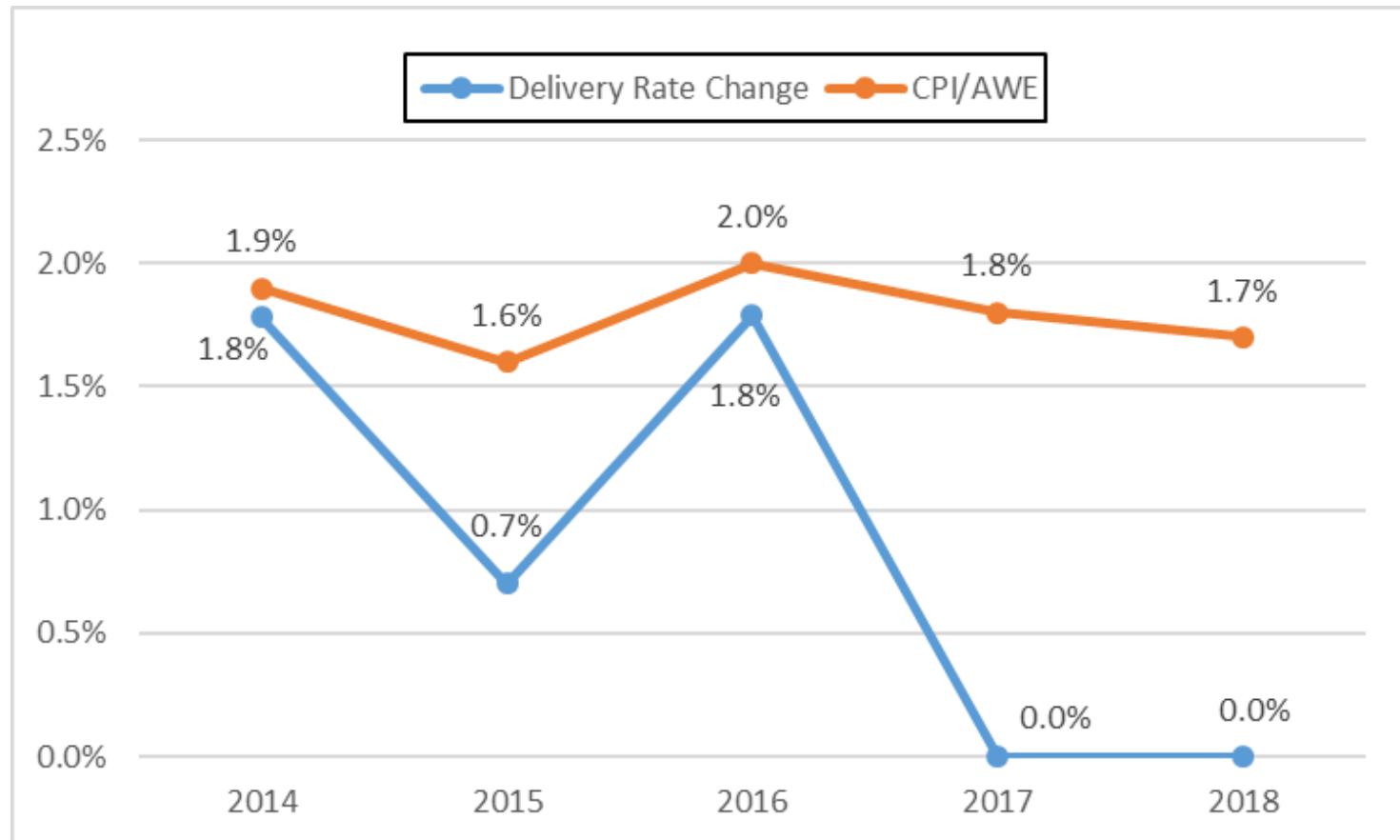
- Delivery rate freeze for 2018, with revenue surplus added to existing Revenue Surplus Deferral account and applied to reduce future rates
- Five deferral account requests:
 - ❑ 2020 Revenue Requirement regulatory proceeding - new
 - ❑ Surrey Operating Agreement regulatory proceeding - new
 - ❑ Cost of Capital Application - three year amortization period
 - ❑ RSDA Phase-in Rider Balancing Account and Amalgamation Regulatory Account – transfer to Residual Delivery Rate Riders account
 - ❑ 2017-2018 Revenue Surplus account – name change
- Biomethane Variance Account Rate Rider for 2018
- Revenue Stabilization Adjustment Mechanism (RSAM) riders for 2018

Summary of PBR Results – O&M



- O&M is trending favourably with O&M per customer decreasing significantly
- \$37.4 million in savings shared with customers through earnings sharing mechanism
- SQIs above threshold each year of the PBR term

Summary of PBR Results – Delivery Rates



Major Initiatives

Name	Implementation			Anticipated O&M Savings			
	Year	Capital	O&M	2014	2015	2016	2017+
Regionalization (Phase 1)	2014/15	\$ 1.3	\$ 0.9	\$ 1.0	\$ 1.0	\$ 1.0	\$ 1.0
Regionalization (Phase 2)	2016	\$ 0.7	\$ 0.8	\$ -	\$ -	\$ 1.1	\$ 1.1
Project Blue Pencil	2014/15	< \$0.3	\$ -	< \$0.1	\$ 1.0	\$ 1.0	\$ 1.0
Review of Technical and Infrastructure Provider	2014/15	\$ 1.5	\$ -	\$ -	\$ 1.8	\$ 2.0	\$ 2.0
Online Service Application	2015/16/17	\$ 1.9	\$ 0.1	\$ -	\$ -	\$ -	\$ 0.05
SAP Integration **	2017/18	\$ 4.2	\$ 0.3	Annual savings of \$0.9 million starting 2019			

* Costs and Savings are expressed in \$ millions.

