Overview of
California Energy Resources Scheduling

August 16, 2017

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Background

- January 17, 2001, Governor Davis issued an Emergency Proclamation authorizing DWR to purchase power on behalf of the State's Investor Owned Utility (IOU) customers.
- CERS Division was created and immediately began purchasing power 24/7 on the real time spot market to meet the energy needs of the IOU customers.
- February 1, 2001 AB 1X added Division 27 to the Water Code, authorizing DWR to enter into long-term energy contracts to purchase the electric requirements of the IOU customers not met by IOU retained generation assets.
- DWR entered into 58 long-term power agreements in 2001 and 2002 at an estimated cost of $42.5 billion. DWR also purchased the residual net short (spot market purchases) energy requirements on behalf of customers through December 31, 2002.
- In late 2002 DWR issued bonds totaling $11.3 billion to pay for electricity previously purchased by DWR and to set up Indenture Accounts to sustain the DWR Power Purchase Program. Additionally, Power and Bond Charges established under AB1X were allocated by the CPUC and collected from customers in the IOU service areas.
- Effective January 1, 2003 the long-term contracts were allocated among the IOUs who acted as CERS' limited agents for scheduling, dispatch and other administrative functions. CERS retained the financial and legal responsibility for the contracts.
- The majority of the power contracts expired in 2011. The final contract ended in 2015. The bonds have a final maturity of 2022.

Current Responsibilities

- Manage Bond Portfolio of $3.9B (as of Jun-2017)
- Prepare Revenue Requirement and submit to CPUC annually
- Collect and validate IOU’s remittances
- Prepare regulatory & financial reports
- Records management
- Ongoing litigation from power purchases
- Administrative support for budgeting, human resources, and consultant contract needs
- Manage CERS transition to end-of-program

Organization

STATE OF CALIFORNIA
CALIFORNIA NATURAL RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
CALIFORNIA ENERGY RESOURCES SCHEDULING

August 4, 2017

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EXECUTIVE MANAGEMENT 1201

J SPENCE (**3) DEPUTY DIRECTOR 50001513

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CALIFORNIA ENGERGY RESOURCES SCHEDULING 1220

VACANT CEA 50010834

J SPENCE PRINCIPAL HEP UTIL ENGINEER 50001513
K FISH (9) ASSOC GOVT PROG ANALYST 50064265
N OWYANG (9) OFFICE TECH (T) 50064265
Z MANSOUR SR HEP UTIL ENGINEER (SPEC) 50010810
J CASON JR. SR HEP UTIL ENGINEER (SPEC) 50002876
M WOFFORD (9) SR HEP UTIL ENGINEER (SPEC) 50088822
VACANT (11). YOUTH AID 50088547

VACANT SUPVG HEP UTIL ENGINEER 50010850
M GAFFNEY STAFF SERV ANALYST 50010780
R AGUILAR III SR HEP UTIL ENGINEER (SPEC) 50010811
C HURLOCK ASSOC HEP UTIL ENGINEER 50001147
W PEREZ ASSOC HEP UTIL ENGINEER 50010933

