

FEASIBILITY STUDY MEETING SUMMARY



Solar Share Garden, Meeting #1 November 21, 2016 at 2:30pm

Attending; Steven Poncelet with Truckee Donner Public Utility District (TDPUD), Darius Brooks and Forrest Huisman with Tahoe Donner Association (TDA)

Background; The TDA Board approved a feasibility study to determine challenges and opportunities of establishing a common location for a solar share garden, allowing individual TDA homeowners the opportunity to purchase interest in solar panels and associated production credits, assisting those that may not have property oriented for efficient installation of solar technologies.

Outcome; Steven reviewed TDA's objectives, then shared history and industry metrics (also see attached workshop item #13) that allow TDPUD to be competitive in the business of energy procurement and distribution. The following discussion points were discussed in varying detail;

- **Solar pricing:** Solar technologies are more affordable than ever before.
- **CA Rebates:** TDPUD complied with CA state law by offering rebates for qualifying commercial and residential meters, and although the program expired in mid-2016, TDA received rebate benefits for three 5.88 Kw systems, located at Alder Creek Adventure Center, Trout Creek Recreation Center, and Beach Club Marina.
- **Tax Incentives:** The Investment Tax Credit (ITC) is a 30 percent federal tax credit claimed against the tax liability of commercial investors in solar energy property. TDA qualifies, and has received tax benefits where applicable.
- **Solar Share:** Sacramento's Solar Share gives everyone the opportunity to benefit from the sun's power whether you rent or own your home. SMUD invests, builds, and maintains their solar gardens, then distributes the power to qualifying residents. This program is not offered by TDPUD, as they already benefit from lower energy costs and extend those savings to their customers.
- **Solar Share Garden:** Locally, the Truckee Sanitation District (TSD) built a 190,000 Kw/year system, covering approximately 2.5 acres, taking approximately 5 months to construct, which produces sufficient power for all five buildings on their campus. TSD spent \$1,019,409 six years ago, and if they could make any change, they would build the arrays even higher off the ground, so that each panel would double as a car port for their fleet and associated equipment.
- **Distribution:** Tahoe Donner has been successful in constructing solar panels behind three commercial meters, which offsets the overall energy costs of the Association, and therefore helps reduce the operating portion of the annual budget, but CA legislation prohibits TDA from distributing this power directly to their residents.
- **Power generation and sales:** TDPUD would consider buying power from TDA at nearly 5 cents/Kw, as they do with their existing power suppliers, but caution those considering solar for their primary source of power generation, as the return on investment would be further extended with anticipated costs of construction, maintenance and severity of winter weather found in the general Tahoe Donner area.

February 17, 2016



2015 Purchase Power Budget vs Actuals



2015 Purchase Power Budget vs Actuals

- Purchase Power Plan was approved on November 20, 2013
- FY 14 & 15 Budget included “Purchase Power Plan”
 - Mission statement and objectives
 - Renewable Portfolio Standard (RPS) target (State Requirement)
 - Conservation as first resource
 - Diversified power supply plan
 - Future renewable resources
 - Proposed resources for 2015
 - Risk analysis and 2015 forecast

BACKGROUND / HISTORY



TRUCKEE DONNER
Public Utility District

2015 Purchase Power Budget vs Actuals

- FY15 Purchase Power Plan included

Cost Component	Budget	\$ per MWh
Total Energy Supply - Various	\$11,331,030	\$68.79
Transmission Wheeling - SPPC	\$ 1,216,674	\$ 7.38
Scheduling - NCPA	\$ 75,423	\$ 0.46
Central Valley Project - WAPA	\$ -28,012	\$ -0.17
Totals	\$12,595,115	\$76.46