** SAP Integration costs and savings are shared between FEI and FBC.

Revenue Requirements and Rates

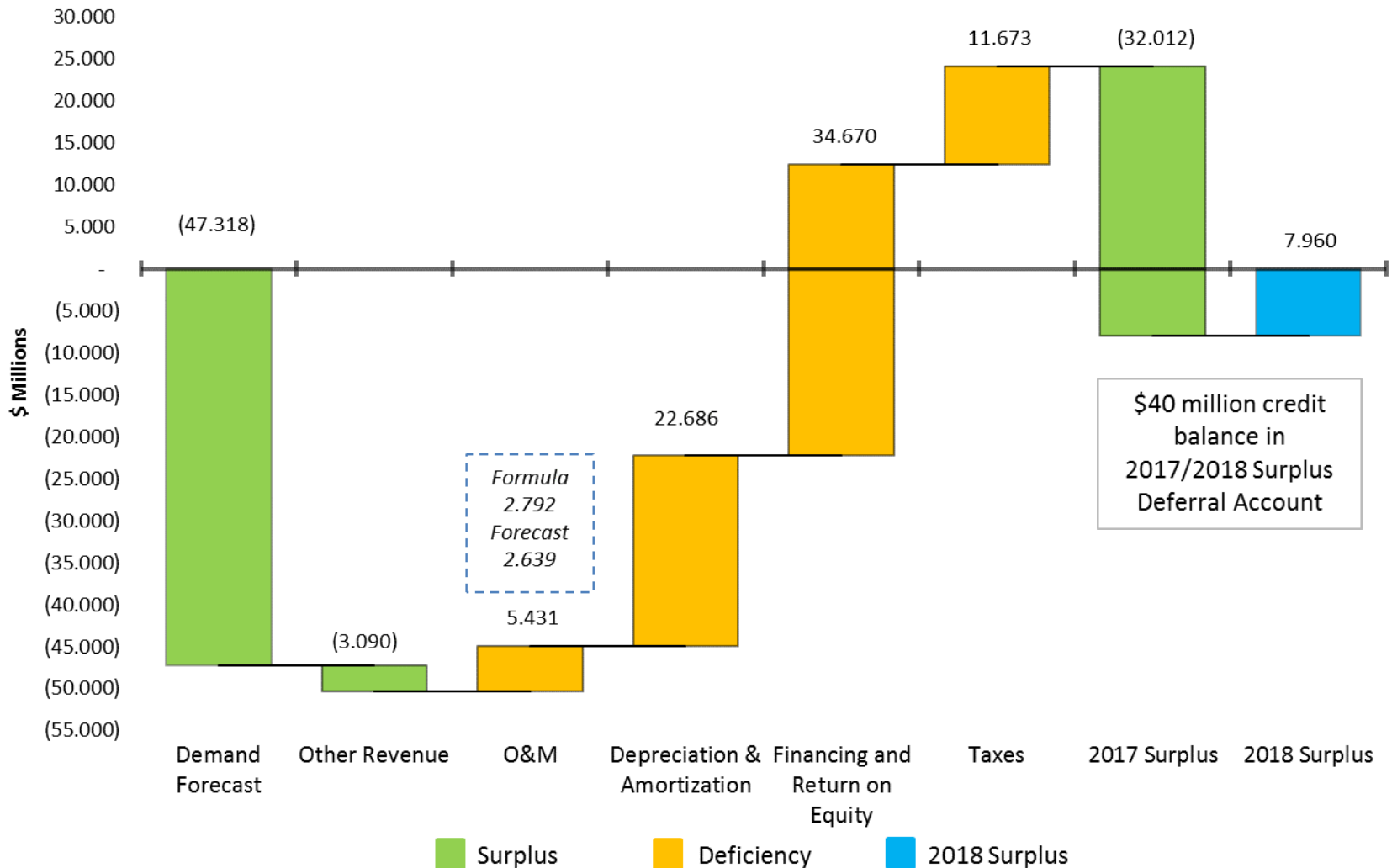
Rick Gosselin, Manager, Cost of Service



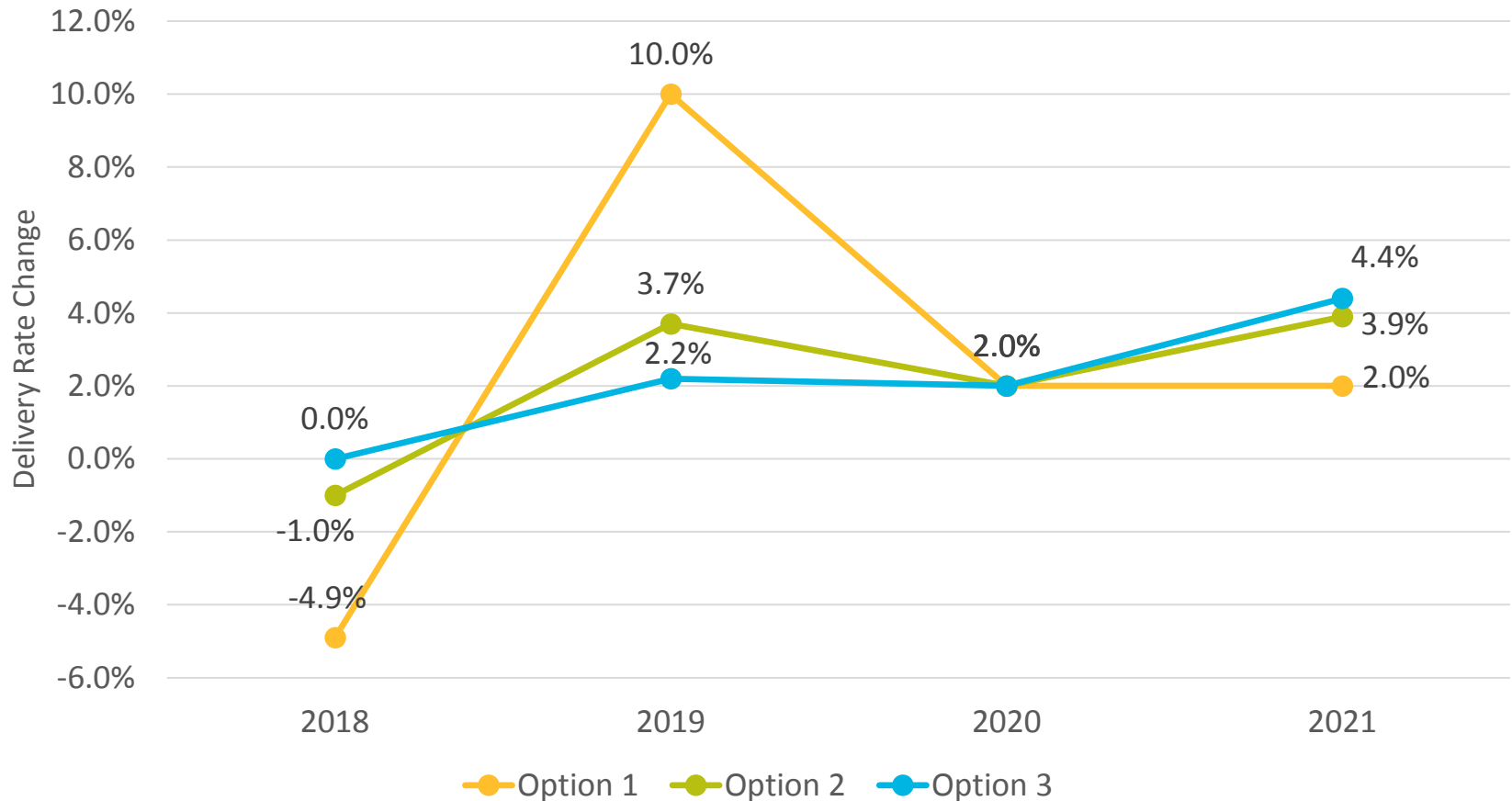
Evidentiary Update September 26, 2017

Evidentiary Update - 2018 Rates			
Line Item	Reference	Revenue Surplus Impact (\$ millions)	Delivery Rate Impact
August 4, 2017 Filing		\$ 3.824	0.48%
Tilbury Completion Date	CEC IR 1.19.2 & BCUC IR 1.17.1	4.181	0.53%
May/June AWE Update	Application, Page 20	(0.045)	-0.01%
September 26, 2017 Evidentiary Update (before Revenue Surplus deferral)		\$ 7.960	1.00%
Deferred Revenue Surplus		(7.960)	-1.00%
September 26, 2017 Evidentiary Update		\$ -	0.00%

Summary of 2018 Surplus



2017/2018 Surplus Amortization Options



Option 1: 2018 rates decrease; amortize 2017 Surplus in 2018

Option 2: 2018 rates decrease; amortize 2017 Surplus in 2019 and 2020

Option 3: Proposed – No 2018 rate change; amortize 2017/2018 Surplus in 2019 and 2020

Demand Forecast

David Bailey, Customer Energy and Forecasting Manager



Demand Forecast

1. Holts Exponential Smoothing (ETS)
Update
2. Overall 2016 Performance
3. Customer Additions Variances
4. 2016 Use Rate Increase

