Minutes - DRAFT

To: NCPA Commission
From: Cary A. Padgett, Assistant Secretary to the Commission
Subject: January 18, 2018, NCPA Commission Meeting

1. Call Meeting to Order and Introductions

Chair Bob Lingl called the meeting to order at 9:01 am at Embassy Suites, 100 Capitol Mall, Sacramento, California. A quorum was present. Introductions were made. Those in attendance are shown on the attached attendance list.

2. Approve Minutes of the December 14, 2017, Regular Commission Meeting

Motion: A motion was made by Bonnie Gore and seconded by Roger Frith to approve the Minutes of the December 14, 2017, Commission meeting. The motion carried unanimously on a voice vote of those members present.

PUBLIC FORUM

Chair Lingl asked if any members of the public were present who would like to address the Commission on the agenda items. No members of the public were present.

REPORTS AND COMMITTEE UPDATES

3. General Manager’s Business Progress Report and Update

General Manager Randy Howard reported:

- Thanked the NCPA L&R Team for their effort in putting together another successful Strategic Issue Conference Program. This year marks the 50th Anniversary of NCPA and staff is in the process of planning special events throughout the year to celebrate NCPA’s 50 Years of Public Power.
- Hometown Connections Update. Working through negotiations with the interested parties. Currently finalizing the Bylaws language and plan to have an updated Pro Forma on the financials by early February. Once finalized, will discuss with Commission in closed session.
- Spoke on a panel at APPA’s Joint Action Workshop. Main topic of discussion during the Workshop was workforce development. Workforce development continues to be a concern throughout public power.
- NCPA kicked-off the New Year by bringing on Placer County Water Agency on January 1, 2018. NCPA staff was on hand during the transition, which went off without a hitch. Thanked NCPA Power Management and Information Services staff for their efforts in ensuring a smooth transition.
- The Lodi Energy Center continues to run every day and is doing well.
- Working with the CAISO on regionalization issues. Changes in the rules and procedures on scheduling will have an impact on how the Agency schedules power in the future.

4. Executive Committee

Committee Chair Bob Lingl reported that the Committee did not meet since the last Commission meeting.

5. Facilities Committee

Assistant General Manager Dave Dockham reported the Committee met twice since the last Commission meeting. The Committee met and discussed items 16, 17 and 19 on today’s Agenda. A quorum of the Committee was established and supported staff’s recommendation.

6. Finance Committee

Committee Chair David Hagele reported that the Committee did not meet since the last Commission meeting. Chair Hagele did provide an update on the results of the Lodi Energy Center refunding bonds. With Congress passing the Tax Cuts and Jobs Act in late December, it included the elimination of advance refunding of tax-exempt bonds. On December 20, NCPA staff was able to finalize the advanced refunding of the 2017 Lodi Energy Center, Indenture One, Series A refunding bonds. Final numbers for the project participants included the following:

- Rate: 2.27%
- NPV Savings: $2.2 million through final maturity of 2025
- Percentage savings of refunded bonds: 6.15%
- Average annual savings: approx. $319,000 per year for the participants of Indenture One group

The next Finance Committee meeting is scheduled for February 13th.

7. Legal Committee

Assistant General Counsel Ruthann Ziegler reported that the Committee did not meet since the last Commission meeting, and gave a brief update NCPA’s case regarding the Central Valley Project Improvement Act issues. Detailed updates have been provided directly to each member’s legal counsel.

8. Legislative & Regulatory Affairs Committee

Committee Vice Chair Bonnie Gore reported that the Committee did not meet since the last Commission meeting. Vice Chair Gore thanked everyone who attended the Strategic Issues Conference and gave a special thanks to Randy Howard and the NCPA Legislative & Regulatory Team for their efforts in putting together a productive program. Capitol Day is scheduled on January 29 in Sacramento. NCPA will hold an issues briefing at Mayahuel Restaurant the morning of January 29, and meet with the Members legislative delegation, committee staff and regulatory representatives later that afternoon. The NCPA/NWPPA Federal Policy Conference in Washington, DC will be held April 15-18. Information on this event will be sent to Members next month. The next regular scheduled Committee meeting is on February 21 at NCPA’s Roseville office.
9. Members’ Announcements & Meeting Reporting

Gerry Cupp, Shasta Lake, announced that James Takehara was selected as the new Utility Director for the City of Shasta Lake.

Basil Wong, Port of Oakland, announced that Jared Carpenter was selected has the new Assistant Utility Manager.

Nico Procos, Alameda, announced that Vidhi Chawla was selected as the new Assistant General Manager of Energy Resources Planning.

Randy Howard, NCPA, mentioned that Dave Dockham, Assistant General Manager Power Management, has announced his plans to retire later this year.

CONSENT CALENDAR

Prior to the roll call vote to approve the Consent Calendar, the Commissioners were polled to determine if any member wished to pull an item or abstain from one or more items on the Consent Calendar. No items were pulled for discussion.

Motion: A motion was made by Roger Frith and seconded by Mark Chandler to approve the Consent Calendar consisting of items 10, 11, 12, 13, 14, and 15. The motion carried by a majority of those members present on a roll call vote with the abstentions noted below for each item.

San Francisco BART was absent.

10. NCPA’s Financials for the Month Ended November 30, 2017 – approval by all members.

11. NCPA’s Financials for the Month Ended December 31, 2017 – approval by all members.

12. Treasurer’s Report for the Month Ended November 30, 2017 – accept by all members.


14. Resolution 18-01, Transmission and Distribution Services, LLC – Five Year Multi-Task General Services Agreement for oil leak maintenance on transformers; Applicable to the following projects: All NCPA Facility Locations, Members, SCPPA and SCPPA Members – adopt resolution by all members authorizing the General Manager or his designee to enter into a Multi-Task General Services Agreement with Transmission and Distribution Services, LLC for oil leak detection and maintenance on transformers, with any non-substantial changes recommended and approved by the NCPA General Counsel, which shall not exceed $1,000,000 over five years for use at all facilities owned and/or operated by NCPA, its Members, by the Southern California Public Power Authority ("SCPPA"), or by SCPPA Members.

Fiscal Impact: Upon execution, the total cost of the agreement is not-to-exceed $1,000,000 over five years to be used out of NCPA approved budgets as services are rendered. Purchase orders referencing the Terms and Conditions of the Agreement will be issued following NCPA procurement policies and procedures.

Port of Oakland abstained.
15. Resolution 18-04, Dekomte De Temple, LLC – Five Year Multi-Task General Services Agreement for BOP/HRSG expansion joint and insulation maintenance services; Applicable to the following projects: All NCPA Facility Locations, Members, SCPPA, and SCPPA Members—adopt resolution by all members authorizing the General Manager or his designee to enter into a Multi-Task General Services Agreement with Dekomte De Temple, LLC for BOP/HRSG expansion joints and insulation services, with any non-substantial changes recommended and approved by the NCPA General Counsel, which shall not exceed $500,000 over five years for use at all facilities owned and/or operated by NCPA, its Members, by the Southern California Public Power Authority (“SCPPA”), or by SCPPA Members. **Fiscal Impact:** Upon execution, the total cost of the agreement is not-to-exceed $500,000 over five years to be used out of NCPA approved budgets as services are rendered. Purchase orders referencing the terms and conditions of the Agreement will be issued following NCPA procurement policies and procedures. **Port of Oakland abstained.**

**DISCUSSION / ACTION ITEMS**

16. Resolution 18-02, Increase the General Manager’s Signature Authority from the Current Level of $2,897,507 to $3,250,000 for Construction of the Adit 4 Spoils Facility Repairs—adopt resolution by all members authorizing the General Manager to issue additional purchase orders to Ford Construction, Inc., and raising the General Manager’s signature authority from the current level of $2,897,507 to the not to exceed amount of $3,250,000 for construction of the Adit 4 Spoils Facility Repairs at the NCPA Hydroelectric Project. **Fiscal Impact:** The total cost of the Adit 4 Spoils Facility Repair Project (including engineering design and construction) is now estimated to be $3.82M. Previous budget estimates made prior to construction bidding were $4.15M. An insurance claim has been filed with NCPA’s property insurance underwriters, and a meeting with the insurer is scheduled for February 6, 2018, to hopefully finalize the settlement amount for the overall repair project.

Assistant General Manager Ken Speer gave a presentation and presented an aerial video of the construction progress of the Adit 4 spoils facility repairs.

**Motion:** A motion was made by Mark Chandler and seconded by Mel Grandi approving the resolution authorizing the General Manager to issue additional purchase orders to Ford Construction, Inc., and raising the General Manager’s signature authority from the current level of $2,897,507 to the not to exceed amount of $3,250,000 for construction of the Adit 4 Spoils Facility Repairs at the NCPA Hydroelectric Project. Motion carried by majority on a roll call vote of those members present. **Port of Oakland, Redding and Truckee Donner abstained. San Francisco BART was absent.**

17. Resolution 18-03, Delegate to the General Manager Authority to enter into one or more Agreements and to Issue Purchase Orders, with a total not-to-exceed amount of $6,900,000, for Replacement of Stator Windings for the Collierville Unit 1 and Unit 2 Generators at the NCPA Hydroelectric Project—adopt resolution by all members authorizing the General Manager to enter into one or more agreements and to issue purchase orders, with a total not-to-exceed amount of $6,900,000, for the replacement of stator windings for the Collierville Powerhouse Unit 1 and Unit 2 generators at the NCPA Hydroelectric Project. **Fiscal Impact:** At this time, total project costs for rewinds of both Collierville units are roughly estimated to be on the order of $6,000,000. Contingency funds of 15% ($900,000) are recommended to cover change orders and contingencies, for a total project cost not to exceed $6,900,000. To date, approximately $5,250,000 has been collected specifically for Collierville generator rewinds as part of an ongoing Capital Development Reserve collections. Additional funds of $300,000 and $500,000 are proposed for collection in FY19 and FY20, respectively. The
collection schedule will be adjusted if actual bids for the Unit 2 rewind are found to deviate from preliminary budget expectations. If, based on bid results or modifications in scope, project costs are anticipated to exceed $6.9M, staff will return to the Commission to request additional signature authority. It is expected that both rewinds will be completed over the next five years. With an aggressive project schedule and availability of materials, Unit 2 rewind may begin as early as fall 2018.

Collierville Rewind Project estimated cost breakdown:

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<thead>
<tr>
<th></th>
<th>Unit 2</th>
<th>Unit 1</th>
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<tbody>
<tr>
<td>Material procurement</td>
<td>$1,000,000</td>
<td>$1,000,000</td>
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<tr>
<td>Millwright work</td>
<td>$1,000,000</td>
<td>$1,000,000</td>
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<tr>
<td>Rewind labor</td>
<td>$1,000,000</td>
<td>$1,000,000</td>
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<tr>
<td>TOTAL ESTIMATED</td>
<td>$3,000,000</td>
<td>$3,000,000</td>
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Assistant General Manager Ken Speer gave a presentation on the repairs at Collierville Unit 1 and 2 at the NCPA Hydroelectric project.

**Motion**: A motion was made by Pat Kolstad and seconded by Mark Chandler approving the resolution authorizing the General Manager to enter into one or more agreements and to issue purchase orders, with a total not-to-exceed amount of $6,900,000, for the replacement of stator windings for the Collierville Powerhouse Unit 1 and Unit 2 generators at the NCPA Hydroelectric Project. Motion carried by majority on a roll call vote of those members present.

*San Francisco BART was absent.*

18. **Resolution 18-05, Delegate Authority to the General Manager to execute agreements and to issue purchase orders for maintenance work related to the Lodi Energy Center (LEC) 2018 Spring Outage, for a total cost not to exceed $1,798,856** – adopt resolution by all members authorizing the General Manager to execute agreements and issue purchase orders for maintenance work related to the Lodi Energy Center (LEC) 2018 Spring Outage, for a total cost not to exceed $1,798,856.

**Fiscal Impact:**

<table>
<thead>
<tr>
<th>2018 Spring Outage</th>
<th>Anticipated Cost</th>
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<tr>
<td>Gas Turbine</td>
<td>$211,000</td>
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<tr>
<td>Steam Turbine</td>
<td>$125,000</td>
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<tr>
<td>Water Treatment</td>
<td>$200,000</td>
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<tr>
<td>Electrical Systems</td>
<td>$83,652</td>
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<tr>
<td>HRSG / Steam</td>
<td>$751,000</td>
</tr>
<tr>
<td>Balance of Plant</td>
<td>$81,000</td>
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<tr>
<td>Incidentals</td>
<td>$205,500</td>
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<tr>
<td>Contingency</td>
<td>$141,704</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$1,798,856</strong></td>
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</tbody>
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The budgetary funds to complete the 2018 Spring Outage include $830,000 of pre-collected funds in the Maintenance Reserve account (Account # 265-009-005-610-044-002). The remainder of funds ($968,856) were anticipated in the Routine O&M budget.

Assistant General Manager Ken Speer gave a presentation on the maintenance work related to the Lodi Energy Center 2018 spring outage.
Motion: A motion was made by Roger Frith and seconded by Bonnie Gore approving the resolution authorizing the General Manager to execute agreements and issue purchase orders for maintenance work related to the Lodi Energy Center (LEC) 2018 Spring Outage, for a total cost not to exceed $1,798,856. Motion carried by majority on a roll call vote of those members present. Alameda, Palo Alto, Port of Oakland, Redding, Shasta Lake, and Truckee Donner abstained. San Francisco BART was absent.

19. Resolution 18-06, Provision of Services to East Bay Community Energy, adopt resolution by all members approving the Revised Services Agreement with East Bay Community Energy, under which NCPA will supply certain scheduling and portfolio management services to East Bay Community Energy, including any non-substantive modifications to the Revised Services Agreement approved by NCPA’s General Counsel. NCPA staff also recommends that the Commission authorize NCPA’s General Manager to execute the Revised Services Agreement on behalf of NCPA.

Fiscal Impact: In consideration for NCPA’s provision of services, EBCE shall pay NCPA an amount equal to Six Hundred Forty Thousand Dollars ($640,000.00) for Services rendered during the first one (1) year period in which NCPA is supplying Services to EBCE. For each subsequent one (1) year period during the term of the Agreement, the amount charged to EBCE will be escalated at a rate of two percent (2%) per year.

Tony Zimmer of NCPA gave a presentation on the East Bay Community Energy Services Agreement and discussed the Facilities Committee recommended changes to the Agreement. A Golden Rod Addendum Staff Report highlighting the changes to the Services Agreement was provided to the Commission and discussed in detail.