- 2015 Plan was based on a forecast of 164,729 MWh

BACKGROUND / HISTORY

2015 Purchase Power Budget vs Actuals

- **Summary Budget vs Actual FY15**

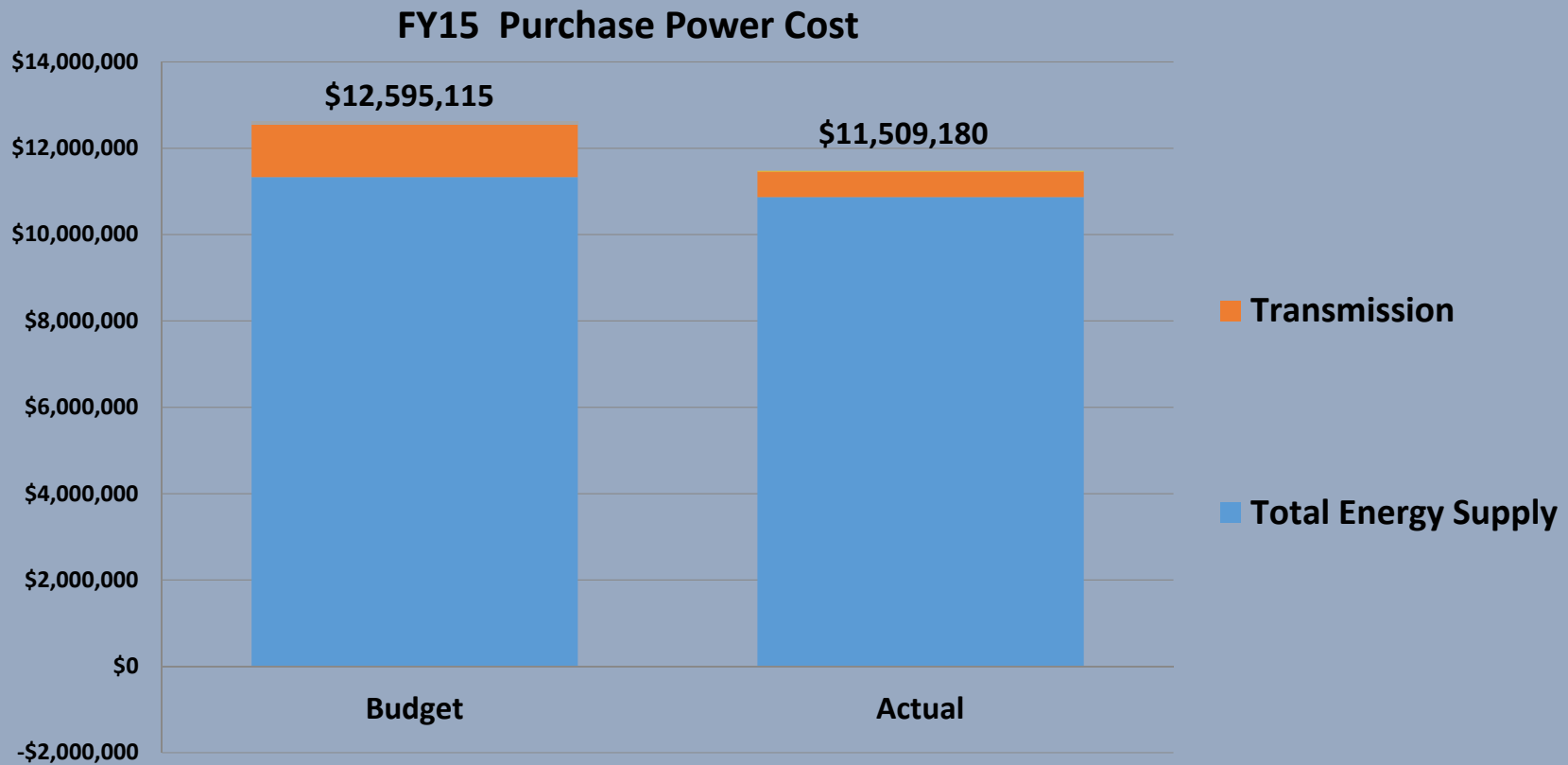
Description	Budget	Actual
Total Energy Purchases	\$12,595,115	\$11,509,180
Total Energy Consumption, MWh	164,729	152,210
Purchase Cost per MWh	\$76.46	\$75.61

- Energy cost: 8.6 % less than budgeted
- Energy consumption: 7.6% less than forecast
 - The two major factors that affect purchase power costs are resource costs and energy consumption by our customers

