

# Updated Nexant Cost Allocation Model and Determinants for FY 2015

NCPA Special Facilities Committee Meeting  
February 12, 2014

# Proposed Changes to FY15 Nexant Model

#	Issue Description
1	Modify 'Step 2' Allocation Parameter to 1/3 split among Pool Members' Loads, Contracts, and Pool Resources;
2	Revise Pre-Scheduling Labor Hours and allocation percentages based on updated LEC prescheduling labor hours;
3	Exclude Hour Ahead Schedule Counts associated with fractional quantity changes from the Day Ahead Schedule;
4	Exclude real-time DVR internal final schedules from input determinants into the Nexant Model;
5	Use average of LEC total ESP schedule counts for each awarded product category as calculation method of determinants for use in Nexant model;
6	Exclude Hour Ahead Schedule counts for PIRP resources;
7	<b>Revise Pre-Scheduling Labor Hours and allocation percentages based on terminated TD-PUD service agreement and WBR;</b>
8	<b>Exclude Palo Alto COT Lay-Off deal-ids from contract counts</b>

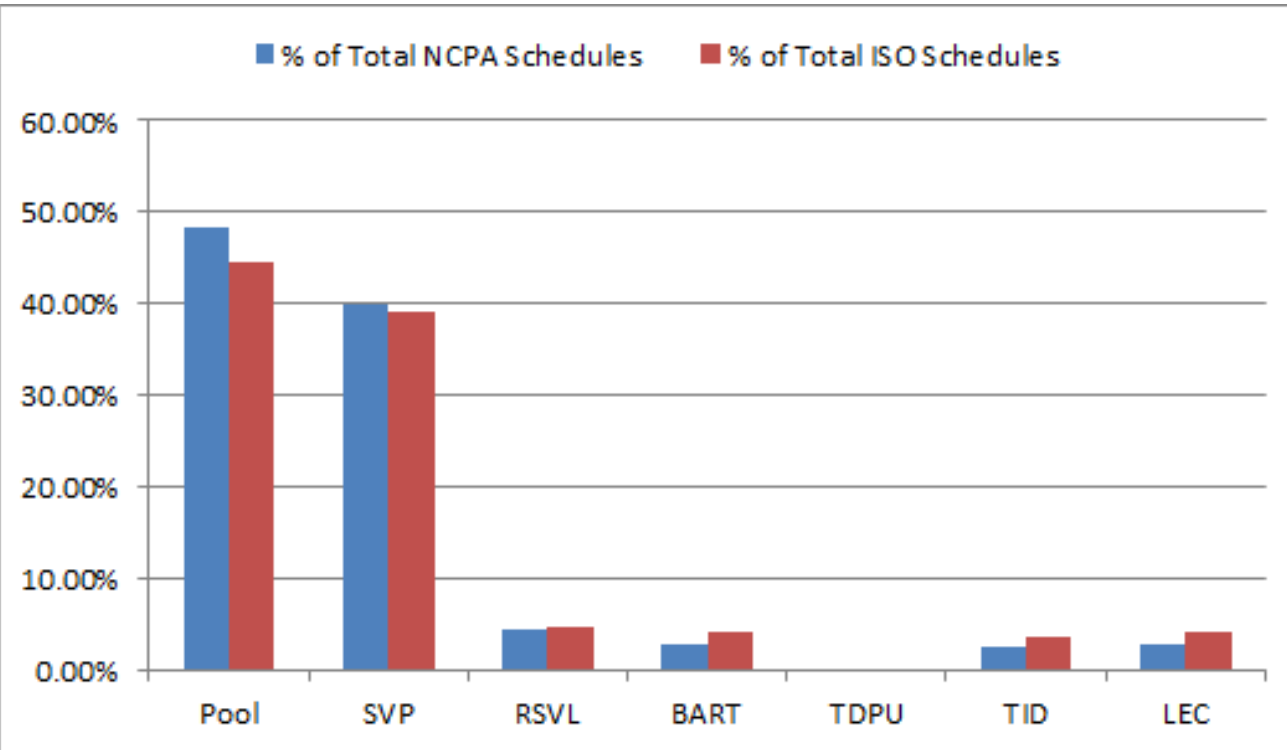
## FY15 Nexant Cost Allocation Topics

- Review Members' Cost Drivers
- Review Proposed Changes to Nexant Model
  - Base Case Nexant Model reflects the proposed changes for:
    - Revised Pre-Scheduling Costs
    - HA Schedule Counts for fractional quantities
    - DVR Internal Final Schedules
    - LEC Schedule Counts
    - Exclude HA Schedule Counts for PIRP resources
  - Two new proposed changes
    - Contract deals related to Palo Alto's Lay-Off of its COT Capacity
    - TD-PUD Service Agreement Termination

