

DOCKETED

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Document Title:	Presentation - Redding Electric's Integrated Resource Planning at Lead Commissioner Workshop on April 18, 2016
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REU

Redding Electric Utility



Your Community Utility



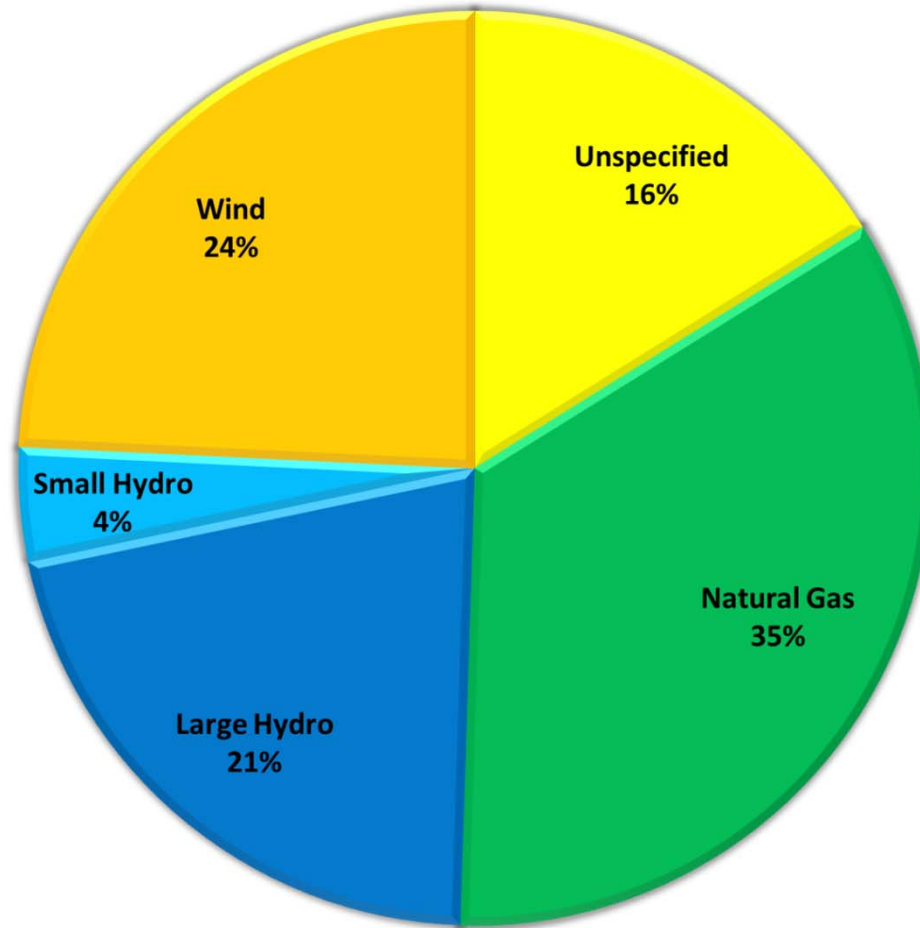
Redding Electric Utility

- 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



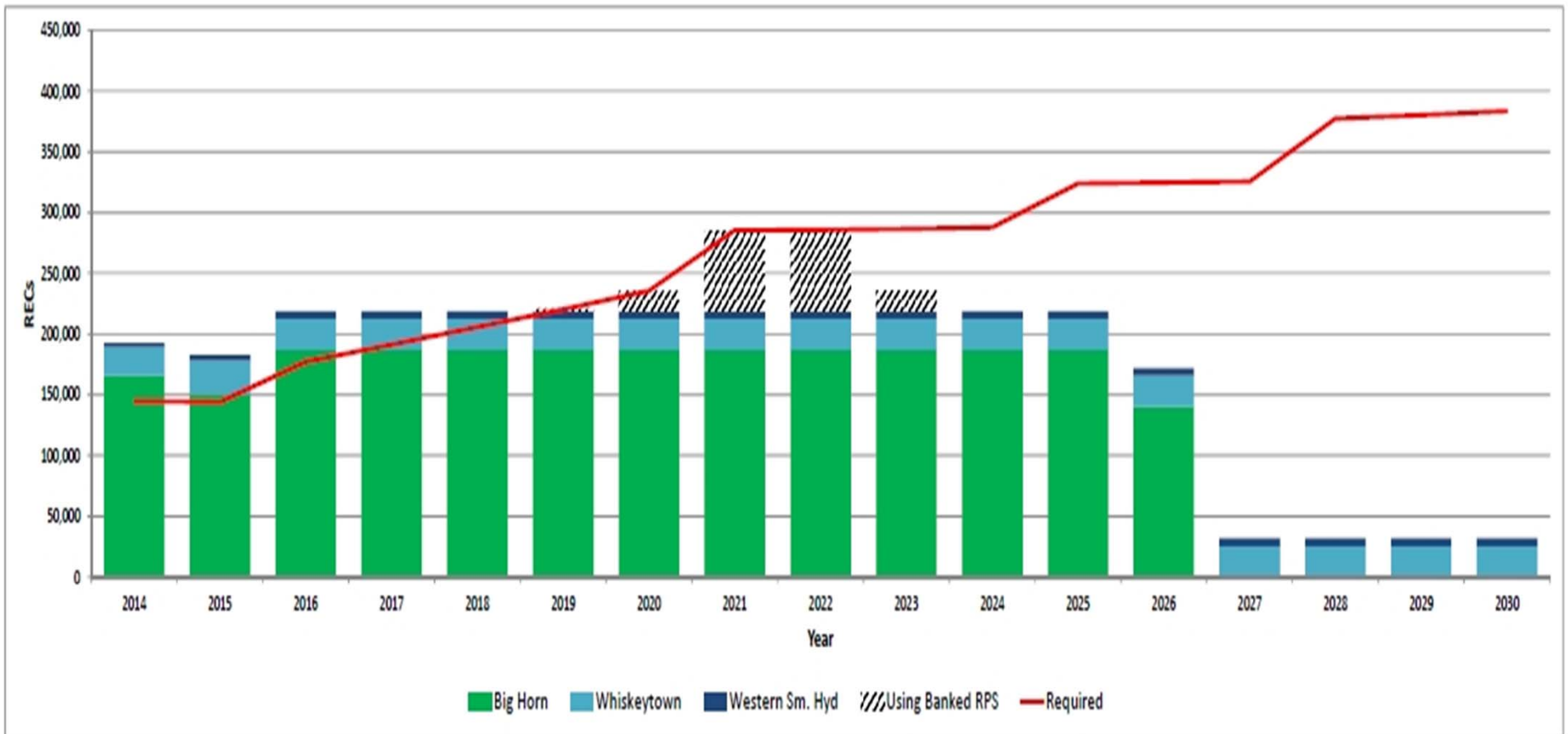


REU's 2015 Resource Mix





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





