

## DOCKETED

<b>Docket Number:</b>	15-IEPR-06
<b>Project Title:</b>	Renewable Energy
<b>TN #:</b>	204574
<b>Document Title:</b>	Tim Tutt Comments: SMUD Presentation On RPS Progress
<b>Description:</b>	N/A
<b>Filer:</b>	System
<b>Organization:</b>	Tim Tutt
<b>Submitter Role:</b>	Public
<b>Submission Date:</b>	5/11/2015 8:47:52 AM
<b>Docketed Date:</b>	5/11/2015

*Comment Received From: Tim Tutt*

*Submitted On: 5/11/2015*

*Docket Number: 15-IEPR-06*

## **SMUD Presentation On RPS Progress**

*Additional submitted attachment is included below.*



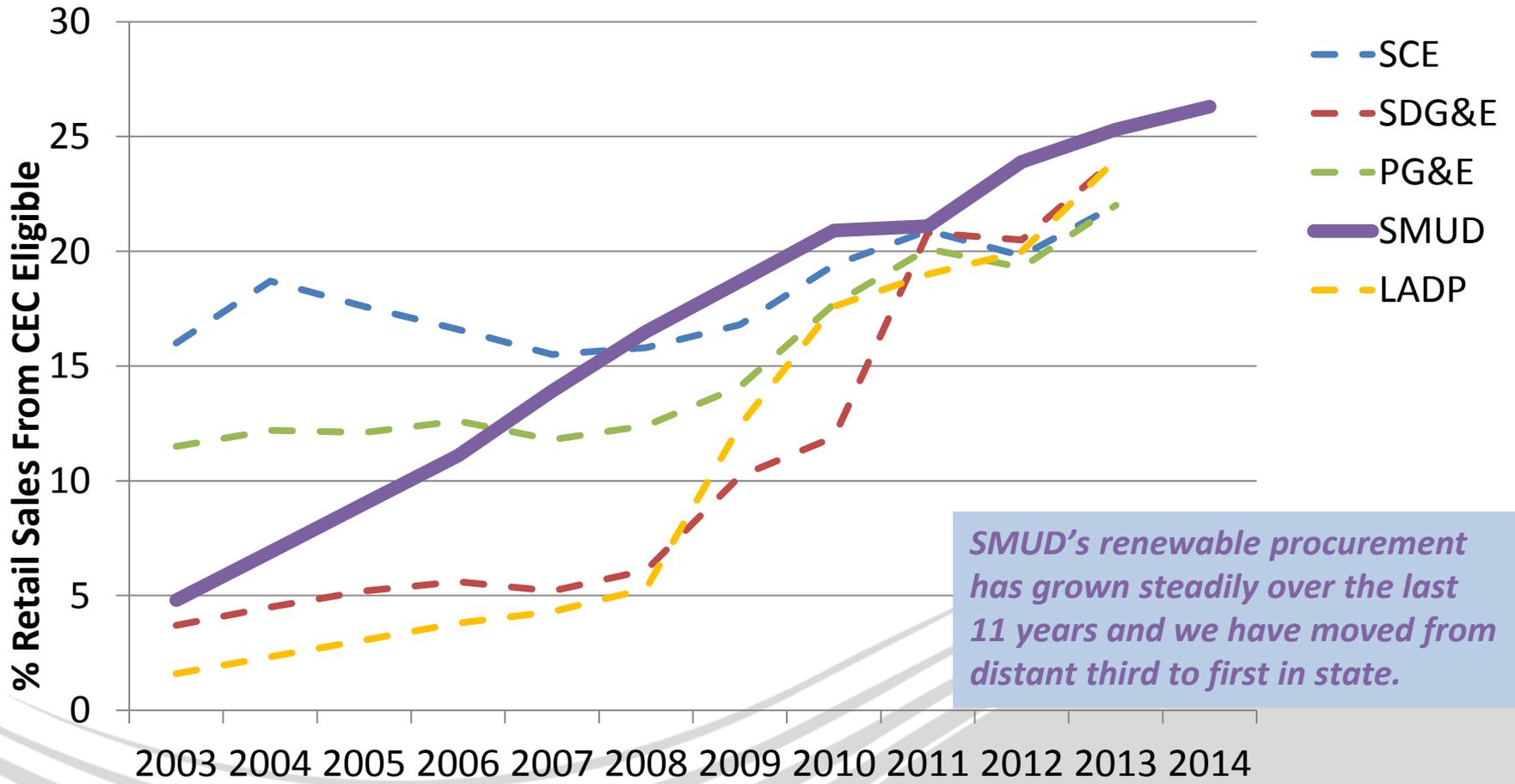
# CEC Workshop -- Renewable Progress, Challenges, and Opportunities

Monday, May 11<sup>th</sup>, 2015  
Tim Tutt

Powering forward. Together.