FY15 Nexant Cost Allocation Model

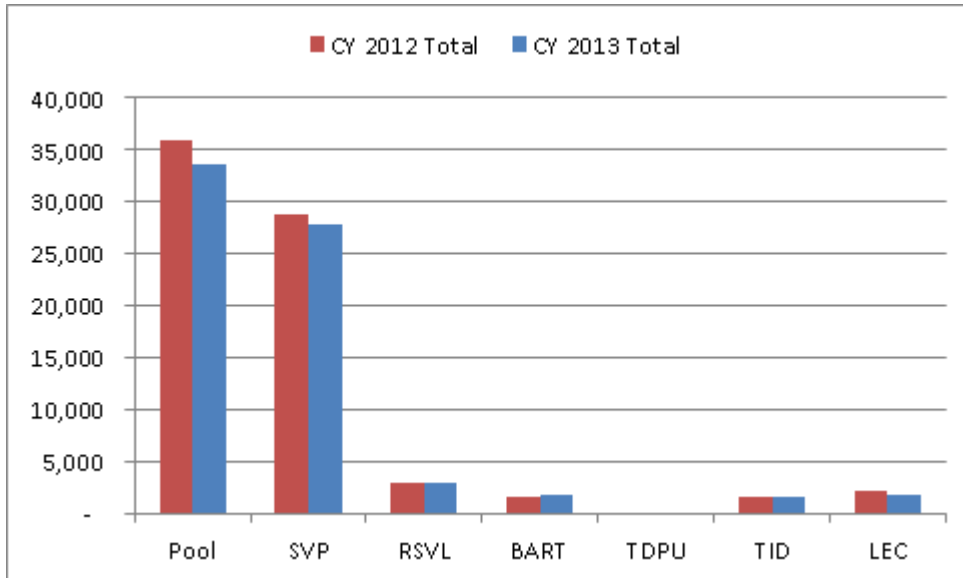
# OPERATING ENTITY COST DRIVERS

# Schedule Counts – % of Total for each Entity and Schedule Type

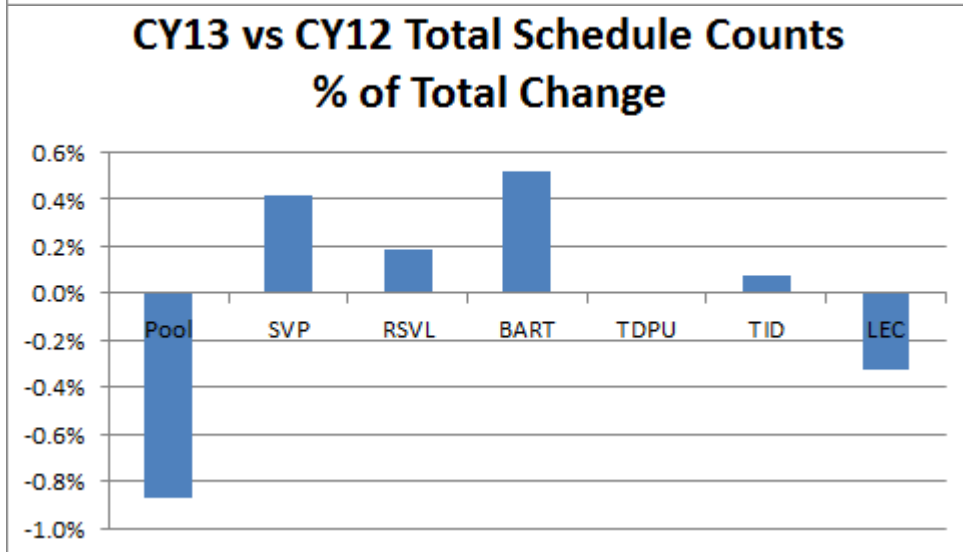


- Total NCPA Schedules: 70K
- Total CAISO Schedules: 45K

# 2013 vs 2012 Total Schedule Counts and Relative % Change

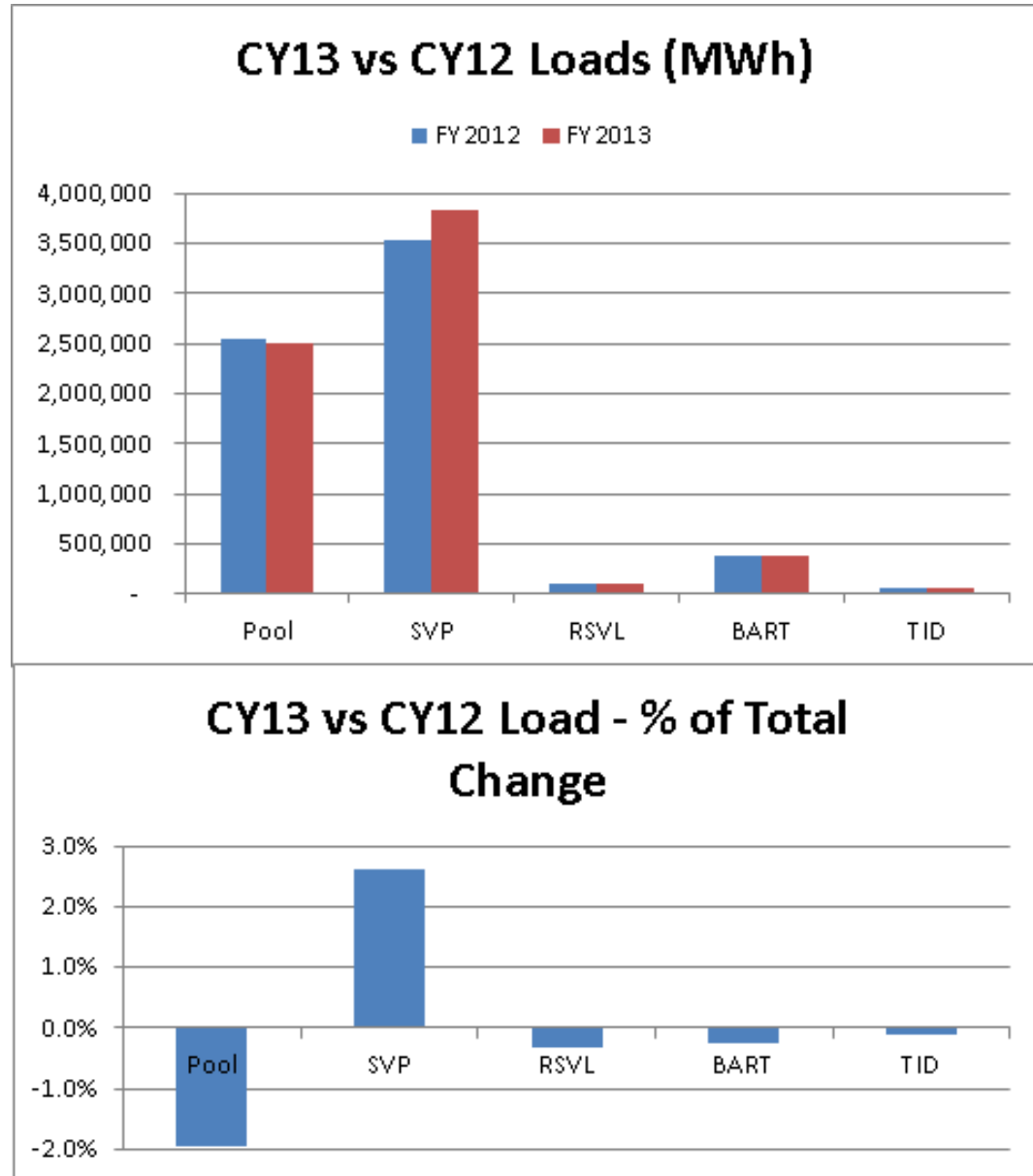


- 5K total increase in Day Ahead Schedule Counts
- 6K total decrease in Hour Ahead and Real Time Schedule Counts, which varies year-to-year