Forecast Method Reviewed in Annual Review for 2017 Rates

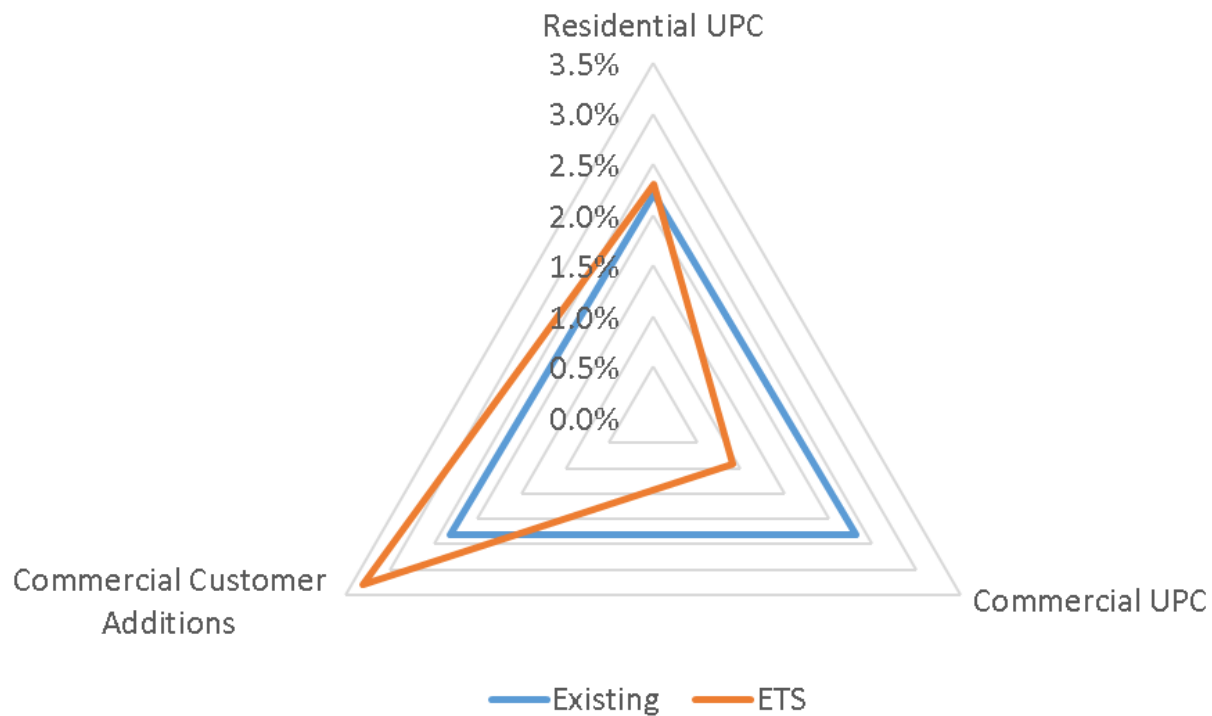
- One alternative method (ETS) performed well, but requires further study
- Order G-182-16:

“The Panel agrees with FEI that the addition of more years of data points in the analysis of the ETS method will provide more solid evidence of the efficacy of this method as a possible alternative going into the future.

Therefore, the Panel accepts FEI's proposal to continue using its existing forecasting method at this time while also continuing to test the ETS method and directs FEI to report the Holt's Exponential Smoothing (ETS) test forecasts and the aggregate MAPE results as part of its Annual Review for 2018 Delivery Rates Application and in all remaining annual review applications.”

ETS Method Update

Method Comparison 2012-2016
Demand Variance Aggregate MAPE

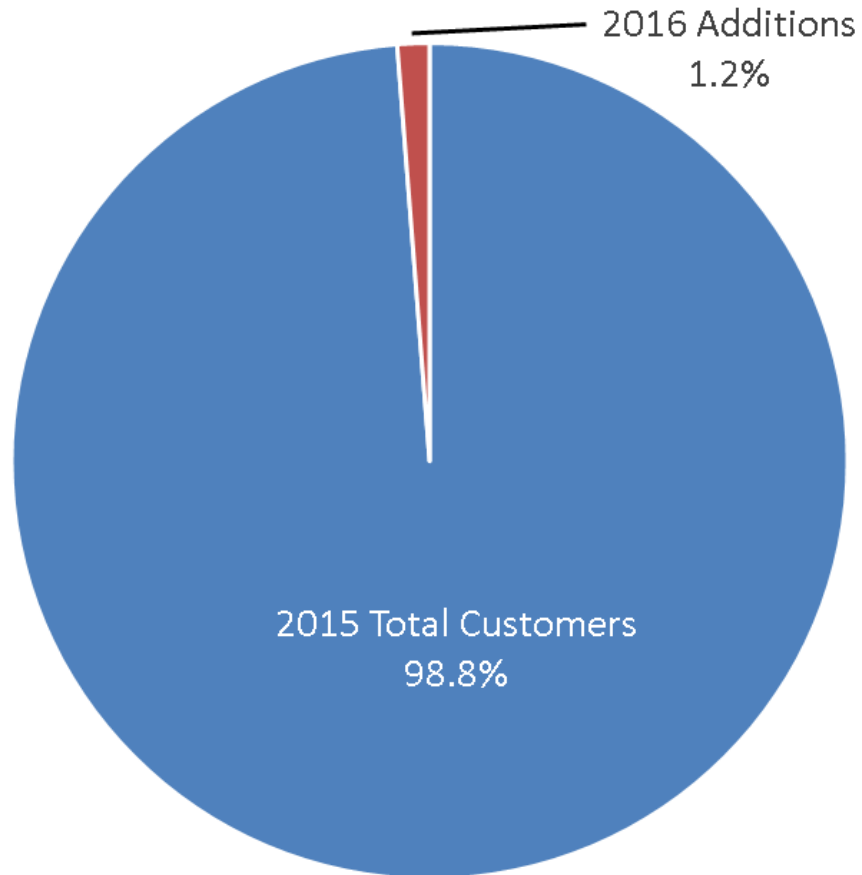


Overall 2016 Performance

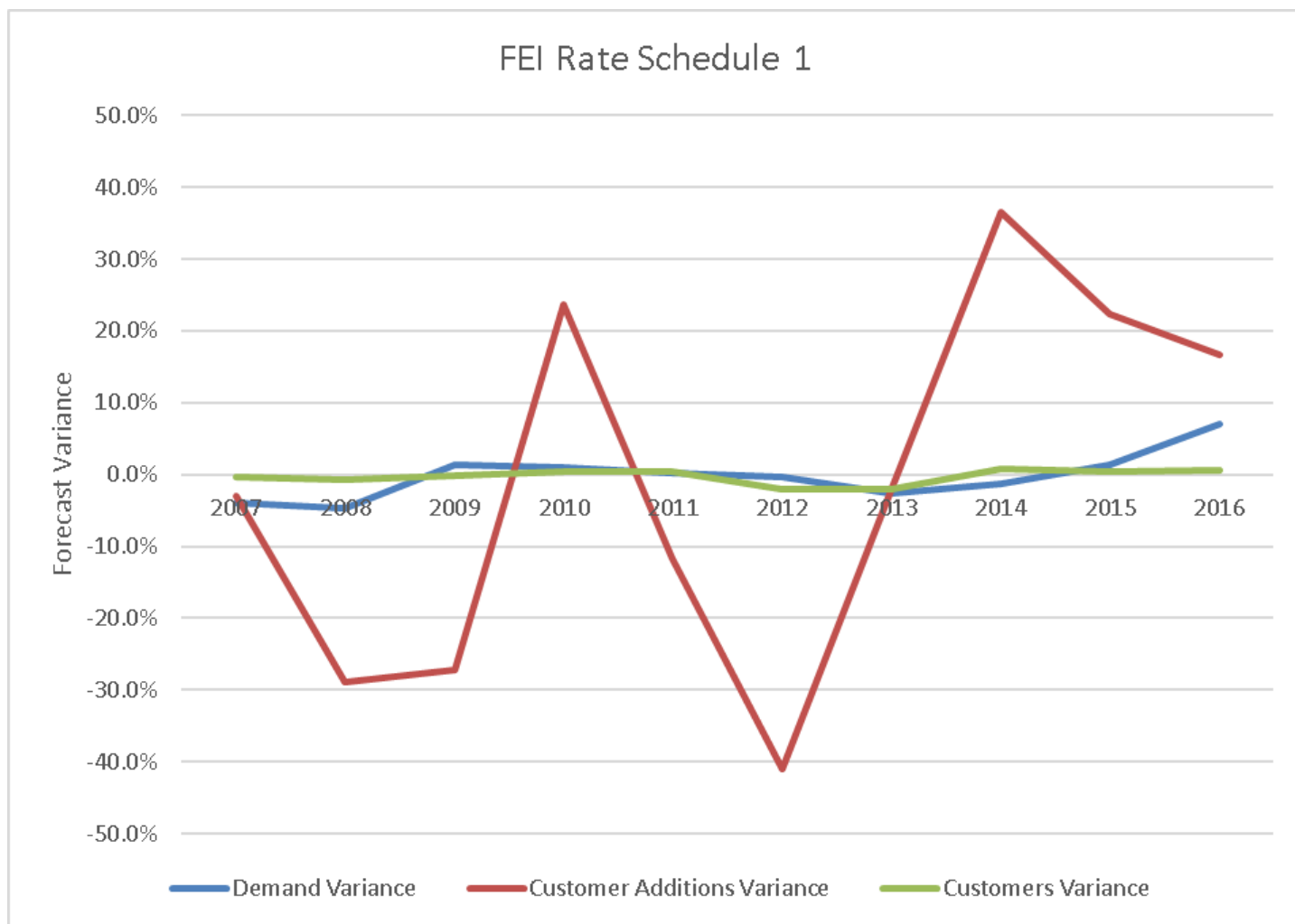
- Residential and Commercial Demand Variance
 - Benchmark: 4%
 - Residential seven year average variance: 1.9%
 - Commercial seven year average variance: 2.0%
- Industrial Demand Variance
 - Four year ITRON industrial average of 11 utilities: 8%.
 - FEI seven year average variance: 7.4%