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





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

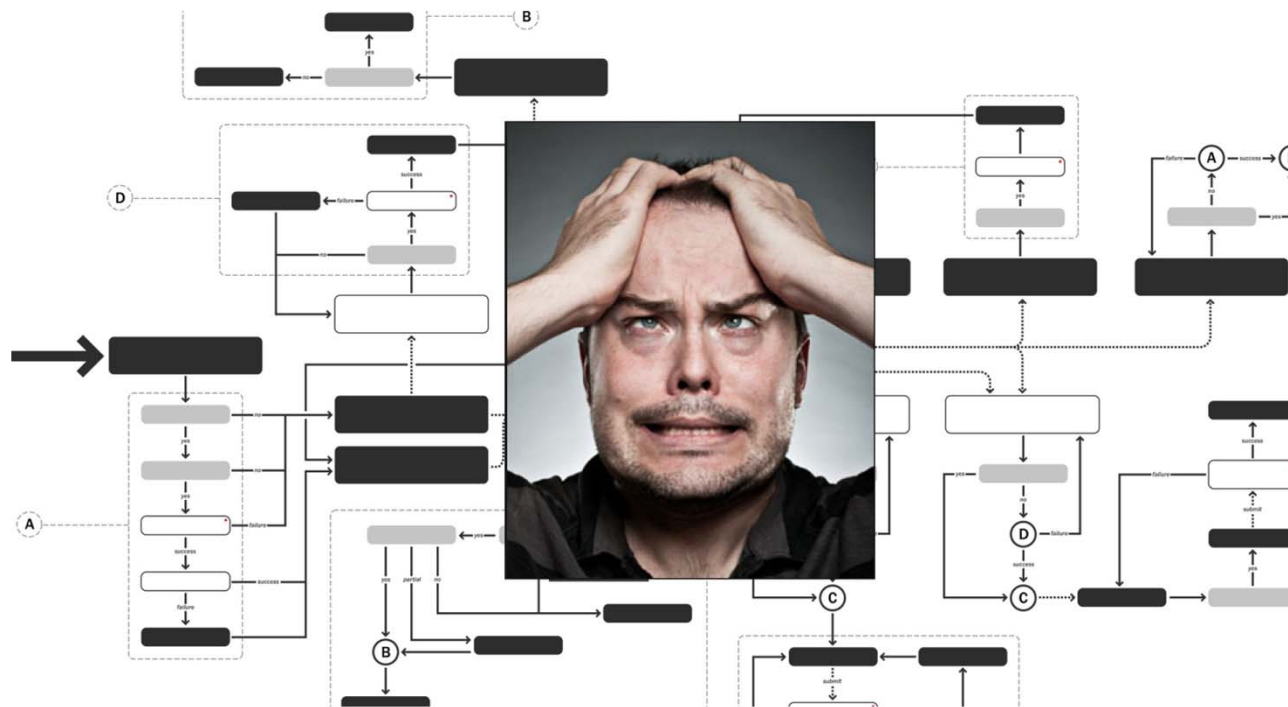
- Transportation Electrification
 - Upstate Plug-In Electric Vehicle Coordinating Committee
 - Assessing EV Impact
- Portfolio Diversification
 - Transmission diversity
 - Fuel Diversity
 - Long-term & short-term Procurement
 - 20-year risk-based portfolio modeling
- Resource Adequacy
 - 115% Planning 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



Your Community Utility