Power Management
Administrative Cost Allocation Study
Review Group Activities

NCPA Facilities Committee
January 6, 2016
Purpose

- Update Facilities Committee of Review Group progress
- Present preliminary analysis on select areas of study
- Discuss next steps
Presentation Topics

- Background
- Seven Issues
- Progress Report

- Next Steps
Background

- Review of existing cost allocation model, following member requests for changes to the model
  - Intra-Pool cost allocation (change from 78/22, which led to the use of the “1/3\(^{rd}\), 1/3\(^{rd}\), 1/3\(^{rd}\) methodology”)

- Comprehensive review
  - Scope: Explore alternative ways of allocating fixed costs? (e.g. Ramsey, Linear Programming)

- Surveys of NCPA Members (2014 Q4)
  - No major flaws in model
  - No major changes in portfolios or industry
  - ➔ No need for comprehensive review
Background

- Pool member introduced a substantial change to its portfolio
- In March 2015, NCPA Commission:
  - Authorized a number of changes (Reso 15-18)
  - Among which altered the capacity rating of VERs
- In May 2015, NCPA Commission:
  - Referred the review of PM Administrative Services cost allocation methodology and principles to the FC
  - Directs the FC to coordinate a Review Group
  - Requires all recommendation of the Review Group to be presented to and reviewed by the FC
Background

- Review Group
  - Volunteers from AL, PA, PS, RO, SVP
  - NCPA staff resources
- Goal: FY17 implementation
- The Review Group has discussed a wide assortment of topics
  - Project charter
  - Cost allocation principles
  - Scenario analysis
  - Assortment of issues to address in both the long-term and short-term horizons
Presentation Topics

- Background
- Seven Issues
- Progress Report

- Next Steps
Issue #1: Treatment of Schedule & Contract Counts When Member Portfolios Change

- Existing practice is to use schedule counts (resources) and contract counts (energy, capacity, etc.) as a cost allocator
- Most recent complete Calendar Year for the next Fiscal Year budget (CY15 → FY17)
- Exception: A new resource may be added if it crosses a threshold. This does not apply to contracts.

- Issue: What happens if a resource replaces a contract?
Issue #2: Update Prescheduling Cost Allocation Factors

- The Power Management budget contains a line item for “Prescheduling” costs (approx $767,000 FY16)
  - Costs allocated to Pool, LEC, BART, Roseville, SVP, TID
- Allocated via “Step 0” direct allocation
- Function of labor hours
- Not refreshed each year

Issue: Prescheduling cost allocators have not been updated for some time.
Issue #3: How Schedule & Contract Counts Affect Costs Allocated to & within the Pool

- Schedule & Contract counts are cost allocators
- The Pool is an Operating Entity to which a number of costs are allocated for a number of line items
- These Pool costs are subject to additional allocations to Pool members and BART in some cases
- Pool cost allocators are a function of Load, Resources, and Contracts.

Issue: Research how these methods affect allocations to the Pool and Pool members.
Issue #4: Comparison of PM Functions Pooling Agreement vs. MPP/GPP

- The scope of the Market Purchase Program has increased since the Nexant study
- The Gas Purchase Program was introduced after Nexant concluded its study
- Many services under the Pooling Agreement and the MPP/GPP appear to be similar

Issue: Research the scope of services of the MPP/GPP and compare to the services provided for the Pool. Identify areas of overlap and/or new functional areas.
Issue #5: Assess Impact of De-Rating Plant Capacity by Plant Factor for all Resources

- Plant capacity (MW) is used as a cost allocator.
- In March 2015, the NCPA Commission approved differentiating Variable Energy Resources from all other types of generation resources, for the purposes of PM administrative cost allocation.
- VERs’ cost allocation factor is equal to the product of the plant capacity and the facility’s capacity factor.
- Issue: What is the impact of extending this treatment to all resources, instead of isolating VERs?
Issue #6: Discussion Paper on Pricing New Services

- NCPA may expand provision of its Power Management services to members and non-members.
- NCPA has relied upon the cost allocation model to form the basis for its pricing proposals.
- The Review Group has expressed some concerns with the use of a cost allocation model as the sole basis for pricing services.