NEW INFORMATION

2015 Purchase Power Budget vs Actuals

- Budgeted vs Actual purchase power cost for 2015

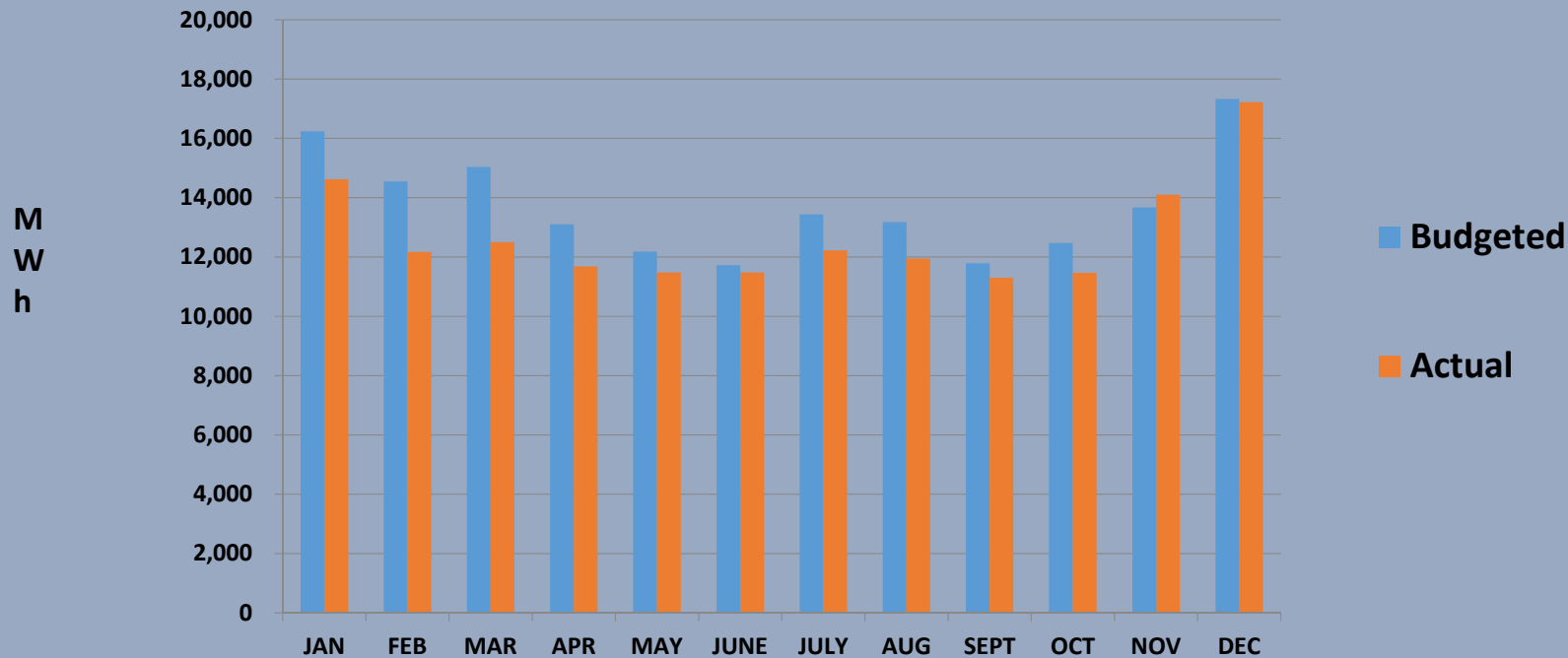


NEW INFORMATION

2015 Purchase Power Budget vs Actuals

