Memorandum

To: ISO Board of Governors

From: Ryan Seghesio, Chief Financial Officer & Treasurer

Date: December 6, 2017

Re: **Decision on draft budget for fiscal year 2018**

This memorandum requires Board action.

This memorandum summarizes the final 2018 budget proposal that the Board is requested to approve and which will become effective January 1, 2018. A high-level review of the key budget sections follows in the discussion and analysis section; however, a more detailed description and review of the budget can be found in the 2018 Budget and Grid Management Charge Rates book, included as *Attachment A*.

The proposed revenue requirement of $197.2 million remains within the tight range that the ISO has maintained over the past twelve budget cycles and beneath the FERC-approved cap of $202 million. The ISO continues to absorb upward cost pressures in operations and maintenance (O&M) expenses by continuing to achieve efficiencies in non-labor costs and increasing other revenues. The result is a slight increase in the revenue requirement compared to 2017. In addition, the 2018 grid management charge (GMC) rates were calculated using the revised cost category percentage allocations.

Management recommends the following motion:

> ***Moved, that the ISO Board of Governors approves the 2018 revenue requirement, capital/project budgets, and resulting rates as set forth in Attachment A to this memorandum dated December 6, 2017.***

DISCUSSION AND ANALYSIS

The annual revenue requirement is an integral component of the ISO's planning process and reflects the priorities and commitments made in the ISO's strategic vision.

The 2018 revenue requirement, at $197.2 million, is approximately $4.8 million less than the FERC-approved $202 million cap. This amount is $2.4 million (or 1%) higher in comparison to the 2017 revenue requirement and represents an average annual growth rate of less than 1% since 2007. The ISO projects that the 2018 transmission volume will increase to 241.3 terawatt-hours (TWh), which results in a bundled cost per megawatt-hour (MWh) of $0.817, or an increase of $0.006 per MWh from 2017. The bundled costs per megawatt-hour (MWh) is derived by dividing the revenue requirement by the forecasted transmission volume. The 2018 projected volumes at 241.3 TWh, are .25% higher than the 2017 budgeted volumes based on observed higher peak demands. The actual annual 2016 volumes and year-to-date 2017 volumes were also taken into consideration when determining the projected 2018 volumes.

The revenue requirement has five components:

- Operating and maintenance (O&M) budget
- debt service;
- cash funded capital;
- other costs and revenues; and
- operating cost reserve adjustment from prior year.

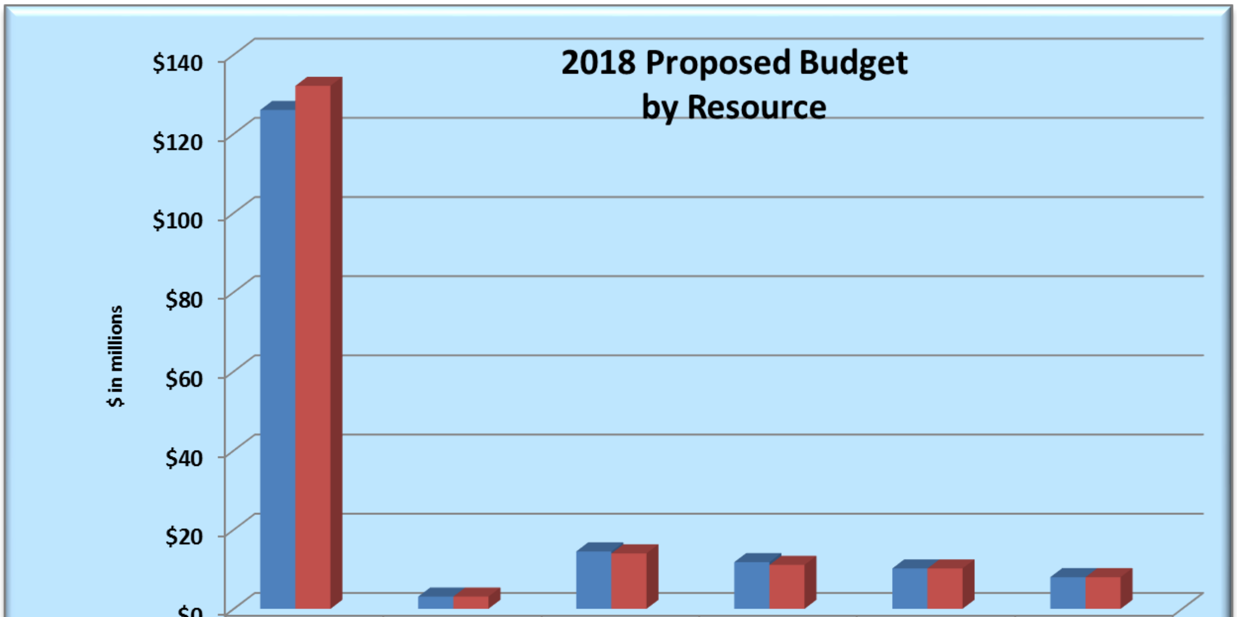
A summary of the 2018 revenue requirement compared to 2017 is as follows.