- Issue: The Review Group plans to share its collective thoughts on various methods and considerations NCPA and members may consider when developing prices for PM service provision.
Issue #7: Discussion Paper on Allocating Revenue from Expansion of PM Services

- NCPA does not have a formal policy or procedure that addresses how revenues will be allocated to members.
- Prices for services may not match model results in every case

- Issue: The Review Group plans to share its collective thoughts on various methods and considerations NCPA and members may consider when developing policies and/or practices in allocating revenues associated with the expansion of PM services.
Presentation Topics

- Background
- Seven Issues
- Progress Report

- Next Steps
The Review Group has made substantial progress in analyzing these Issues

- The Review Group is preparing a written report for the Facilities Committee
- The report will contain detailed analysis on each Issue, itemize the Review Group’s major findings, and provide recommendations
The Review Group has made substantial progress in analyzing these issues

- Under the Review Group’s direction, NCPA staff has prepared and provided preliminary analysis on Issues 3, 4, and 6.
  - Materials provided for the Group’s consideration on December 7 and 11
  - No substantial comments received to date
  - Expect commentary prior to Jan 14 meeting
  - NCPA is finalizing its preliminary analysis on Issue 2.
- The following summarizes the preliminary analysis, which the Review Group is assessing
Presentation Topics

- Background
- Seven Issues
- Progress Report

- Issue #3: Schedule/Contract Counts ➔ Power Pool

- Next Steps
Issue 3: Where do Schedule & Contract Counts Fit in this Workflow?

“Step 0”
Allocate costs directly to Members

IT
MPP
Natural Gas Info
Green Power

“Step 1”
NCPA PM Budget

Cost Categories
SC  RT  PP  RM  PS  Risk

“Step 2”
Allocation Parameters
Projects
Non-Projects
Schedules
Energy
Contracts
Deals

sts to

Allocation of C Members

“Step 3”

Etc.
The cost allocation model follows Nexant’s findings

- Nexant Phase IIa report provides justification for:
  - Step 0: Direct allocation percentages
  - Step 1: Weighting between Cost Categories
  - Step 2: Determining allocation factors to disaggregate Cost Categories
  - Step 3: Allocation to members

- The references that follow point to the cost allocation model (spreadsheet)
Issue 3: Where do Schedule & Contract Counts Fit in this Workflow?

“Step 0”
Allocate costs directly to Members

“Step 1”
NCPA PM Budget

Cost Categories
- SC
- RT
- PP
- RM
- PS
- Risk

“Step 2”
Allocation Parameters
- Projects
- Non-Projects
- Schedules
- Energy
- Contracts
- Deals

“Step 3”
Allocation of Costs to Members
- “Etc.”

January 21, 2016
“Step 0” Allocations in no way use Schedule or Contract Counts

- Forecasting (31%)
- Resource Planning, Optimization & Risk Analysis (82.17%)
- Prescheduling (100%)
- Power Pool Administration (100%)
- Industry Restructuring and Regulatory Affairs (33.3%)
- TANC Representation (100%)
- Western Representation (100%)
- Pooling Committee (100%)
- Risk Management (50%)

(See worksheet, “Direct Assignments”)
“Step 1” Allocations assign budgeted costs to Cost Categories

“Step 0”
Allocate costs directly to Members

IT
MPP
Natural Gas Info
Green Power

Allocation of Costs to Members

“Step 3”

NCPA PM Budget

Cost Categories
SC  RT  PP  RM  PS  Risk

“Step 2” Allocation Parameters
Projects
Non-Projects
Schedules
Energy
Contracts
Deals

Etc.
“Step 1” Allocations assign budgeted costs to Cost Categories

- Forecasting → 31% Pool, with the remainder allocated to Resource Management (RM)
- Resource Planning, Optimization, Risk Analysis and Management → 82.17% Pool, the remainder allocated to Resource Management (RM)
“Step 1” Allocations assign budgeted costs to Cost Categories

- Step 1 is based solely on Nexant’s study.
- Step 1 allocations in no way use Schedule or Contract Counts to allocate budget line items (less direct assignments) to Cost Categories

(See worksheet, “Allocations,” top section)
“Step 2” assigns weights to cost allocation factors.
“Step 2” assigns weights to cost allocation factors.