Customer Additions

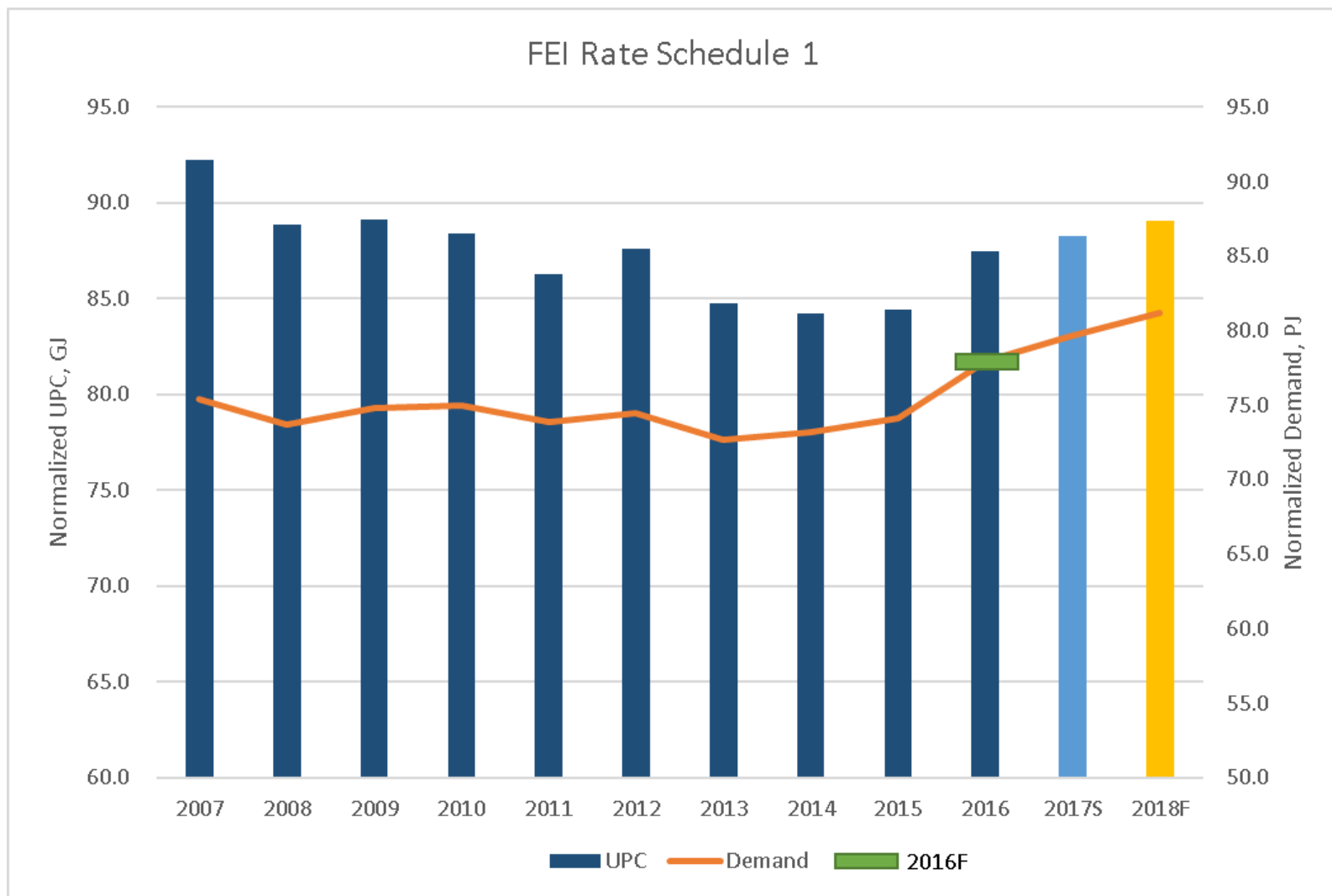
FEI 2016 Customer Additions



Impact of Customer Additions Variance



2016 Use Rates



Tilbury LNG Update

Darren Julyan

Director, Gas Plant Operations and Project Management Office



Tilbury LNG Update



Tilbury: 2017 RS 46 O&M Projection (\$ millions)

	Original Projection	Revised Projection
Labour	1.678	1.690
Materials	0.143	0.180
Contractor	0.325	0.380
Power	2.392	1.208
Fuel Gas	0.142	0.088
Fees & Administration	0.120	0.120
Total	4.800	3.666

Tilbury: 2018 RS 46 O&M Forecast (\$ millions)

	Original Forecast	Revised Forecast
Labour	2.540	2.540
Materials	0.056	0.083
Contractor	0.388	0.719
Power	2.280	2.847
Fuel Gas	0.086	0.127
Fees & Administration	0.160	0.160
Total	5.510	6.476

Capital Expenditures

Diane Roy, Vice President, Regulatory Affairs

Jason Wolfe, Director, Energy Solutions

Paul Chernikowsky, Director, Engineering Services



Formula Capital Expenditures

Table 1-4: Capital Expenditures 2014 to 2017 (\$ millions)

	2014			2015			2016		
	<u>Actual</u>	<u>Formula</u>	<u>Variance</u>	<u>Actual</u>	<u>Formula</u>	<u>Variance</u>	<u>Actual</u>	<u>Formula</u>	<u>Variance</u>
Growth	24.231	21.478	2.753	45.776	28.480	17.296	47.500	33.262	14.238
Other	100.168	98.343	1.825	107.803	110.901	- 3.098	114.641	112.053	2.588
Pension/OPEB	3.915	3.915	-	4.324	4.324	-	4.075	4.075	-
Total	128.314	123.736	4.578	157.903	143.705	14.198	166.216	149.390	16.826
			3.70%			9.88%			11.26%

	2017			Cumulative		
	<u>Projected</u>	<u>Formula</u>	<u>Variance</u>	<u>Projected</u>	<u>Formula</u>	<u>Variance</u>
Growth	48.024	33.477	14.547	165.531	116.697	48.834
Other	139.775	113.104	26.671	462.387	434.401	27.986
Pension/OPEB	2.663	2.663	-	14.977	14.977	-
Total	190.462	149.244	41.218	642.895	566.075	76.820
			27.62%			13.57%

Capital Spending Above the Dead Band

- Treatment of capital expenditures in excess of the dead band (Order G-182-16):

The Panel approves FEI's proposal to remove the amount of formula capital which has exceeded the cumulative dead-band from the earnings sharing calculation, and to add the amount of capital in excess of the dead-band to FEI's opening 2017 plant additions balance.