ADMINISTRATION 0601

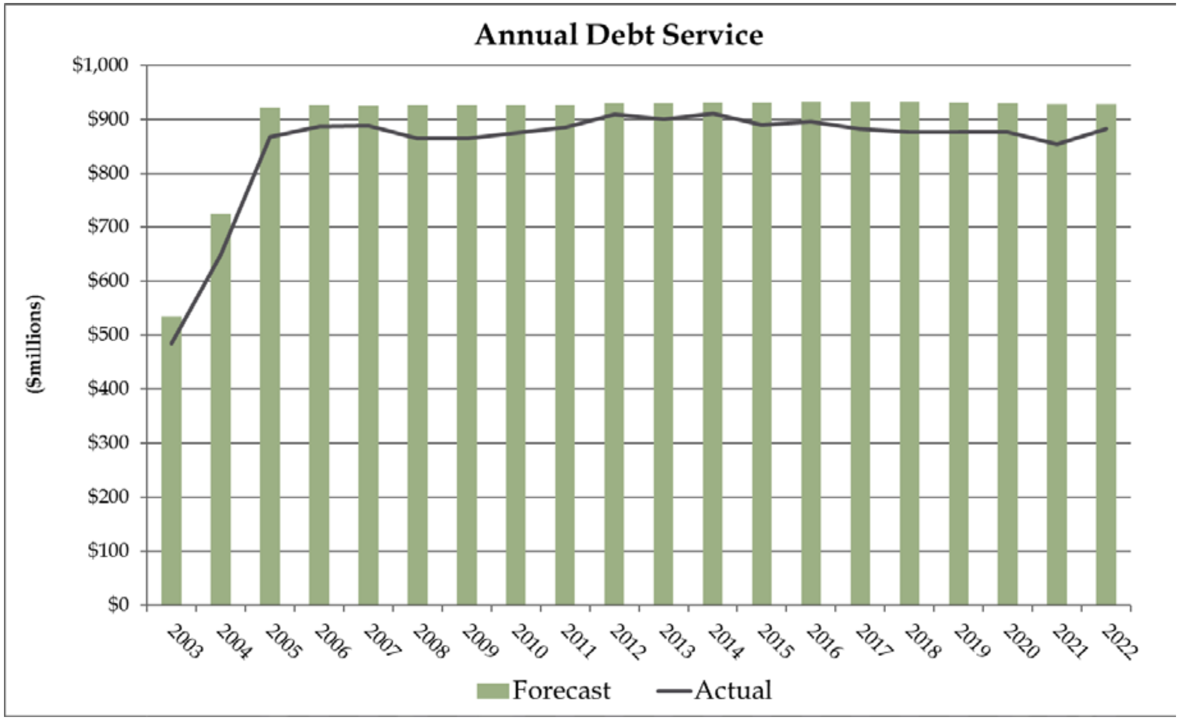
P CZERKIES (**1) ASSOC GOVT PROG ANALYST 50004972

CERS FINANCIAL REPORTING AND ANALYSIS OFFICE 0228

F SUGANDI (**2) ACCTG ADMIN II (SUPV) 50001891
VACANT (**2) ACCTG ADMIN I (SPEC) 50022788
E HARVEY (**2) ASSOC ACCTG ANALYST 50033707
M SHAHMIRZADI (**2) ASSOC ACCTG ANALYST 50001473

Amortization of Bonds

- In 2011 all variable rate bonds were refunded and converted to fixed rate bonds.
- A combination of favorable interest rate swap terminations (from 2003-2006) and refinancing of outstanding bonds lowered the overall total cost of