Motion: A motion was made by Mark Chandler and seconded by Pat Kolstad approving the resolution for the Revised Services Agreement with East Bay Community Energy, under which NCPA will supply certain scheduling and portfolio management services to East Bay Community Energy, including any non-substantive modifications to the Revised Services Agreement approved by NCPA’s General Counsel, and authorizing NCPA’s General Manager to execute the Revised Services Agreement on behalf of NCPA. Motion carried by majority on a roll call vote of those members present. San Francisco BART was absent.

NEW BUSINESS

Chair Lingl recognized those Members and staff that have January birthdays.

ADJOURNMENT

The January 18, 2018, Commission meeting was adjourned at 10:06 am.

Respectfully submitted,
//
CARY A. PADGETT
Assistant Secretary to the Commission

Attachments
NCPA Commissioners are requested to sign, but signature by members of the public is voluntary.

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<tr>
<th>MEMBER</th>
<th>NAME</th>
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<td>ALAMEDA</td>
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<td>BIGGS</td>
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<td>HEALDSBURG</td>
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<td>TRANSIT DISTRICT (BART)</td>
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<td>SANTA CLARA</td>
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<td>SHASTA LAKE</td>
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<td>TRUCKEE DONNER</td>
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Northern California Power Agency  
Commission Meeting of January 18, 2018  
Attendance List

NCPA Commissioners, Alternates & Staff are requested to sign, but signature by members of the public is voluntary.

<table>
<thead>
<tr>
<th>NAME</th>
<th>AFFILIATION</th>
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<tr>
<td>Roger Frith</td>
<td>Biggs</td>
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<tr>
<td>Mike DeBolt</td>
<td>NCPA</td>
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<td>Ken Speer</td>
<td>NCPA</td>
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<td>Stephen Hinkle</td>
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<td>Terry Crowles</td>
<td>MEALSBURG</td>
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<td>Jared Carpenter</td>
<td>Port of Oakland</td>
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<td>Ann Hatcher</td>
<td>SVP</td>
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<td>Liz Kirkley</td>
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<td>Jane Cirrincione</td>
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<td>Monty Hanks</td>
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<td>Kathleen Hughes</td>
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<td>Pat Kostock</td>
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<td>Tony Zimmer</td>
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<td>Dave Dodds</td>
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<td>Debra Lloyd</td>
<td>PALO ALTO</td>
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<td>Monica Padilla</td>
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<td>Paul Eckert</td>
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<td>Gerald Cupp</td>
<td>CITY OF SHASTA LAKE</td>
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<td>Nino Proes</td>
<td>Alameda</td>
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<td>Terry Serventi</td>
<td>Alameda</td>
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<td>Cindy Saunders</td>
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Northern California Power Agency
Commission Meeting of January 18, 2018
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<tr>
<td>Diana Lucchesi</td>
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<td>Terry Bowersox</td>
<td>NCPA</td>
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<td>Yihan Singh</td>
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<td>Vidhi Chawla</td>
<td>Alameda</td>
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<td>Mike Brazo</td>
<td>Plumas-Sierra</td>
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<td>Bob Marshall</td>
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CONSENT CALENDAR

All items on the Consent Calendar are considered routine and will be approved without discussion by a single-roll call vote. Any Commissioner or member of the public may remove any item from the Consent Calendar. If an item is removed, it will be discussed separately following approval of the remainder of the Consent Calendar.

Prior to the roll call vote to approve the Consent Calendar, the Commissioners will be polled to determine if any Member wishes to abstain from one or more items on the Consent Calendar.

CONSENT CALENDAR ROLL-CALL APPROVAL

Commission Meeting Date: 1/18/18

Consent Items Listed on the Agenda: #10 to #15

Consent Items Removed from the Agenda and Approved Separately: #

ROLL-CALL VOTE BY MEMBERS:

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<tr>
<th>Member</th>
<th>Item Numbers Abstained</th>
<th>Vote</th>
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ATTEST:  

Cary A. Padgett  
Assistant Secretary to the Commission
Commission Staff Report

Date: February 22, 2018
To: NCPA Commission
Subject: January 31, 2018 Facilities Committee Meeting Minutes

The attached Draft Minutes are being provided for information and to augment the oral Committee report.
Minutes

Date: February 1, 2018

To: NCPA Facilities Committee

From: Carrie Pollo

Subject: January 31, 2018 Facilities Committee Meeting Minutes

1. **Call meeting to order & Roll Call** - The meeting was called to order by Committee Chair Mike Brozo at 9:01 am. A sign-in sheet was passed around. Attending via teleconference and/or online presentation were Alan Hanger (Alameda), Mark Sorensen (Biggs), Paul Eckert (Gridley), Terry Crowley (Healdsburg), and Monica Padilla (Palo Alto). Those attending in person are listed on the attached Attendee Sign-in Sheet. Committee Representatives from BART, Port of Oakland, Santa Clara, TID, and Ukiah were absent. A quorum of the Committee was established.

**PUBLIC FORUM**
No public comment.

2. **Approve minutes from the January 3, 2018 Facilities Committee Meeting and the January 11, 2018 Facilities Committee Special Meeting**. A motion was made by Shannon McCann and seconded by Melissa Price recommending approval of the January 3, 2018 Facilities Committee Meeting minutes, and the January 11, 2018 Facilities Committee Special Meeting minutes. A vote was taken by roll call: YES = Alameda, Biggs, Gridley, Healdsburg, Lodi, Palo Alto, Plumas-Sierra, and Roseville. The motion passed.

3. **CT1 Alameda Outage Update** – CT Staff provided an informational update regarding the CT1 Alameda Unit 1 Outage. Currently the CT1 Alameda Unit 1 is on an outage for the repair of baffle exhaust seals that were damaged. Since the exhaust seals were not able to be replaced without removal of the gas turbine rotor, the outage will continue through February 14, 2018. During removal of the rotor, disassembly of the compressor showed impact damage on Stage 9 and 10. The repair work for this damage will also be included in the scope of work for this unit. This unit is still on schedule to be back online by February 15, 2018.

4. **Approval of NCPA Solar Project Phase 2 Agreement** – Staff presented background information and was seeking a recommendation for approval of the NCPA Solar Project 1 Phase 2 Agreement. The Agreement encompasses site selection, technical/financial
evaluation, and site development for a fleet of solar photovoltaic (PV) plants to be located within participating member territories. The Agreement describes four sub-phases, beginning with site selection and feasibility analysis that will lead to a critical Go/No-Go decision point early in the process. This will enable a participant to withdraw from the project early on should their desired site(s) be deemed unfeasible for whatever reason, while minimizing their investment in the project. Also described is the cost allocation method; participants will be charged costs directly related to their site(s) development plus a percentage of the project’s general costs based on a capacity-based GES. The agreement was reviewed during a web meeting for all potential participants January 12. The agreement will be taken to the Commission for approval February 22, and launch date as early as February 23.

Motion: A motion was made by Melissa Price and seconded by Alan Hanger recommending Commission approval of 1) the Second Phase Agreement for the NCPA Solar Project 1; and 2) Authorize the NCPA General Manager to execute the Second Phase Agreement for the Solar Project 1 on behalf of NCPA, including any non-substantive modifications approved by NCPA’s General Counsel. A vote was taken by roll call: YES = Alameda, Biggs, Gridley, Healdsburg, Lodi, Palo Alto, Plumas-Sierra, and Roseville. The motion passed.

5. Nexant Cost Allocation Model Billing Determinants – Staff reviewed the Nexant Cost Allocation Model proposed changes, and was seeking a recommendation for Commission approval of the billing determinants that will be used in the FY2019 Nexant Cost Allocation Model.

The proposed changes for the model include: 1) Exclude Internal Final Schedules (IFS) that have not changed from Day Ahead as the IFS are automatically populated each day. Only the subset that are adjusted in real time represent actual work; 2) Exclude Unit Contingent Bilateral Load Uplift Obligation Schedule Counts since these REC transactions are already accounted for in contract counts; and, 3) Count the EDF Real Time Load Following deals as unique deals for each day. Counting the EDF Real Time LF deals as monthly transactions concentrated contract counts and skewed excessive costs towards actual monthly deals that take less work to schedule and track due to monthly nature.

Since a quorum was not established for this item, the committee asked those in attendance if they support recommending Commission approval of the proposed modifications presented at this committee meeting and billing determinants that will be used in the FY2019 Nexant Cost Allocation Model. Those in attendance that support NCPA’s recommendation are: Alameda, Gridley, Healdsburg, Lodi, Palo Alto, Plumas-Sierra, and Roseville. A staff report and resolution will be taken to the next Commission Meeting for approval on February 22, 2018.

6. New Services Staffing Update – Staff provided an update with an analysis of the budget, staffing, and the operational impacts associated with the expansion of Power Management services on a fee for service basis. This analysis is being done to report on the agency’s ability to support the continued growth of services on a fee basis, and to identify when additional staffing, facilities, and operational modifications will be necessary to support the continued expansion of fee-based services.

The services being provided impact staff in both the Power Management Division and the Administrative Services Division. As a result, impact assessments were performed in both divisions. Positions included in the analysis were in Dispatch and Scheduling, Planning and Pre-Scheduling, and Contracts and Interconnection Affairs, for Power Management, and
Information Services and Settlements for the Administrative Services Division. Operational impacts include office space, where additional staffing needs have been identified, and the NERC/WECC compliance standards, which will most likely change from low impact to a medium impact rating, with the additional services being provided.

This analysis report is 90% complete. Staff will bring a final report to next month’s committee meeting. Please contact NCPA staff with any feedback, and support that your utility needs.

7. Planning and Operations Update –

- The TO18 TAC trial is underway in Washington, DC. The trial should be finishing up by the end of the week. Litigation is leading to a better outcome than expected.
- Order 890 – Not much happening with this currently due to the TAC trial. A meeting has been scheduled with PG&E February 26 to discuss a redline version of the planning and tariff process. Southern California Edison (SCE) has made a filing at FERC to modify its planning process, in an attempt to ensure its planning process is compliant with the standards required under Order 890. All affected filed protests. NCPA has asked for consolidation with SCE or a technical conference.
- New Services Update – PCWA scheduling services started January 1. Pioneer Community Energy services will start tomorrow, February 1. Testing has been going on all week, and things have been going well for integration of services. NCPA sent a services contract to East Bay Community Energy for execution. San Jose CCA is still very interested in obtaining services from NCPA. The city is in discussions with their board, which could delay services until 2019. Discussions are currently in progress with South Feather Water & Power for services beginning in 2020 when their PG&E contract expires.
- NCPA has a new 50th Anniversary logo this year. Celebrations will continue throughout the year for this historic milestone.
- The Geothermal Plant is requesting PG&E send outage requests ahead of time for better planning of their outages.
- The Hydroelectric Project has a current snowpack at 21% of normal, which is a bit higher than during the very dry year of 2014-2015. The current forecast is for a drier than normal year.

8. Schedule next meeting date – The next regular Facilities Committee meeting is scheduled for February 28, 2018.

ADJOURNMENT

The meeting was adjourned at 11:30 am.
Northern California Power Agency  
January 31, 2018 Facilities Committee Meeting  
Attendance List

NCPA Facilities Committee Members, Alternates & Staff are requested to sign, but signature by members of the public is voluntary.

<table>
<thead>
<tr>
<th>NAME</th>
<th>AFFILIATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carrie Pollo</td>
<td>NCPA</td>
</tr>
<tr>
<td>Dave Dockweir</td>
<td>NCPA</td>
</tr>
<tr>
<td>Miltie Brozzo</td>
<td>PSREC</td>
</tr>
<tr>
<td>Ken Speer</td>
<td>NCPA</td>
</tr>
<tr>
<td>Ron Yuen</td>
<td>NCPA</td>
</tr>
<tr>
<td>Michael DeBortoli</td>
<td>NCPA</td>
</tr>
<tr>
<td>Randy Howard</td>
<td>NCPA</td>
</tr>
<tr>
<td>Melissa Price</td>
<td>Lodi</td>
</tr>
<tr>
<td>Javic Luckhardt</td>
<td>NCPA</td>
</tr>
<tr>
<td>Shannon McCann</td>
<td>Roseville</td>
</tr>
<tr>
<td>Monty Hanks</td>
<td>NCPA</td>
</tr>
<tr>
<td>Bob Carcenesti</td>
<td>NCPA</td>
</tr>
<tr>
<td>Michael Whitney</td>
<td>NCPA</td>
</tr>
<tr>
<td>Tony Zimmer</td>
<td>NCPA</td>
</tr>
</tbody>
</table>
Northern California Power Agency  
January 31, 2018 Facilities Committee Meeting  
Attendance List

NCPA Facilities Committee Members are requested to sign, but signature by members of the public is voluntary.

<table>
<thead>
<tr>
<th>MEMBER</th>
<th>NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALAMEDA</td>
<td></td>
</tr>
<tr>
<td>BART</td>
<td></td>
</tr>
<tr>
<td>BIGGS</td>
<td></td>
</tr>
<tr>
<td>GRIDLEY</td>
<td></td>
</tr>
<tr>
<td>HEALDSBURG</td>
<td></td>
</tr>
<tr>
<td>LODI</td>
<td></td>
</tr>
<tr>
<td>LOMPOC</td>
<td></td>
</tr>
<tr>
<td>PALO ALTO</td>
<td></td>
</tr>
<tr>
<td>PLUMAS-SIERRA REC</td>
<td></td>
</tr>
<tr>
<td>PORT OF OAKLAND</td>
<td></td>
</tr>
<tr>
<td>ROSEVILLE</td>
<td></td>
</tr>
<tr>
<td>SANTA CLARA</td>
<td></td>
</tr>
<tr>
<td>TID</td>
<td></td>
</tr>
<tr>
<td>UKIAH</td>
<td></td>
</tr>
</tbody>
</table>
Commission Staff Report

February 14, 2018

COMMISSION MEETING DATE: February 22, 2018

SUBJECT: January 2018 Financial Report (Unaudited)

AGENDA CATEGORY: Consent

FROM: Sondra Ainsworth  
Treasurer-Controller  
Division: Administrative Services  
Department: Accounting & Finance

METHOD OF SELECTION: N/A

IMPACTED MEMBERS:

<table>
<thead>
<tr>
<th></th>
<th>City of Lodi</th>
<th>City of Shasta Lake</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Members</td>
<td>☒</td>
<td></td>
</tr>
<tr>
<td>Alameda Municipal Power</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>San Francisco Bay Area Rapid Transit</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>City of Biggs</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>City of Gridley</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>City of Healdsburg</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>City of Lompoc</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>City of Palo Alto</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>City of Redding</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>City of Roseville</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>Plumas-Sierra REC</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>Port of Oakland</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>Truckee Donner PUD</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>☐</td>
<td></td>
</tr>
</tbody>
</table>

If other, please specify

_____________________________
RECOMMENDATION:

Approval by all members

NOTICE:

The disbursements of the Northern California Power Agency for the month reported herein, will be approved at the February 22, 2018 meeting of the NCPA Commission. The following page is a summary of those disbursements.

