## DOCKETED

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<th>16-OIR-04</th>
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<td><strong>Project Title:</strong></td>
<td>Integrated Resource Plans (Publicly Owned Utilities)</td>
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<td><strong>Document Title:</strong></td>
<td>Presentation - Redding Electric's Integrated Resource Planning at Lead Commissioner Workshop on April 18, 2016.</td>
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<td><strong>Filer:</strong></td>
<td>Patty Paul</td>
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<td><strong>Project Title:</strong></td>
<td>General Rulemaking Proceeding for Developing Regulations, Guidelines and Policies for Implementing SB 350 and AB 802</td>
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Redding Electric Utility

- Redding Electric Utility (REU) was formed in 1921 by the City of Redding
- REU serves a 61 square mile service territory within the city limits
- REU serves 44,000 customers
  - 86% residential
  - 14% commercial
- REU’s peak demand is 232MW
- Peak demand is led by extreme summer temperatures
REU’s 2015 Resource Mix

- Wind: 24%
- Small Hydro: 4%
- Large Hydro: 21%
- Natural Gas: 35%
- Unspecified: 16%

Your Community Utility
REU’s Projected RPS
REU’s Energy Efficiency & DSM Programs

- Education Programs
- Free Energy Analysis/Audits
- Rebates
- Low Income & Senior Rate Assistance Programs
- Solar PV
- Energy Storage
REU’s IRP Efforts
Prior to 2014
Western IRP

- REU receives 8% of the output from the Central Valley Project (CVP)
  - 20-40% of REU’s annual energy depending on hydro conditions
- REU is a “Direct Connect Customer” with Western
  - REU’s only connection to the outside grid is through two direct connections with substations owned and operated by Western
- REU receives its CVP power through the Western transmission system
- REU also receives power from long-term contracts through the Western transmission system
- REU submits an IRP to Western every 5 years with annual updates
  - Resource Projections
  - Energy Efficiency Programs
  - Renewable Energy
  - Load Management Techniques
  - Rate Design Improvements
  - Environmental Impacts
Reports, Reports, & More Reports

- Western
  - IRP
- CEC
  - IEPR
  - RPS
  - Power Source Disclosure
  - Power Content Label
- SB 1
- 1037
- AB 2021
- 1368
- 1304/1306
- CPUC
  - GO 95
  - GO 165
- CARB
  - MRR
  - SF6
  - Cap-&-Trade
  - Use of Allowance Value
- EIA
  - 861
- EPA
  - GHG
- FERC
- NERC
- WECC
- DOT
- OSHA

Your Community Utility
REU’s IRP Efforts
Post 2014
REU Strategic Plan

**VISION:**
REU, as Redding’s community-owned electric utility, creates value and delivers exceptional services through the strength of its employees.

**MISSION:**
By 2020, Redding Electric Utility will have established flexible, creative, innovative, and sustainable business practices while continuing to deliver valuable, safe, and reliable services for its customers.
REU Strategic Plan

- **ISSUE 1:**
  Our financial and business model must be enhanced to build a sustainable utility organization

- **Strategy 2:**
  A planning culture improves opportunities for success

- **Tactic 2:**
  Develop and implement an Integrated Resources Plan
REU’s IRP Team

- Led by REU’s Resources Planning Division
- Department-wide Representation:
  - Customer Services
  - Energy Services
  - Finance & Business Services
  - Transmission & Distribution
  - Power Supply
  - Power Generation
- Monthly meetings since 2014
- IRP Team’s Questions:
  - What IRP process is REU already doing?
  - Where does REU want to be in 2020, 2030, & 2050?
  - How do we get there?
REU’s IRP Components

- Load Forecast & Customer Rate Development Programs & Processes:
  - Load Forecast Modeling:
    - EE Program Energy Savings
    - DSM Program Demand Reductions
    - Distributed Generation Net-Load Reductions
    - Transportation Electrification Load Increases
  - GHG Reduction Programs:
    - Public Benefits Programs
    - San Juan Coal divestiture by 2018
    - Western 2024 Marketing Plan
    - Solar

Your Community Utility
REU’s IRP Components

- Energy Efficiency & DSM
  - Recalculating future load growth
  - Revised 10-year Energy Efficiency forecast
- Renewable Energy
  - On track to meet the 33% goal
  - Prioritizing local renewable resources to meet the 40% RPS goal
  - Identifying additional renewable resources to meet the 50% RPS goal
  - Assessing impact of CAISO regionalization
- Energy Storage
  - 3MW of Thermal Energy Storage
REU’s IRP Components

- Transportation Electrification
  - Upstate Plug-In Electric Vehicle Coordinating Committee
  - Assessing EV Impact

- Portfolio Diversification
  - Transmission diversity
  - Fuel Diversity
  - Long-term & short-term Procurement
  - 20-year risk-based portfolio modeling

- Resource Adequacy
  - 115% Planning reserve margin
  - Local Generation
REU’s IRP – Next Steps

- Synthesizing existing processes & information
- Developing projections and proposals for new resources & programs
- Identify changes to existing resources & programs
REU’s IRP – Next Steps

- Public Outreach
  - Workshops
  - Open House
- Develop Report
- City Council Adoption
- Publish on REU’s Website
- Periodic Updates
THANK YOU