

AESO 2018 Amended General and Administrative Budget Information

Stakeholder Consultation
January 23, 2018

Background

Background and Timeline

Climate Leadership Plan (CLP)
released by Government of
Alberta - Nov 2015

- Coal emission reduction
- Renewables targets

Government of Alberta Direction

Capacity
market policy
- Nov 2016

REP Round 1
Competition
Announced –
Mar 2017

CIP Standards
Implementation –
Oct 2017

REP 1 contracts
awarded Dec 2017

Assessment of CLP program
considerations

Capacity market design
considerations (SAM 3.0)



AESO Board
approves 2017-2018
budget - June 2017

AESO Board approves
2017 'placeholder'
budget - Dec 2016

2018 BRP budget
amendment
– Jan 2018

- Budgets focused on:
 - Efficient delivery approach
 - Reliability of AES
 - Industry priorities
 - Delivery of several key initiatives
- Identified four key business initiatives for 2017 and 2018:
 1. Capacity Market design and implementation (“Capacity Market”)
 2. Renewable Electricity Program (“REP”) design and implementation
 3. Critical Infrastructure Protection (“CIP”) implementation and sustainment
 4. EMS 3.0 commissioning and sustainment
- AESO Board approved general and administrative budgets of:
 - 2018 - \$99.3 million
 - 2017 - \$98.5 million

Management Controls and Abbreviated BRP

- Assumptions are inherent in budget development
- 2018 budget was based on information available to the AESO in early 2017
- AESO Board Decision addressed the known uncertainty and variability with the 2018 budget assumptions¹
 - The AESO Board acknowledges that from time to time due to uncertainty in the AESO's planned initiatives, or unplanned initiatives as they arise, the AESO's Own Costs budget as approved by the AESO Board may need to be revised for additional resource requirements to accommodate the uncertainty.
 - If a revised Own Costs budget is required for 2017 or 2018, the AESO is committed to follow its established BRP process to consult with Stakeholders as required.
 - The AESO will notify Stakeholders of any proposed consultation should the need arise.

¹ AESO Board Decision 2017-2018-BRP-01 page 13

Management Controls

Results of Forecast	Related Budget Process
If the forecast is <u>below</u> or <u>in line</u> with the previously approved budget amount	At management's discretion, any under-budget amounts will be used to advance future year business priorities or will be accumulated in the deferral accounts
If the forecast is <u>above</u> the previously approved budget amount and the amount <i>is determined to be a 'manageable variance'</i>	Management would request approval from the AESO Board and subsequently issue a stakeholder communication
If the forecast is <u>above</u> the previously approved budgeted amount and the amount <i>is in excess of a 'manageable variance'</i>	Management will review the new funding requirements with stakeholders, followed by a request for approval from the AESO Board

A '**manageable variance**' is a forecast to actual variance that would be:

- Less than 10% of budgeted general and administrative expenditures
- Less than 20% of budgeted capital

- Late 2017, an assessment of current expenditures and new information available relating to the key deliverables for 2018 was started
- Determined that an amendment to the 2018 general and administrative budget is required
 - Anticipated change in excess of 10% of the original approved budget
 - No change proposed for 2018 capital budget of \$34.4 million
- In alignment with the AESO's Budget Review Process ("BRP"), AESO Management is conducting an abbreviated BRP for the 2018 general and administrative budget
- Not typical to require an amended general and administrative budget

Abbreviated BRP

- Abbreviated BRP:

Process Step	Timing
Stakeholder notification	Dec 2017
Presentation to Stakeholders	Jan 23
Receive Stakeholder comments	Jan 30
AESO Management replies to Stakeholder comments	Feb 7
AESO Board Decision	Mid-Feb

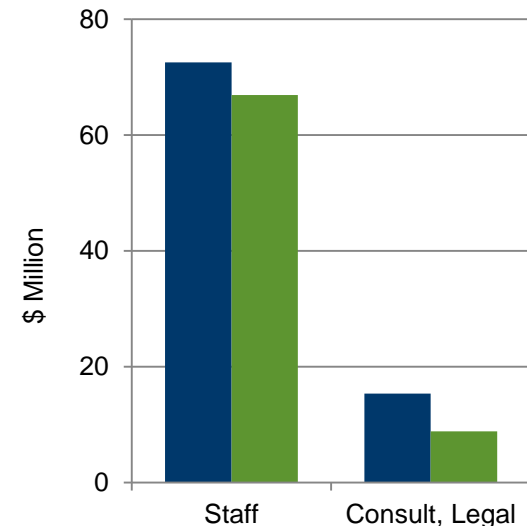
- Stakeholder comments and AESO responses will be posted on the AESO's website
- No process for in-person meetings with AESO Board but they will be provided with all comments and AESO Management responses