Prior to the Chairman’s call to order, the Assistant Secretary to the Commission will, upon request, make available for review the detailed listing of those disbursements.

The report of budget vs. actual costs and the unaudited January 2018 financial reports are also included.

FISCAL IMPACT:

This report has no direct budget impact to the Agency.

ENVIRONMENTAL ANALYSIS:

The financial report would not result in a direct or reasonably foreseeable indirect change in the physical environment and is therefore not a “project” for purposes of Section 21065 of the California Environmental Quality Act. No environmental review is necessary.

Respectfully submitted,

RANDY S. HOWARD
General Manager

Attachments: (1)
NORTHERN CALIFORNIA POWER AGENCY  
and ASSOCIATED POWER CORPORATIONS  

Schedule of Disbursements  
(Undaudited)  

For the Month of January 2018  

<table>
<thead>
<tr>
<th>Operations</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geothermal</td>
<td>$1,030,517</td>
</tr>
<tr>
<td>Hydroelectric</td>
<td>$5,301,264</td>
</tr>
<tr>
<td>CT#1 Combustion Turbines</td>
<td>$48,015</td>
</tr>
<tr>
<td>CT#2 STIG</td>
<td>$519,447</td>
</tr>
<tr>
<td>Lodi Energy Center</td>
<td>$7,000,854</td>
</tr>
<tr>
<td>NCPA Operating</td>
<td>$23,353,868</td>
</tr>
</tbody>
</table>

| Total                             | $37,253,965|
### GENERATION RESOURCES

**NCPA Plants**

<table>
<thead>
<tr>
<th></th>
<th>This Month</th>
<th>Actual Year To-Date</th>
<th>FY 2018 Budget</th>
<th>% Used</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hydroelectric</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Plant Cost</td>
<td>$1,583,190</td>
<td>$11,625,680</td>
<td>$15,603,994</td>
<td>75%</td>
</tr>
<tr>
<td>Debt Service (Net)</td>
<td>3,186,179</td>
<td>22,317,254</td>
<td>38,258,150</td>
<td>58%</td>
</tr>
<tr>
<td><strong>Annual Budget Cost</strong></td>
<td>4,771,369</td>
<td>33,942,934</td>
<td>53,862,144</td>
<td>63%</td>
</tr>
<tr>
<td><strong>Geothermal</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Plant Cost</td>
<td>1,706,384</td>
<td>13,485,887</td>
<td>27,184,263</td>
<td>50%</td>
</tr>
<tr>
<td>Debt Service (Net)</td>
<td>411,312</td>
<td>2,879,183</td>
<td>4,935,743</td>
<td>58%</td>
</tr>
<tr>
<td><strong>Annual Budget Cost</strong></td>
<td>2,117,696</td>
<td>16,365,070</td>
<td>32,120,006</td>
<td>51%</td>
</tr>
<tr>
<td><strong>Combustion Turbine No. 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>237,114</td>
<td>2,726,555</td>
<td>2,848,552</td>
<td>96%</td>
</tr>
<tr>
<td><strong>Combustion Turbine No. 2 (Stig)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fuel and Pipeline Transport Charges</td>
<td>62,973</td>
<td>757,235</td>
<td>834,641</td>
<td>91%</td>
</tr>
<tr>
<td>Other Plant Cost</td>
<td>136,848</td>
<td>1,434,054</td>
<td>2,065,083</td>
<td>68%</td>
</tr>
<tr>
<td>Debt Service (Net)</td>
<td>474,410</td>
<td>3,320,871</td>
<td>5,692,922</td>
<td>58%</td>
</tr>
<tr>
<td><strong>Annual Budget Cost</strong></td>
<td>676,031</td>
<td>5,512,160</td>
<td>8,622,646</td>
<td>64%</td>
</tr>
<tr>
<td><strong>Lodi Energy Center</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fuel</td>
<td>3,422,745</td>
<td>19,673,748</td>
<td>14,877,170</td>
<td>132%</td>
</tr>
<tr>
<td>Other Plant Cost</td>
<td>2,755,281</td>
<td>13,866,771</td>
<td>19,794,554</td>
<td>70%</td>
</tr>
<tr>
<td>Debt Service (Net)</td>
<td>2,181,150</td>
<td>15,389,470</td>
<td>26,416,840</td>
<td>58%</td>
</tr>
<tr>
<td><strong>Annual Budget Cost</strong></td>
<td>8,359,176</td>
<td>48,929,989</td>
<td>61,088,364</td>
<td>80%</td>
</tr>
<tr>
<td><strong>Member Resources - Energy</strong></td>
<td>4,166,302</td>
<td>30,554,622</td>
<td>53,389,034</td>
<td>57%</td>
</tr>
<tr>
<td><strong>Member Resources - Natural Gas</strong></td>
<td>281,604</td>
<td>2,085,541</td>
<td>3,457,156</td>
<td>60%</td>
</tr>
<tr>
<td><strong>Western Resources</strong></td>
<td>1,388,323</td>
<td>12,246,710</td>
<td>30,119,980</td>
<td>41%</td>
</tr>
<tr>
<td><strong>Market Power Purchases</strong></td>
<td>3,159,216</td>
<td>15,876,315</td>
<td>19,318,026</td>
<td>82%</td>
</tr>
<tr>
<td><strong>Load Aggregation Costs - CAISO</strong></td>
<td>19,152,671</td>
<td>122,987,699</td>
<td>233,822,294</td>
<td>53%</td>
</tr>
<tr>
<td><strong>Net GHG Obligations</strong></td>
<td>- 518,780</td>
<td>445,917</td>
<td></td>
<td>116%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>44,308,502</td>
<td>291,750,375</td>
<td>499,094,018</td>
<td>58%</td>
</tr>
</tbody>
</table>

### TRANSMISSION

**Independent System Operator**

<table>
<thead>
<tr>
<th></th>
<th>This Month</th>
<th>Actual Year To-Date</th>
<th>FY 2018 Budget</th>
<th>% Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grid Management Charge</td>
<td>324,163</td>
<td>2,289,227</td>
<td>2,466,609</td>
<td>93%</td>
</tr>
<tr>
<td>Wheeling Access Charge</td>
<td>7,849,181</td>
<td>60,227,896</td>
<td>96,760,295</td>
<td>62%</td>
</tr>
<tr>
<td>Ancillary Services</td>
<td>250,431</td>
<td>2,289,779</td>
<td>2,639,380</td>
<td>87%</td>
</tr>
<tr>
<td>Other Charges</td>
<td>1,794,167</td>
<td>8,629,085</td>
<td>1,058,438</td>
<td>81%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>10,217,942</td>
<td>73,435,987</td>
<td>102,924,722</td>
<td>71%</td>
</tr>
</tbody>
</table>

### MANAGEMENT SERVICES

**Legislative & Regulatory**

<table>
<thead>
<tr>
<th></th>
<th>This Month</th>
<th>Actual Year To-Date</th>
<th>FY 2018 Budget</th>
<th>% Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Legislative Representation</td>
<td>93,598</td>
<td>948,758</td>
<td>1,976,008</td>
<td>48%</td>
</tr>
<tr>
<td>Regulatory Representation</td>
<td>66,634</td>
<td>374,151</td>
<td>837,639</td>
<td>45%</td>
</tr>
<tr>
<td>Western Representation</td>
<td>42,981</td>
<td>288,860</td>
<td>829,636</td>
<td>35%</td>
</tr>
<tr>
<td>Member Services</td>
<td>40,152</td>
<td>204,800</td>
<td>436,078</td>
<td>47%</td>
</tr>
<tr>
<td>Judicial Action</td>
<td>377,584</td>
<td>544,058</td>
<td>625,000</td>
<td>87%</td>
</tr>
</tbody>
</table>
## Power Management

<table>
<thead>
<tr>
<th>Category</th>
<th>This Month</th>
<th>Actual Year To-Date</th>
<th>FY 2018 Budget</th>
<th>% Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>System Control &amp; Load Dispatch</td>
<td>430,804</td>
<td>3,063,031</td>
<td>5,864,452</td>
<td>52%</td>
</tr>
<tr>
<td>Forecasting, Planning, Prescheduling &amp; Trading</td>
<td>180,001</td>
<td>1,327,722</td>
<td>2,647,017</td>
<td>50%</td>
</tr>
<tr>
<td>Industry Restructuring &amp; Regulatory Affairs</td>
<td>24,965</td>
<td>174,203</td>
<td>424,174</td>
<td>41%</td>
</tr>
<tr>
<td>Contract Admin, Interconnection Svc &amp; External Affairs</td>
<td>70,655</td>
<td>489,151</td>
<td>1,151,828</td>
<td>42%</td>
</tr>
<tr>
<td>Green Power Project</td>
<td>160</td>
<td>1,241</td>
<td>17,746</td>
<td>7%</td>
</tr>
<tr>
<td>Gas Purchase Program</td>
<td>6,108</td>
<td>34,305</td>
<td>88,131</td>
<td>39%</td>
</tr>
<tr>
<td>Market Purchase Project</td>
<td>7,013</td>
<td>49,292</td>
<td>130,141</td>
<td>38%</td>
</tr>
<tr>
<td>Energy Risk Management</td>
<td>14,749</td>
<td>69,511</td>
<td>206,836</td>
<td>34%</td>
</tr>
<tr>
<td>Settlements</td>
<td>47,587</td>
<td>315,121</td>
<td>774,377</td>
<td>41%</td>
</tr>
<tr>
<td>Integrated Systems Support</td>
<td>2,618</td>
<td>56,625</td>
<td>318,562</td>
<td>18%</td>
</tr>
<tr>
<td>Participant Pass Through Costs</td>
<td>20,003</td>
<td>603,264</td>
<td>1,525,907</td>
<td>40%</td>
</tr>
<tr>
<td>Support Services</td>
<td>-</td>
<td>83,544</td>
<td>-</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>TOTAL ANNUAL BUDGET COST</strong></td>
<td><strong>1,425,910</strong></td>
<td><strong>8,627,637</strong></td>
<td><strong>17,853,532</strong></td>
<td><strong>48%</strong></td>
</tr>
</tbody>
</table>

### LESS: THIRD PARTY REVENUE

<table>
<thead>
<tr>
<th>Category</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant ISO Energy Sales</td>
<td>8,885,371</td>
</tr>
<tr>
<td>Load Aggregation Energy Sales</td>
<td>8,957,014</td>
</tr>
<tr>
<td>Ancillary Services Sales</td>
<td>547,241</td>
</tr>
<tr>
<td>Western Resource Energy Sales</td>
<td>565,597</td>
</tr>
<tr>
<td>Other ISO Revenue</td>
<td>1,667,691</td>
</tr>
<tr>
<td>Transmission Sales</td>
<td>9,198</td>
</tr>
<tr>
<td>Western Credits, Interest and Other Income</td>
<td>881,723</td>
</tr>
<tr>
<td><strong>TOTAL LESS</strong></td>
<td><strong>21,713,835</strong></td>
</tr>
</tbody>
</table>

**NET ANNUAL BUDGET COST TO PARTICIPANTS**

<table>
<thead>
<tr>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>$34,238,519</strong></td>
</tr>
<tr>
<td><strong>$202,257,992</strong></td>
</tr>
<tr>
<td><strong>$361,905,551</strong></td>
</tr>
</tbody>
</table>

### Notes:

(a) Increase in costs due to unbudgeted outside services related to the dredging of the Beaver Creek reservoir. It is anticipated that costs will be offset by insurance and FEMA proceeds.

(b) Increase in costs due to greater than projected MWs of generation. CT1 is at 676% of budgeted MWs at 1/31/18. Fuel costs, CA ISO charges, and other variable costs have all increased as a result of increased generation.

(c) Increase in costs due to greater than projected MWs of generation. CT2 is at 473% of budgeted MWs at 1/31/18. Fuel costs and CA ISO charges have increased as a result of increased generation.

(d) Increase in costs due to greater than projected MWs of generation. LEC is at 220% of budgeted MWs at 1/31/18. Fuel costs and CA ISO charges have increased as a result of increased generation.

(e) Increase due to unbudgeted market purchases and NCPA contracts. Unbudgeted contracts include Gridley PV, Bart PV, as well as deals made after the FY18 budget including certain Powerex, Shell, and EDF deals.

(f) Purchases made several months in advance. Percent of budget used expected to level off throughout the year.

(g) Increase due to greater than projected MWs of generation. See notes (b), (c), and (d).

(h) Increase due to greater than projected MWs of generation. See notes (b), (c), and (d).

(i) Increase due to greater than projected MWs of generation. See notes (b), (c), and (d) and corresponding increase in ancillary services sales.

(j) The large budget to actual variance is caused by unbudgeted CAISO costs including imbalance costs, neutrality allocations, congestion offsets, and other cost allocations. These costs are not budgeted due to their unpredictable nature.

(k) Variance due to unbudgeted legal costs.

(l) Variance due to higher than anticipated ISO energy sales for the Lodi Energy Center (LEC), CT1, CT2, and Hydro.

(m) Increase due to greater than projected MWs of generation. See notes (b), (c), (d), and (g) and corresponding increase in ancillary services costs.