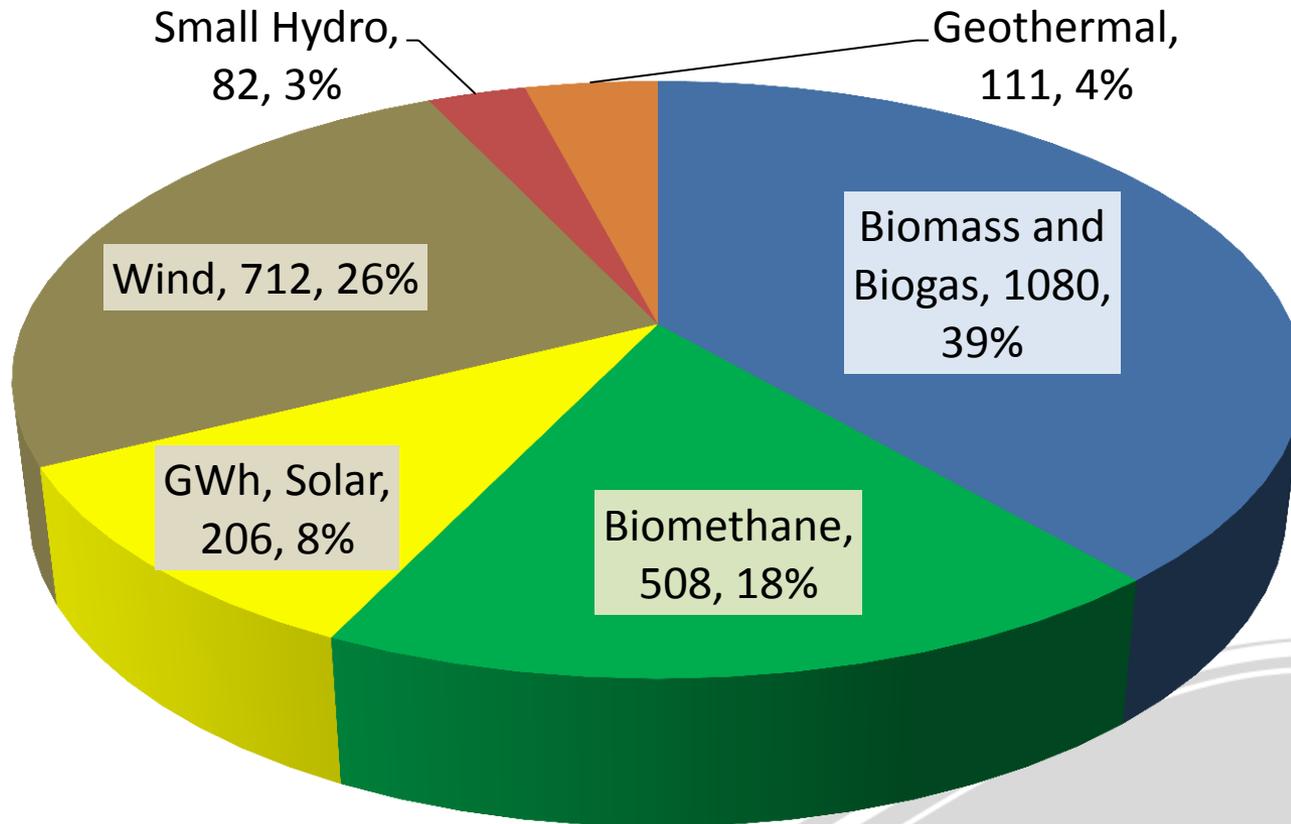


# Renewable Procurement As % Retail Sales For the Five Largest Utilities In California



# SMUD's Renewable Portfolio: 2014

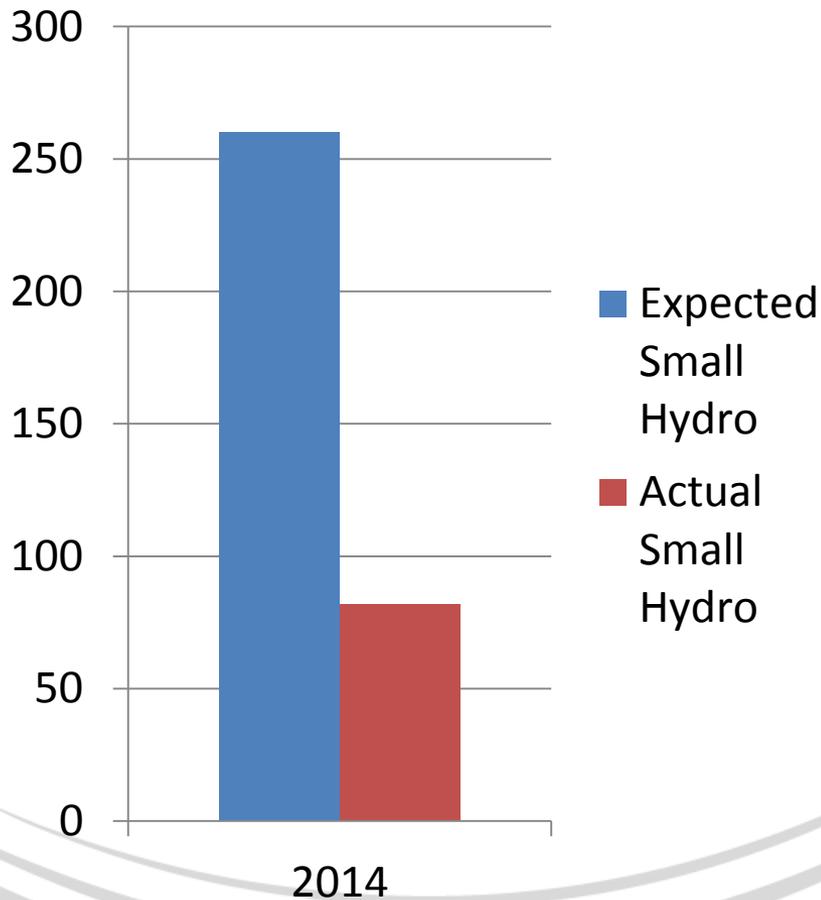
2783 GWh total, 26%



# SMUD RPS Status

	2011	2012	2013	1 <sup>st</sup> Compliance Period
Compliance Period Reqt.				6257 (20%)
SMUD Renewable Procurement	2192 (21%)	2495 (24%)	2639 (25%)	<b>7325</b> <b>(23%)</b>
RECs Retired	2192 (21%)	2458 (24%)	1630 (16%)	6280 (20%)
RECs Remaining (Potential Surplus)	0	37	1009 (9%)	~1050 (3%)
HCO	NA	NA	NA	~1220 (applied for)