2018 General & Administrative Budget Amendment

Budget Amendment

- Enhanced understanding of key deliverables/business initiatives
- Determination that additional resources are required to successfully advance the key business initiatives
 - must continue to deliver on AESO’s core business operations
- Differentiated between mid- to long-term resource needs for sustainment (staff) and initial development (consultants)

Key Deliverable	Budget Changes	% Overall Amended Budget
Capacity Markets	\$5.1M	5.2%
Renewables	\$3.1M	3.1%
CIP and Cyber Security	\$2.0M	2.0%
Other	\$0.5M	0.5%
Proposed Salary Adj (non-exec)	\$1.4M	1.4%
Total Change	\$12.2M	12.2%

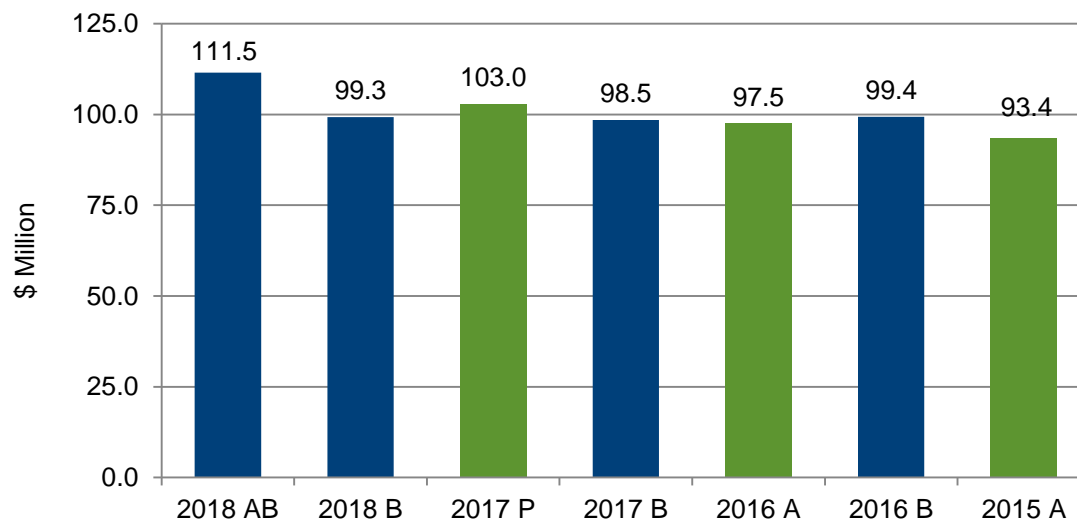


Own Costs Summary

(\$ millions)	2018 Amended Budget #	2018 Budget *	2017 Projection	2017 Budget *	2016 Actual	2016 Budget
General & Administration	111.5	99.3	103.0	98.5	97.5	99.4