- Refer to worksheet, “Determinate%”
- Columns represent “allocation parameters” (or cost allocation factors)
- There are over 40

- Step 2 determines
  - Which of these allocation factors are applied to the Cost Categories and
  - In what proportion
“Step 2” assigns weights to cost allocation factors.

1.2.3 Step 2

- Schedule Coordination

  All SC costs are allocated based on 100% Schedules. The Schedules allocation parameter has been revised per NExant recommendations (Refer to Section 2.2.2).

This means: Of the costs assigned to the Cost Category, “Schedule Coordination,” 100% of said costs will be allocated based on “NCPA Schedules.”

Worksheet, “Schedule Coordination”
“Step 2” assigns weights to cost allocation factors.

- **Real Time Dispatch**
  - \( P_{\text{max}} \) – 53.01%, for the resources and contracts receiving RT Dispatch services, including the following functions (refer to the resources table in Appendix F):
    - Scheduled Energy – 28.17%
    - Active Day Inter-tie Schedules – 9.41%
    - Pool and BART Contracts – 9.41%

<table>
<thead>
<tr>
<th>REAL-TIME DISPATCH &amp; PRE-SCHEDULE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inter-tie Schedules</td>
</tr>
<tr>
<td>Scheduled Energy</td>
</tr>
<tr>
<td>Contracts-Pool &amp; BART</td>
</tr>
<tr>
<td>Resources</td>
</tr>
<tr>
<td><strong>Total</strong></td>
</tr>
</tbody>
</table>

Worksheet, “RT Dispatch”
“Step 2” assigns weights to cost allocation factors.

- “Step 2” does not allocate costs to members, per se.
- Therefore, “Step 2” does not allocate cost to the Pool or to Pool Members either directly or indirectly.

- It does inform:
  - If Schedule or Contract Counts will be applied,
  - If so, to which Cost Categories and in what proportion to other cost allocation factor.
“Step 3” Cost Categories Disaggregated to Members via Cost Allocation Factors

**Recall**: Of the costs allocated to Cost Category, “Schedule Coordination,” 100% will be allocated via “NCPA Schedules.”

**Therefore**, Alameda will pick up 8.305% of the costs allocated to Cost Category “Schedule Coordination”, BART receives 3.719%, etc.
The “NCPA Power Pool”

Note: The “NCPA Power Pool” has a line item on this list.

However, the allocation factors assigned to it are 0% across the board.

Thus, the Step 3 allocation affects Pool Members directly. It does not allocate costs to the aggregated Power Pool.

<table>
<thead>
<tr>
<th></th>
<th>NCPA Schedules</th>
<th>CAISO Schedules</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alameda</td>
<td>8.305%</td>
<td>7.404%</td>
</tr>
<tr>
<td>BART</td>
<td>3.719%</td>
<td>5.944%</td>
</tr>
<tr>
<td>Biggs</td>
<td>0.635%</td>
<td>0.566%</td>
</tr>
<tr>
<td>Gridley</td>
<td>0.748%</td>
<td>0.667%</td>
</tr>
<tr>
<td>Healdsburg</td>
<td>1.845%</td>
<td>1.644%</td>
</tr>
<tr>
<td>Lodi</td>
<td>8.690%</td>
<td>7.747%</td>
</tr>
<tr>
<td>Lompoc</td>
<td>2.721%</td>
<td>2.426%</td>
</tr>
<tr>
<td>Palo Alto</td>
<td>13.683%</td>
<td>12.198%</td>
</tr>
<tr>
<td>Plumas Sierra</td>
<td>3.717%</td>
<td>3.313%</td>
</tr>
<tr>
<td>Port of Oakland</td>
<td>3.376%</td>
<td>3.009%</td>
</tr>
<tr>
<td>Roseville</td>
<td>4.619%</td>
<td>4.984%</td>
</tr>
<tr>
<td>Santa Clara</td>
<td>39.762%</td>
<td>39.459%</td>
</tr>
<tr>
<td>Truckee-Donner</td>
<td>0.000%</td>
<td>0.000%</td>
</tr>
<tr>
<td>Turlock Irrigation District</td>
<td>2.102%</td>
<td>3.285%</td>
</tr>
<tr>
<td>Oktah</td>
<td>3.165%</td>
<td>2.822%</td>
</tr>
<tr>
<td><strong>NCPA Power Pool</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>LEC Project Participants</strong></td>
<td>2.913%</td>
<td>4.532%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>100.000%</td>
<td>100.000%</td>
</tr>
</tbody>
</table>
Intra Pool Allocation