(n) Variance due primarily to $1.26 million in unbudgeted displacement revenue.
COMBINED STATEMENTS OF NET POSITION

NORTHERN CALIFORNIA POWER AGENCY
AND ASSOCIATED POWER CORPORATIONS

UNAUDITED

<table>
<thead>
<tr>
<th></th>
<th>January 31,</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2018</td>
<td>2017</td>
</tr>
<tr>
<td><strong>ASSETS</strong></td>
<td></td>
<td>(in thousands)</td>
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<tr>
<td><strong>CURRENT ASSETS</strong></td>
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<tr>
<td>Cash and cash equivalents</td>
<td>$21,615</td>
<td>$34,627</td>
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<td></td>
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<td>Participants</td>
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<tr>
<td>Other</td>
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<td>5,515</td>
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<td>93</td>
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<td><strong>TOTAL CURRENT ASSETS</strong></td>
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<td><strong>RESTRICTED ASSETS</strong></td>
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<td>299</td>
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<td><strong>TOTAL RESTRICTED ASSETS</strong></td>
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<td><strong>210,632</strong></td>
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<td><strong>ELECTRIC PLANT</strong></td>
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<tr>
<td>Electric plant in service</td>
<td>1,504,083</td>
<td>1,501,540</td>
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<tr>
<td>Less: accumulated depreciation</td>
<td>(960,789)</td>
<td>(929,909)</td>
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<td></td>
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<td><strong>1,105,725</strong></td>
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<td><strong>DEFERRED OUTFLOWS OF RESOURCES</strong></td>
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<td>Pension deferrals</td>
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<td><strong>TOTAL ASSETS AND DEFERRED OUTFLOWS OF RESOURCES</strong></td>
<td>$1,133,126</td>
<td>$1,166,510</td>
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</table>
of Resources and Net Position

Total Net Position

Unrestricted
Restricted
Net investment in capital assets
Net Position

Total Deferred Inflows of Resources

Pension deferred contribution
Repayable capital

Total Liabilities

Long-term debt - net
Interest on swap liability
Operating leases and other deposits
Net pension liability

Non-Current Liabilities

Total Current Liabilities

Accounts payable and accrued expenses

Current Liabilities

January 31, 2018

Northern Californa Power Agency
Combined Statements of Net Position
### COMBINED STATEMENTS OF REVENUES, EXPENSES
AND CHANGES IN NET POSITION

NORTHERN CALIFORNIA POWER AGENCY
AND ASSOCIATED POWER CORPORATIONS

UNAUDITED

#### Seven Months Ended January 31,

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<th>2017</th>
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<td>(in thousands)</td>
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<td></td>
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<td>33,958</td>
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<td>(8,374)</td>
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### OTHER FINANCIAL INFORMATION

**COMBINING STATEMENT OF NET POSITION**

**NORTHERN CALIFORNIA POWER AGENCY**

**AND ASSOCIATED POWER CORPORATIONS**

(000's omitted)

<table>
<thead>
<tr>
<th>January 31, 2018</th>
<th><strong>GENERATING &amp; TRANSMISSION RESOURCES</strong></th>
<th><strong>Purchased Power &amp; Transmission</strong></th>
<th><strong>Associated Member Services</strong></th>
<th><strong>Other Agency</strong></th>
<th><strong>Combined</strong></th>
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<td>Lodi Energy Center</td>
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<tr>
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<td>-</td>
</tr>
<tr>
<td>Participants</td>
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<tr>
<td>Other</td>
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<td>Interest receivable</td>
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<td>-</td>
<td>-</td>
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<td>Due from Agency and other programs*</td>
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<td>-</td>
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<tr>
<td>Electric plant in service</td>
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<td>$64,843</td>
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<td>$423,793</td>
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<td>$47,446</td>
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<td>$17,397</td>
<td>$2,096</td>
<td>$348,328</td>
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<td><strong>TOTAL ELECTRIC PLANT</strong></td>
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<td>$136,472</td>
<td>$17,397</td>
<td>$2,096</td>
<td>$348,435</td>
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<td>OTHER ASSETS</td>
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<td></td>
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<td>-</td>
<td>$22,850</td>
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<td>-</td>
<td>-</td>
<td>-</td>
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<td>$36,192</td>
<td>$2,473</td>
<td>$425,640</td>
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<td>DEFERRED OUTFLOWS OF RESOURCES</td>
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<td></td>
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<tr>
<td>Excess cost on refunding of debt</td>
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<td>$39,454</td>
<td>$946</td>
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<td>-</td>
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<tr>
<td>Pension deferrals</td>
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<td>$39,454</td>
<td>$946</td>
<td>-</td>
<td>-</td>
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<tr>
<td><strong>TOTAL DEFERRED OUTFLOWS OF RESOURCES</strong></td>
<td>$1,831</td>
<td>$39,454</td>
<td>$946</td>
<td>-</td>
<td>-</td>
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<tr>
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<td>$374,156</td>
<td>$37,138</td>
<td>$2,473</td>
<td>$439,640</td>
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* Eliminated in Combination
## OTHER FINANCIAL INFORMATION

### COMBINING STATEMENT OF NET POSITION

**NORTHERN CALIFORNIA POWER AGENCY AND ASSOCIATED POWER CORPORATIONS**

(000's omitted)

<table>
<thead>
<tr>
<th>January 31, 2018</th>
</tr>
</thead>
</table>

### GENERATING & TRANSMISSION RESOURCES

<table>
<thead>
<tr>
<th>Liabilities</th>
<th>Geothermal</th>
<th>Hydroelectric</th>
<th>Multiple Facilities</th>
<th>CT No. One</th>
<th>Lodi Energy Center</th>
<th>Transmission</th>
</tr>
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<tbody>
<tr>
<td>CURRENT LIABILITIES</td>
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<td>$505</td>
<td>$12</td>
<td>$28</td>
<td>$3,524</td>
<td>-</td>
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<tr>
<td>Accounts payable and accrued expenses</td>
<td>$791</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<tr>
<td>Member advances</td>
<td>6,213</td>
<td>250</td>
<td>513</td>
<td>727</td>
<td>13,545</td>
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<td>4,250</td>
<td>22,610</td>
<td>3,995</td>
<td>-</td>
<td>10,355</td>
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<tr>
<td>Accrued interest payable</td>
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<td>1,519</td>
<td>847</td>
<td>-</td>
<td>2,576</td>
<td>-</td>
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<td>TOTAL CURRENT LIABILITIES</td>
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<td>24,884</td>
<td>5,367</td>
<td>755</td>
<td>30,000</td>
<td>-</td>
</tr>
</tbody>
</table>

| NON-CURRENT LIABILITIES | 21,831 | 277 | - | 5,375 | 31,531 |
| Net pension liability | - | - | - | - | 64,589 |
| Operating reserves and other deposits | 18,033 | 10,656 | - | 1,716 | 28,350 | 62 |
| Interest rate swap liability | - | 15,930 | - | - | - | - |
| Long-term debt, net | 24,520 | 309,469 | 30,303 | - | 340,692 | - |
| TOTAL NON-CURRENT LIABILITIES | 43,453 | 342,055 | 30,303 | - | 342,408 | - |

| TOTAL LIABILITIES | 55,018 | 366,919 | 35,670 | 755 | 372,408 | - |

### DEFERRED INFLOWS OF RESOURCES

| Regulatory credits | 19,861 | 4,168 | 966 | 2,256 | 41,521 | - |
| Pension deferrals | - | - | - | - | - | 280 |
| TOTAL DEFERRED INFLOWS OF RESOURCES | 19,861 | 4,168 | 966 | 2,256 | 41,521 | - |

### NET POSITION

| Net investment in capital assets | (4,334) | (28,750) | (5,481) | - | (18,912) | - |
| Restricted | 6,882 | 25,547 | 3,643 | - | 19,363 | - |
| Unrestricted | 9,968 | 6,258 | 3,240 | (538) | 15,260 | - |
| TOTAL NET POSITION | 12,151 | 30,440 | 502 | (538) | 15,511 | - |

| TOTAL LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND NET POSITION | 87,195 | 374,156 | 37,138 | 2,473 | 429,640 | - |

| OTHER FINANCIAL INFORMATION | 37,117 | 10,131 | 155,076 | 1,133,126 | 1,133,126 | 1,133,126 |
OTHER FINANCIAL INFORMATION

COMBINING STATEMENT OF REVENUES, EXPENSES AND CHANGES IN NET POSITION

NORTHERN CALIFORNIA POWER AGENCY
AND ASSOCIATED POWER CORPORATIONS
(000’s omitted)

For the Seven Months Ended January 31, 2018

<table>
<thead>
<tr>
<th>GENERATING &amp; TRANSMISSION RESOURCES</th>
<th>Purchased Power &amp; Transmission</th>
<th>Associated Member Services</th>
<th>Other Agency</th>
<th>Combined</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geothermal</td>
<td>Hydroelectric</td>
<td>Multiple Capital Facilities</td>
<td>CT No. One</td>
<td>Lodl Energy Center</td>
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<tr>
<td>Operating Revenues:</td>
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<td></td>
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<td></td>
</tr>
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<td>Participants:</td>
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<td></td>
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<td>$ 286</td>
<td>$ 6,634</td>
<td>$ 3,547</td>
<td>$ 358</td>
<td>$ 22,855</td>
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<tr>
<td>18,246</td>
<td>17,675</td>
<td>1,130</td>
<td>1,545</td>
<td>38,149</td>
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<tr>
<td>Operating Expenses:</td>
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</tr>
<tr>
<td>Purchased power:</td>
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<tr>
<td>108</td>
<td>1,941</td>
<td>364</td>
<td>266</td>
<td>3,195</td>
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<td>2,207</td>
<td>1,148</td>
<td>1,141</td>
<td>25,918</td>
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<tr>
<td>169</td>
<td>80</td>
<td>(2)</td>
<td>28</td>
<td>638</td>
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<td>Depreciation:</td>
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<tr>
<td>2,275</td>
<td>5,675</td>
<td>1,289</td>
<td>107</td>
<td>8,524</td>
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<td></td>
</tr>
<tr>
<td>2,602</td>
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<td>907</td>
<td>2,279</td>
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<tr>
<td>Administrative and general:</td>
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<td>3,075</td>
<td>1,791</td>
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<td>457</td>
<td>2,467</td>
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<td>Intercompany (Motor) purchases, net:</td>
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<tr>
<td>(159)</td>
<td>147</td>
<td>35</td>
<td>63</td>
<td>156</td>
</tr>
<tr>
<td>TOTAL OPERATING EXPENSES:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NET OPERATING REVENUES:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non operating (expenses) revenues:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interest expense:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interest income:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL NON OPERATING (EXPENSES) REVENUES:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Future Recoverable Amounts:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Refunds to Participants:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increase (Decrease) in Net Position:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net Position, Beginning of Year:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net Position, Period ended:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Eliminated in Combination
## Northern California Power Agency & Associated Power Corporations

### Aged Accounts Receivable

**January 31, 2018**

<table>
<thead>
<tr>
<th>Status</th>
<th>Participant / Customer</th>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>CURRENT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PAST DUE:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 - 30</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>31 - 60</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>61 - 90</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>91 - 120</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Over 120 Days</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Participant and Other Receivables (net)**

<table>
<thead>
<tr>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>$236,163</td>
</tr>
</tbody>
</table>

**Note:** All amounts invoiced or credited to members and others are project/program specific. NCPA does not apply any credits issued to outstanding invoices unless directed.
Commission Staff Report

February 14, 2018

COMMISSION MEETING DATE: February 22, 2018

SUBJECT: Treasurer's Report for Month Ended January 31, 2018

AGENDA CATEGORY: Consent

FROM: Sondra Ainsworth  
Treasurer-Controller  
N/A

Division: Administrative Services

Department: Accounting & Finance

METHOD OF SELECTION:  

<table>
<thead>
<tr>
<th>IMPACTED MEMBERS:</th>
<th>City of Lodi</th>
<th>City of Shasta Lake</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Members</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Alameda Municipal Power</td>
<td>☐</td>
<td>City of Lompoc</td>
</tr>
<tr>
<td>San Francisco Bay Area Rapid Transit</td>
<td>☐</td>
<td>City of Lompoc</td>
</tr>
<tr>
<td>City of Biggs</td>
<td>☐</td>
<td>City of Redding</td>
</tr>
<tr>
<td>City of Gridley</td>
<td>☐</td>
<td>City of Roseville</td>
</tr>
<tr>
<td>City of Healdsburg</td>
<td>☐</td>
<td>City of Santa Clara</td>
</tr>
<tr>
<td>Other</td>
<td>☐</td>
<td></td>
</tr>
</tbody>
</table>

If other, please specify: 

______________________________________________________________

SR: 112:18
RECOMMENDATION:

Approval by all members.

BACKGROUND:

In compliance with Agency policy and State of California Government Code Sections 53601 and 53646(b), the following monthly report is submitted for your information and acceptance.

Cash - At month end cash totaled $4,144,915 of which approximately $87,472 was applicable to Special and Reserve Fund Deposits, $862,548 to Debt Service and $3,194,895 to Operations and other.

The cash balance held at U.S. Bank includes outstanding checks that have not yet cleared. This cash balance is invested nightly in a fully collateralized (U.S. Government Securities) repurchase agreement.

Investments - The carrying value of NCPA's investment portfolio totaled $283,685,383 at month end. The current market value of the portfolio totaled $280,307,987.

The overall portfolio had a combined weighted average interest rate of 1.372% with a bond equivalent yield (yield to maturity) of 1.391%. Investments with a maturity greater than one year totaled $146,475,000. January maturities totaled $49 million and monthly receipts totaled $30 million. During the month $47 million was invested.

Funds not required to meet annual cash flow are reinvested and separately reported as they occur.

Interest Rates - During the month, rates on 90 day T-Bills increased 1 basis point (from 1.42% to 1.43%) and rates on one year T-Bills increased 3 basis points (from 1.76% to 1.79%).

To the best of my knowledge and belief, all securities held by NCPA as of January 31, 2018 are in compliance with the Agency's investment policy. There are adequate cash flow and investment maturities to meet next month's cash requirements.

FISCAL IMPACT:

This report has no direct budget impact to the Agency.

ENVIRONMENTAL ANALYSIS:

This activity would not result in a direct or reasonably foreseeable indirect change in the physical environment and is therefore not a "project" for purposes of Section 21065 the California Environmental Quality Act. No environmental review is necessary.