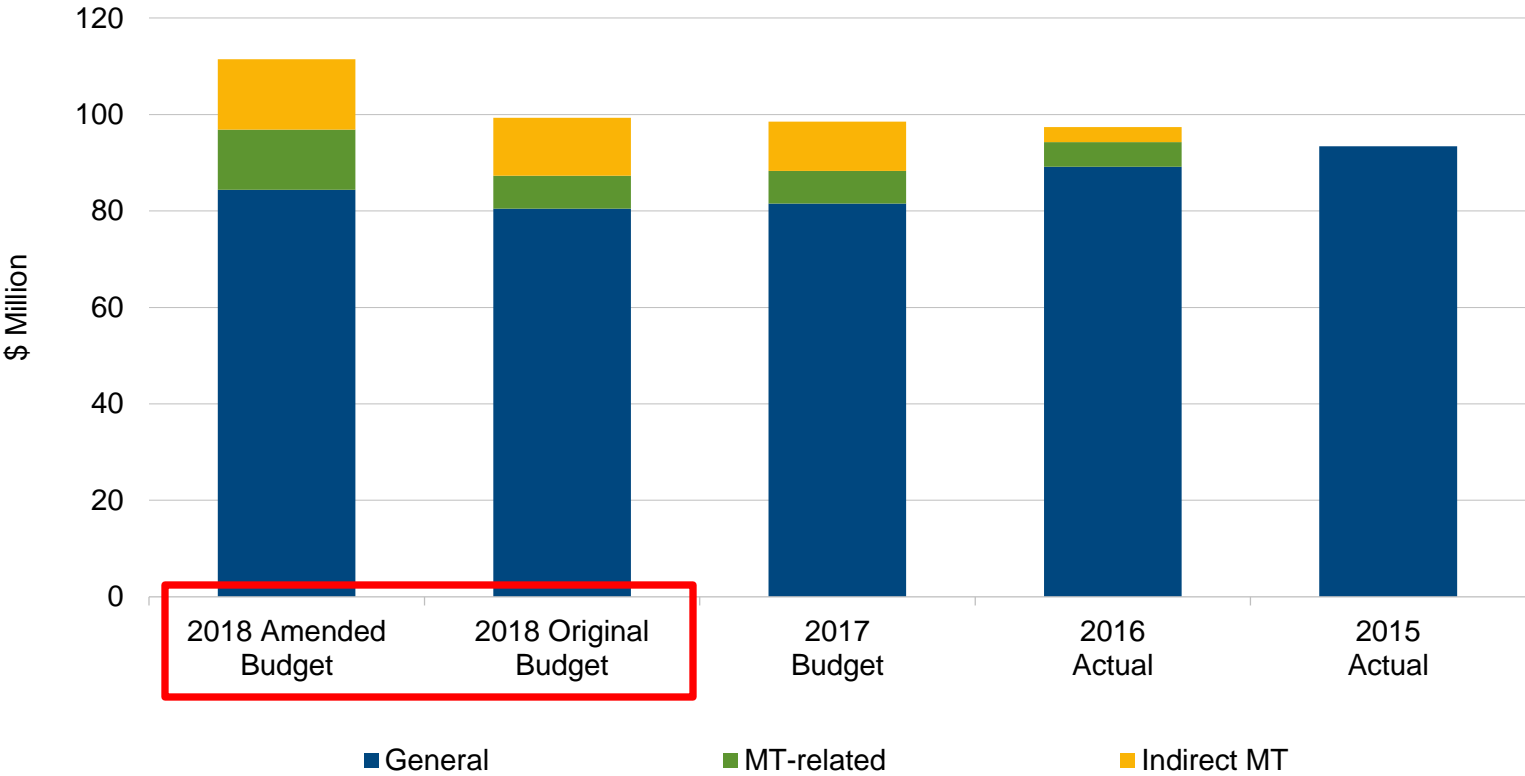
* AESO Board approved June 2017

Preliminary 2018 amended general and administrative budget



General & Administrative Costs

Total G&A Dollars on Resource Dollars on Market Transition-Related Initiatives



MT = Market Transition-Related

General & Administrative Costs

- 2018 amendment limited to staff and consultants

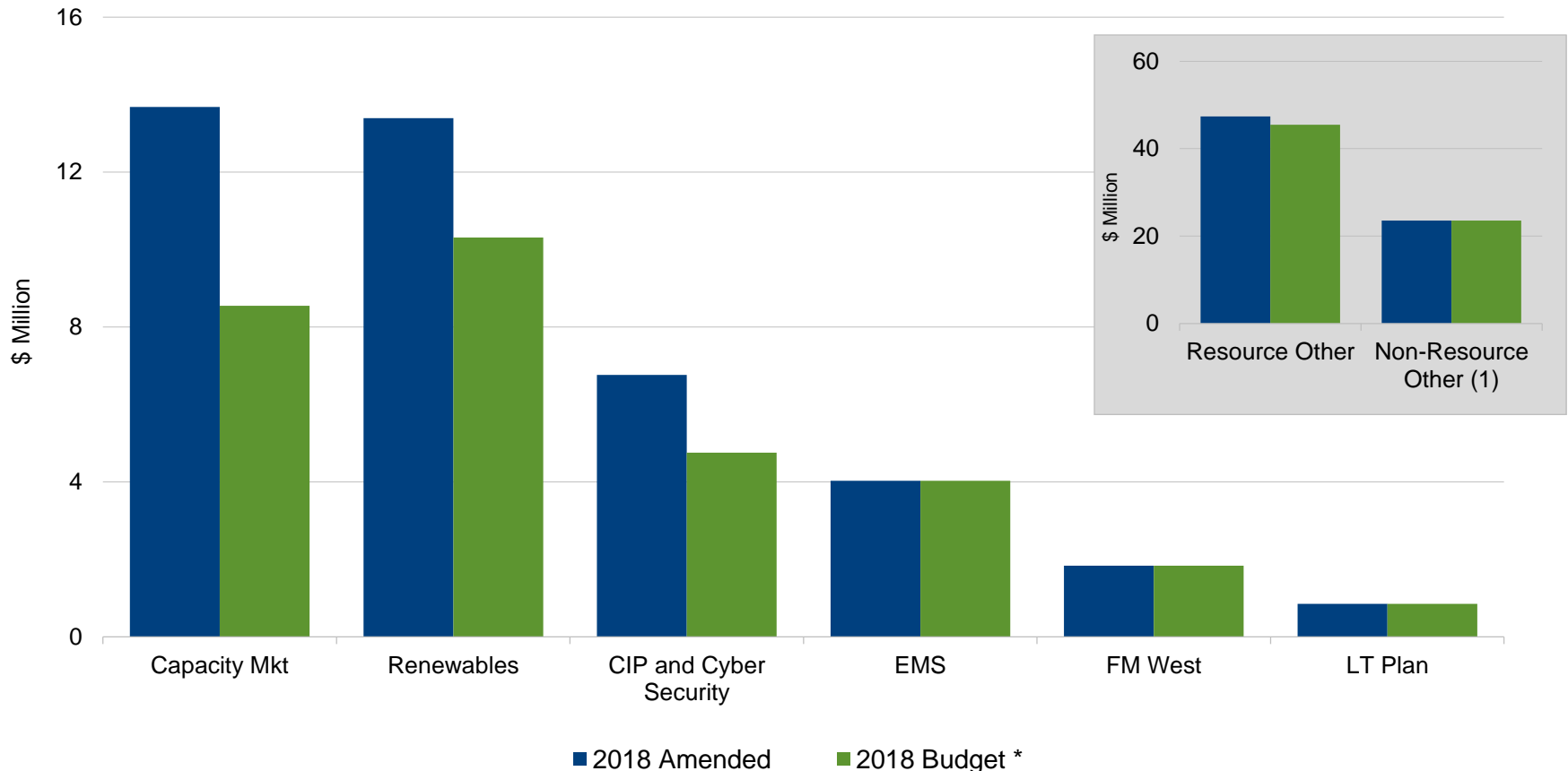
	2018 Amended Budget #	2018 Budget *	2017 Projection	2017 Budget *	2016 Actual
Staff Costs	72.5	66.9	67.3	65.0	66.4
Contract Services & Consultants	15.3	8.8	13.3	10.9	9.0
Administrative	3.9	3.9	3.9	3.7	4.3
Facilities	7.4	7.4	6.9	7.1	7.0
Computer Services and Maintenance	11.0	11.0	10.2	10.6	9.3
Telecommunications	1.3	1.3	1.3	1.3	1.5
TOTAL	111.5	99.3	103.0	98.5	97.5

Differences are due to rounding

* AESO Board approved June 2017

Preliminary 2018 amended general and administrative budget

2018 G&A Budget Amendments By Key Deliverables and Other Budget Categories



(1) Computer Services and Maintenance, Telecommunications, Administration and Facilities