- Budgeted vs Actual monthly MWh consumption for 2015

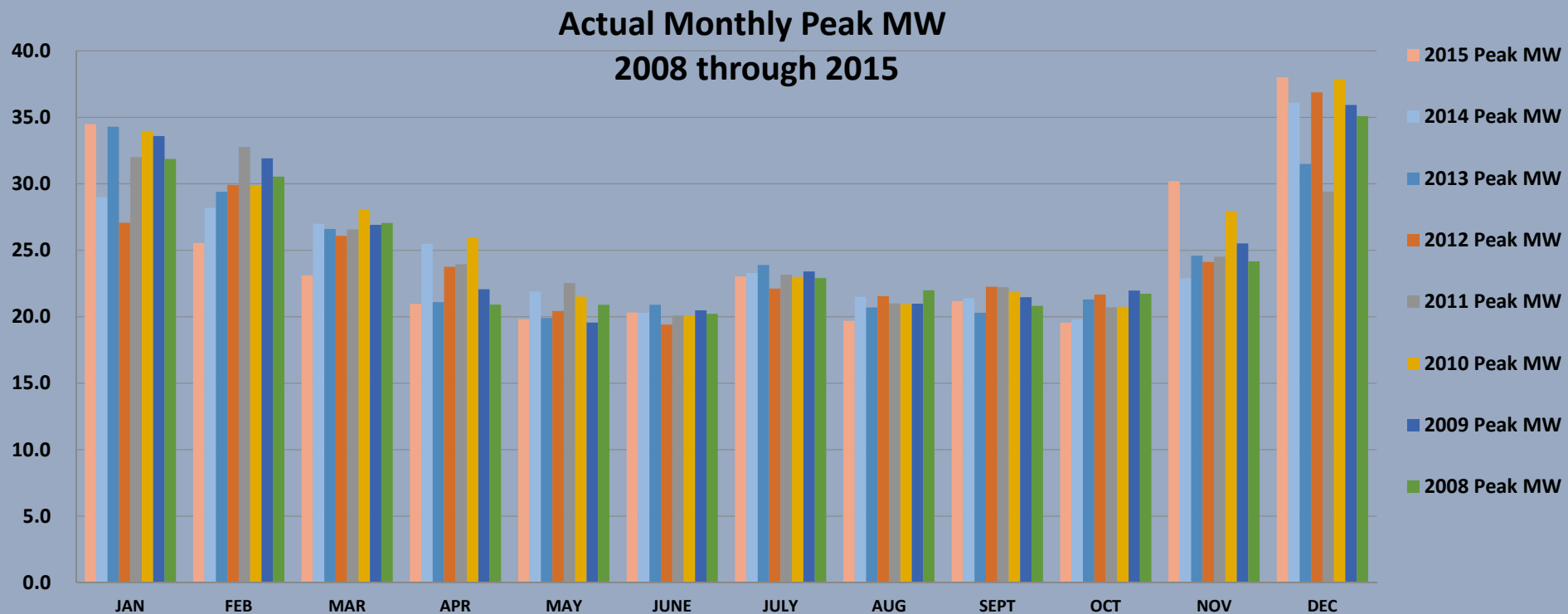
2015 Monthly Energy Consumption



NEW INFORMATION

2015 Purchase Power Budget vs Actuals