# Scheduled Energy and Loads

- SC 'Step 2'  
28.17%  
Allocation  
Parameter
- Used to allocate  
~\$772K of SC  
costs

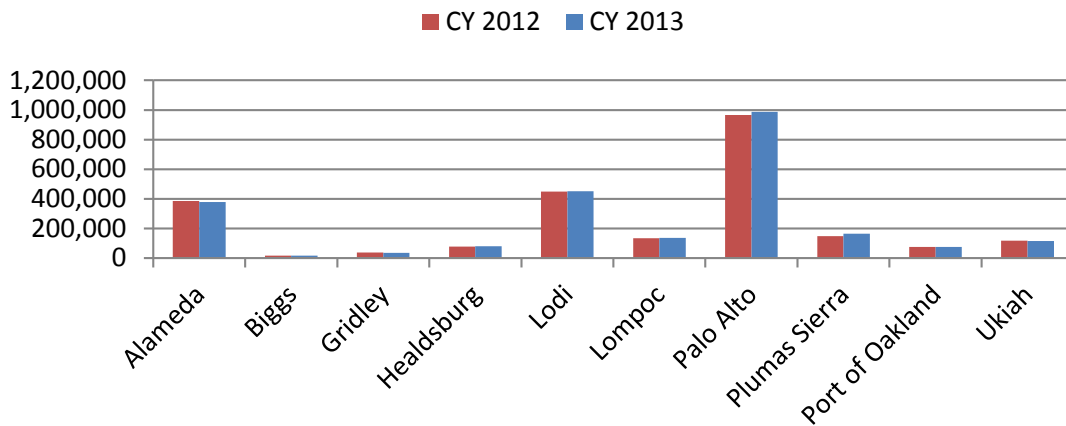


FY15 Nexant Cost Allocation Model

# POWER POOL COST DRIVERS

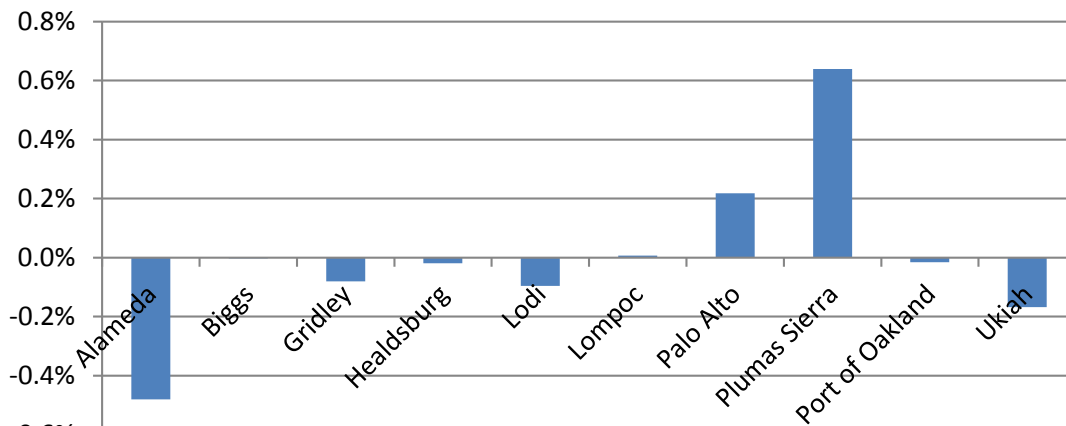


### CY13 vs CY12 Pool Member Loads (MWh)



**Cost Driver:  
Pool Member  
Loads**

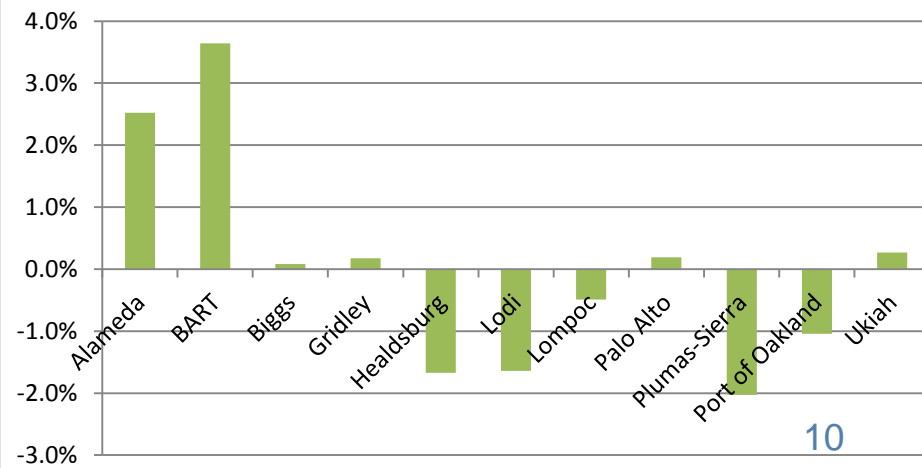
### CY13 vs CY12 Load Compare as % of Total Change