* AESO Board approved June 2017

Key Deliverable – Capacity Markets

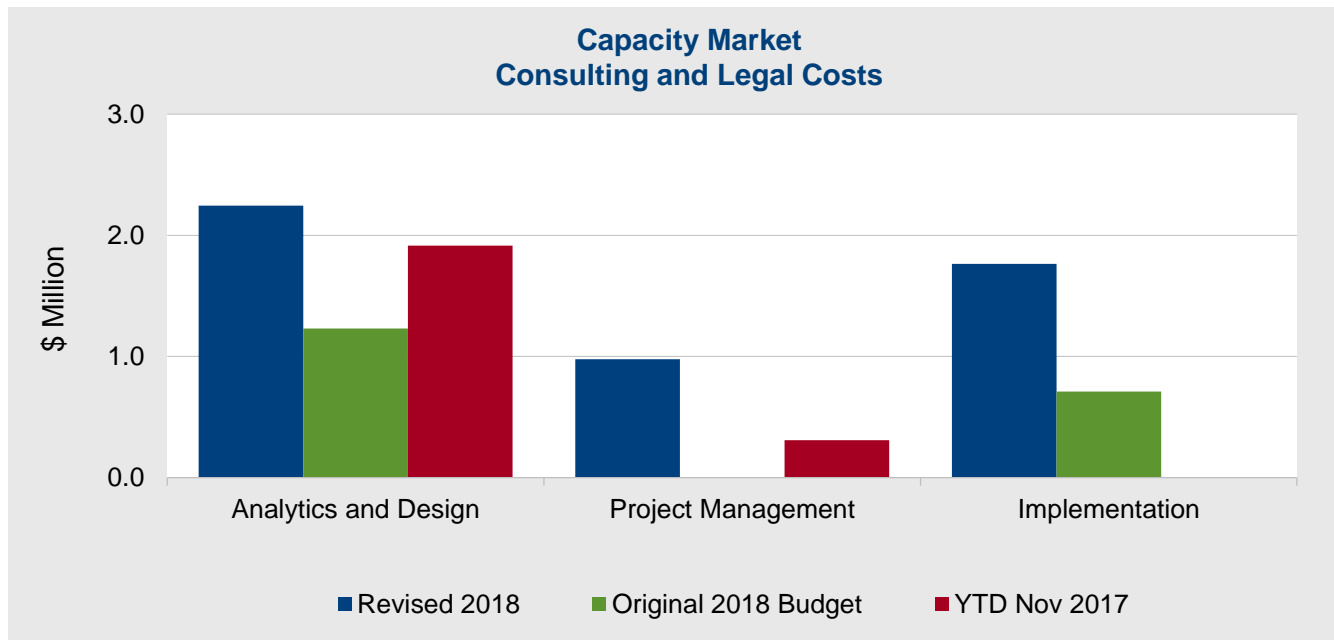
Capacity Markets

2018 Amended Budget	\$13.7M
2018 Change	\$5.1M
Cost Recovery	Trading Charge and Transmission Tariff

- Initiative began in Jan 2017; four months of working experience prior to 2018 original budget development
- Significant uncertainty existed when 2018 budget prepared
- Design components require more planning, discussion and analysis than initially anticipated based on the Design Stream Work Group activities and the development of variations of the Straw Alberta Market
- Enhanced understanding of the scope of work: project management; AIES forecasting; general integration and implementation; rule development; industry training; impact to AESO IT and EMS operations
- Known capital investment required in future years to support IT system development

Key Deliverable – Capacity Markets

	Additional Staff		Consulting and Legal	
	2018 Amended	2018 Original	2018 Amended	2018 Original
Analytics and Design	-	-	\$2.2M	\$1.2M
Project Management	4 FTE	-	\$1.0M	-
Implementation	15 FTE	4 FTE	\$1.8M	\$0.7M
TOTAL \$	\$2.6M	\$0.6M	\$5.0M	\$1.9M