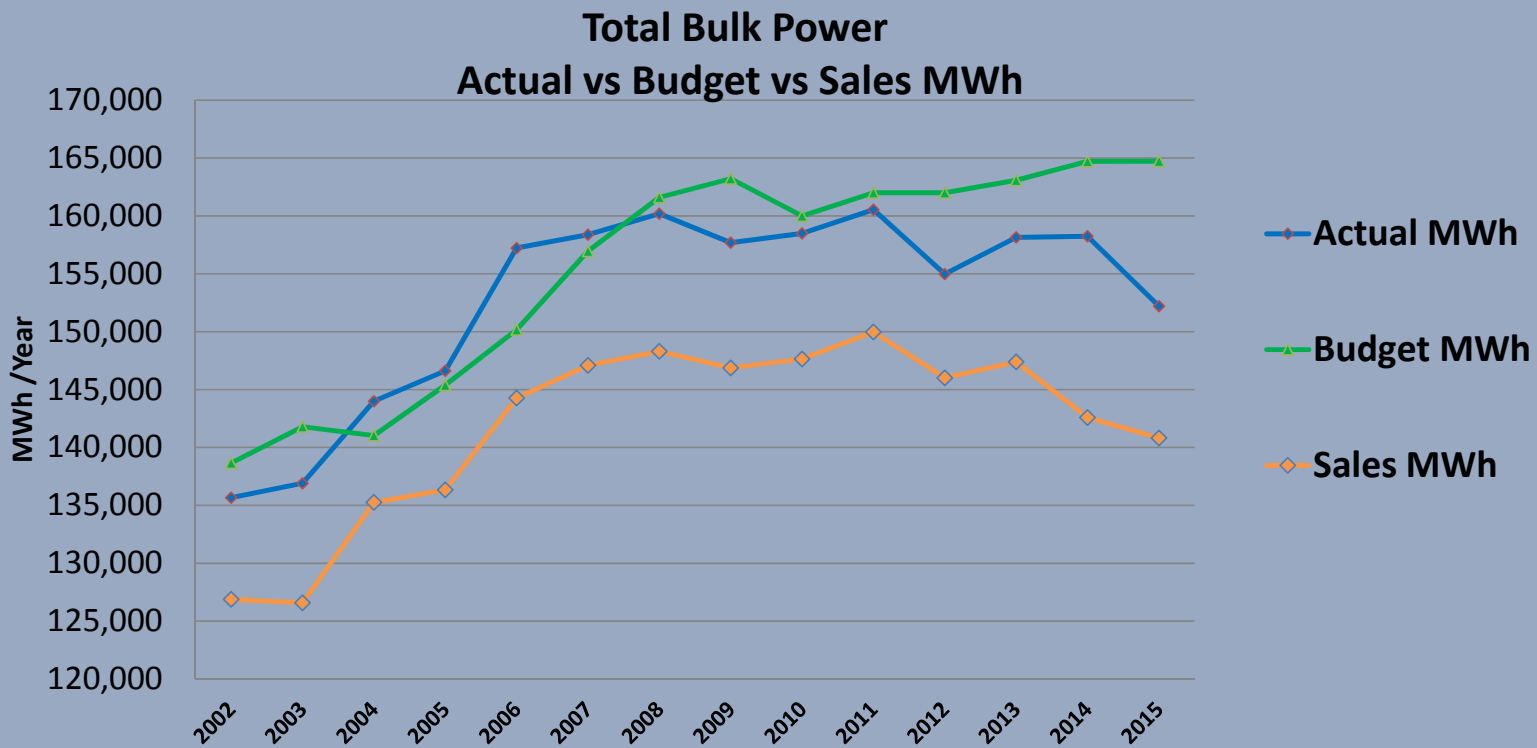
- Monthly Peak MW for 2008 through 2015



NEW INFORMATION

2015 Purchase Power Budget vs Actuals

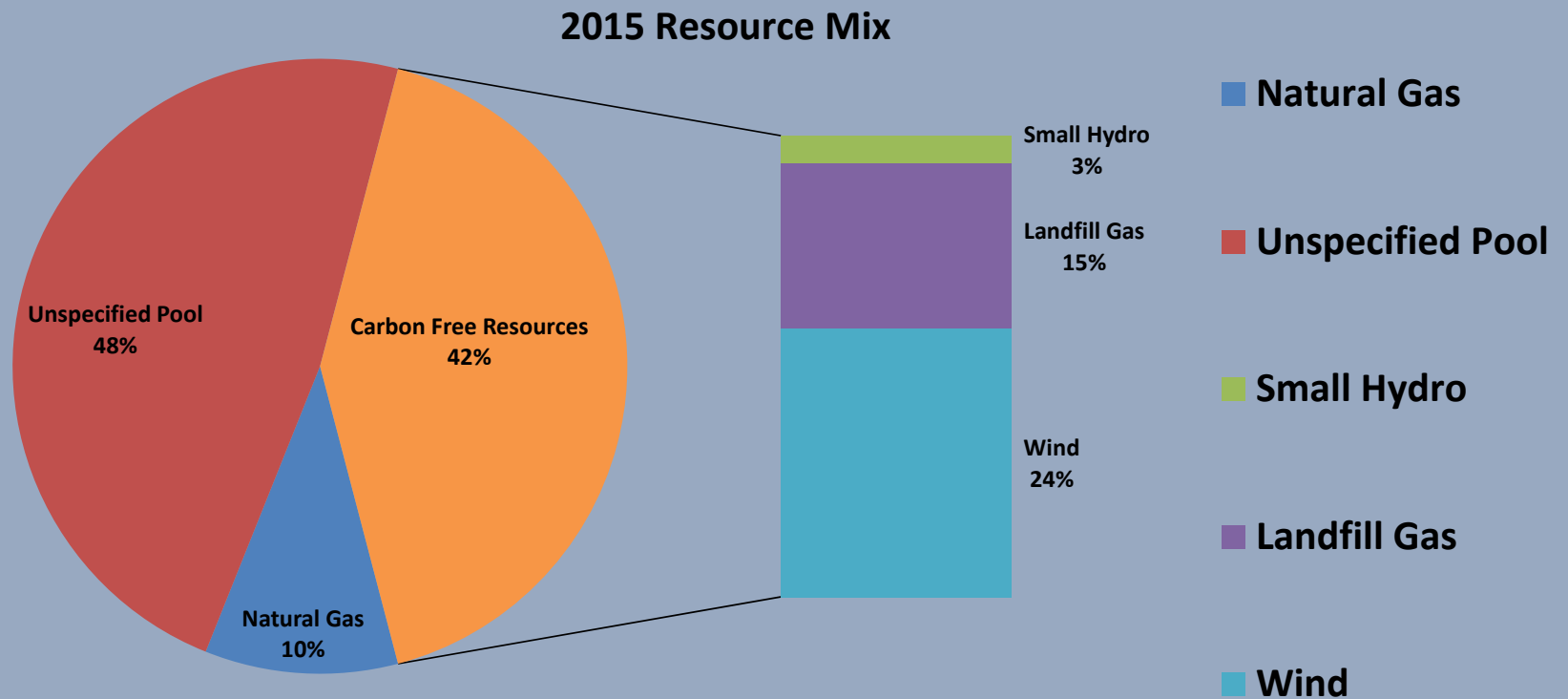