See Worksheet, “Power Pool-BART Allocation.”

These factors are used to disaggregate Power Pool costs to Power Pool participants.

Columns “Pool” and “Pool & BART” are based on equal weighting of: Load, Resource (capacity), and Contracts.

<table>
<thead>
<tr>
<th></th>
<th>Pool</th>
<th>Pool&amp;BART</th>
<th>TANC</th>
<th>Western</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alameda</td>
<td>17.714%</td>
<td>15.930%</td>
<td>31.481%</td>
<td>6.228%</td>
</tr>
<tr>
<td>BART</td>
<td></td>
<td>13.076%</td>
<td></td>
<td>2.514%</td>
</tr>
<tr>
<td>Biggs</td>
<td>1.355%</td>
<td>1.062%</td>
<td></td>
<td>1.525%</td>
</tr>
<tr>
<td>Gridley</td>
<td>1.595%</td>
<td>1.399%</td>
<td></td>
<td>3.414%</td>
</tr>
<tr>
<td>Healdsburg</td>
<td>3.934%</td>
<td>3.504%</td>
<td>5.556%</td>
<td>1.298%</td>
</tr>
<tr>
<td>Lodi</td>
<td>18.535%</td>
<td>16.868%</td>
<td>48.148%</td>
<td>2.940%</td>
</tr>
<tr>
<td>Lompoc</td>
<td>5.804%</td>
<td>5.119%</td>
<td>5.556%</td>
<td>1.666%</td>
</tr>
<tr>
<td>Palo Alto</td>
<td>29.184%</td>
<td>25.139%</td>
<td></td>
<td>63.559%</td>
</tr>
<tr>
<td>Plumas Sierra</td>
<td>7.927%</td>
<td>6.509%</td>
<td>3.704%</td>
<td>11.946%</td>
</tr>
<tr>
<td>Port of Oakland</td>
<td>7.200%</td>
<td>5.489%</td>
<td></td>
<td>3.124%</td>
</tr>
<tr>
<td>Roseville</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Santa Clara</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Truckee-Donner</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Turlock Irrigation District</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Ukiah</td>
<td>6.751%</td>
<td>5.905%</td>
<td>5.556%</td>
<td>1.786%</td>
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</table>

<table>
<thead>
<tr>
<th>LEC Project Participants</th>
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<th></th>
<th></th>
<th></th>
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<tbody>
<tr>
<td></td>
<td>100.000%</td>
<td>100.000%</td>
<td>100.000%</td>
<td>100.000%</td>
</tr>
</tbody>
</table>
The Intra-Pool allocation factor is a function of Load, Resources, & Contracts

The simple average of:
- Pool Load,
- Contracts-Pool, and
- Pool Resource %

Produces the allocation factors for the column, “Pool” on the previous slide.