debt service from the initial 2002 bond offering by $973 million, an average savings to ratepayers of $48 million/year
- CERS continues to look for opportunities to reduce bond program costs.



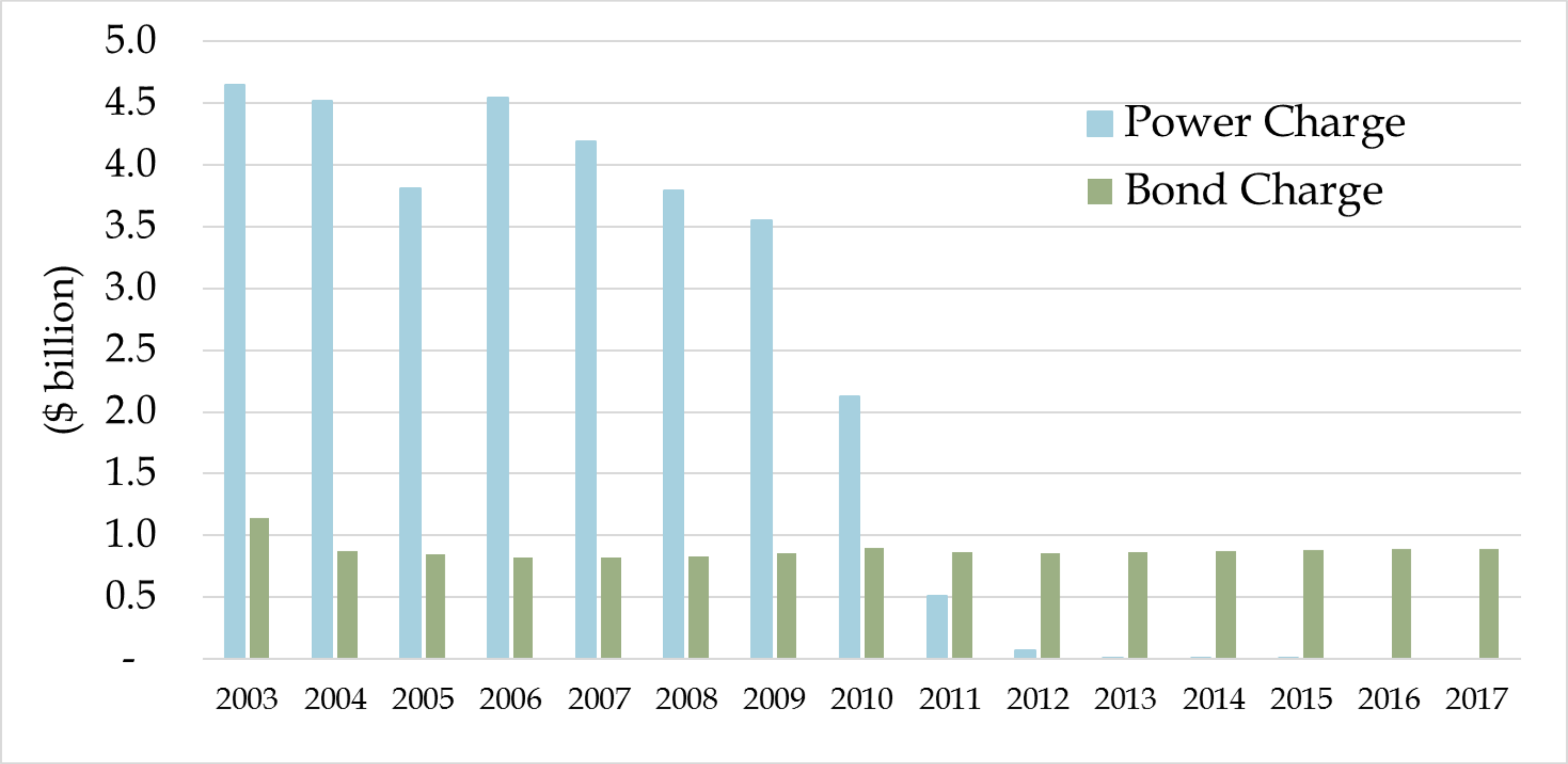
Note 1: Forecast based on the 2003 Supplemental Revenue Requirement. Debt service savings calculated in part result from actual interest rates being lower than the projected interest rates on the portion of debt that was issued as variable rate debt.
Note 2: Since all remaining bonds are fixed rate bonds the actual debt service for future years is known and fixed.

