Power Management Administrative Cost Allocation Study Review Group Activities

NCPA Facilities Committee

February 3, 2016

Purpose of this presentation

- Request Facilities Committee recommendation for two changes to cost allocation model inputs
  - Alter method of gathering schedule counts for new resources (Issue 1)
  - Refresh labor-based cost allocation factors applied to Prescheduling budget line item (Issue 2)

Background

- Project background, scope, and issues discussed at January 6 FC meeting
- Seven topics addressed by the Review Group
- Two topics have produced actionable recommendations presented today
- Analysis and findings for the remaining 5 topics will be provided to the FC in the Review Group's written report

Issue 1: Changes to Members' Portfolios

- Review of processes that add/subtract generation resources to/from the cost allocation model
- Under limited circumstances, resources can receive services but pay no costs for 1.5 fiscal years
- Concerns:
  - Equitable allocation of costs
  - Stability in allocated costs
  - Administrative burden

Summary of Current Practices

- A resource may not be added to the cost allocation model in the fiscal year it is introduced to the portfolio because it is of immaterial size, per Facilities Committee recommendation (2010)
- The resource will be added to the next fiscal year budget
  - Schedule counts based on actual performance data
  - Can be as little as 1 day of operations

Review Group Recommendation

- Retain current practices, with one modification
  - Supplement the affected resources' historic schedule count data with estimated performance data to form a complete year of operation, or the duration of the contract, whichever is shorter
  - Apply to resources that were introduced to the portfolio but not included in the cost allocation model
  - Effective FY17 budget

Implications

- Adopting this change will impact any resource that is not otherwise captured by the model in the budget creation cycle and mid-year adjustment
- In FY17, this will impact the Kettleman and Hayworth facilities

Issue 2: Refresh cost allocation factors applied to Prescheduling

Case	Pool	BART	LEC	RSVL	SVP	TID
Current	59.49%	19.99%	5.44%	7.04%	7.04%	1.00%
Survey Result	42%	24%	19%	7%	7%	1%
Change	**-17.49%**	**4.01**	**13.56%**	**-0.04%**	**-0.04%**	**0.00%**

Description of Changes

- Pool: fundamental changes to workload
- LEC: increased complexity to DA and RT strategies
- BART: specialized bilateral trades
- Roseville: no change (Calaveras layoff expires FY16)
- SVP: no change (additional activity attributed to load-following and subsequently allocated to the Pool)

Impact of Additional Bid Strategies

Difference in Cost Allocation ($1,000)

Case	Pool	BART	LEC	RSVL	SVP	TID
Current	$454	$153	$42	$54	$54	$8
Survey Result	$322	$184	$146	$54	$54	$8
Change	**-$134**	**$31**	**$104**	**$0**	**$0**	**$0**

- Based on budgeted cost of $767,809

- Note: Changes to the Pool and LEC are subject to additional allocations. Pool is based on the intra-Pool allocation factor (loads, resources, contracts) and LEC is based on Generation Entitlement Share percentages.

Fully Allocated Impacts

Member/ Participant	Pool	LEC	Member Specific	Net
Alameda	$ (23,781)	$ -	$ -	$ (23,781)
BART	$ -	$ 6,870	$ 30,849	$ 37,719
Biggs	$ (1,819)	$ 279	$ -	$ (1,540)
Gridley	$ (2,142)	$ 2,044	$ -	$ (98)
Healdsburg	$ (5,282)	$ 1,710	$ -	$ (3,572)
Lodi	$ (24,883)	$ 9,888	$ -	$ (14,995)
Lompoc	$ (7,792)	$ 2,119	$ -	$ (5,673)
Palo Alto	$ (39,180)	$ -	$ -	$ (39,180)
Plumas Sierra	$ (10,642)	$ 818	$ -	$ (9,824)
Port of Oakland	$ (9,666)	$ -	$ -	$ (9,666)
Roseville	$ -	$ -	$ (342)	$ (342)
Santa Clara	$ -	$ 26,802	$ (342)	$ 26,461
Ukiah	$ (9,064)	$ 1,859	$ -	$ (7,205)
Azusa	$ -	$ 2,900	$ -	$ 2,900
CDWR	$ -	$ 34,869	$ -	$ 34,869
MID	$ -	$ 11,152	$ -	$ 11,152
PWRPA	$ -	$ 2,777	$ -	$ 2,777
TOTAL	**$ (134,250)**	**$ 104,086**	**$ 30,166**	**$ 2**

Issue 2 Recommendation

- NCPA staff seeks a recommendation from the FC to update the cost allocation factors applied to the Prescheduling budget line item, as stipulated above, effective FY17 budget.

QUESTIONS?