Key Deliverable - Renewables

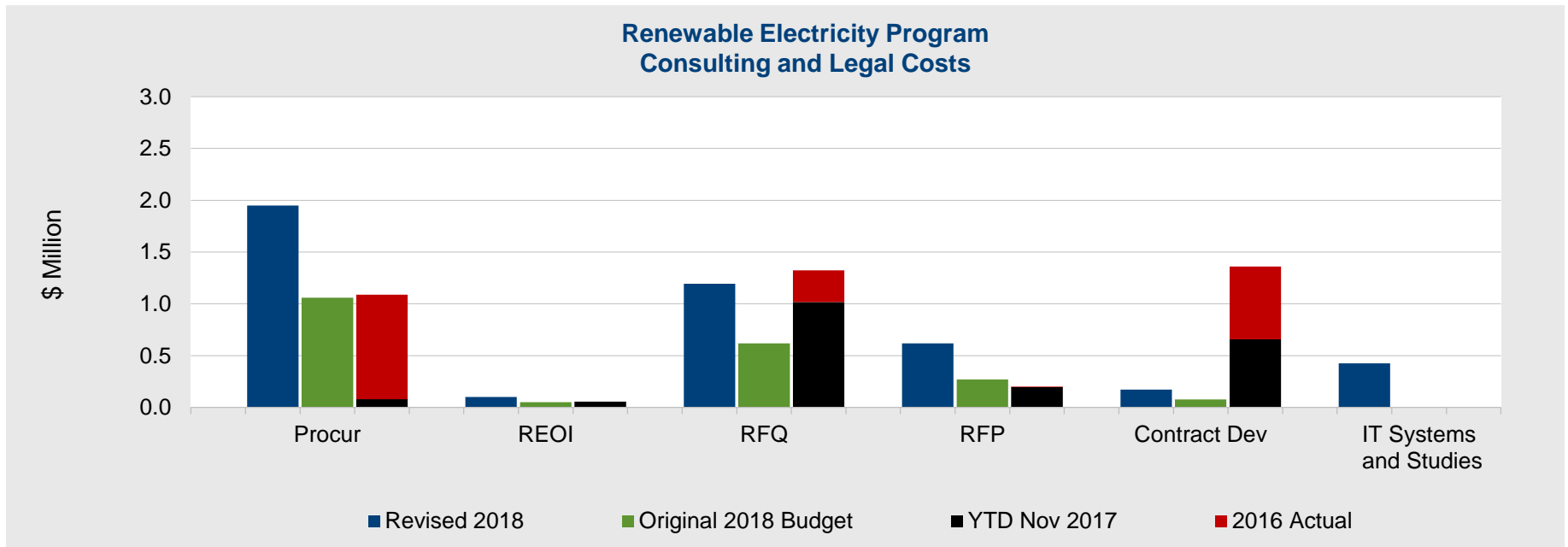
Renewables

2018 Amended Budget	\$13.4M
2018 Change	\$3.1M
Cost Recovery	REP Participants; Trading Charge and Transmission Tariff

- Development of process and agreements began in 2016 for REP Round 1; contracts awarded Dec 2017
- Completing a full process for REP Round 1 has enhanced the AESO's understanding of the development and implementation requirements
- Anticipate an immediate future of one-off program/procurements which would require additional development and implementation activities with intentions to leverage existing work
 - Assessment of dispatchable renewables and storage announcement
- Anticipate additional AIES and forecast assessments/studies required for future procurements and general renewable considerations

Key Deliverable - Renewables

	Additional Staff		Consulting and Legal	
	2018 Amended	2018 Original	2018 Amended	2018 Original
Procurement Development	4 FTE	2 FTE	\$1.9M	\$1.1M
REP Auction Process	4 FTE	1 FTE	\$1.9M	\$0.9M
General	-	-	\$0.6M	\$0.1M
TOTAL \$	\$1.1M	\$0.4M	\$4.5M	\$2.1M