- Annual history of Actual vs Budget vs Sales MWh



NEW INFORMATION

2015 Purchase Power Budget vs Actuals

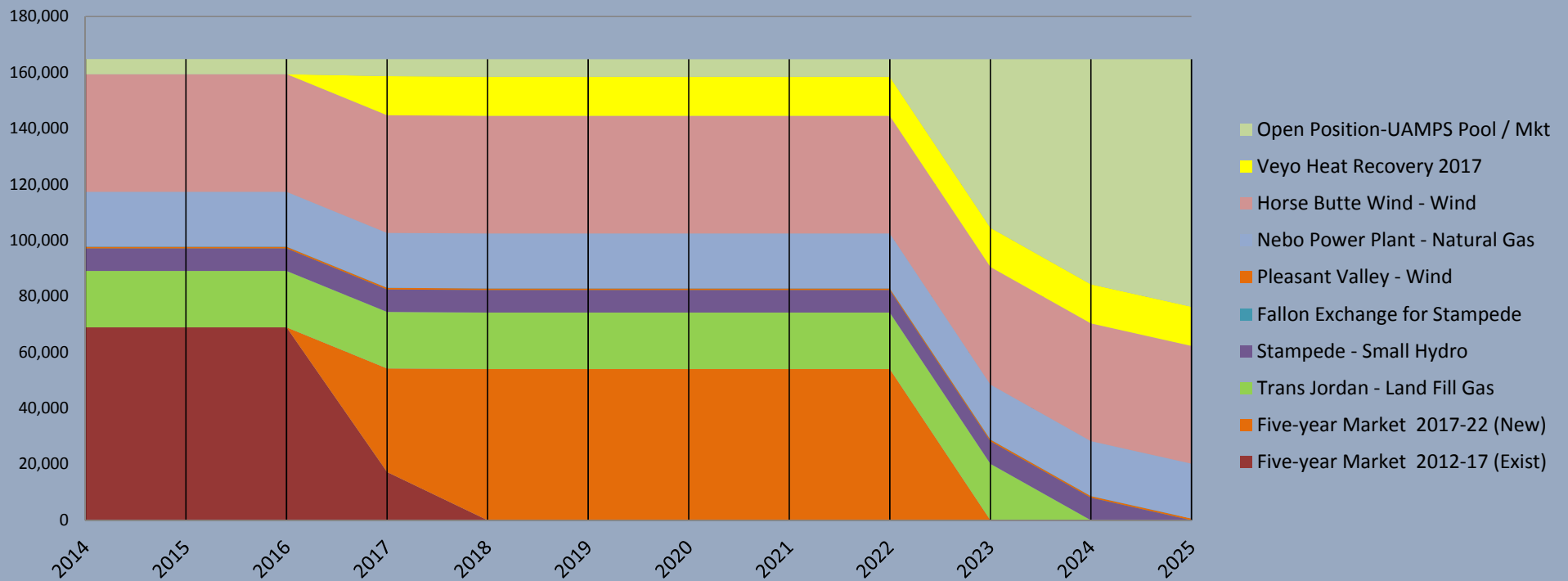
- Actual Purchase Power Resources used for 2015