SUPPLEMENTAL MATERIALS

Issue 1: Current practice for resource additions

- A given budget uses schedule counts from the last full calendar year as a cost allocation factor
  - Examples: CY14 is used for FY16 budget
    CY15 is used for FY17 budget
- A new resource is added to the model if it is online as of the effective data of the applicable budget
  - Example: Resources brought online on or around July 1, 2015 would be included in the FY16 budget
  - Would be based on forecasted performance data
- Resources introduced later in the FY are not included in the budget

Issue 1: Current practice for resource additions

- Resources may be captured via a mid-year adjustment if the resource is of material size
  - Single facility of 40 MW or larger, or
  - Multiple facilities with aggregated capacity of 50 MW or more
- Some resources do not satisfy either test
  - ➔No costs in FY the resource enters the portfolio
- The resources will be added to the next FY budget cycle, using historic CY data

Issue 1: New Resources can avoid certain costs for up to 1.5 fiscal years

- If COD occurs 12/31/2015 and the resource is 30 MW:
  - Resource will not be included in FY16 budget
  - Will not trigger mid-year adjustment
  - Will be added to FY17 budget, using CY15 data
  - CY15 Schedule Counts include 1 day of operations
- Thus, the resource:
  - Pays no costs in FY16, when it is introduced to the portfolio
  - Pays FY17 costs based on 1 day of operational information (essentially zero)
  - Pays no costs for 1.5 fiscal years

Issue 2: Description of Changes: LEC

- Prescheduling activities related to LEC have evolved since the resources was brought online
  - Initially deployed rudimentary strategies and practices in the Day Ahead market, only
  - Today, prescheduling manages a number of considerations and strategies affecting Day Ahead and Real Time activity
  - RT market strategies are developed by the Prescheduling unit and communicated to real-time operations

Issue 2: Description of Changes: BART

- BART's contractual requirements are unique
  - Structured by contract arrangements with transmission service provider and 3rd party wholesale suppliers, not the CAISO, per se
  - Disjointed activities in Day-Ahead and Two-Day-Ahead scheduling time frames
  - Relies upon various work products from external parties, affecting workflow
  - Specified source contracts

Issue 2: Description of Changes: Roseville & SVP

- Roseville & SVP are Operating Entities of Calaveras Project
- Pre-schedulers stated they spend more time on SVP than Roseville.
- Adjustments made in phase 3 of the surveys, described below.

Issue 2: Adjustment to Survey Results: Roseville

- Recent reduction in Prescheduling efforts related to Roseville Hydro OE driven by short-term layoff agreement.
  - Not indicative of current planning horizon
  - These allocation factors are intended to represent “typical” operating conditions
  - Short term contract set to expire FY16
  - Factors can be updated to reflect future changes in contract arrangements, if necessary
- Result: hold constant at 7%

Issue 2: Adjustment to Survey Results: SVP

- Additional communications and efforts between NCPA and SVP prescheduling units determined to be focused on DVR for load following purposes
- This is not a SVP activity, but is a Pool activity
- No change in Prescheduling time spent on SVP's Hydro OE role
- Recommend holding SVP's percentage constant (7%) and allocating any additional time to the Pool (3%).

Issue 2: Summary of changes

- The make up of Pre-schedulers' workload has changed since the last survey was conducted
- Changes in market rules, contract requirements, and NCPA's deployment of market strategies with greater complexity have altered how Pre-schedulers spend their time
- In other cases, short-term events may affect Pre-schedulers' time (e.g. short-term layoff, drought conditions, wildfires), but these are not appropriate to include in static cost allocators

Issue 3: Schedule/Contract Counts Impact to the Pool

- Issue 3 analyzed the impact of the recent change to the intra-Pool allocation factor
  - From Loads & Resources (weighted 78/22)
  - To Loads, Resources, & Contracts (simple average)
- Goals:
  - Describe the process (user documentation)
  - Identify any inappropriate use of inputs (e.g. duplicate use)
    - Example: A contract count is used to allocate costs to the Pool as a whole, and subsequently to disaggregate Pool costs to Pool members

Issue 3 Findings

- Schedule Counts & Contract Counts:
  - Are not used to allocate costs to the Pool as a whole
  - Are not used in duplicate fashion
  - Affect cost allocation to Pool members
  - Influence a substantial proportion of costs (50%)
- Schedule Counts (for resources) do not influence intra-Pool allocations (but resource capacity does)
- Contract Counts do influence intra-Pool allocations
- Conclusion: no structural flaws in the use of loads, resources, and contracts for intra-Pool allocations

Issue 4: Pooling vs. MPP/GPP Functions

- Issue 4 analyzed the PM functions performed under the Pooling Agreement vs. the Market/Gas Purchase Program Agreements
  - Note: MPP and GPP are separate agreements
- Goal:
  - Determine if Nexant's analysis re: Pool and MPP agreements is valid, given the age of the analysis

Issue 4 Findings

- Much of Nexant's original work is accurate.
  - See Nexant Phase I report, Table 3-4
- New areas of work draw on existing PM functions
  - LEC, RPS, GHG
- Conclusions:
  - PM services are largely unaffected by the expansion of MPP, introduction of GPP, and various activities associated with LEC, RPS, and GHG.
  - Nexant's conclusions and recommendations are still applicable today, especially with Members' collective review and approval of Pool, MPP, and GPP costs each budget cycle

Issue 5: Variable Energy Resources

- Issue 5 is a scenario analysis
  - Treats all generation resources in same fashion by adjusting plant capacity rating capacity factor
  - Commission approved this methodology for Variable Energy Resources (VERs), only
- Purpose: This is a test case only. The RG does not recommend applying this method throughout the model

Issue 5 Findings

- Broadly applying adjusted capacity ratings throughout the model produces substantial changes in allocated costs
- Large resources with high capacity factors receive substantial cost increases
- Some resources with low capacity factors receive virtually no cost allocation
- Other resources' capacity factors vary by cyclical conditions (i.e. hydro & precipitation) which introduces potentially large fluctuations in cost allocations