# Cost Driver: Pool/BART Contract Deals

Pool n BART Scheduling			
Member Name	CY 2012 Melded Weights	CY 2013 Melded Weights	CY13 - CY12 Diff
Alameda	9.2%	11.7%	2.5%
BART	16.0%	19.6%	3.6%
Biggs	1.6%	1.7%	0.1%
Gridley	1.0%	1.1%	0.2%
Healdsburg	3.8%	2.2%	-1.7%
Lodi	8.1%	6.4%	-1.6%
Lompoc	3.9%	3.4%	-0.5%
Palo Alto	26.6%	26.8%	0.2%
Plumas-Sierra	10.0%	7.9%	-2.0%
Port of Oakland	15.6%	14.5%	-1.0%
Ukiah	4.4%	4.7%	0.3%
	100.0%	100.0%	0.0%

**CY13 - CY12 % Diff**



## Step 2 Allocation Parameter to 1/3 Split among Loads, Contracts and Pool Resources

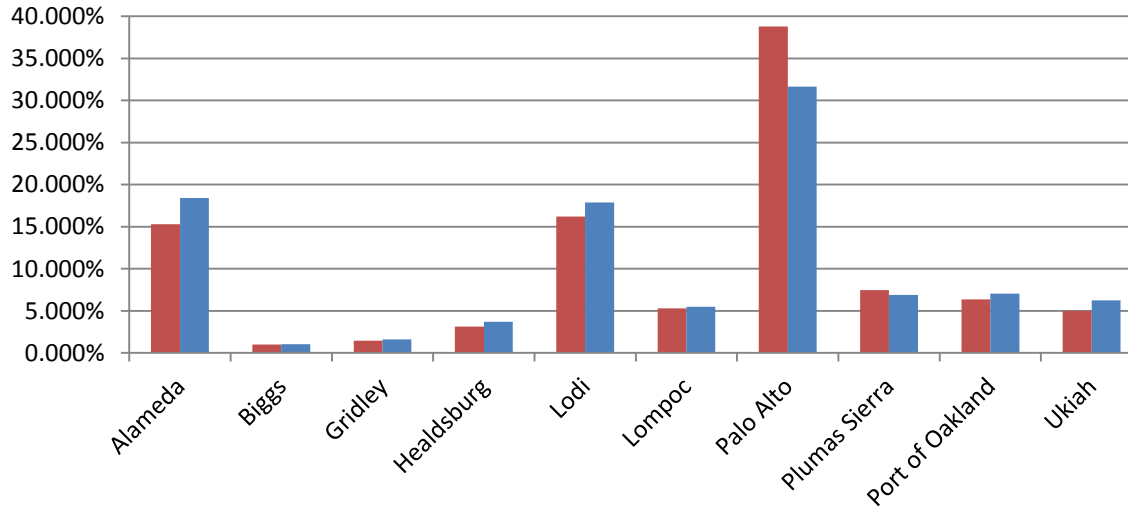
- Applies only to Pool Members
- Introduces new “Pool Resources” cost allocation category
- Used to allocate ~\$3.2M
  - \$1.8M Power Pool Management costs;
  - \$1.4M of Pool OE scheduling costs

# Cost Driver: 'Pool Resources' Cost Category for Pool % Allocation based on 1/3 Load, 1/3 Contracts and 1/3 Pool Resources

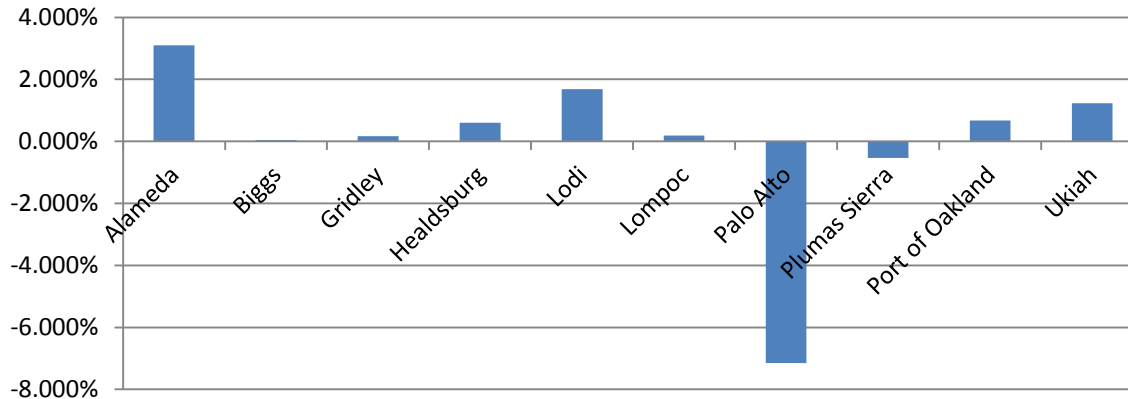
Pool Member	Hydro	Geo	CT1	CT2	Lodi Energy Center	Richmond Landfill	Santa Cruz Landfill	Ox Mountain	Keller Landfill	High Sierra	Gridley Co-Gen	Johnson BART PV	Foothills Ranch Landfill	Butte County Landfill	Pool Resource - MW	Pool Resource - %
<b>Alameda</b>	25.89	27.86	16.23	9.48	2.50	1.52	5.31	1.78					2.15	92.72	<b>25.16%</b>	
<b>Biggs</b>		0.37	0.15		0.75									1.27	<b>0.34%</b>	
<b>Gridley</b>		0.55	0.26		5.50					1.00				7.31	<b>1.98%</b>	
<b>Healdsburg</b>	4.30	6.06	4.34		4.60									19.30	<b>5.24%</b>	
<b>Lodi</b>	26.84	16.96	9.96	19.71	26.60									100.08	<b>27.15%</b>	
<b>Lompoc</b>	5.95	6.07	4.34	2.50	5.70									24.56	<b>6.66%</b>	
<b>Palo Alto</b>	59.33					1.52	5.31	1.78			1.50	4.50		78.44	<b>21.28%</b>	
<b>Plumas Sierra</b>	4.37	1.16	1.35		2.20				6.00					15.08	<b>4.09%</b>	
<b>Port of Oakland</b>															<b>0.00%</b>	
<b>Ukiah</b>	5.28	9.26	6.76		5.00									29.81	<b>8.09%</b>	
Pool Capacity	131.97	68.30	43.40	31.69	50.35	2.50	3.04	10.62	3.56	6.00	1.00	1.50	4.50	2.15	368.58	<b>100.000%</b>