# Impact of Drought: 2014 Procurement



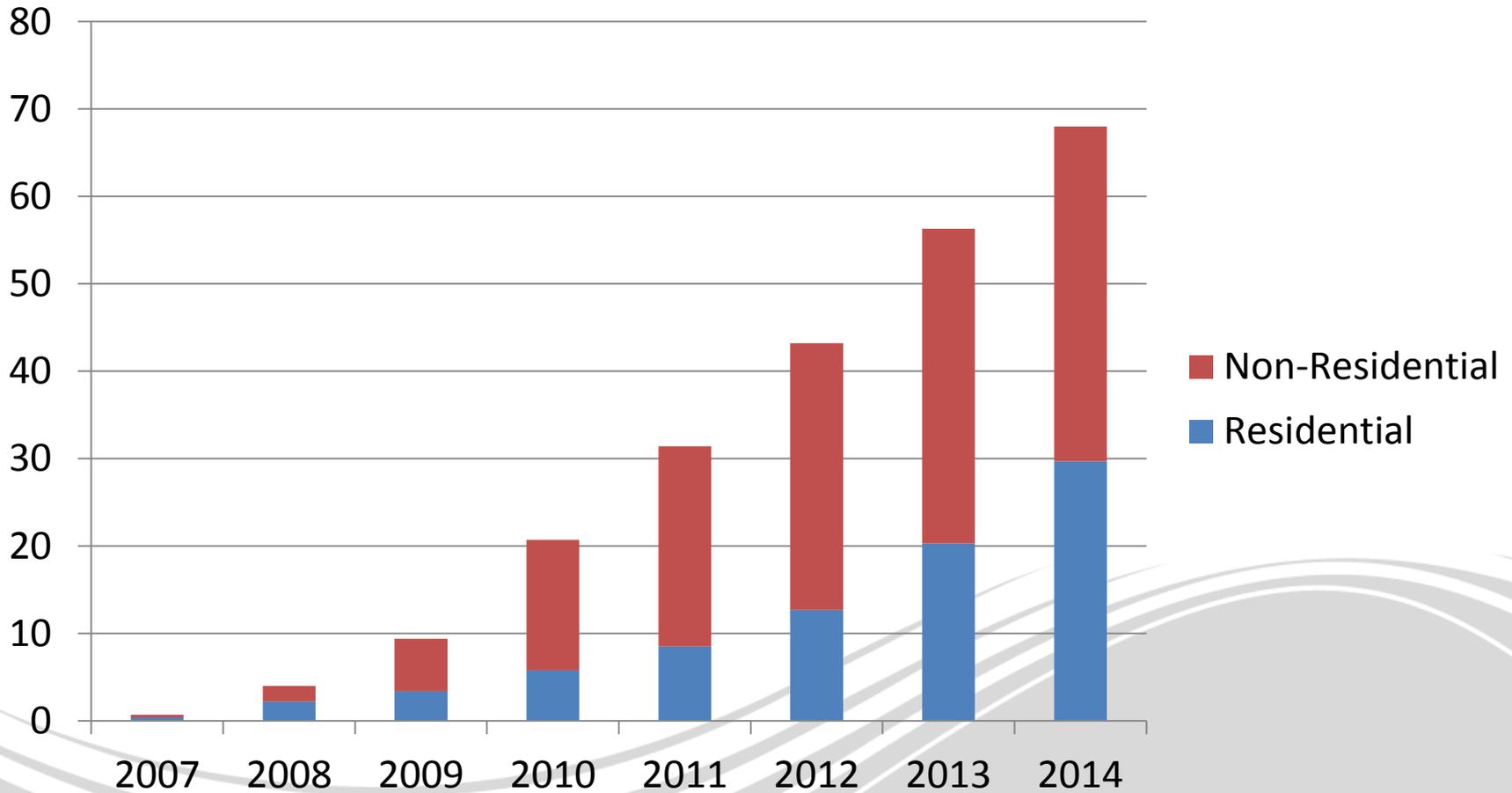
- Drought causes over 75% drop in small hydro procurement in 2014
- With normal hydro, SMUD would be at 28% renewables in 2014, 2% points higher than actual
- Important to recognize variability in procurement plans and violation assessment
- Important to have a portfolio of resources

# SMUD Plans For Compliance Periods 2 & 3

	2014-2016	2017-2020
Projected Retail Sales	31749	42475
RPS Requirement	6881 (21.7%)	12743 (30%)
Committed Procurement	8740 (27.5%)	12434 (29.3%)

- Recent Activity
  - Large biomass/small hydro contract ended in 2014
  - Extended contracts with local landfill, wind projects
  - Grandfathered biomethane contracts begin producing
  - New geothermal contracts
  - New local dairy digesters, solar begin producing
  - Considering several new options for wind, solar, geothermal, biogas

# SMUD's SB1 Status



# SMUD Renewable Research Looking at New Resources, Grid Impacts, Mitigation Alternatives, System Effects and Policies

- Proposed 484kw Solar Canal PV system to offset pumping load and reduce evaporation
- Developing a Pilot Biomass Gasification Project



- Developing better forecasting models; examining the effect of geographic variation
- Examining communications between PV inverters and system to allow monitoring and possibly control
- Research on storage at the house, neighborhood, and system level, and with Electric Vehicles (managed charging, V2H, V2G)
- Demand Response pilots and goals