Respectfully submitted,

RANDY S. HOWARD
General Manager

Attachment

SR: 112:18
# NORTHERN CALIFORNIA POWER AGENCY

## TREASURER'S REPORT

**JANUARY 31, 2018**

## TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>CASH &amp; INVESTMENT BALANCE</td>
<td>1</td>
</tr>
<tr>
<td>CASH ACTIVITY SUMMARY</td>
<td>2</td>
</tr>
<tr>
<td>INVESTMENT ACTIVITY SUMMARY</td>
<td>3</td>
</tr>
<tr>
<td>INTEREST RATE/YIELD ANALYSIS</td>
<td>4</td>
</tr>
<tr>
<td>INVESTMENT MATURITIES ANALYSIS</td>
<td>5</td>
</tr>
<tr>
<td>DETAIL REPORT OF INVESTMENTS</td>
<td>APPENDIX</td>
</tr>
</tbody>
</table>
Northern California Power Agency  
Treasurer's Report  
Cash & Investment Balance  
January 31, 2018

<table>
<thead>
<tr>
<th>Fund Type</th>
<th>Cash</th>
<th>Investments</th>
<th>Total</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating</td>
<td>$1,759,916</td>
<td>$96,684,019</td>
<td>$98,443,935</td>
<td>34.20%</td>
</tr>
<tr>
<td>Special Deposits</td>
<td>$1,418,241</td>
<td>-</td>
<td>$1,418,241</td>
<td>0.49%</td>
</tr>
<tr>
<td>Construction</td>
<td>$16,738</td>
<td>$4,952,516</td>
<td>$4,969,254</td>
<td>1.73%</td>
</tr>
<tr>
<td>Debt Service</td>
<td>$862,548</td>
<td>$28,401,048</td>
<td>$29,263,596</td>
<td>10.17%</td>
</tr>
<tr>
<td>Special &amp; Reserve</td>
<td>$87,472</td>
<td>$153,647,800</td>
<td>$153,735,272</td>
<td>53.41%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$4,144,915</strong></td>
<td><strong>$283,685,383</strong></td>
<td><strong>$287,830,298</strong></td>
<td><strong>100.00%</strong></td>
</tr>
</tbody>
</table>

Portfolio Investments at Market Value

$280,307,987

NOTE A - Investment amounts shown at book carrying value.
Northern California Power Agency
Treasurer's Report
Cash Activity Summary
January 31, 2018

<table>
<thead>
<tr>
<th>NCPA FUNDS</th>
<th>RECEIPTS</th>
<th>EXPENDITURES</th>
<th>CASH</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>OPS/CONSTR</td>
<td>INTEREST (NOTE B)</td>
<td>INVESTMENTS (NOTE A)</td>
</tr>
<tr>
<td>Operating</td>
<td>$ 28,991,012</td>
<td>$ 230,163</td>
<td>$ 24,810,000</td>
</tr>
<tr>
<td>Special Deposits</td>
<td>1,091,581</td>
<td>7</td>
<td>-</td>
</tr>
<tr>
<td>Construction</td>
<td>-</td>
<td>15,231</td>
<td>-</td>
</tr>
<tr>
<td>Debt Service</td>
<td>-</td>
<td>2,540</td>
<td>14,562,349</td>
</tr>
<tr>
<td>Special &amp; Reserve</td>
<td>-</td>
<td>408,801</td>
<td>9,365,313</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$ 30,082,593</td>
<td>$ 656,742</td>
<td>$ 48,737,662</td>
</tr>
</tbody>
</table>

**NOTE A** - Investment amounts shown at book carrying value.

**NOTE B** - Net of accrued interest purchased on investments.
Northern California Power Agency  
Treasurer's Report  
Investment Activity Summary  
January 31, 2018

<table>
<thead>
<tr>
<th>NCPA FUNDS</th>
<th>PURCHASED</th>
<th>SOLD OR MATURED</th>
<th>(NON-CASH) DISC/(PREM) AMORT</th>
<th>(NON-CASH) GAIN/(LOSS) ON SALE</th>
<th>INVESTMENTS TRANSFERS</th>
<th>INCREASE / (DECREASE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating</td>
<td>$ 26,842,647</td>
<td>$ (24,810,000)</td>
<td>$ (604) $</td>
<td>- $</td>
<td>- $</td>
<td>$ 2,032,043</td>
</tr>
<tr>
<td>Special Deposits</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Construction</td>
<td>-</td>
<td>-</td>
<td>612</td>
<td>-</td>
<td>-</td>
<td>612</td>
</tr>
<tr>
<td>Debt Service</td>
<td>19,723,673</td>
<td>(14,562,349)</td>
<td>27,762</td>
<td>-</td>
<td>-</td>
<td>5,189,086</td>
</tr>
<tr>
<td>Special &amp; Reserve</td>
<td>575,198</td>
<td>(9,365,313)</td>
<td>(11,290)</td>
<td>-</td>
<td>-</td>
<td>(8,801,405)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>47,141,518</strong></td>
<td><strong>(48,737,662)</strong></td>
<td><strong>16,480</strong> $</td>
<td>- $</td>
<td>- $</td>
<td><strong>(1,579,664)</strong></td>
</tr>
</tbody>
</table>

Less Non- Cash Activity  
Disc/(Prem) Amortization & Gain/(Loss) on Sale  
(16,480)

Net Change in Investment --Before Non-Cash Activity  
$ (1,596,144)

NOTE A - Investment amounts shown at book carrying value.
Northern California Power Agency
Interest Rate/Yield Analysis
January 31, 2018

<table>
<thead>
<tr>
<th>OVERALL COMBINED</th>
<th>WEIGHTED AVERAGE INTEREST RATE</th>
<th>BOND EQUIVALENT YIELD</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1.372%</td>
<td>1.391%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>OPERATING FUNDS:</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1.350%</td>
<td>1.302%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PROJECTS:</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Geothermal</td>
<td>1.665%</td>
<td>1.688%</td>
</tr>
<tr>
<td>Capital Facilities</td>
<td>1.752%</td>
<td>1.754%</td>
</tr>
<tr>
<td>Hydroelectric</td>
<td>1.482%</td>
<td>1.459%</td>
</tr>
<tr>
<td>Lodi Energy Center</td>
<td>1.779%</td>
<td>1.466%</td>
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</tbody>
</table>

**KEY INTEREST RATES**

<table>
<thead>
<tr>
<th>Interest Rate</th>
<th>Current</th>
<th>Prior Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fed Fds (Ovnight)</td>
<td>1.42%</td>
<td>0.66%</td>
</tr>
<tr>
<td>T-Bills (90da.)</td>
<td>1.43%</td>
<td>0.51%</td>
</tr>
<tr>
<td>Agency Disc (90da.)</td>
<td>1.44%</td>
<td>0.53%</td>
</tr>
<tr>
<td>T-Bills (1yr.)</td>
<td>1.79%</td>
<td>0.81%</td>
</tr>
<tr>
<td>Agency Disc (1yr.)</td>
<td>1.86%</td>
<td>0.81%</td>
</tr>
<tr>
<td>T-Notes (3yr.)</td>
<td>2.21%</td>
<td>1.48%</td>
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</tbody>
</table>

**INTEREST RATES**

[Graph showing interest rates fluctuations]
Northern California Power Agency  
Total Portfolio  
Investment Maturities Analysis  
January 31, 2018

<table>
<thead>
<tr>
<th>Type</th>
<th>0-7 Days</th>
<th>8-90 Days</th>
<th>91-180 Days</th>
<th>181-270 Days</th>
<th>271-365 Days</th>
<th>1-5 Years</th>
<th>6-10 Years</th>
<th>Total</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate Bonds (MTN)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>6,010</td>
<td>-</td>
<td>-</td>
<td>6,010</td>
<td>2.11%</td>
</tr>
<tr>
<td>US Bank Trust Money Market</td>
<td>150</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>150</td>
<td>0.05%</td>
</tr>
<tr>
<td>Commercial Paper</td>
<td>18,904</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>18,904</td>
<td>6.63%</td>
</tr>
<tr>
<td>Investment Trusts (LAIF)</td>
<td>52,357</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>52,357</td>
<td>18.36%</td>
</tr>
<tr>
<td>U.S.Treasury Market Acct.*</td>
<td>2,394</td>
<td>-</td>
<td>17,739</td>
<td>-</td>
<td>78</td>
<td>-</td>
<td>-</td>
<td>2,394</td>
<td>0.84%</td>
</tr>
<tr>
<td>U.S.Treasury Bill</td>
<td>-</td>
<td>10</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>10</td>
<td>0.00%</td>
</tr>
<tr>
<td>Certificates of Deposit</td>
<td>-</td>
<td>10</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>10</td>
<td>0.00%</td>
</tr>
<tr>
<td><strong>Total Dollars</strong></td>
<td>$77,821</td>
<td>$4,520</td>
<td>$32,599</td>
<td>$0</td>
<td>$23,823</td>
<td>$146,475</td>
<td>$0</td>
<td>$285,238</td>
<td>100.00%</td>
</tr>
<tr>
<td><strong>Total Percents</strong></td>
<td>27.28%</td>
<td>1.58%</td>
<td>11.43%</td>
<td>0.00%</td>
<td>8.35%</td>
<td>51.35%</td>
<td>0.00%</td>
<td>100.00%</td>
<td></td>
</tr>
</tbody>
</table>

Investments are shown at Face Value, in thousands.

* The cash balance held at US Bank includes outstanding checks that have not yet cleared. This cash balance is invested nightly in a fully collateralized (U.S. Government Securities) repurchase agreement. Cash held by Union Bank of California is invested nightly in fully collateralized U.S. Treasury Securities.
NORTHERN CALIFORNIA POWER AGENCY

Detail Report Of Investments

APPENDIX

Note: This appendix has been prepared to comply with Government Code section 53646.
## Operating

<table>
<thead>
<tr>
<th>Issuer</th>
<th>Trustee / Custodian</th>
<th>Stated Value</th>
<th>Interest Rate</th>
<th>Purchase Date</th>
<th>Purchased Price</th>
<th>Maturity Date</th>
<th>Days to Maturity</th>
<th>Bond* Equiv Yield</th>
<th>Market Value</th>
<th>CUSIP</th>
<th>Investment #</th>
<th>Carrying Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>US Bank, N.A.</td>
<td>USB</td>
<td>17,088,900</td>
<td>0.850</td>
<td>11/26/2014</td>
<td>17,088,900</td>
<td>1</td>
<td>0.850</td>
<td>17,088,900</td>
<td>SYS70101</td>
<td>70101</td>
<td>17,088,900</td>
<td></td>
</tr>
<tr>
<td>Local Agency Investm</td>
<td>LAIF</td>
<td>14,859,645</td>
<td>1.204</td>
<td>07/01/2013</td>
<td>14,859,645</td>
<td>1</td>
<td>1.204</td>
<td>14,859,645</td>
<td>SYS70000</td>
<td>70000</td>
<td>14,859,645</td>
<td></td>
</tr>
<tr>
<td>Union Bank of Califio</td>
<td>UBOC</td>
<td>118,930</td>
<td>0.002</td>
<td>07/01/2013</td>
<td>118,930</td>
<td>1</td>
<td>0.002</td>
<td>118,930</td>
<td>SYS70014</td>
<td>7014</td>
<td>118,930</td>
<td></td>
</tr>
<tr>
<td>US Bank</td>
<td>USB</td>
<td>1,759,914</td>
<td>0.001</td>
<td>06/30/2013</td>
<td>1,759,914</td>
<td>1</td>
<td>0.001</td>
<td>1,759,914</td>
<td>SYS70050</td>
<td>70050</td>
<td>1,759,914</td>
<td></td>
</tr>
<tr>
<td>US Bank</td>
<td>USB</td>
<td>1,815,347</td>
<td>0.600</td>
<td>08/24/2017</td>
<td>1,815,347</td>
<td>1</td>
<td>0.600</td>
<td>1,815,347</td>
<td>SYS70056</td>
<td>70056</td>
<td>1,815,347</td>
<td></td>
</tr>
<tr>
<td>Federal Home Loan Bd</td>
<td>UBOC</td>
<td>2,883,626</td>
<td>1.265</td>
<td>11/30/2017</td>
<td>2,883,626</td>
<td>22</td>
<td>1.286</td>
<td>2,889,715</td>
<td>313385TL0</td>
<td>26500</td>
<td>2,889,764</td>
<td></td>
</tr>
<tr>
<td>US Bank</td>
<td>USB</td>
<td>10,000</td>
<td>0.050</td>
<td>01/07/2018</td>
<td>10,000</td>
<td>65</td>
<td>0.050</td>
<td>10,000</td>
<td>SYS30306</td>
<td>30306</td>
<td>10,000</td>
<td></td>
</tr>
<tr>
<td>Federal Farm Credit</td>
<td>UBOC</td>
<td>3,624,048</td>
<td>1.290</td>
<td>12/22/2015</td>
<td>3,624,048</td>
<td>291</td>
<td>1.300</td>
<td>3,611,061</td>
<td>3133EFPJ0</td>
<td>26280</td>
<td>3,625,711</td>
<td></td>
</tr>
<tr>
<td>Federal Home Loan Mt</td>
<td>UBOC</td>
<td>9,863,900</td>
<td>1.750</td>
<td>06/30/2015</td>
<td>9,863,900</td>
<td>483</td>
<td>1.450</td>
<td>9,832,297</td>
<td>3137EADG1</td>
<td>26231</td>
<td>9,900,126</td>
<td></td>
</tr>
<tr>
<td>Federal Home Loan Bd</td>
<td>UBOC</td>
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<td>1.600</td>
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<td>1.620</td>
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<td>2.200</td>
<td>01/03/2017</td>
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<td>2,145</td>
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<td>26403</td>
<td>202,000</td>
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| Fund Total and Average | $ 71,164,736 | $ 1.240 | $ 71,230,211 | 379 | $ 1.190 | $ 70,561,280 | $ 71,159,600 |

### MPP GHG Auction Acct

| Local Agency Investm | 62,728 | 1.204 | 07/01/2013 | 62,728 | 1.204 | 62,728 | SYS70045 | 70045 | 62,728 |

| Fund Total and Average | $ 62,728 | $ 1.205 | $ 62,728 | 1.205 | $ 62,728 | $ 62,728 |

### SCPA Balancing Account

| Local Agency Investm | LAIF | 8,439,851 | 1.204 | 07/01/2013 | 8,439,851 | 1.204 | 8,439,851 | SYS7022 | 70022 | 8,439,851 |
| Union Bank of Califio | UBOC | 34,439 | 0.005 | 07/01/2013 | 34,439 | 0.005 | 34,439 | SYS7023 | 70023 | 34,439 |
| US Bank              | USB  | 0      | 0.000 | 07/01/2013 | 0       | 0.000 | 0       | SYS70058 | 70058 | 0       |
| Federal Home Loan Bd | UBOC | 4,510,000 | 1.000 | 04/27/2015 | 4,510,000 | 1.000 | 4,504,408 | 3130A5T2 | 26223 | 4,510,000 |
| Federal National Mfg | UBOC | 3,962,000 | 1.625 | 12/16/2014 | 4,000,630 | 1.629 | 3,970,610 | 3133GOFYT4 | 26187 | 3,970,058 |
| Federal National Mfg | UBOC | 5,098,000 | 1.350 | 04/28/2016 | 5,098,000 | 1.350 | 5,015,412 | 3133G905 | 26330 | 5,098,000 |
| Federal National Mfg | UBOC | 5,097,000 | 1.350 | 07/28/2016 | 5,097,000 | 1.350 | 4,911,112 | 3133G3T39 | 26357 | 5,097,000 |

| Fund Total and Average | $ 27,141,290 | $ 1.285 | $ 27,179,920 | 348 | $ 1.248 | $ 26,859,932 | $ 27,149,348 |