**Note:** “Resources” is based on MW, not Schedule Counts.

<table>
<thead>
<tr>
<th></th>
<th>Pool Load</th>
<th>Contracts-Pool</th>
<th>Pool Resource - MW</th>
<th>Pool Resource - %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alameda</td>
<td>14.993%</td>
<td>12.925%</td>
<td>92.7</td>
<td>25.22%</td>
</tr>
<tr>
<td>BART</td>
<td>0.000%</td>
<td>0.000%</td>
<td>1.3</td>
<td>0.35%</td>
</tr>
<tr>
<td>Biggs</td>
<td>0.637%</td>
<td>3.082%</td>
<td>19.3</td>
<td>5.25%</td>
</tr>
<tr>
<td>Gridley</td>
<td>1.475%</td>
<td>1.512%</td>
<td>6.6</td>
<td>1.80%</td>
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<tr>
<td>Healdsburg</td>
<td>3.228%</td>
<td>3.324%</td>
<td>100.1</td>
<td>27.23%</td>
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<tr>
<td>Lodi</td>
<td>18.878%</td>
<td>9.500%</td>
<td>24.6</td>
<td>6.68%</td>
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<tr>
<td>Lompoc</td>
<td>5.767%</td>
<td>4.963%</td>
<td>78.1</td>
<td>21.26%</td>
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<tr>
<td>Palo Alto</td>
<td>40.335%</td>
<td>25.959%</td>
<td>15.1</td>
<td>4.10%</td>
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<tr>
<td>Plumas Sierra</td>
<td>6.566%</td>
<td>13.112%</td>
<td></td>
<td></td>
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<tr>
<td>Port of Oakland</td>
<td>3.356%</td>
<td>18.245%</td>
<td></td>
<td></td>
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<tr>
<td>Roseville</td>
<td>0.000%</td>
<td>0.000%</td>
<td></td>
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</tr>
<tr>
<td>Santa Clara</td>
<td>0.000%</td>
<td>0.000%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Truckee-Donner</td>
<td>0.000%</td>
<td>0.000%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Turlock Irrigation District</td>
<td>0.000%</td>
<td>0.000%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ukiah</td>
<td>4.766%</td>
<td>7.379%</td>
<td>29.8</td>
<td>8.11%</td>
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<tr>
<td><strong>NCPA Power Pool</strong></td>
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<td>0.000%</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>LEC Project Participants</strong></td>
<td>0.000%</td>
<td>0.000%</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>100.000%</td>
<td>00.000%</td>
<td>367.58</td>
<td>100.00%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>870.78</td>
<td>100.00%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Issue #3 PRELIMINARY Findings

- Schedule & Contract counts:
  - Do not allocate costs to the Pool or to Pool members in Steps 0, 1, or 2.
  - Do allocate costs from Cost Categories to members directly in Step 3.
  - Do not allocate cost to the aggregated Power Pool in Step 3.
- Contract Counts do influence Intra-Pool allocations.
- Schedule Counts do not influence Intra-Pool allocations.
A note regarding the Review Group’s report on Issue #3

- The draft report describes the process above.
- It also includes a detailed analysis of each “schedule” and “contract” count
  - Schedule counts include: NCPA, CAISO, Inter-tie
  - Contract counts include: Pool, Pool & BART, Deal IDs (settlements vs. Counterparty Credit)
- In addition to certain other allocators are also included in the analysis.
  - Pool load, Pool & BART load, Scheduled Energy
- These analyses may or may not be included in the final report.
Presentation Topics

- Background
- Seven Issues
- Progress Report
- Issue #3: Schedule/Contract Counts → Power Pool
- Issue #4: Pool Functions vs. MPP/GPP

- Next Steps
Issue #4: Comparison of PM Functions Pooling Agreement vs. MPP/GPP

- Goal: Compare services provided under the Pooling Agreement vs. the MPP and GPP.
  - Assess if Nexant’s work is still valid.
- Much of this is addressed by Nexant’s work. See Phase I Report, Table 3-4.