Key Deliverable – CIP and Cyber Security

CIP and Cyber Security

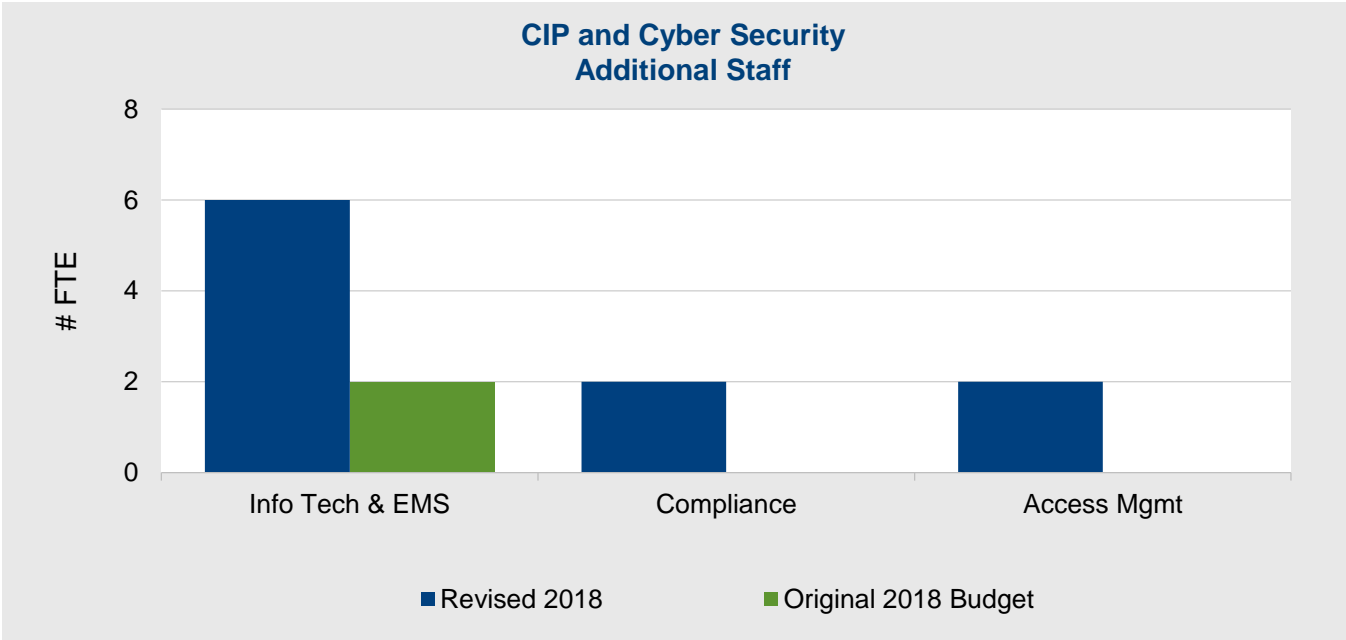
2018 Amended Budget	\$6.8M
2018 Change	\$2.0M
Cost Recovery	Trading Charge and Transmission Tariff

- Implementation in October 2017; approximately six months post-2018 budget submission
- Through final implementation work, a better understanding of sustainability requirements for both known processes and new practices identified
- Overall assessment was higher resource requirement for ongoing sustainment which has been a consistent finding of many jurisdictions
- Will leverage on advancements in CIP and cyber-related security programs to increase protections and efficiencies in other general processes

Key Deliverable – CIP and Cyber Security



	Additional Staff		Consulting and Legal	
	2018 Amended	2018 Original	2018 Amended	2018 Original
Info Tech & EMS	6 FTE	2 FTE	\$1.4M	\$0.6M
Compliance (internal and external)	2 FTE	-	\$0.2M	\$0.1M
Access Management	2 FTE	-	-	-
TOTAL \$	\$1.4 M	\$0.3M	\$1.6M	\$0.7M



Other Changes

Other

2018 Amended Budget	\$54.1M
2018 Change	\$0.5M
Cost Recovery	Trading Charge and Transmission Tariff

	Additional Staff		Consulting and Legal	
	2018 Amended	2018 Original	2018 Amended	2018 Original
Info Tech & EMS	-	-	\$0.4M	\$0.0M
Loss Factors	-	-	\$0.3M	\$0.1M
General	2 FTE	-	\$3.7M	\$4.0M
TOTAL \$	\$0.3M	-	\$4.4M	\$4.1M

Budget Continuity

	\$ Million	
2018 Budget		99.3
Staff Costs	5.6	
Contract Services	6.6	
Administration	-	
Facilities	-	
Computer Services & Telecomm	-	12.1
2018 Amended Budget		111.5

Differences are due to rounding

Cost Recovery

Recovery Mechanisms	Capacity Markets	Renewables	CIP & Cyber	Other
Transmission Tariff	√	√	√	√
Energy Market Trading Charge	√	√	√	√
REP Fees	-	√	-	-
Load Settlement Charge	-	-	-	-

- **Transmission tariff:** actual costs collected in 2018 with additional costs incorporated into the quarterly Rate Rider C
- **Energy market trading charge:** any impact will be incorporated into the 2019 trading charge → Costs of \$1 million = 0.8¢ per megawatt hour
 - AESO’s portion of 2018 trading charge 18.2¢ per MWh compared to 26.2¢ in 2017
- **REP Fees:** recovered from bid submitters and successful bidders over contract term
- **Load settlement charge:** no impact

Questions?