Revenue Requirement Components ($ in millions)	**2018 Budget**	2017 Budget	Change $	Change %
Operations & Maintenance Budget	**$178.5**	$173.6	$4.9	2.8%
Debt Service (including 25% reserve)	**16.9**	16.9	0.0	0.0%
Cash Funded Capital	**22.0**	24.0	(2.0)	-8.3%
Other Costs and Revenues	**(16.7)**	(13.3)	(3.4)	25.6%
Operating Costs Reserve Adjustment	**(3.5)**	(5.9)	2.4	-40.5%
Total Revenue Requirement	**$197.2**	$195.3	$1.9	1.0%
Transmission Volume in TWh	**241.3**	240.7	0.6	0.2%
Pro-forma bundled cost per MWh	**$0.817**	$0.811	$0.006	0.7%

Operating and Maintenance Budget

The O&M budget is the largest component of the revenue requirement; it accounts for 91% of the total revenue requirement. The 2018 proposed O&M budget is $178.5 million, representing a $4.9 million, or 3%, increase over 2017. The 2018 Budget and Grid Management Charge Rates book, included as *Attachment A,* presents the O&M budget in three different perspectives: delivery of services (objectives and processes), utilization of resources, and divisional costs.

A summary of the 2018 O&M budget by resource compared to 2017 is as follows.



	Salaries and benefits	Occupancy costs and equipment	Telecommunications and hardware and software maintenance	Consultants and contract staff	Outsourced contracts and professional fees	Travel, training and other costs
2017 Budget	$126.0	$3.1	$14.5	$11.8	$10.2	$8.0
2018 Budget	$132.1	$3.1	$14.0	$11.1	$10.2	$8.0
Change from 2017	$6.1	$-	$(0.5)	$(0.7)	$-	$-

- Salaries and benefits grew primarily due to merit increases, as well as the addition of 14 headcount.
- Telecommunications and hardware and software maintenance costs decreased due to improved contracted telecommunications rates as well as continued active management of wired line and mobility services.
- Consultants and contract staff costs decreased primarily due to an overall reduced need for external resources and contractor conversions.
- There is no notable change in the other resource categories.

Debt Service

The debt service component of the 2018 revenue requirement will be $16.9 million, the same as in 2017. Debt service includes the amounts due, plus the required 25 percent reserve. The outstanding bond principal going into 2018 is $178.4 million.

A summary of debt service is as follows.

Debt Service ($ in millions)	**2018 Budget**	2017 Budget	Change
Principal payments	**$4.8**	$4.6	$ 0.2
Interest payments	**8.7**	8.9	(0.2)
Subtotal	**13.5**	13.5	-
25 % Debt Service Reserve	**3.4**	3.4	-
Total	**$16.9**	$16.9	$ -

Capital and Project Budget and Cash Funded Capital

The proposed revenue requirement will allow for the collection of $22 million for cash funded capital. Excess amounts collected will be used to fund future projects.

The 2018 capital/project budget is requested to be set at $18 million. The current list of proposed projects that would consume the $18 million budget is contained in *Attachment A*. These projects, and other proposed projects, will continue to be prioritized in 2018 under the ISO's capital/project approval process.

Other Costs and Revenues

Other revenue increased by $3.4 million to $16.7 million primarily driven by the planned addition of Idaho and Powerex into the energy imbalance market in April 2018 as well as higher anticipated forecasting revenue. These revenue items help bring the revenue requirement below the $202 million cap.

A summary of other costs and revenues is as follows.