### General Operating Reserve

| Local Agency Investm | LAIF | 22,551,629 | 1.204 | 07/01/2013 | 22,551,629 | 1.204 | 22,551,629 | SYS70000 | 70002 | 22,551,629 |
| Union Bank of Califio | UBOC | 367,597 | 0.002 | 07/01/2013 | 367,597 | 0.002 | 367,597 | SYS70019 | 70019 | 367,597 |
| US Bank              | USB  | 0       | 0.000 | 07/01/2013 | 0       | 0.000 | 0       | SYS70051 | 70051 | 0       |

02/12/2018 1:58 pm
## General Operating Reserve

### Issuer | Trustee / Custodian | Stated Value | Interest Rate | Purchase Date | Purchased Price | Maturity Date | Days to Maturity | Bond* Equiv Yield | Market Value | CUSIP | Investment # | Carrying Value |
--- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
Federal National Mfg | UBOC | 5,970,000 | 1.625 | 12/30/2014 | 6,009,701 | 11/27/2018 | 299 | 1.450 | $5,869,615 | 3135GOYT4 | 26188 | 5,979,311 |
Federal National Mfg | UBOC | 4,982,000 | 1.750 | 08/28/2015 | 5,047,364 | 11/29/2019 | 663 | 1.430 | 4,946,179 | 3135GOZY2 | 26246 | 5,010,019 |
Federal Farm Credit | UBOC | 4,285,000 | 1.440 | 07/20/2016 | 4,280,715 | 01/19/2021 | 1,083 | 1.463 | 4,157,607 | 3133EGMP7 | 26356 | 4,282,173 |
Federal Home Loan Ba | UBOC | 16,720,000 | 1.400 | 07/19/2016 | 16,711,640 | 01/19/2021 | 1,083 | 1.411 | 16,258,194 | 3130A8P80 | 26354 | 16,714,489 |
Federal National Mfg | UBOC | 5,162,000 | 1.625 | 05/25/2016 | 5,162,000 | 05/25/2021 | 1,209 | 1.625 | 5,016,896 | 3136G3NL5 | 26332 | 5,162,000 |
Federal National Mfg | UBOC | 1,300,000 | 1.500 | 08/30/2016 | 1,300,000 | 05/28/2021 | 1,212 | 1.500 | 1,260,246 | 3136G3SW3 | 26368 | 1,300,000 |
Federal Farm Credit | UBOC | 10,629,000 | 1.690 | 06/02/2016 | 10,629,000 | 06/02/2021 | 1,217 | 1.690 | 10,349,989 | 3136EGDH5 | 26335 | 10,629,000 |
Federal Home Loan Mt | UBOC | 467,000 | 2.200 | 01/30/2017 | 467,000 | 01/25/2022 | 1,455 | 2.200 | 455,596 | 3134GAV92 | 26402 | 467,000 |
Federal Home Loan Ba | UBOC | 3,575,000 | 2.125 | 08/28/2017 | 3,634,560 | 06/10/2022 | 1,590 | 1.760 | 3,517,621 | 31379Q699 | 26467 | 3,629,268 |

| Fund Total and Average | $76,009,226 | 1.475 | $76,161,206 | 724 | 1.427 | $74,840,669 | 525 | 1.302 | $76,091,486 |

**GRAND TOTALS:**  
$174,317,980 | 1.350 | $174,634,065 | 525 | 1.302 | $172,324,509 | 525 | 1.302 | $174,463,162 |

*Bond Equivalent Yield to Maturity is shown based on a 365 day year to provide a basis for comparison between all types.  
Investments with less than 6 months to maturity use an approximate method, all others use an exact method.*

Current Market Value is based on prices from Trustees/ Custodian Statements or bid prices from the Wall Street Journal as of 01/31/2018

- Investment #26330 FNMA Callable quarterly  
- Investment #26332 FNMA Callable quarterly  
- Investment #26335 FCB Callable anytime  
- Investment #26354 FHLB Callable anytime  
- Investment #26355 FHLB Callable anytime  
- Investment #26356 FCB Callable anytime  
- Investment #26357 FNMA Callable quarterly  
- Investment #26368 FNMA Callable quarterly  
- Investment #26385 FHLMC Callable quarterly  
- Investment #26402 FHLMC Callable quarterly  
- Investment #26403 FHLMC Callable quarterly
# Northern California Power Agency
## Treasurer's Report
### 01/31/2018

### GEO 2012 Construction Fund

| Issuer                        | Trustee / Custodian | Stated Value | Interest Rate | Purchase Date | Purchased Price | Maturity Date | Days to Maturity | Bond* Equiv Yield | Market Value | CUSIP      | Investment # | Carrying Value |
|-------------------------------|---------------------|--------------|---------------|---------------|----------------|---------------|------------------|------------------|--------------|------------|-------------|---------------|----------------|
| Federal Home Loan Ba         | USB                 | 888,000      | 1.420         | 12/06/2017    | 881,450        | 06/11/2018    | 130              | 1.450            | 883,063      | 313385KY7A | 26502       | 883,447       |
| **Fund Total and Average**   |                     | **888,000**  | **1.420**     |               | **881,450**    | **06/11/2018** | **130**          | **1.450**        | **883,063**  |            |             | **883,447**   |

### Geothermal Debt Service

| Issuer                        | Trustee / Custodian | Stated Value | Interest Rate | Purchase Date | Purchased Price | Maturity Date | Days to Maturity | Bond* Equiv Yield | Market Value | CUSIP      | Investment # | Carrying Value |
|-------------------------------|---------------------|--------------|---------------|---------------|----------------|---------------|------------------|------------------|--------------|------------|-------------|---------------|----------------|
| U.S. Treasury                 | USBT                | 1,056,000    | 1.499         | 01/03/2018    | 1,048,256      | 06/28/2018    | 147              | 1.532            | 1,049,347    | 912799PM5  | 26514       | 1,049,532     |
| U.S. Treasury                 | USBT                | 235,000      | 1.510         | 01/31/2018    | 233,541        | 06/28/2018    | 147              | 1.540            | 233,520      | 912799PM5  | 26522       | 233,551       |
| Federal Home Loan Ba         | USBT                | 235,000      | 1.420         | 12/28/2017    | 233,276        | 07/02/2018    | 151              | 1.450            | 233,228      | 313385KV2  | 26509       | 233,600       |
| **Fund Total and Average**   |                     | **1,526,000**| **1.469**     |               | **1,515,073**  | **148**       | **1.521**        | **1,516,065**   |             |            |             | **1,516,683**|

### Geo 2012A Debt Service

| Issuer                        | Trustee / Custodian | Stated Value | Interest Rate | Purchase Date | Purchased Price | Maturity Date | Days to Maturity | Bond* Equiv Yield | Market Value | CUSIP      | Investment # | Carrying Value |
|-------------------------------|---------------------|--------------|---------------|---------------|----------------|---------------|------------------|------------------|--------------|------------|-------------|---------------|----------------|
| U.S. Treasury                 | USBT                | 128,000      | 1.510         | 01/31/2018    | 127,205        | 06/28/2018    | 147              | 1.540            | 127,194      | 912799PM5  | 26519       | 127,211       |
| **Fund Total and Average**   |                     | **128,000**  | **1.510**     |               | **127,205**    | **06/28/2018**| **147**          | **1.540**        | **127,194**  |             |             | **127,211**   |

### Geo 2016A Debt Service

| Issuer                        | Trustee / Custodian | Stated Value | Interest Rate | Purchase Date | Purchased Price | Maturity Date | Days to Maturity | Bond* Equiv Yield | Market Value | CUSIP      | Investment # | Carrying Value |
|-------------------------------|---------------------|--------------|---------------|---------------|----------------|---------------|------------------|------------------|--------------|------------|-------------|---------------|----------------|
| U.S. Treasury                 | USBT                | 187,000      | 1.499         | 01/03/2018    | 185,629        | 06/28/2018    | 147              | 1.532            | 185,822      | 912799PM5  | 26512       | 185,855       |
| U.S. Treasury                 | USBT                | 56,000       | 1.510         | 01/31/2018    | 55,652         | 06/28/2018    | 147              | 1.540            | 55,647       | 912799PM5  | 26517       | 55,655        |
| **Fund Total and Average**   |                     | **243,000**  | **1.502**     |               | **241,281**    | **06/28/2018**| **147**          | **1.534**        | **241,469**  |             |             | **241,510**   |

### Geothermal Special Reserve

| Issuer                        | Trustee / Custodian | Stated Value | Interest Rate | Purchase Date | Purchased Price | Maturity Date | Days to Maturity | Bond* Equiv Yield | Market Value | CUSIP      | Investment # | Carrying Value |
|-------------------------------|---------------------|--------------|---------------|---------------|----------------|---------------|------------------|------------------|--------------|------------|-------------|---------------|----------------|
| Local Agency Investm          | LAF                 | 0            | 0.356         | 07/01/2013    | 0              |               | 1                | 0.366            | 0            | SYS70032   | 70032       | 0             | 0             |
| Union Bank of Califo          | UBOC                | 0            | 0.002         | 07/01/2013    | 0              |               | 1                | 0.002            | 0            | SYS70015   | 70015       | 0             | 0             |
| US Bank                       | USB                 | 0            | 0.000         | 07/01/2013    | 0              |               | 1                | 0.000            | 0            | SYS70063   | 70063       | 0             | 0             |
| Federal Home Loan Mt          | UBOC                | 1,500,000    | 1.150         | 02/28/2016    | 1,500,000      | 11/20/2018    | 298              | 1.150            | 1,491,960    | 3134893KVO | 26332       | 1,500,000     |
| **Fund Total and Average**   |                     | **1,500,000**| **1.150**     |               | **1,500,000**  | **11/20/2018**| **298**          | **1.150**        | **1,491,960**|             |             | **1,500,000**|

### Geo Decommissioning Reserve

| Issuer                        | Trustee / Custodian | Stated Value | Interest Rate | Purchase Date | Purchased Price | Maturity Date | Days to Maturity | Bond* Equiv Yield | Market Value | CUSIP      | Investment # | Carrying Value |
|-------------------------------|---------------------|--------------|---------------|---------------|----------------|---------------|------------------|------------------|--------------|------------|-------------|---------------|----------------|
| Local Agency Investm          | LAF                 | 723,692      | 1.204         | 07/01/2013    | 723,692        |               | 1                | 1.204            | 723,692      | SYS70027   | 70027       | 723,692       |
| Union Bank of Califo          | UBOC                | 10,945       | 0.002         | 07/01/2013    | 10,945         |               | 1                | 0.002            | 10,946       | SYS70034   | 70034       | 10,946        |
| US Bank                       | USB                 | 0            | 0.000         | 07/01/2013    | 0              |               | 1                | 0.000            | 0            | SYS70059   | 70059       | 0             | 0             |
| Federal National Mtg          | UBOC                | 9,700,000    | 1.500         | 08/30/2016    | 9,700,000      | 06/28/2021    | 1,212            | 1.500            | 9,403,374    | 3136333W3  | 26369       | 9,700,000     |
| Federal Home Loan Mt          | UBOC                | 941,000      | 2.200         | 01/30/2017    | 941,000        | 01/26/2022    | 1,455            | 2.200            | 918,021      | 3134893V92 | 26104       | 941,000       |

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Geo Decommissioning Reserve

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<th>Purchase Date</th>
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Fund Total and Average $17,385,638 1.601
$17,378,065 1294 1.811 $16,946,073 $17,378,301

GEO Debt Service Reserve Acct

| U.S. Treasury     | USB                 | 31,000       | 1.060         | 07/28/2017    | 30,828        | 02/01/2018    | 0 1.090         | 31,000 912796LJ6 | 26449        | 31,000       |
| U.S. Treasury     | USB                 | 16,000       | 1.099         | 11/28/2017    | 15,968        | 02/01/2018    | 0 1.116         | 16,000 912796LJ6 | 26498        | 16,000       |
| Federal Home Loan Mt | USBT               | 907,000      | 1.750         | 06/02/2015    | 920,886       | 05/30/2019    | 483 1.364        | 31,000 912796LJ6 | 26499        | 31,000       |
| Federal Home Loan Mt | USBT               | 2,515,000    | 1.250         | 02/27/2015    | 2,483,639     | 10/02/2019    | 608 1.530        | 31,000 912796LJ6 | 26499        | 31,000       |

Fund Total and Average $3,469,000 1.379
$3,451,521 567 1.478 $3,428,741 $3,462,310

Geo 2012A DSR Account

| U.S. Treasury     | USB                 | 41,000       | 1.555         | 01/03/2018    | 40,403        | 12/06/2018    | 308 1.594         | 40,400 912796PE3 | 26511        | 40,455       |
| Federal National Mtg | USBT               | 1,517,000    | 1.625         | 09/25/2016    | 1,517,000     | 05/25/2021    | 1,209 1.625       | 1,474,367 3136G3NL5 | 26333        | 1,517,000    |

Fund Total and Average $1,558,000 1.523
$1,557,403 1186 1.624 $1,514,757 $1,557,455

GRAND TOTALS: $26,697,638 1.665
$26,651,938 1018 1.688 $26,149,352 $26,666,917

*Bond Equivalent Yield to Maturity is shown based on a 365 day year to provide a basis for comparison between all types. Investments with less than 6 months to maturity use an approximate method, all others use an exact method.