- Growth capital has been above the formula each year of the PBR term which has caused capital to exceed the dead band in recent years
- Sustainment capital will be close to the formula over the six year PBR term

Growth Capital

Terminology

- Net Additions

= Gross additions + Move In – Move Out – Disconnections

- Service Line Additions

= # of risers installed

In 2016 there was an average of 1.4 new customer attachments per riser compared to 1.2 in 2013

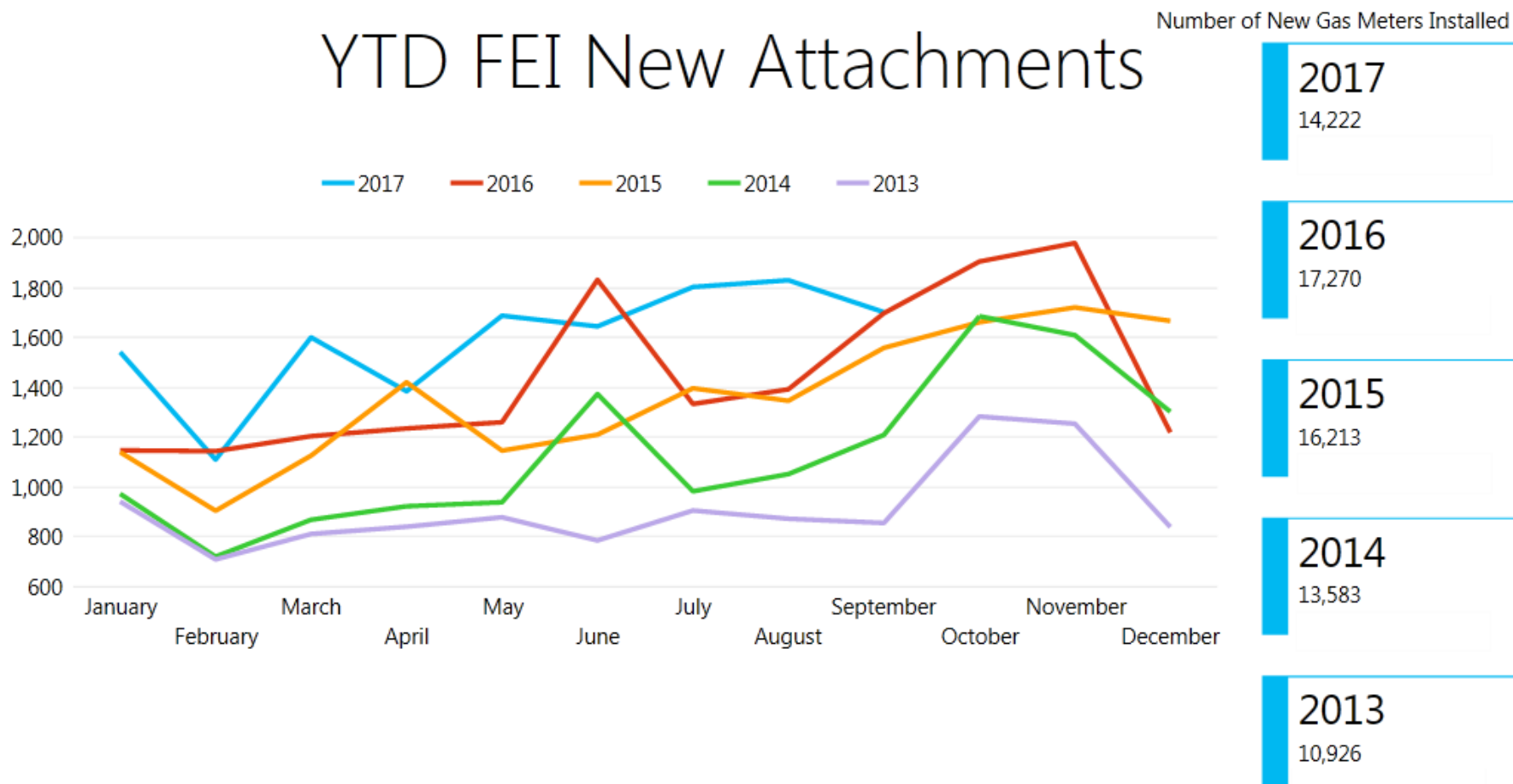
- Gross Customer Additions

= Number of new meters/customers attached

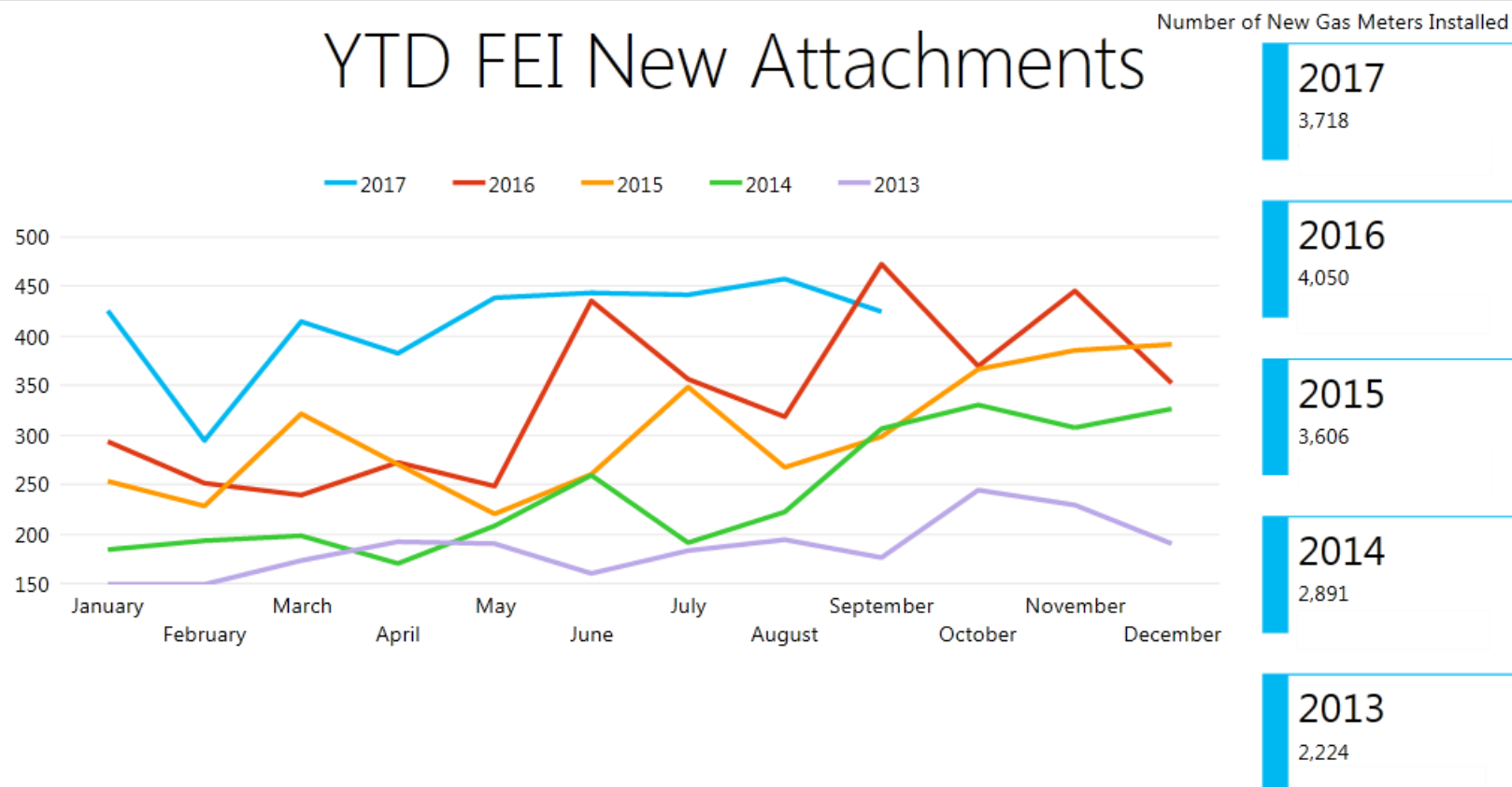
- Gross customer additions drive growth capital
- All new customer additions must pass an extension test