NEW INFORMATION

2015 Purchase Power Budget vs Actuals

- Resources (MWh) by Year 2014 – 2025
 - With Veyo Heat Recovery 2017
 - & 2017-2022 Market Purchase



NEW INFORMATION

2015 Purchase Power Budget vs Actuals

- Renewable Portfolio Standard (RPS) compliance periods and targets:
 - 2011 thru 2013; 20% of retail sales
 - 2014 thru 2016; 25% of retail sales
 - 2017 thru 2020; 33% of retail sales
 - 2015 Estimated RPS*

Eligible Renewables (CPUC)	MWh REC's	% Sales
Small Hydro*	698	0.5%
Landfill Gas*	23,854	17.8%
Wind	38,786	29.0%
Totals	63,338	47.3%

- REC amounts will be finalized during 2nd quarter 2016
- CEC definition of "Retail Sales" does not include water pumping or own use

NEW INFORMATION

2015 Purchase Power Budget vs Actuals

- CARB Cap and Trade Summary

Annual Allocation of Electrical Distribution Utilities (Allowances)										
Utility Name	Utility Type	2013	2014	2015	2016	2017	2018	2019	2020	2021
Truckee Donner Public Utility District	POU	115,865	116,807	117,582	118,090	119,452	119,049	119,295	119,775	0
Allowance Revenue		\$862,563	\$836,233	\$965,402	-	-	-	-	-	-
Allowances Sold		70,866	71,806	77,583	-	-	-	-	-	-
Revenue used for HB Wind			\$862,563	\$836,233	\$965,402	-	-	-	-	-

NEW INFORMATION

2015 Purchase Power Budget vs Actuals

Summary 2015 Budget vs Actual

Power Purchases, MWh	Budget	Actual
Total Energy Purchase, MWh	164,729	159,614
Percent Difference, Actual vs Budget		-7.6%
Power Purchase Costs	Budget	Actual
Total Energy Supply - UAMPS, WAPA, etc	\$11,331,030	\$10,861,819
Transmission - NV Energy	\$1,216,674	\$591,015
Scheduling - NCPA	\$75,423	\$0
WAPA cost/(credit)	(\$28,012)	\$21,366
Misc Costs: WECC, WREGIS, etc.	\$0	\$34,979
Total Power Purchase Cost	\$12,595,115	\$11,509,180
\$ Over/(Under) Budget		\$(1,085,935)
Percent Difference, Actual vs Budget		-8.6%
Purchase Cost per MWh	\$76.46	\$75.61
Percent Difference, Actual vs Budget		-1.1%
Peak Load Information	Budget	Actual
District Peak Load, MW	36.0	38.0
Percent Difference, Actual vs Budget		5.6%

FISCAL IMPACT

2015 Purchase Power Budget vs Actuals

- Receive and comment on this report

RECOMMENDATION



TRUCKEE DONNER
Public Utility District