### CY 2013 % Pool Allocation Comparison

■ CY2013 78% Load / 22% Contracts    ■ 1/3 Loads, Contracts, Resources



### CY13 Pool Allocation Change in Total %



**CY13 Data:  
Pool %  
Allocation  
based on 1/3  
Load, 1/3  
Contracts and  
1/3 Pool  
Resources vs  
78%-22%  
Split**

# CY13 Pool Allocation: 78% Load / 22% Contract Split w/Adjustments

	A	B	C	D	E	F	G	L	M
1	<b>FY 2015</b>								
2	MEMBER TOTALS								
3									
4		General Power Mgt	Direct Assignments	Pool Allocation	System Integration	<b>FY 2015 Power Mgmt Total Pwr Mgmt</b>	<b>1/23/14 Commission Approved updated FY 2014 Total Pwr Mgmt</b>	Increase (Decrease)	
5	Alameda	\$586,525		\$256,112	\$54,274	<b>\$896,912</b>	\$887,805	\$9,107	
6	BART	\$405,536	\$133,192	\$109,198	\$28,716	<b>\$676,642</b>	\$608,572	\$68,070	
7	Biggs	\$30,793		\$18,198	\$1,423	<b>\$50,414</b>	\$48,878	\$1,536	
8	Gridley	\$41,492		\$28,545	\$9,260	<b>\$79,297</b>	\$74,037	\$5,260	
9	Healdsburg	\$110,633		\$53,682	\$4,475	<b>\$168,790</b>	\$199,450	(\$30,660)	
10	Lodi	\$630,482		\$281,760	\$23,256	<b>\$935,498</b>	\$959,031	(\$23,533)	
11	Lompoc	\$181,859		\$89,870	\$7,635	<b>\$279,365</b>	\$292,023	(\$12,659)	
12	Palo Alto	\$1,090,254		\$722,886	\$88,019	<b>\$1,901,158</b>	\$1,895,094	\$6,064	
13	Plumas Sierra	\$214,150		\$134,935	\$25,056	<b>\$374,141</b>	\$388,512	(\$14,371)	
14	Port of Oakland	\$182,668		\$106,390	\$9,143	<b>\$298,201</b>	\$305,488	(\$7,287)	
15	Roseville	\$311,352	\$46,955	\$0	\$71,791	<b>\$430,098</b>	\$428,603	\$1,495	
16	Santa Clara	\$2,859,207	\$46,955	\$0	\$229,731	<b>\$3,135,893</b>	\$3,025,842	\$110,052	
17	Truckee-Donner	\$1,671	\$60,954	\$1,809	\$7,179	<b>\$71,613</b>	\$65,756	\$5,857	
18	Turlock Irrigation District	\$106,643	\$6,667	\$0	\$43,075	<b>\$156,385</b>	\$157,000	(\$615)	
19	Ukiah	\$190,335		\$85,239	\$14,368	<b>\$289,942</b>	\$295,592	(\$5,649)	
24		\$6,943,600	\$294,723	\$1,888,623	\$617,403	\$9,744,349	\$9,631,682	\$112,667	
25									
26	Direct to Programs - LEC	\$1,021,683	\$36,285		\$57,433	<b>\$1,115,402</b>	\$1,228,069	(\$112,667)	
27									
28		\$7,965,283	\$331,009	\$1,888,623	\$674,836	\$10,859,751	\$10,859,751	\$0	