Revenue Requirement

- Pursuant to AB 1X, CERS submits an annual revenue requirement to the CPUC to recover:
  - Bond costs
  - Power costs
- IOUs Provide:
  - Load forecasts which includes assumption on economic growth, conservation, self-generation, Direct Access, Departing Load, load shapes, etc.
  - Billing and Collection Services – bill non-exempt customers and remit to CERS based on CPUC adopted power charge and bond charge rates.
- CERS Monitors:
  - Compliance with its legal and regulatory requirements
  - Actual expenditures vs. projected expenditures
  - Actual cash flow and revenue sufficiency reporting

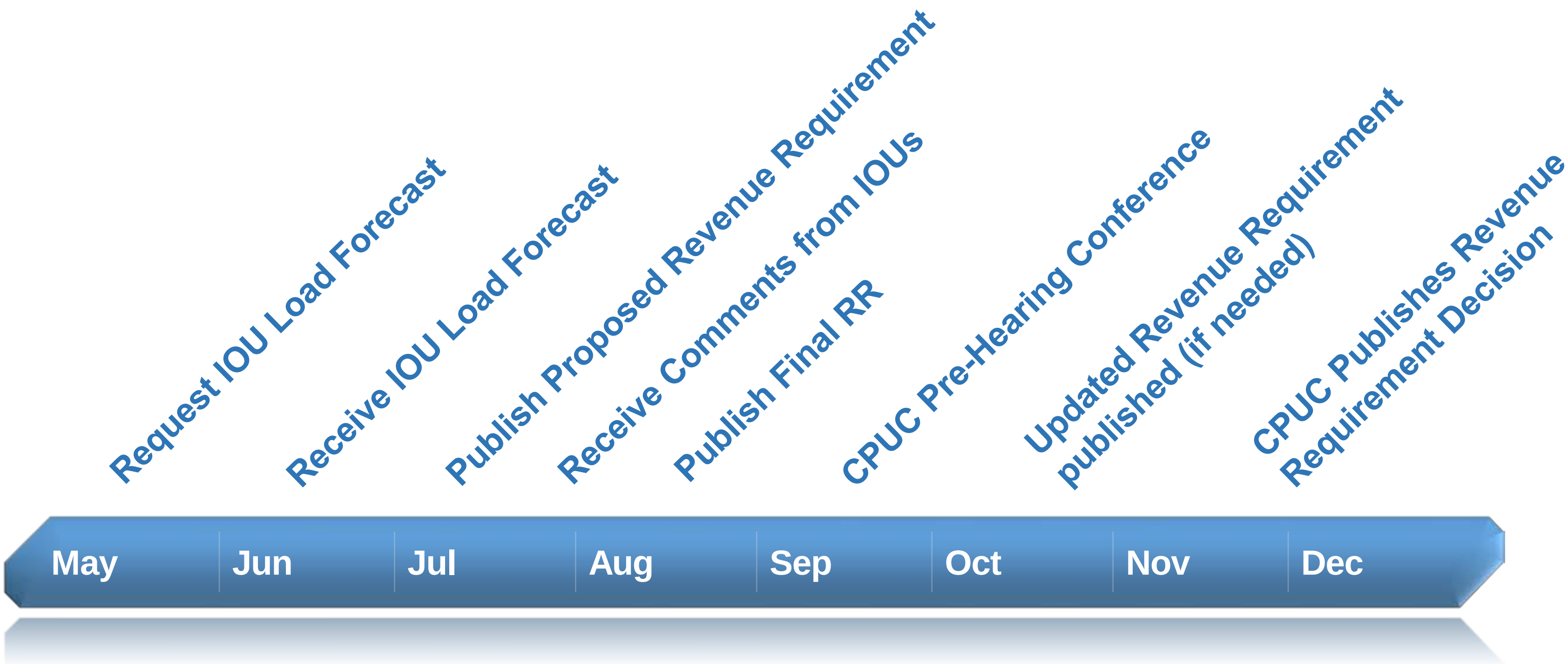
Revenue Requirement

- The annual revenue requirement is composed of power charges and bond charges to recover the Department's costs.
- The last power contract expired in 2015 (resulting in no power charges in following years).



Revenue Requirement

Process and Timeline



IOU Remittance Process

- PG&E, SDG&E and SCE (IOUs) collect bond charges from their ratepayers who are "non-exempt" from the DWR bond charge. "Exempt" ratepayers fall into two general categories:
  - Certain groups of ratepayers under special programs such as low income or high usage for in-home medical devices
  - Those ratepayers who had stopped receiving power from the IOUs before the energy crisis (Feb 1, 2001 per CPUC decision)
- Non-Exempt customers include Bundled customers, Direct Access (DA) customers, Community Choice Aggregation (CCA) customers and several other categories of Departing Load (DL) customers.
- IOUs remit the collected bond charges to CERS on a daily basis to ensure the direct connection between customers and the DWR Power Supply Program. The IOUs act as the collection agency for DWR's power and bond charges.
- Servicing Orders instituted between the IOUs and DWR, require the IOUs to provide load data to CERS to allow validation of the remittance amounts received.

Revenues and Expenses

Revenues

- Bond Charge Revenues from customers
- Interest earnings
- Litigation settlements

Expenses

- Administrative and general expenses
- Debt service on the bonds

Ongoing Litigation from Power Purchases

- CERS is participating in several legal actions related to energy market manipulation in 2000 and 2001
- The California Parties which include DWR/CERS, PG&E, SCE, SDG&E, CA Attorney General, and the CPUC are seeking $9 billion in refunds from power producers. To date approximately $7.5 billion has been recovered.
- Additional information is located at the California Attorney General's website *https://oag.ca.gov/cfs/energy*

Reporting Requirements

- Financial Statements
  - Quarterly (Unaudited)
  - Annual (Audited)
  - Posted on CERS Web Page, MSRB/EMMA and circulated to Rating Agencies
- CPUC Report
  - Monthly update on Revenue Requirement
  - Monthly update on Utility Specific Balancing Accounts
- Municipal Securities Rulemaking Board (MSRB)
  - Annual Disclosure

Records Management

- Maintain a data-base of all CERS energy transactions (electricity and natural gas) and related records for future and on-going litigation and audit purposes
- Maintain accurate financial records for the annual revenue requirement, reporting requirements, and the IOUs ratepayers
- Maintain contract supporting documentation for historical and litigation support
- Continue archiving historical records

Transition

- Many of the CERS power contracts ended in 2011, the last contract ended in 2015, resulting in ongoing staffing and consultant reductions.

- CERS outstanding bonds will be fully paid off in 2022. However, there may be opportunities for a refinancing prior to 2022. CERS will continue to monitor market conditions for the most efficient management of the bond program through to its termination.

- As of June 2017 CERS supports 10 full-time staff (2 projected to retire late 2017). CERS will continue to evaluate staffing requirements to ensure successful conclusion of the program, scheduled for 2022.