FEI Gross Additions

YTD FEI New Attachments

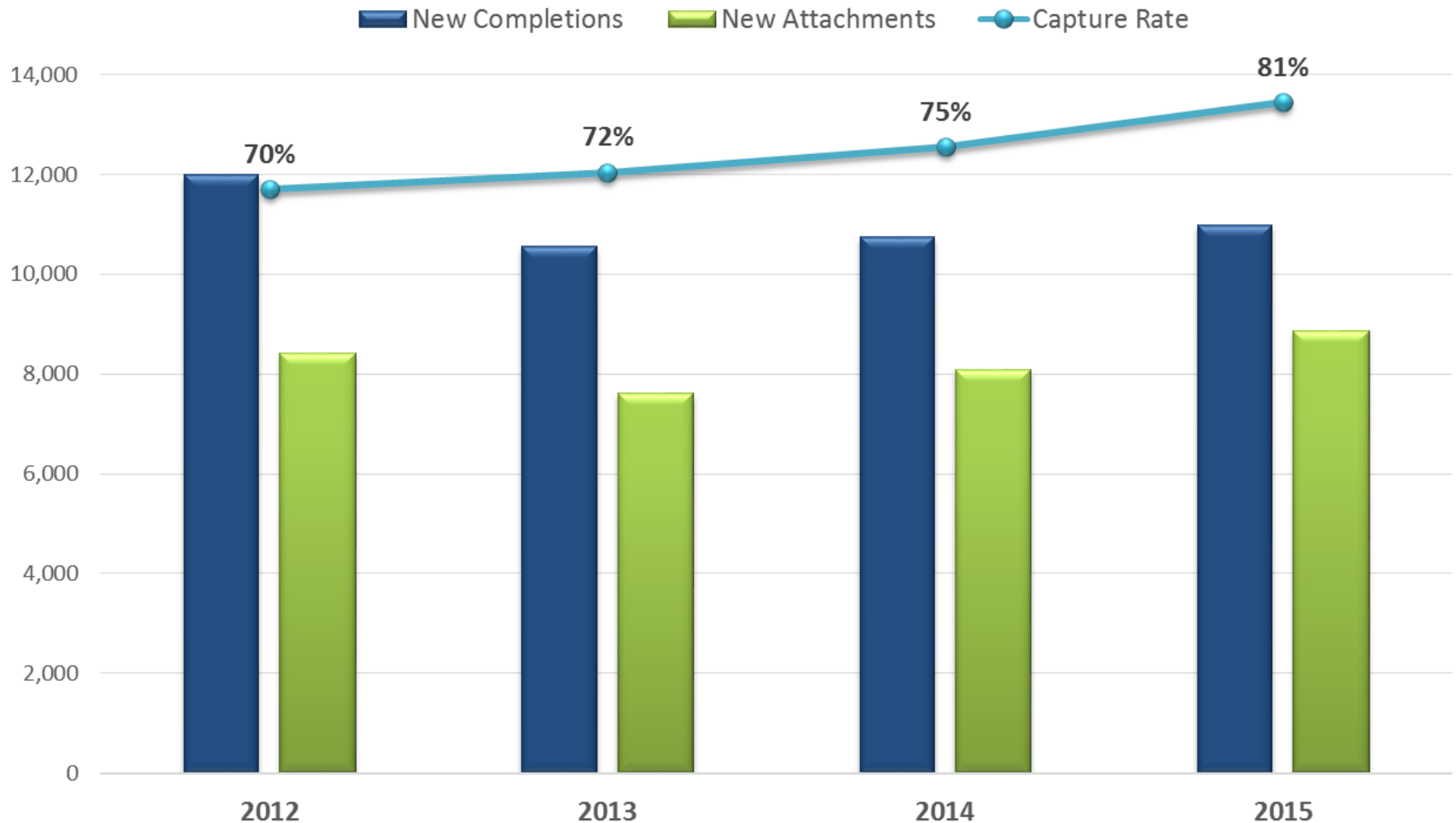


Vancouver Island Gross Additions



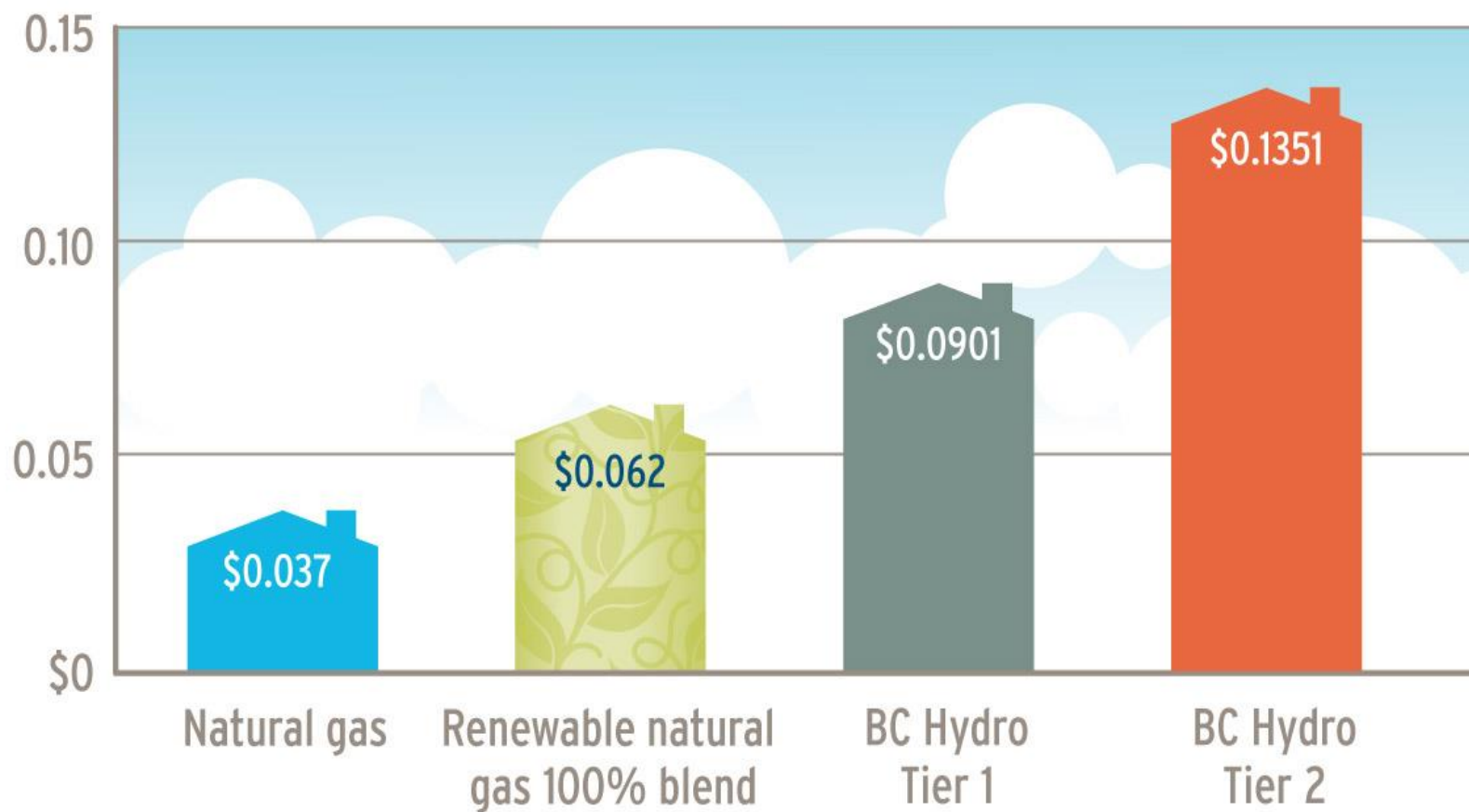
Overall Capture Rate

(properties within 200m from main)