# CY13 Data and Pool % based on 1/3 Split among Load, Contract, Pool Resources

	A	B	C	D	E	F	G	L	M
1	<b>FY 2015</b>								
2	MEMBER TOTALS								
3									
4		General Power Mgt	Direct Assignments	Pool Allocation	System Integration	<b>FY 2015 Power Mgmt Total Pwr Mgmt</b>	<b>1/23/14 Commission Approved updated FY 2014 Total Pwr Mgmt</b>	Increase (Decrease)	
5	Alameda	\$639,692		\$313,806	\$58,728	<b>\$1,012,226</b>	\$887,805	\$124,421	
6	BART	\$405,536	\$133,192	\$82,434	\$28,716	<b>\$649,878</b>	\$608,572	\$41,306	
7	Biggs	\$31,456		\$18,831	\$1,479	<b>\$51,766</b>	\$48,878	\$2,887	
8	Gridley	\$44,369		\$31,834	\$9,501	<b>\$85,704</b>	\$74,037	\$11,667	
9	Healdsburg	\$120,971		\$65,017	\$5,341	<b>\$191,329</b>	\$199,450	(\$8,121)	
10	Lodi	\$659,358		\$317,398	\$25,675	<b>\$1,002,431</b>	\$959,031	\$43,400	
11	Lompoc	\$185,135		\$94,885	\$7,910	<b>\$287,929</b>	\$292,023	(\$4,094)	
12	Palo Alto	\$967,709		\$611,764	\$77,754	<b>\$1,657,227</b>	\$1,895,094	(\$237,866)	
13	Plumas Sierra	\$204,929		\$126,988	\$24,284	<b>\$356,201</b>	\$388,512	(\$32,312)	
14	Port of Oakland	\$194,197		\$116,390	\$10,109	<b>\$320,696</b>	\$305,488	\$15,208	
15	Roseville	\$311,352	\$46,955	\$0	\$71,791	<b>\$430,098</b>	\$428,603	\$1,495	
16	Santa Clara	\$2,859,207	\$46,955	\$0	\$229,731	<b>\$3,135,893</b>	\$3,025,842	\$110,052	
17	Truckee-Donner	\$1,671	\$60,954	\$1,809	\$7,179	<b>\$71,613</b>	\$65,756	\$5,857	
18	Turlock Irrigation District	\$106,643	\$6,667	\$0	\$43,075	<b>\$156,385</b>	\$157,000	(\$615)	
19	Ukiah	\$211,375		\$107,468	\$16,130	<b>\$334,973</b>	\$295,592	\$39,381	
24		\$6,943,600	\$294,723	\$1,888,623	\$617,403	\$9,744,349	\$9,631,682	\$112,667	
25									
26	Direct to Programs - LEC	\$1,021,683	\$36,285		\$57,433	<b>\$1,115,402</b>	\$1,228,069	(\$112,667)	
27									
28		\$7,965,283	\$331,009	\$1,888,623	\$674,836	\$10,859,751	\$10,859,751	\$0	

# Comparison of CY13: 1/3 Split vs 78%-22% Split

**FY 2015**

MEMBER TOTALS

	78% / 22% Split	1/3 Split	Difference
Alameda	\$896,912	\$1,012,226	\$115,314
BART	\$676,642	\$649,878	(\$26,764)
Biggs	\$50,414	\$51,766	\$1,351
Gridley	\$79,297	\$85,704	\$6,407
Healdsburg	\$168,790	\$191,329	\$22,539
Lodi	\$935,498	\$1,002,431	\$66,933
Lompoc	\$279,365	\$287,929	\$8,565
Palo Alto	\$1,901,158	\$1,657,227	(\$243,931)
Plumas Sierra	\$374,141	\$356,201	(\$17,940)
Port of Oakland	\$298,201	\$320,696	\$22,495
Roseville	\$430,098	\$430,098	
Santa Clara	\$3,135,893	\$3,135,893	
Truckee-Donner	\$71,613	\$71,613	
Turlock Irrigation District	\$156,385	\$156,385	
Ukiah	\$289,942	\$334,973	\$45,031
	<b>\$9,744,349</b>	<b>\$9,744,349</b>	
Direct to Programs - LEC	<b>\$1,115,402</b>	<b>\$1,115,402</b>	
	<b>\$10,859,751</b>	<b>\$10,859,751</b>	



## Issue: Proposed Exclusion of Palo Alto COT Capacity Lay-Off Deals from Contract Count

- Background
  - 2009 COT Lay-Off to various counter-parties;
  - Recorded as monthly records in NCPA's deal capture system;
  - Database records related to the Palo Alto COT Lay-Off do not correspond to work or effort performed by NCPA staff

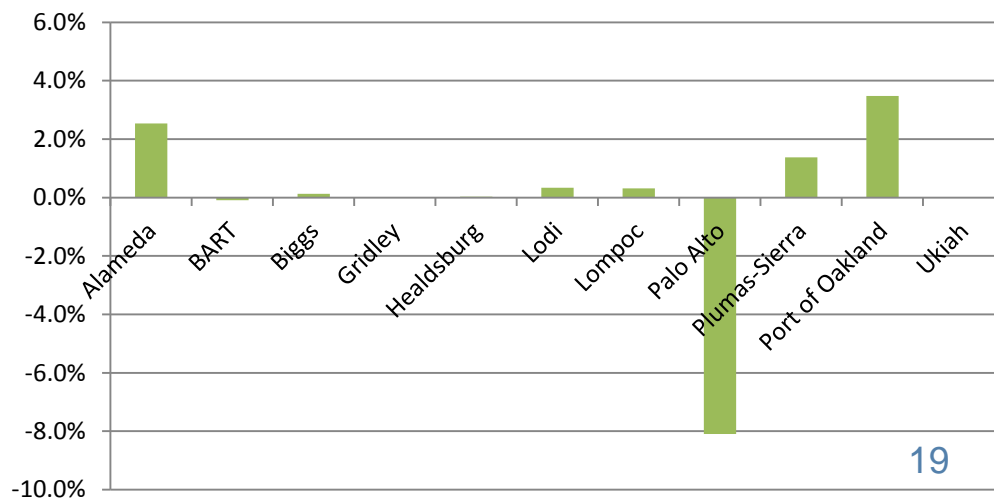
# CY13 Data and Pool % based on 1/3 Split after excluded Palo Alto COT Lay-Off Adjustment