Other Costs and Revenue ($ in millions)	**2018 Budget**	2017 Budget	Change
Energy Imbalance Market Administrative Charges	**$7.4**	$4.8	$2.6
Intermittent Resource (wind and solar) Forecasting Fees	**3.2**	2.1	1.1
Interest Earnings	**2.5**	2.1	0.4
California-Oregon Intertie Path Operator Fees	**2.0**	2.0	-
Large Generation Interconnection Fees	**1.2**	1.9	(0.7)
Scheduling Coordinator Application and Other Fees	**0.4**	0.4	-
Total	**$16.7**	$13.3	$3.4

Operating Cost Reserve Adjustment

The operating cost reserve adjustment is primarily the cumulative result of the actual results versus the budgeted revenue requirement and the 25% debt service reserve collection from the prior year. As with other revenue, this credit adjustment helps bring the revenue requirement below the $202 million cap.

A summary of the operating reserve adjustment is as follows.

Operating Cost Reserve Adjustment ($ in millions)	**2018 Budget**	2017 Budget	Change
Increase/(decrease) in 15% reserve for O&M budget	**$(0.7)**	$(0.6)	$ 0.1
25% debt service collection from prior year	**3.4**	3.4	-
True-up of actual to forecast revenues and other expenses	**0.8**	1.3	2.3
Total	**$3.5**	$5.9	$ 2.4

Grid Management Charge Rates, Fees, and Charges

The ISO recovers its costs through separate GMC charges to market participants. The current GMC rate design went into effect in 2012. The design provides for three volumetric charges and five transaction fees. The design was updated in 2014; the amendment was approved by FERC December 18, 2014 and was effective January 1, 2015. The rate design requires a cost of service study be completed every three years to ensure the ISO is properly charging costs to the appropriate cost categories. The latest cost of service study was completed in 2017 using 2016 data (approved by FERC on November 21, 2017). The study revealed a shift of resources (time and dollars) from the System Operations and CRR Services cost categories to the Market Services cost category. The shift was primarily driven by implementation of the 15-minute market, addition of a 24X7 real time market desk, and implementation of cost savings process efficiencies. The study also validated the Transmission Ownership Rights (TOR) charge should remain unchanged from $0.24/MWh rate.

A comparison of the new percentages compared to the old percentages is as follows.

Cost Category	**2013 Study**	**2016 Study**	**Amount Over / (Under) Since Last Study**
Market Services	27%	32%	5%
System Operations	70%	66%	-4%
CRR Services	3%	2%	-1%

A comparison of the proposed 2018 rates and 2017 rates is as follows ($ per unit).

Grid Management Charges	**2018 Rate**	2017 Rate	$ Variance
Market Service Charge	**$0.1051**	$0.0854	$0.0197
Systems Operations Charge	**$0.2834**	$0.3025	($0.0191)
CRR Services Charge	**$0.0043**	$0.0059	($0.0016)
Miscellaneous Fixed Fees			
Bid Segment Fees	**$0.005**	$0.005	n/a
Inter-SC Trade Fees	**1.00**	1.00	n/a
SCID Fees (monthly)	**1,000**	1,000	n/a
TOR Fees	**0.24**	0.24	n/a
CRR Auction Bid Fees	**1.00**	1.00	n/a

The EIM Administrative Charge is derived from the GMC rates. As established in the latest cost of service study, EIM entities pay 79% of the Market Services rate and 39% of the System Operations rate.

Grid Management Charge	EIM Portion	2018		2017		$ Variance
		% of GMC Service Charge	EIM Administrative Charge	% of GMC Service Charge	EIM Administrative Charge	
Market Services	Real Time Market	79%	$ 0.0834	61%	$ 0.0521	$ 0.0313
System Operations	Real Time Dispatch	39%	$ 0.1106	45%	$ 0.1361	$ (0.0255)

Budget Process

The ISO has provided several opportunities for public review and comment on the draft budget. This public input process commenced with a July budget kickoff meeting with stakeholders and followed with a stakeholder call held in November. The ISO posted materials from the meetings as well as stakeholder comments and ISO responses on its website. The stakeholder comments consisted of clarifying questions regarding items such as EIM rate structure, treatment of cash funded capital reserves, debt service due diligence, along with general O&M questions; the consensus was the stakeholders were supportive of the revenue requirement. With Board approval, the ISO will post the proposed GMC rates on its website to be effective on January 1, 2018.

It should be noted that post-decision minor adjustments are sometimes required to line items within the O&M budget due to final year-end headcount and cost center reorganizations. These year-end adjustments will not affect the final total approved budget.

Conclusion

The proposed budget will provide sufficient funding to enable the ISO to deliver on the commitments made in the ISO's strategic plan while still maintaining the costs to customers. Therefore, Management recommends that the Board approve the budget attached to this memorandum.