<table>
<thead>
<tr>
<th>Function ID</th>
<th>Function</th>
<th>NCPA Function Group (PM Organization Subsections)</th>
<th>What Are the Outputs or Products?</th>
<th>For What Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>F01.1</td>
<td>Forecasting, 10-year-ahead electricity forecasts for member</td>
<td>Forecasting and Pre-Scheduling</td>
<td>Production cost modeling to create annual forecast of generation output levels by resource</td>
<td>To facilitate asset owner forecasting and budgeting</td>
</tr>
<tr>
<td>F01.2</td>
<td>Valuing new generation for cost and product development</td>
<td>Forecasting and Pre-Scheduling</td>
<td>Examine costs and benefits of potential new assets</td>
<td>To determine the potential value of new NCPA assets</td>
</tr>
<tr>
<td>F01.3</td>
<td>Identifying new markets opportunities</td>
<td>Forecasting and Pre-Scheduling</td>
<td>Market comparison of energy, capacity and flexibility</td>
<td>To assess new energy procurement alternatives</td>
</tr>
<tr>
<td>F01.4</td>
<td>Forecasting 10-year load growth</td>
<td>Forecasting and Pre-Scheduling</td>
<td>Annual forecast of load by member</td>
<td>To enable forecasting for load resource balance</td>
</tr>
<tr>
<td>F01.5</td>
<td>Forecasting power delivery for STG</td>
<td>Forecasting and Pre-Scheduling</td>
<td>Daily, weekly, monthly, and annual forecast of load by project member</td>
<td>To enable generation asset operational planning and budgeting</td>
</tr>
<tr>
<td>F01.6</td>
<td>Forecasting power delivery for CT1</td>
<td>Forecasting and Pre-Scheduling</td>
<td>Daily, weekly, monthly, and annual forecast of gas usage by project member</td>
<td>To enable generation asset operational planning and budgeting</td>
</tr>
<tr>
<td>F01.7</td>
<td>Forecasting 10-year-ahead available resources, load and power needs</td>
<td>Forecasting and Pre-Scheduling</td>
<td>Production cost modeling of load and resources, allocation of energy and flexibility</td>
<td>To enable budgeting and deciding for long-term planning and budgeting</td>
</tr>
</tbody>
</table>

Table 3-4 Function Model
Issue #4: Comparison of PM Functions Pooling Agreement vs. MPP/GPP

- Changes to NCPA operations
  - NCPA staff sought to identify new work areas since Nexant completed its study
- Three areas of work:
  - Lodi Energy Center
  - GHG Compliance Instruments,
  - RPS
Issue #4: General Findings

- Several work efforts for RPS, GHG, and LEC are integrated into existing NCPA services
  - Forecasting,
  - Load/Resource balances,
  - Market intelligence
  - Resource management (i.e. LEC)
- The balance of services handled specifically under MPP & GPP
  - Purchase strategy
  - RFP
  - Procurement action
  - These activities are not “new”
MPP vs. GPP

- MPP & GPP are separate service agreements
- Both have been approved by the NCPA Commission
- MPP handles:
  - Power, capacity, RECs, GHG compliance instruments, etc.
- GPP handles:
  - Natural gas
- In all cases, participating members direct NCPA to take certain actions, providing capital as stipulated under the contract
Issue #4: Preliminary Findings

- Nexant’s research is still valid
  - The report accurately describes functions studied at the time
- Nexant’s work does not explicitly address efforts performed on behalf of RPS, GHG, or LEC
- However, the functions performed on behalf of these work areas are substantially the same and integrated into NCPA Power Management functions identified by Nexant in its original research.
- Thus, these functions are not new.
Presentation Topics

- Background
- Seven Issues
- Progress Report
- Issue #3: Schedule/Contract Counts → Power Pool
- Issue #4: Pool Functions vs. MPP/GPP
- Issue #6: Pricing New Services
- Next Steps
Issue #6: Discussion Paper on Pricing New Services

- Goals:
  - Identify ways in which NCPA may develop prices for Power Management services
  - Recommendation? (may not have enough information)

- NCPA’s final pricing methodology will be partially defined (constrained) by a number of policy decisions
  - NCPA business model, product definition, size and scope of market, pricing based on membership status

- The Review Group does not opine on these matters. Therefore, its pricing discussion is general in scope.
There are a number of objectives that guide the Group’s analysis:

- Competitive Environment
- Margin
- Risk
- The Pricing Question
- Equitable to Members
- Cost Recovery
Structure & Hierarchy of Analysis

Principles
- Equitable Allocation of Fixed & Variable Cost
- Retain Existing Customers & Expand Customer Base
- Comparable Treatment

Objectives
- Price competitively vs. the market for comparable PM services
- Equitable to members
- Limit unacceptable cost liabilities
- Adequate Margin
- Cost recovery

Considerations
- Membership status
- Rates Approach
- Variable or Incremental Cost with Adder for Fixed Costs
- Margin

January 21, 2016
Pricing new services to Members continues to be a challenging topic

- Quality of service
  - Are all PM service providers equal or is there heterogeneity?

