#### WESTERN ENERGY IMBALANCE MARKET

#### **Briefing on Budget Process**

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EIM Governing Body Meeting General Session February 1, 2017



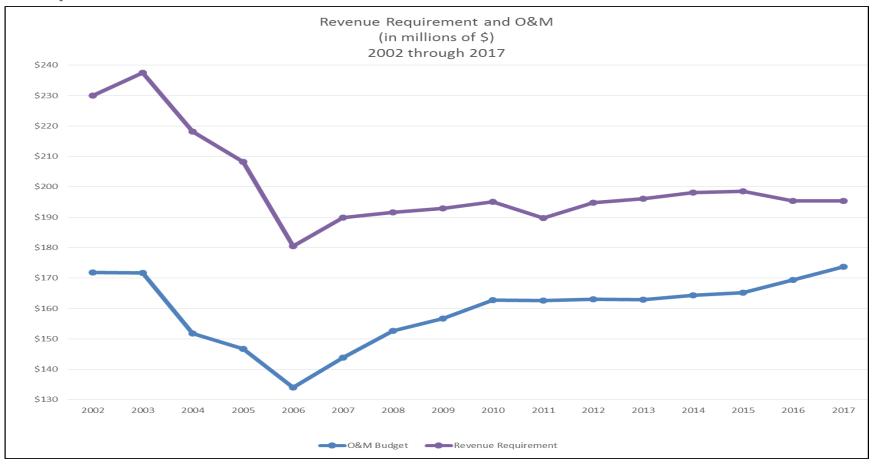
#### The budget development timeline extends from June through December

Events	Date	
Introduction of budget process to stakeholders	June	
Internal budgeting process - primary	June – August	
Board review of preliminary budget (Executive Session)	August	
Preliminary budget posted to public website	Early September	
Stakeholder budget workshop	Late September	
Internal budgeting process – secondary	Through November	
Board decision on budget (General Session)	December	
Following year's grid management charge rates posted	December	

## The budget process leads to the development of the revenue requirement

Revenue Requirement Components (\$ in millions)	2017 Budget	2016 Budget	Change
<b>Operations &amp; Maintenance Budget</b>	\$173.6	\$169.3	\$4.3
Debt Service (including 25% reserve)	16.9	16.9	-
Cash Funded Capital	24.0	24.0	-
Other Costs and Revenues	(13.3)	(10.8)	(2.5)
Operating Costs Reserve Adjustment	(5.9)	(4.1)	(1.8)
Total Revenue Requirement	\$195.3	\$195.3	\$ -
Transmission Volume in TWh	240.7	242.7	(2.0)
Pro-forma bundled cost per MWh	\$0.811	\$0.805	\$0.006

## Management remains committed to a stable revenue requirement



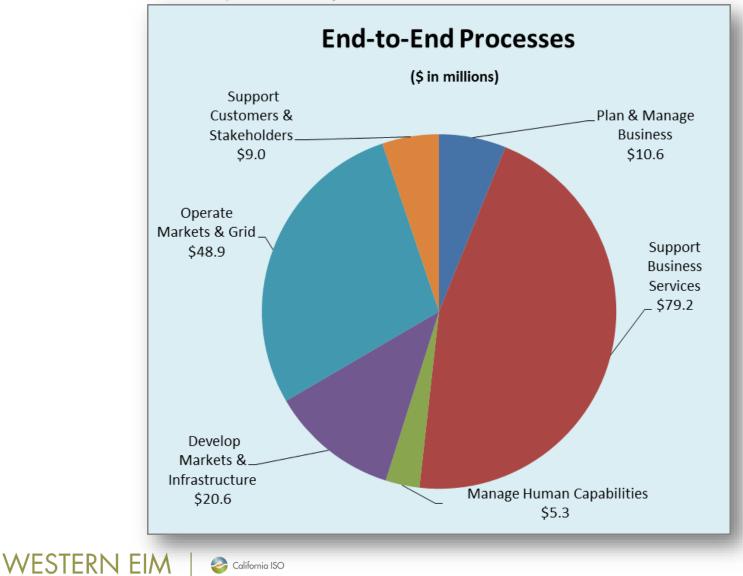
- Revenue requirement is 18% lower than its peak in 2003
- Average annual growth rate of 0.3% since 2007

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Slide 4

#### We leverage an activity based costing structure for further transparency



Revenue requirement is spread to the three main service categories by cost of service study percentages

Grid Management Charges	Revenue Requirement %	2017 Rate per/MWh
Market Services	27%	\$0.0854
System Operations	70%	\$0.3025
CRR Services	3%	\$0.0059



The EIM Administrative Charge is then derived from the percentage of category costs associated with realtime market activities

Grid Management Charges	2017 Rate per MWh	Real-time market %	EIM Rate per MWh
Market Services	\$0.0854	61%	\$0.0521
System Operations	\$0.3025	45%	\$0.1361
CRR Services	\$0.0059	-	-

• 2017 Cost of Service Study



The 2017 annual capital/project budget is currently targeted at \$20 million

- Proposed revenue requirement contains a \$24 million cash funded capital component
- Total project approvals are targeted at \$20 million for further market enhancements and regular capital
- Detailed draft of projects is contained within the budget book
- Corporate Management Committee authorizes projects to proceed

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Current proposed 2017 projects impacting EIM:

- Energy imbalance market enhancements
- Expand non-generator resources with proxy demand response and distributed energy resources options
- Greenhouse gas enhancement (secondary market)
- Load forecasting improvements
- Market application execution performance improvements
  Day-ahead and Real-time markets
- Reducing time gap between real time pre-dispatch running time and binding interval
- Technology system improvement for production



Current proposed 2017 projects impacting EIM:

- Customer ISO market results interface improvements
- Open access same-time information system (OASIS) improvements
- External training program development phase 2
- Energy imbalance market economic studies
- Metering rules enhancements
- Wind and solar forecasting improvements



# The 2017 EIM Governing Body budget assumes a full year's activity

Account Description		2016 Actual Spend		2017 Annual Budget
EIM Governing Body Expenses	\$	58,823	\$	150,000
Governing Body Member Travel Expenses*	\$	29,867	\$	75,000
Other Governing Body Related Expenses	\$	28,956	\$	75,000
EIM Governing Body Compensation	\$	117,750	\$	235,000
Total	\$	176,573	\$	385,000
* The 2016 Governing Body Member travel expenses w	vere incurred dur	ina the period of J	ulv throu	ah December.