Current Market Value is based on prices from Trustee/Custodian Statements or bid prices from the Wall Street Journal as of 01/31/2018

Investment #26302 FHLMC Callable quarterly
Investment #26333 FNMA Callable quarterly
Investment #26369 FNMA Callable quarterly
Investment #26404 FHLMC Callable quarterly
Investment #26699 Apple Inc. Callable anytime
## Capital Dev. Reserve Hydro

| Issuer                     | Trustee / Custodian | Stated Value | Interest Rate | Purchase Date | Purchase Price | Maturity Date | Bond* Eqv Yield | Market Value | CUSIP | Investment # | Case/ing Value |
|---------------------------|---------------------|--------------|---------------|---------------|----------------|---------------|-----------------|--------------|-------|--------------|----------------|----------------|
| Local Agency Investm      | LAIF                | 4,049,640    | 1.204         | 07/01/2013    | 4,049,640      | 1             | 1.204           | 4,049,640    | SYS70028 | 70028        | 4,049,640       |
| Union Bank of Calif       | UBOC                | 54,879       | 0.002         | 07/01/2013    | 54,879         | 1             | 0.002           | 54,879      | SYS70031 | 70031        | 0               |
| US Bank                   | USB                 | 0            | 0.000         | 07/01/2013    | 0              | 1             | 0.000           | 0           | SYS70052 | 70052        | 0               |
| Federal Home Loan Mt      | UBOC                | 3,993,000    | 0.950         | 06/29/2016    | 3,993,000      | 148           | 0.950           | 3,960,462    | 3134G9A80 | 26339        | 3,993,000       |
| Federal Home Loan Mt      | UBOC                | 3,221,000    | 1.150         | 02/29/2016    | 3,221,000      | 298           | 1.150           | 3,203,735    | 3134G8KVO | 26304        | 3,221,000       |
| Federal National Mtg      | UBOC                | 5,320,000    | 1.350         | 06/30/2016    | 5,320,000      | 697           | 1.350           | 5,228,602    | 3136G3VHS | 26340        | 5,320,000       |

**Fund Total and Average**

$16,638,519  1.176  $16,638,519  316  1.176  $16,517,318  $16,638,519

### Hydro Initial Facilities

| Issuer                     | Trustee / Custodian | Stated Value | Interest Rate | Purchase Date | Purchase Price | Maturity Date | Bond* Eqv Yield | Market Value | CUSIP | Investment # | Case/ing Value |
|---------------------------|---------------------|--------------|---------------|---------------|----------------|---------------|-----------------|--------------|-------|--------------|----------------|----------------|
| U.S. Treasury             | USB                 | 97,000       | 1.435         | 12/07/2017    | 96,296         | 126           | 1.465           | 96,492       | 912799P2J | 26503        | 96,513          |
| Federal National Mtg      | USB                 | 1,529,000    | 1.625         | 12/12/2014    | 1,539,244      | 299           | 1.450           | 1,528,167    | 3135G0Y74 | 26189        | 1,531,128       |
| Federal Farm Credit       | USB                 | 2,437,000    | 1.250         | 03/05/2016    | 2,450,501      | 355           | 1.090           | 2,422,012    | 3133EFQV7 | 26300        | 2,441,429       |

**Fund Total and Average**

$4,063,000  1.395  $4,086,041  328  1.217  $4,044,691  $4,069,070

### Hydro Debt Service

| Issuer                     | Trustee / Custodian | Stated Value | Interest Rate | Purchase Date | Purchase Price | Maturity Date | Bond* Eqv Yield | Market Value | CUSIP | Investment # | Case/ing Value |
|---------------------------|---------------------|--------------|---------------|---------------|----------------|---------------|-----------------|--------------|-------|--------------|----------------|----------------|
| U.S. Treasury             | USBT                | 11,923,000   | 1.500         | 01/03/2018    | 11,835,655     | 147           | 1.532           | 11,847,885   | 912796PMS | 26513        | 11,849,972      |
| U.S. Treasury             | USBT                | 2,972,000    | 1.510         | 01/03/2018    | 2,963,550      | 147           | 1.540           | 2,953,276    | 912796PMS | 26515        | 2,953,675       |

**Fund Total and Average**

$14,895,000  1.502  $14,799,115  147  1.534  $14,801,161  $14,803,847

### Hydro Debt Service Resrv 2010A

| Issuer                     | Trustee / Custodian | Stated Value | Interest Rate | Purchase Date | Purchase Price | Maturity Date | Bond* Eqv Yield | Market Value | CUSIP | Investment # | Case/ing Value |
|---------------------------|---------------------|--------------|---------------|---------------|----------------|---------------|-----------------|--------------|-------|--------------|----------------|----------------|
| U.S. Treasury             | USB                 | 50,000       | 1.159         | 08/29/2017    | 49,568         | 112           | 1.183           | 49,770       | 912796M2B | 26473        | 49,820          |
| Federal Home Loan Ba      | USB                 | 135,000      | 4.375         | 07/28/2017    | 142,601        | 515           | 1.000           | 136,343      | 3133XUG66 | 26451        | 140,593         |
| Federal Farm Credit       | USB                 | 5,528,000    | 1.750         | 08/28/2015    | 5,546,187      | 915           | 1.680           | 5,448,618    | 3133EES29 | 26243        | 5,537,247       |

**Fund Total and Average**

$5,713,000  1.603  $5,738,356  898  1.669  $5,637,731  $5,727,660

### Hydro 2012A Rebate Account

| Issuer                     | Trustee / Custodian | Stated Value | Interest Rate | Purchase Date | Purchase Price | Maturity Date | Bond* Eqv Yield | Market Value | CUSIP | Investment # | Case/ing Value |
|---------------------------|---------------------|--------------|---------------|---------------|----------------|---------------|-----------------|--------------|-------|--------------|----------------|----------------|
| Federal Home Loan Mt      | USB                 | 689,000      | 1.875         | 04/26/2017    | 691,391        | 1,285         | 1.790           | 676,818      | 3134G9A33 | 26432        | 690,967         |

**Fund Total and Average**

$689,000  1.875  $691,391  1285  1.790  $676,818  $690,967

### Hydro Special Reserve

| Issuer                     | Trustee / Custodian | Stated Value | Interest Rate | Purchase Date | Purchase Price | Maturity Date | Bond* Eqv Yield | Market Value | CUSIP | Investment # | Case/ing Value |
|---------------------------|---------------------|--------------|---------------|---------------|----------------|---------------|-----------------|--------------|-------|--------------|----------------|----------------|
| Local Agency Investm      | LAIF                | 0            | 0.377         | 07/01/2013    | 0              | 1             | 0.377           | 0           | SYS70000 | 70003        | 0               |

02/05/2018  10:32 am
### Hydro Special Reserve

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<th>Trustee / Custodian</th>
<th>Stated Value</th>
<th>Interest Rate</th>
<th>Purchase Date</th>
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<th>Maturity Date</th>
<th>Days to Maturity</th>
<th>Bond* Equity Yield</th>
<th>Market Value</th>
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<td>0.356</td>
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**Fund Total and Average**

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<td>$ 1,500,000</td>
<td>1.150</td>
<td>$ 1,500,000</td>
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### Hydro 2012 DSRA

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<th>Days to Maturity</th>
<th>Bond* Equity Yield</th>
<th>Market Value</th>
<th>CUSIP</th>
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**Fund Total and Average**

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**GRAND TOTALS:**

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*Bond Equivalent Yield to Maturity is shown based on a 365 day year to provide a basis for comparison between all types. Investments with less than 6 months to maturity use an approximate method, all others use an exact method.

Current Market Value is based on prices from Trustee/ Custodian Statements or bid prices from the Wall Street Journal as of 01/31/2018

- Investment #26303 FHLMC Callable quarterly
- Investment #26339 FHLMC Callable quarterly
- Investment #26340 FNMA Callable quarterly
- Investment #26359 FNMA Callable quarterly

02/05/2018 10:32 am
### Cap Facilities Debt Service

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<th>Purchased Price</th>
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<th>Days to Maturity</th>
<th>Bond* Equiv Yield</th>
<th>Market Value</th>
<th>CUSIP</th>
<th>Investment #</th>
<th>Carry Inq Value</th>
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**Fund Total and Average**

| $ 2,066,000 | 1.326 |
| $ 2,054,422 | 92    |
| $ 2,057,515 |       |

### Cap. Fac. Debt Svc Reserve

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<th>Days to Maturity</th>
<th>Bond* Equiv Yield</th>
<th>Market Value</th>
<th>CUSIP</th>
<th>Investment #</th>
<th>Carry Inq Value</th>
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<td>U.S. Treasury</td>
<td>USB</td>
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<td>USB</td>
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**Fund Total and Average**

| $ 1,551,000 | 2.317 |
| $ 1,554,891 | 1408  |
| $ 1,544,435 |       |

**GRAND TOTALS:**

| $ 3,617,000 | 1.752 |
| $ 3,809,313 | 657   |
| $ 3,601,960 |       |

*Bond Equivalent Yield to Maturity is shown based on a 365 day year to provide a basis for comparison between all types. Investments with less than 6 months to maturity use an approximate method, all others use an exact method.

Current Market Value is based on prices from Trustee/ Custodian Statements or bid prices from the Wall Street Journal as of 01/31/2018

Investment #26358 FNMA Callable quarterly
## LEC GHG Auction Acct

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<th>Maturity Date</th>
<th>Days to Maturity</th>
<th>Bond* Equiv Yield</th>
<th>Market Value</th>
<th>CUSIP</th>
<th>Investment #</th>
<th>Carry Inj Value</th>
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### LEC Issue#1 2010A DS Fund

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<th>Stated Value</th>
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<th>Purchase Date</th>
<th>Purchased Price</th>
<th>Maturity Date</th>
<th>Days to Maturity</th>
<th>Bond* Equiv Yield</th>
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### LEC Issue #1 2010B RS Fund

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<th>Bond* Equiv Yield</th>
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### LEC Issue #2 2010A DS Fund

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<th>Days to Maturity</th>
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### LEC Issue #2 2010B DS Fund

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### LEC Issue #1 2010 DSR Fund

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<th>Interest Rate</th>
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<th>Purchased Price</th>
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<th>Days to Maturity</th>
<th>Bond* Equiv Yield</th>
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<th>CUSIP</th>
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<td>07/28/2017</td>
<td>146,648</td>
<td>06/12/2021</td>
<td>1,286</td>
<td>143,466 3137EAE9C9</td>
<td>26454</td>
<td>147,069</td>
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### LEC Issue #1 2010 DSR Fund

<table>
<thead>
<tr>
<th>Issuer</th>
<th>Trustee / Custodian</th>
<th>Stated Value</th>
<th>Interest Rate</th>
<th>Purchase Date</th>
<th>Purchase Price</th>
<th>Maturity Date</th>
<th>Days to Maturity</th>
<th>Bond* Equiv Yield</th>
<th>Market Value</th>
<th>CUSIP</th>
<th>Investment #</th>
<th>Carrying Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal Home Loan Ba</td>
<td>USB</td>
<td>4,106,000</td>
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<td>$ 8,753,420</td>
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### LEC Iss#1 2010B BABS Subs Resv

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<th>Stated Value</th>
<th>Interest Rate</th>
<th>Purchase Date</th>
<th>Purchase Price</th>
<th>Maturity Date</th>
<th>Days to Maturity</th>
<th>Bond* Equiv Yield</th>
<th>Market Value</th>
<th>CUSIP</th>
<th>Investment #</th>
<th>Carrying Value</th>
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<tbody>
<tr>
<td>US Bank Trust</td>
<td>USB</td>
<td>37,704</td>
<td>0.100</td>
<td>07/01/2013</td>
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<td>0.100</td>
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<td>2,145,000</td>
<td>3.375</td>
<td>07/28/2017</td>
<td>2,255,146</td>
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<td>2,200,384</td>
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### LEC Issue #2 2010B DSR BABS

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<th>Stated Value</th>
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<th>Purchase Date</th>
<th>Purchase Price</th>
<th>Maturity Date</th>
<th>Days to Maturity</th>
<th>Bond* Equiv Yield</th>
<th>Market Value</th>
<th>CUSIP</th>
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<th>Carrying Value</th>
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<td>07/01/2013</td>
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<td>1.400</td>
<td>1,057,974</td>
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<td>$ 1,092,637</td>
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### LEC O & M Reserve

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<th>Purchase Date</th>
<th>Purchase Price</th>
<th>Maturity Date</th>
<th>Days to Maturity</th>
<th>Bond* Equiv Yield</th>
<th>Market Value</th>
<th>CUSIP</th>
<th>Investment #</th>
<th>Carrying Value</th>
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<tr>
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<td>UBOC</td>
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<td>07/01/2013</td>
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<td>1,597,756</td>
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<td>0.002</td>
<td>07/18/2013</td>
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<td>06/05/2020</td>
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<td>1.550</td>
<td>3,555,931</td>
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<td>06/28/2020</td>
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<td>1.300</td>
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<td>3,000,000</td>
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<td>1.510</td>
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<td>$ 11,257,302</td>
<td>612</td>
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<td>$ 11,065,781</td>
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<td></td>
<td></td>
<td>$ 11,211,962</td>
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### Grand Totals:

| GRAND TOTALS:                  |                     | $ 32,889,070 | 1.779         |               | $ 33,133,676   | 681           | 1.466           | $ 32,618,199     |              |       |             | $ 33,057,849    |

*Bond Equivalent Yield to Maturity is shown based on a 365 day year to provide a basis for comparison between all types. Investments with less than 6 months to maturity use an approximate method, all others use an exact method.

Current Market Value is based on prices from Trustee/ Custodian Statements or bid prices from the Wall Street Journal as of 01/31/2018

Investment #26337 FFCB Callable anytime

02/06/2018 10:35 am
Commission Staff Report

February 14, 2018

COMMISSION MEETING DATE:  February 22, 2018

SUBJECT:  Sale or Disposal of Surplus Property

AGENDA CATEGORY:  Consent

FROM:  Sondra Ainsworth  
Treasurer-Controller  
Division:  Administrative Services  
Department:  Accounting & Finance

METHOD OF SELECTION:  N/A

IMPACTED MEMBERS:

<table>
<thead>
<tr>
<th></th>
<th>All Members</th>
<th>City of Lodi</th>
<th>City of Shasta Lake</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alameda Municipal Power</td>
<td>□</td>
<td>□</td>
<td>□</td>
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<tr>
<td>San Francisco Bay Area Rapid Transit</td>
<td>□</td>
<td>□</td>
<td>□</td>
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<tr>
<td>City of Biggs</td>
<td>□</td>
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<td>City of Gridley</td>
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<td>City of Healdsburg</td>
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<td>City of Lompoc</td>
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<td>City of Palo Alto</td>
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<td>City of Redding</td>
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<tr>
<td>City of Roseville</td>
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<tr>
<td>City of Santa Clara</td>
<td>□</td>
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<tr>
<td>Other</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>

If other, please specify

SR:  117:18
RECOMMENDATION:

Note and file report by all members for the disposal of 2 Solid State Inverters, Cummins Propane Generator, and an Alfa Laval Centrifuge Oil Separator.

BACKGROUND:

The NCPA Policy for the Disposal or Destruction of Surplus Supplies, Materials, or Equipment requires that such disposal or destruction be reported to the NCPA Commission within 60 days of such action.

In accordance with that policy, the following disposal or destruction is hereby reported:

<table>
<thead>
<tr>
<th>Property Description</th>
<th>Quantity</th>
<th>Method of Disposal</th>
<th>Net Cost From Disposal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solid State 1 Phase 10kVa Inverter</td>
<td>2</td>
<td>S</td>
<td>$0.00</td>
</tr>
<tr>
<td>Cummins Propane Generator</td>
<td>1</td>
<td>S</td>
<td>$0.00</td>
</tr>
<tr>
<td>Alfa Laval Centrifuge Oil Separator</td>
<td>1</td>
<td>S</td>
<td>$0.00</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>$0.00</td>
</tr>
</tbody>
</table>

* Note: Public Sale (PS); Private Sale (P), Disposal – Net Scrap Value (S)

FISCAL IMPACT:

This report has no direct fiscal impact to the Agency.