	A	B	C	D	E	F	G	L	M
1	<b>FY 2015</b>								
2	MEMBER TOTALS								
3									
4		General Power Mgt	Direct Assignments	Pool Allocation	System Integration	<b>FY 2015 Power Mgmt Total Pwr Mgmt</b>	<b>1/23/14 Commission Approved updated FY 2014 Total Pwr Mgmt</b>	Increase (Decrease)	
5	Alameda	\$668,211		\$330,328	\$60,226	<b>\$1,058,765</b>	\$887,805	\$170,960	
6	BART	\$409,138	\$133,192	\$82,210	\$28,716	<b>\$653,256</b>	\$608,572	\$44,684	
7	Biggs	\$33,057		\$19,636	\$1,551	<b>\$54,245</b>	\$48,878	\$5,367	
8	Gridley	\$44,538		\$31,799	\$9,497	<b>\$85,834</b>	\$74,037	\$11,797	
9	Healdsburg	\$121,784		\$65,206	\$5,358	<b>\$192,348</b>	\$199,450	(\$7,102)	
10	Lodi	\$664,003		\$319,584	\$25,872	<b>\$1,009,459</b>	\$959,031	\$50,428	
11	Lompoc	\$189,076		\$96,897	\$8,092	<b>\$294,064</b>	\$292,023	\$2,041	
12	Palo Alto	\$868,921		\$558,649	\$72,922	<b>\$1,500,492</b>	\$1,895,094	(\$394,602)	
13	Plumas Sierra	\$220,711		\$135,924	\$25,094	<b>\$381,728</b>	\$388,512	(\$6,784)	
14	Port of Oakland	\$232,984		\$139,114	\$12,170	<b>\$384,267</b>	\$305,488	\$78,780	
15	Roseville	\$311,352	\$46,955	\$0	\$71,791	<b>\$430,098</b>	\$428,603	\$1,495	
16	Santa Clara	\$2,859,270	\$46,955	\$0	\$229,731	<b>\$3,135,957</b>	\$3,025,842	\$110,115	
17	Truckee-Donner	\$1,688	\$60,954	\$1,809	\$7,179	<b>\$71,631</b>	\$65,756	\$5,875	
18	Turlock Irrigation District	\$106,643	\$6,667	\$0	\$43,075	<b>\$156,385</b>	\$157,000	(\$615)	
19	Ukiah	\$212,225		\$107,467	\$16,129	<b>\$335,821</b>	\$295,592	\$40,229	
24		\$6,943,600	\$294,723	\$1,888,623	\$617,403	\$9,744,349	\$9,631,682	\$112,667	
25									
26	Direct to Programs - LEC	\$1,021,683	\$36,285		\$57,433	<b>\$1,115,402</b>	\$1,228,069	(\$112,667)	
27									
28		\$7,965,283	\$331,009	\$1,888,623	\$674,836	\$10,859,751	\$10,859,751	\$0	

Pool n BART Scheduling			
Member Name	CY 2013 Melded Weights	Revised CY 2013 Melded Weights	Diff
Alameda	11.7%	14.2%	2.5%
BART	19.6%	19.5%	-0.1%
Biggs	1.7%	1.8%	0.1%
Gridley	1.1%	1.1%	0.0%
Healdsburg	2.2%	2.2%	0.0%
Lodi	6.4%	6.8%	0.3%
Lompoc	3.4%	3.7%	0.3%
Palo Alto	26.8%	18.7%	-8.1%
Plumas-Sierra	7.9%	9.3%	1.4%
Port of Oakland	14.5%	18.0%	3.5%
Ukiah	4.7%	4.7%	0.0%
	100.0%	100.0%	0.0%

# Cost Driver: Revised Pool/BART Contract Deals based on Palo Alto COT Lay-Off Adjustment

**CY13 - CY12 Diff without  
COT Layoff Deal\_IDs**



# Difference due to excluded Palo Alto COT Capacity Lay-Off deal from Contracts

	Revised CY13 after excluded COT Deals	Original CY13 based on 1/3 Split	Increase (Decrease)
Alameda	\$1,058,765	\$1,012,226	\$46,539
BART	\$653,256	\$649,878	\$3,378
Biggs	\$54,245	\$51,766	\$2,479
Gridley	\$85,834	\$85,704	\$130
Healdsburg	\$192,348	\$191,329	\$1,019
Lodi	\$1,009,459	\$1,002,431	\$7,028
Lompoc	\$294,064	\$287,929	\$6,135
Palo Alto	\$1,500,492	\$1,657,227	(\$156,735)
Plumas Sierra	\$381,728	\$356,201	\$25,527
Port of Oakland	\$384,267	\$320,696	\$63,571
Roseville	\$430,098	\$430,098	
Santa Clara	\$3,135,957	\$3,135,893	\$63
Truckee-Donner	\$71,631	\$71,613	\$18
Turlock Irrigation District	\$156,385	\$156,385	
Ukiah	\$335,821	\$334,973	\$848
	\$9,744,349	\$9,744,349	\$0
Direct to Programs - LEC	<b>\$1,115,402</b>	<b>\$1,115,402</b>	
	\$10,859,751	\$10,859,751	\$0

## Termination of TD-PUD

- Termination of TD-PUD requires redistribution of Pre-Scheduling Labor hours and Allocation Parameter %

Direct Cost Budget Item	Pool	SVP	Roseville	TID	BART	TDPUD	LEC Project Participants	Total
Proposed Pre-Schedule %	54.50%	6.45%	6.45%	0.92%	18.31%	8.38%	4.99%	100.00%
New Pre-Schedule %	59.48%	7.04%	7.04%	1.00%	19.98%	0.00%	5.44%	100.00%
Proposed Pre-Scheduling \$	\$ 396,497	\$ 46,955	\$ 46,955	\$ 6,667	\$ 133,192	\$ 60,954	\$ 36,285	\$ 727,506
New Pre-Scheduling \$	\$ 432,756	\$ 51,249	\$ 51,249	\$ 7,277	\$ 145,372	\$ -	\$ 39,604	\$ 727,506
<b>Delta</b>	\$ 36,259	\$ 4,294	\$ 4,294	\$ 610	\$ 12,180	\$ (60,954)	\$ 3,318	\$ -

- Additionally, TD-PUD's share of Western Base Resource to be removed from NCPA SC.