- Type of service
  - Are all service requests created equal or is there heterogeneity?

- Member equity vs. competitive pricing
  - Full-cost pricing for all PM services to members or are there conditions/alternatives?
There may be potential to apply condition-based prices to members

- **Contractual Obligations**
  - Members have contractual obligations
  - E.g. MSSA requires sufficient capacity to cover load
  - Resources used to satisfy contractual obligations subject to full-cost allocation, excess resources are not.

- **Time-dependent (by date)**
  - Resources that exist at a certain time receive full cost allocation. Those introduced after do not.

- **Time-dependent (by dollars)**
  - Freeze current cost allocation dollars/ proportions.
Issue #6: Discussion Paper on Pricing New Services

- The Review Group is not finished exploring these issues
- New topics, revisions
- No recommendations at this time
- May or may not form recommendations in final report
Presentation Topics

- Background
- Seven Issues
- Progress Report
- Issue #3: Schedule/Contract Counts → Power Pool
- Issue #4: Pool Functions vs. MPP/GPP
- Issue #6: Pricing New Services
- Issue #2: Prescheduling Cost Allocators
- Next Steps
Issue #2: Update Prescheduling Cost Allocation Factors

- **Goal:**
  - Refresh cost allocation factors associated with Prescheduling (approx $767,000 FY16)
  - Avoid/mitigate survey bias

- **Members’ concerns**
  - Cost allocation factors have not been refreshed for some time
  - General concern the last survey was too narrow in scope, creating survey bias
Issue #2: Update Prescheduling Cost Allocation Factors

- Method: Interviews of PM staff, specifically those within Portfolio & Pool Administration that perform prescheduling duties (3).
  - Multiple rounds
  - One-on-one discussions
  - Broad scope (all assigned duties, all prescheduling activities, etc.)
Survey Results – Round 1

- Staff performs a broad range of PM duties beyond Prescheduling
  - Market intelligence,
  - Developing market strategies,
  - Forecasting (hydro conditions, load, generation)
  - Hydro economics & valuation
  - Term purchases (MPP, GPP)
  - Portfolio planning
  - Market performance
Survey Results – Round 1

- Most of these work areas are handled by at least 2 of the PM staff
  - Coverage, Synergies
- The work areas expand throughout the operation timeline
  - Planning ➔ Prescheduling ➔ Real-Time ➔ Post hoc
- The functional engine of the group is market analytics aimed at maximizing generation value and/or minimizing cost to serve load.
Survey Results – Round 2 (Prescheduling)

- The 2nd round interviews focused on the Prescheduling process.
- Each interviewee was asked to describe the various tasks they perform
  - All work efforts
  - Includes approximate start/end times
  - “Standard events” or “typical day”
  - Interactions with members, 3rd parties
  - Focused efforts re: LEC, Calaveras, BART, etc.
Survey Results – Round 2 (Prescheduling)

- Striking similarities in process description across 3 interviews
  - Purpose/motivation
  - Tasks
  - Order of operations
  - Start/end times
  - Interactions
  - Exceptions
- Typical work day consumes 8-10 labor-hours for Prescheduling
- Allocation results pending
Presentation Topics

- Background
- Seven Issues
- Progress Report
- Issue #3: Schedule/Contract Counts ➔ Power Pool
- Issue #4: Pool Functions vs. MPP/GPP
- Issue #6: Pricing New Services
- Issue #2: Prescheduling Cost Allocators
- Next Steps
The Review Group will focus its attention on Issues 1 & 2 for FY17 implementation

- Meetings in January to discuss:
  - Issue 2: Prescheduling (FY17)
  - Issue 1: Portfolio changes (FY17)
- NCPA staff will complete its preliminary analysis of Issue 5 (Resource capacity)
- No meeting scheduled for Issue 7 (revenue allocation)
QUESTIONS?