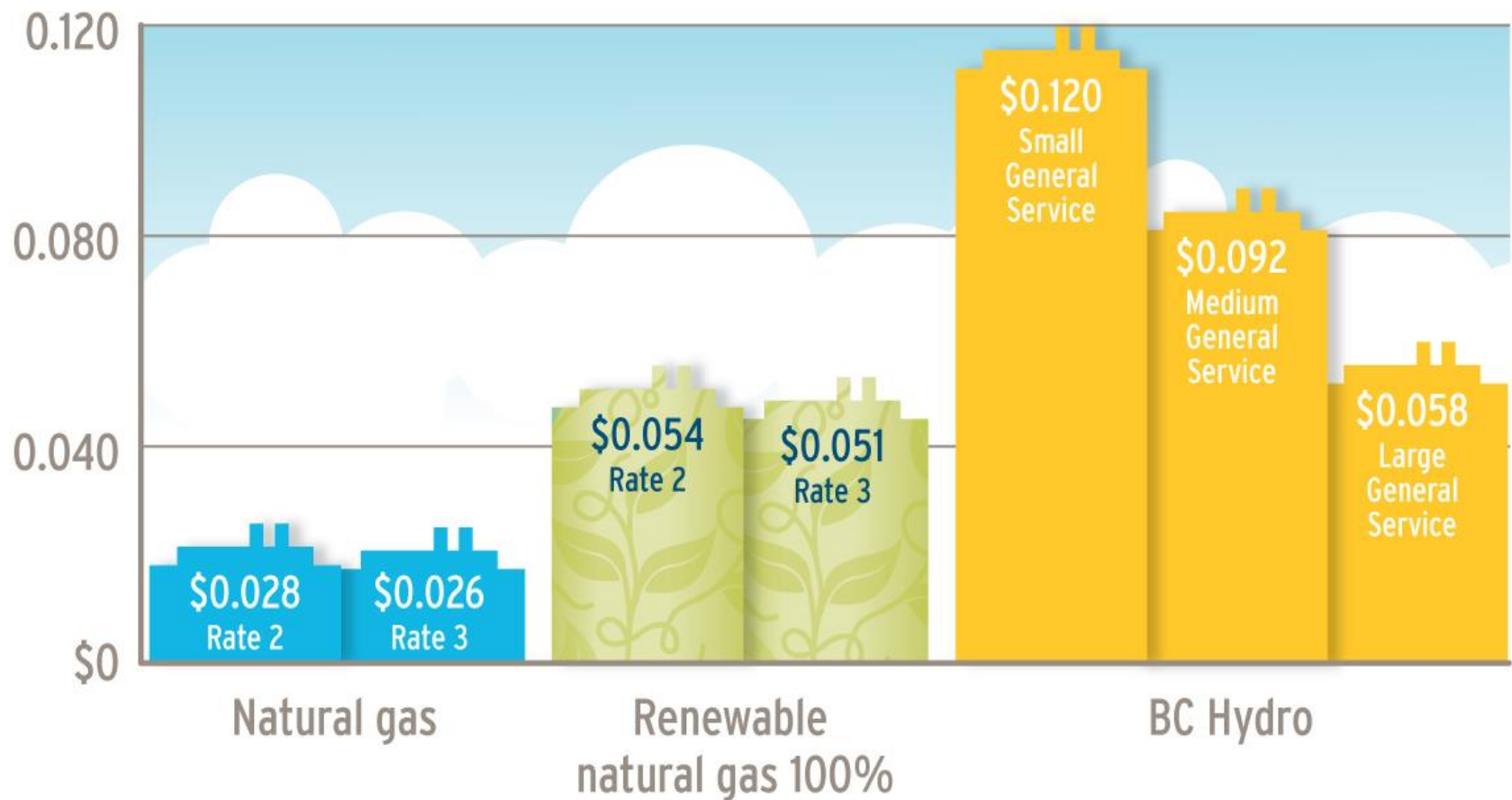
Reasons for Increased Market Share

Residential Gas \$/kWh Price Comparison



Commercial Price Comparison

\$/kWh Price Comparison

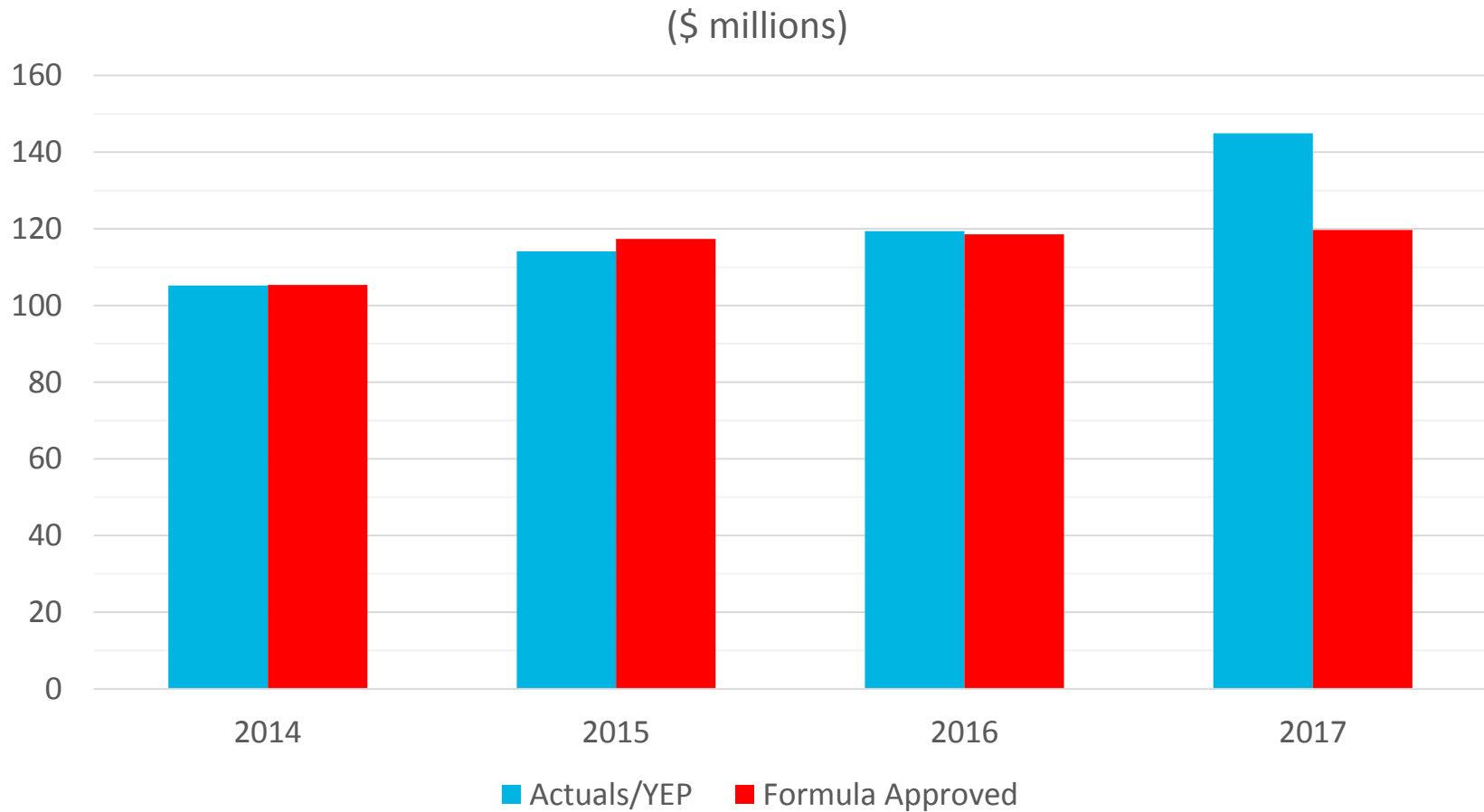


Sustainment Capital

Formula Sustainment Capital

- Projected 2017 capital expenditures are higher than the formula amount (Table 1-4 of the application)
- Identified factors that have resulted in capital pressures:
 - ❑ Formula impacts (Vancouver Island and growth factor reductions)
 - ❑ Higher customer growth
 - ❑ Unanticipated work
 - ❑ External unquantifiable impacts (municipal permitting, exchange rates)

Formula Sustainment Capital



No Changes Proposed to PBR Plan

- Only two years left in the PBR term
- The PBR Plan is a package of interdependent components
- Rebasing the capital formula does not result in a better outcome for customers

FEI will propose a new capital base and revised capital formula, or alternative approach to the treatment of capital, in the next PBR Plan where there can be a fulsome review in the context of the PBR Plan as a whole