# CY13 Data and Pool % 1/3 Split after COT Lay-Off Adj. and updated for TD-PUD terminated agreement

	A	B	C	D	E	F	G	L	M
1	<b>FY 2015</b>								
2	<b>MEMBER TOTALS</b>								
3									
4		General Power Mgt	Direct Assignments	Pool Allocation	System Integration	FY 2015 Power Mgmt Total Pwr Mgmt	1/23/14 Commission Approved updated FY 2014 Total Pwr Mgmt	Increase (Decrease)	
5	Alameda	\$668,359		\$337,490	\$60,873	\$1,066,723	\$887,805	\$178,918	
6	BART	\$409,270	\$145,372	\$82,253	\$29,025	\$665,920	\$608,572	\$57,348	
7	Biggs	\$33,070		\$20,057	\$1,568	\$54,695	\$48,878	\$5,817	
8	Gridley	\$44,557		\$32,449	\$9,599	\$86,605	\$74,037	\$12,568	
9	Healdsburg	\$121,816		\$66,579	\$5,415	\$193,810	\$199,450	(\$5,640)	
10	Lodi	\$664,149		\$326,168	\$26,150	\$1,016,468	\$959,031	\$57,437	
11	Lompoc	\$189,117		\$98,967	\$8,179	\$296,262	\$292,023	\$4,239	
12	Palo Alto	\$869,236		\$570,106	\$73,706	\$1,513,049	\$1,895,094	(\$382,045)	
13	Plumas Sierra	\$220,779		\$138,806	\$25,363	\$384,948	\$388,512	(\$3,564)	
14	Port of Oakland	\$233,022		\$142,246	\$12,301	\$387,568	\$305,488	\$82,080	
15	Roseville	\$311,422	\$51,249	\$0	\$72,563	\$435,234	\$428,603	\$6,631	
16	Santa Clara	\$2,859,527	\$51,249	\$0	\$232,202	\$3,142,978	\$3,025,842	\$117,136	
17	Truckee-Donner	\$0	\$0	\$0	\$0	\$0	\$65,756	(\$65,756)	
18	Turlock Irrigation District	\$106,653	\$7,277	\$0	\$43,538	\$157,467	\$157,000	\$467	
19	Ukiah	\$212,287		\$109,761	\$16,302	\$338,351	\$295,592	\$42,759	
24		\$6,943,266	\$255,147	\$1,924,882	\$616,786	\$9,740,080	\$9,631,682	\$108,397	
25									
26	Direct to Programs - LEC	\$1,022,017	\$39,604		\$58,050	\$1,119,671	\$1,228,069	(\$108,397)	
27									
28		\$7,965,283	\$294,750	\$1,924,882	\$674,836	\$10,859,751	\$10,859,751	(\$0)	

# Difference due to TD-PUD terminated agreement

	Revised for TD-PUD Service Agreement	Revised CY13 after excluded COT Deals	Increase (Decrease)
Alameda	\$1,066,723	\$1,058,765	\$7,958
BART	\$665,920	\$653,256	\$12,664
Biggs	\$54,695	\$54,245	\$450
Gridley	\$86,605	\$85,834	\$771
Healdsburg	\$193,810	\$192,348	\$1,462
Lodi	\$1,016,468	\$1,009,459	\$7,009
Lompoc	\$296,262	\$294,064	\$2,198
Palo Alto	\$1,513,049	\$1,500,492	\$12,557
Plumas Sierra	\$384,948	\$381,728	\$3,220
Port of Oakland	\$387,568	\$384,267	\$3,301
Roseville	\$435,234	\$430,098	\$5,136
Santa Clara	\$3,142,978	\$3,135,957	\$7,021
Truckee-Donner	\$0	\$71,631	(\$71,631)
Turlock Irrigation District	\$157,467	\$156,385	\$1,082
Ukiah	\$338,351	\$335,821	\$2,530
	\$9,740,080	\$9,744,349	(\$4,270)
Direct to Programs - LEC	<b>\$1,119,671</b>	<b>\$1,115,402</b>	<b>\$4,270</b>
	\$10,859,751	\$10,859,751	\$0

# Proposed Changes to FY15 Nexant Model

#	Issue Description
1	Modify 'Step 2' Allocation Parameter to 1/3 split among Pool Members' Loads, Contracts, and Pool Resources;
2	Revise Pre-Scheduling Labor Hours and allocation percentages based on updated LEC prescheduling labor hours;
3	Exclude Hour Ahead Schedule Counts associated with fractional quantity changes from the Day Ahead Schedule;
4	Exclude real-time DVR internal final schedules from input determinants into the Nexant Model;
5	Use average of LEC total ESP schedule counts for each awarded product category as calculation method of determinants for use in Nexant model;
6	Exclude Hour Ahead Schedule counts for PIRP resources;
7	<b>Revise Pre-Scheduling Labor Hours and allocation percentages based on terminated TD-PUD service agreement;</b>
8	<b>Exclude Palo Alto COT Lay-Off deal-ids from contract counts</b>