Service Quality Indicators

James Wong, Director, Strategic Initiatives & Budgeting

John Himmel, Manager, Business Performance

Suzana Prpic, Director, Corporate Emergency Management



SQL Performance

Service Quality Indicator	2016 (Relative to Benchmark and Threshold)	2017 August YTD (Relative to Benchmark and Threshold)
Safety SQLs		
Emergency Response Time	Within Range	Meets
Telephone Service Factor (Emergency)	Meets	Meets
All Injury Frequency Rate (AIFR)	Within Range	Within Range
Public Contacts with Pipelines	Meets	Meets
Responsiveness to Customer Needs SQLs		
First Contact Resolution	Meets	Meets
Billing Index	Meets	Meets
Meter Reading Accuracy	Meets	Meets
Telephone Service Factor (Non-Emergency)	Meets	Meets
Meter Exchange Appointment	Meets	Meets
Customer Satisfaction Index - informational	n/a	n/a
Telephone Abandon Rate - informational	n/a	n/a
Reliability SQLs		
Transmission Reportable Incidents - informational	n/a	n/a
Leaks per KM of Distribution System Mains - informational	n/a	n/a

Responsiveness to Customer Needs

Service Quality Indicator	2016 Results	2016 Status (Relative to Benchmark and Threshold)	2017 August YTD Results	2017 Status (Relative to Benchmark and Threshold)	Benchmark	Threshold
<i>Responsiveness to Customer Needs SQIs</i>						
First Contact Resolution	81%	Meets	80%	Meets	78%	74%
Billing Index	0.57	Meets	0.77	Meets	5.0	<=5.0
Meter Reading Accuracy	96.9%	Meets	95.6%	Meets	95%	92%
Telephone Service Factor (Non-Emergency)	71%	Meets	70%	Meets	70%	68%
Meter Exchange Appointment	96.9%	Meets	96.9%	Meets	95%	93.8%

Informational Indicators	2016 Results		2017 August YTD Results		2014 Actuals	2015 Actuals
Customer Satisfaction Index	8.8	n/a	8.3	n/a	8.5	8.6
Telephone Abandon Rate	2.2%	n/a	2.0%	n/a	1.8%	2.0%

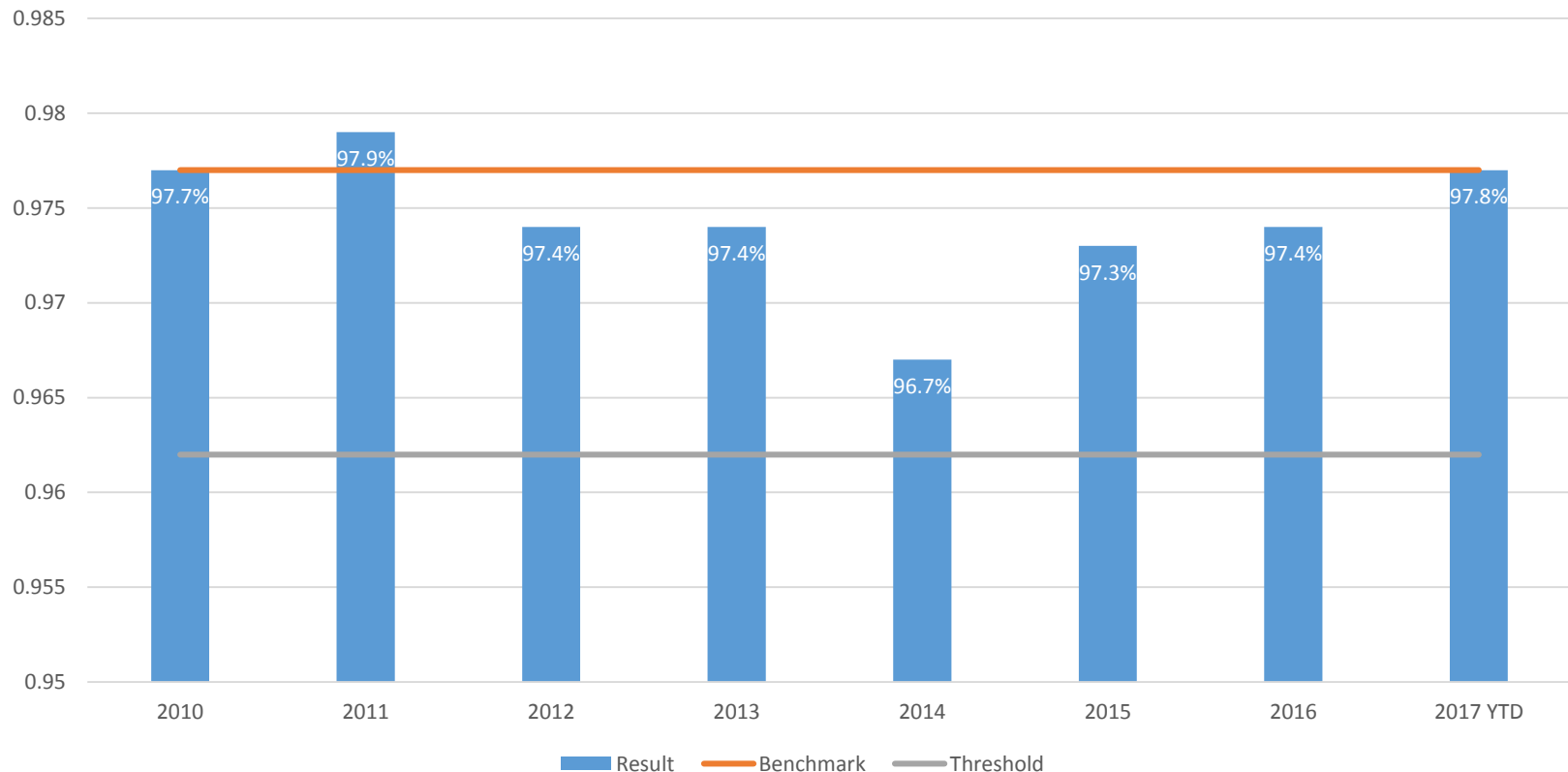
Safety and Reliability

Service Quality Indicator	2016 Results	Status (Relative to Benchmark and Threshold)	2017 August YTD Results	Status (Relative to Benchmark and Threshold)	Benchmark	Threshold
Safety SQIs						
Emergency Response Time	97.4%	Within Range	97.8%	Meets	97.7%	96.2%
Telephone Service Factor (Emergency)	98.5%	Meets	97.6%	Meets	95%	92.8%
All Injury Frequency Rate	2.13	Within Range	2.19	Within Range	2.08	2.95
Public Contacts with Pipelines	9	Meets	8	Meets	16	16

Informational Indicators	2016 Results		2017 August YTD Results		2014 Actuals	2015 Actuals
Reliability SQIs						
Transmission Reportable Incidents	3	n/a	3	n/a	2	3
Leaks per KM of Distribution System Mains	0.0047	n/a	0.0029	n/a	0.0059	0.0045

Emergency Response Time

Emergency Response Time (within 1 hour)



- Improvement from 96.7% in 2014 to 97.3% in 2015, and another slight improvement to 97.4% in 2016.
- 2017 August YTD results further improve to just above the benchmark at 97.8%.

Transmission Reportable Incidents

Three Transmission Reportable Incidents YTD

- Incident 1 occurred on Feb. 1 2017 and involved an apparent attempt to siphon gas from an intermediate pressure farm tap in Chemainus on Vancouver Island.



Three Transmission Reportable Incidents YTD

- Incident 2 occurred June 11, 2017 and was the result of a homeowner hitting the intermediate pressure line on his own private property.



Safety

All Injury Frequency Rate (AIFR)

Description	2009	2010	2011	2012	2013	2014	2015	2016	August 2017 YTD
Annual Results	2.49	2.66	1.66	1.91	3.02	1.73	2.52	2.13	1.92
Three Year Rolling Average	2.55	2.26	2.27	2.08	2.20	2.22	2.42	2.13	2.19
Benchmark	n/a	n/a	n/a	n/a	n/a	2.08	2.08	2.08	2.08
Threshold	n/a	n/a	n/a	n/a	n/a	2.95	2.95	2.95	2.95

2016 AIFR is between the Benchmark and Threshold

- ❑ Target Zero implemented
- ❑ 2017 YTD results trending positively

Question Period