ENVIRONMENTAL ANALYSIS:

This activity would not result in a direct or reasonably foreseeable indirect change in the physical environment and is therefore not a “project” for purposes of Section 21065 the California Environmental Quality Act. No environmental review is necessary.

Respectfully submitted,

RANDY S. HOWARD
General Manager

Attachments:
- Declarations of Surplus

SR: 117:18
Unsuccessful sale at public bid and unable to donate. Scrapped: 11/30/17

DECLARATION OF SURPLUS SUPPLIES, MATERIALS & EQUIPMENT

<table>
<thead>
<tr>
<th>QTY</th>
<th>U/M*</th>
<th>DESCRIPTION (Including All Applicable Model #s, LCNs &amp; VINs)</th>
<th>COND**</th>
<th>ESTIMATED VALUE</th>
<th>NCPA Property or Project #</th>
<th>SITE LOCATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>2</td>
<td>Solid State 1 Phase 10kVa Inverter (Model # 85-VN0100-03)</td>
<td>Average</td>
<td></td>
<td>Murphys</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
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<td>4.</td>
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<td>5.</td>
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<td>6.</td>
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<td>7.</td>
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<td>8.</td>
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</tr>
</tbody>
</table>

JUSTIFICATION FOR SURPLUS/DISPOSAL:
Old Collierville Uninterruptable Power Supply replaced with updated model.

PREPARED BY: Amber Summersett 8/21/17  General 8/21/17

APPROVED BY:  
ORG. CODE:  
ASST. GEN. MANAGER  
DATE: 8/28/17  
GENERAL MANAGER

RECOMMENDED DISPOSITION:
NEGOTIATED (Private) SALE  XX
PUBLIC SALE: SEALED BIDS  aucTion
DISPOSAL: SCRAP/RECYCLE VALUE  NO VALUE - TRASH/JUNK
DISPOSITION JUSTIFICATION:
Old units replaced with updated models - specialty part not usable by general public. Recommend offering for private sale to other power plants.

** CONDITION: EXCELLENT (E), GOOD (G), AVERAGE (A), POOR (P), SCRAP (S)

ORIGINAI TO TREASURER-CONTROLLER
ATTACHMENT 1
DECLARATION OF SURPLUS
SUPPLIES, MATERIALS & EQUIPMENT

<table>
<thead>
<tr>
<th>QTY</th>
<th>U/M*</th>
<th>DESCRIPTION (Including All Applicable Model #s, LCNs &amp; VINs)</th>
<th>COND**</th>
<th>ESTIMATED VALUE</th>
<th>NCPA Property or Project #</th>
<th>SITE LOCATION</th>
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</thead>
<tbody>
<tr>
<td>1.</td>
<td>1 U</td>
<td>CUMMINS Propane Generator (Model # 5.5GCAC-5024D)</td>
<td>Average</td>
<td></td>
<td>Murphys</td>
<td></td>
</tr>
<tr>
<td>2.</td>
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</table>

JUSTIFICATION FOR SURPLUS/DISPOSAL:
Liberty Hill propane generator has been replaced with an upgraded, more efficient model. As this model runs on propane, it is not compatible for use at other NCPA Hydro sites.

PREPARED BY: Amber Summersett 6/21/17
APPROVED BY: [Signature] ORG. CODE:
AUTHORIZATION TO PROCEED: [Signature] DATE: 6/28/17

RECOMMENDED DISPOSITION:
NEGOTIATED (Private) SALE  XX
PUBLIC SALE: ______ SEALEID BIDS ______ AUCTION
DISPOSAL: ______ SCRAP/RECYCLE VALUE ______ NO VALUE - TRASH/JUNK
DISPOSITION JUSTIFICATION:
Generator has been upgraded, but is still functional. Possible sale to telecom industry.

** CONDITION: EXCELLENT (E), GOOD (G), AVERAGE (A), POOR (P), SCRAP (S)

ORIGINAL TO TREASURER-CONTROLLER
ATTACHMENT 1
Unable to sell at public offering. Attempted donation to UWPA and Tri-dams. No takers. Scrapped

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DECLARATION OF SURPLUS
SUPPLIES, MATERIALS & EQUIPMENT

<table>
<thead>
<tr>
<th>QTY</th>
<th>U/M*</th>
<th>DESCRIPTION (Including All Applicable Model #’s, LCNs &amp; VINS)</th>
<th>COND**</th>
<th>ESTIMATED VALUE</th>
<th>NCPA Property or Project #</th>
<th>SITE LOCATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>U</td>
<td>Alfa Laval Centrifuge Oil Separator (Product # 881176-01-01)</td>
<td>Average</td>
<td></td>
<td></td>
<td>Murphys</td>
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<tr>
<td>2.</td>
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</table>

JUSTIFICATION FOR SURPLUS/DISPOSAL:
Centrifugal oil separator was not sufficient for oil purification at the Collierville Powerhouse. Unit replaced by oil dehydrator.

PREPARED BY: Amber Summersett 8/21/17

APPROVED BY: [Signature] ORG. CODE:

AUTHORIZATION TO PROCEED: [Signature] DATE: 8/28/17

RECOMMENDED DISPOSITION:
NEGOTIATED (Private) SALE XX
PUBLIC SALE: ___ SEALED BIDS ___ AUCTION
DISPOSAL: ___ SCRAP/RECYCLE VALUE ___ NO VALUE - TRASH/JUNK
DISPOSITION JUSTIFICATION:
Recommend private sale to other public agency - specially equipment not usable by general public.

** CONDITION: EXCELLENT (E), GOOD (G), AVERAGE (A), POOR (P), SCRAP (S)

ORIGINAL TO TREASURER-CONTROLLER
ATTACHMENT 1
Commission Staff Report

February 13, 2018

COMMISSION MEETING DATE: February 22, 2018

SUBJECT: Debt and Interest Rate Management Report – December 31, 2017

AGENDA CATEGORY: Consent

| FROM: | Monty Hanks |
|       | Assistant General Manager/CFO |
|       | Administrative Services |
|       | Accounting & Finance |

| METHOD OF SELECTION: | N/A |

<table>
<thead>
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</tr>
</thead>
<tbody>
<tr>
<td>All Members</td>
<td>☒</td>
</tr>
<tr>
<td>Alameda Municipal Power</td>
<td>☐</td>
</tr>
<tr>
<td>San Francisco Bay Area Rapid Transit</td>
<td>☐</td>
</tr>
<tr>
<td>City of Biggs</td>
<td>☐</td>
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<tr>
<td>City of Gridley</td>
<td>☐</td>
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<tr>
<td>City of Healdsburg</td>
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<tr>
<td>City of Lodi</td>
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<td>City of Lompoc</td>
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<td>Port of Oakland</td>
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</tr>
<tr>
<td>Truckee Donner PUD</td>
<td>☐</td>
</tr>
<tr>
<td>Other</td>
<td>☐</td>
</tr>
</tbody>
</table>

*If other, please specify*

__________________________________________
__________________________________________
RECOMMENDATION:

It is recommended the Commission accept the Debt and Interest Rate Management Report for the period ending December 31, 2017.

BACKGROUND:

In accordance with the Debt and Interest Rate Management Policy, Section 20, Monitoring and Reporting Requirements, approved by the Commission in May 2017, the Finance team will provide a written report regarding the status of all fixed and variable rate debt and the Agency’s interest rate swaps on a semi-annual basis to the Finance Committee and to the Commission.

The report, for the period ending December 31, 2017, is attached for your information and acceptance. Listed below is a summary of the report.

Fixed Rate Debt
While no new fixed rate debt was issued, staff took advantage of a limited opportunity to do an advance refunding of the Lodi Energy Center, Issue One, 2010 Series A bonds. The debt was refunded as Lodi Energy Center Revenue Refunding Bonds, Issue One, 2017 Series A into a Direct Placement with Bank of America securing a fixed rate of 2.27% through final maturity in 2025. Project participants will realize a Net Present Value (NPV) savings of over $2 million which includes over $300,000 in average annual debt service savings.

Staff is also currently working on refunding the Hydro Project Number One Revenue Bonds, 2008 Refunding Series C. The tentative schedule is to seek the Finance Committee’s recommendation to request Commission authorization at the February 2018 meetings with an anticipated closing in early April.

Other highlights are included in the attached report.

Variable Rate Debt
The Agency has a total of $86.4 million of outstanding variable rate debt ($85.16 million for Hydro 2008 Series A and $1.24 million Hydro 2008 Series B). The Agency’s variable rate debt is structured with a Letter of Credit with the Bank of Montreal. On average, the reset rates continue to trade at or better than the Securities Industry and Financial Markets Association (SIFMA) for the Series A bonds (tax-exempt) and 1-month London Interbank Offered Rate (LIBOR) for Series B bonds (taxable). The reset rates and index comparisons are included in the attached report.

Interest Rate Swaps
As of December 31, 2017, NCPA had $86.3 million of outstanding swaps, all related to the Hydroelectric Project bonds, which act as a hedge against the variable rate debt. The total market value of the interest rate swaps was a net liability of $16.995 million (negative). This amount has improved from the June 30, 2017 net liability of $18.312 million (negative) due to a rise in interest rates and time value. No new swaps or defaults have occurred in the last six months. The interest rate swaps make up approximately 27% of the outstanding Hydroelectric Project debt portfolio. Additional details of the swap agreements are provided in the attached report.
Counterparties
The counterparty for both interest rate swaps is Citibank, N.A. The credit ratings for Citibank, N.A., are A+/A1/A+ by S&P, Moody’s, and Fitch, respective. There have been no changes since the last report.

Rating Changes
In October 2017, Moody’s Investor Services notified NCPA that they were upgrading both Hydro and LEC bonds. Moody’s met with staff back in June to review the status and key metrics of each project. Moody’s rating committee has decided to:

- Upgrade the rating on NCPA’s Hydroelectric Revenue Bonds to Aa3 from A1. The rating outlook is stable.
- Upgrade the rating on NCPA’s Indenture A (Issue One) Lodi Energy Center (LEC) Revenue Bonds to A1 from A2. The rating outlook is stable.

FISCAL IMPACT:

The total projected savings over the life of the interest rate swaps was $13.9 million at the inception of these agreements. Total projected savings through December 31, 2017 was $5.6 million with actual results at $9.6 million. The difference between expected savings and actual savings is due to “basis risk”, or the difference between what NCPA pays on the variable rate bonds and the index rate used in the swap transaction. Total basis risk to date is positive, resulting in additional savings over those expected of $4.0 million. Staff continues to monitor the potential for refinancing these bonds and terminating the swaps, however, with rates still near historical lows, this is causing a large mark-to-market payment due to Citibank, N.A. of over $16.995 million (net) making a potential refund not a feasible option at this time.

ENVIRONMENTAL ANALYSIS:

This activity would not result in a direct or reasonably foreseeable indirect change in the physical environment and is therefore not a “project” for purposes of Section 21065 the California Environmental Quality Act. No environmental review is necessary.

COMMITTEE REVIEW:

The recommendation was reviewed by the Finance Committee on February 13, 2018 and was recommended for Commission acceptance.

Respectfully submitted,

Randy S. Howard
General Manager

Attachments:
- Debt and Interest Rate Management Report as of 12-31-2017
Debt and Interest Rate Management Report
As of December 31, 2017
Key Highlights

- In December 2017, staff refunded the Lodi Energy Center, Issue One, 2010 Series A bonds into a Direct Purchase with Bank of America securing a fixed rate of 2.27% through final maturity in 2025.
- No negative material changes to any fixed or variable rate debt or outstanding swap agreements occurred since the last report.
- In October 2017, Moody’s Investor Services upgraded the rating on NCPA’s Hydroelectric Revenue Bonds to Aa3 from A1 with a rating outlook of stable.
- In October 2017, Moody’s Investor Services upgraded the rating on NCPA’s Lodi Energy Center, Issue One, Series 2010 A bonds to A1 from A2 with a rating outlook of stable.
- No defaults under the above swap agreements, fixed rate or variable rate debt have occurred.
- Counterparty rating remained the same; no collateral posting by the counterparty has been required and the counterparty remains highly rated.
- The MTM* on the outstanding swaps changed from a negative value of $18.3 million on June 30, 2017 to a negative value of $17.0 million on December 31, 2017.

* Doesn't reflect the GASB 72 Fair Value risk profile of NCPA. This calculation is done at fiscal year-end.
DEBT OVERVIEW BY PROJECT
# Geothermal Project Debt Overview

## Geothermal Project Participation Percentages

<table>
<thead>
<tr>
<th>Member</th>
<th>Entitlement Share (%)</th>
<th>Beneficiary Share (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alameda</td>
<td>16.8825</td>
<td>16.8825</td>
</tr>
<tr>
<td>Biggs</td>
<td>0.2270</td>
<td>0.2270</td>
</tr>
<tr>
<td>Gridley</td>
<td>0.3950</td>
<td>0.3360</td>
</tr>
<tr>
<td>Healdsburg</td>
<td>3.6740</td>
<td>3.6740</td>
</tr>
<tr>
<td>Lodi</td>
<td>10.2800</td>
<td>10.2800</td>
</tr>
<tr>
<td>Lompoc</td>
<td>3.6810</td>
<td>3.6810</td>
</tr>
<tr>
<td>Palo Alto</td>
<td>6.1580</td>
<td>0.0000</td>
</tr>
<tr>
<td>Plumas-Sierra</td>
<td>0.8145</td>
<td>0.7010</td>
</tr>
<tr>
<td>Roseville</td>
<td>7.8830</td>
<td>7.8830</td>
</tr>
<tr>
<td>Santa Clara</td>
<td>44.3905</td>
<td>44.3905</td>
</tr>
<tr>
<td>TID</td>
<td>0.0000</td>
<td>6.3305</td>
</tr>
<tr>
<td>Ukiah</td>
<td>5.6145</td>
<td>5.6145</td>
</tr>
</tbody>
</table>

## Geothermal Project Debt Service

- **2009 Series A**
- **2012 Series A**
- **2016 Series A**

### Summary of Outstanding Geothermal Project Debt

#### Ratings (M/S/F): A1/A/-A+, Stable Outlooks

<table>
<thead>
<tr>
<th>Series</th>
<th>Tax Status</th>
<th>Coupon Type</th>
<th>Issue Size</th>
<th>Outstanding Par</th>
<th>Coupon Range</th>
<th>Call Date</th>
<th>Final Maturity</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009 Series A</td>
<td>Tax-Exempt</td>
<td>Fixed-Rate</td>
<td>$35,610,000</td>
<td>$5,220,000</td>
<td>5.000%</td>
<td>-</td>
<td>7/1/2019</td>
</tr>
<tr>
<td>2012 Series A</td>
<td>Tax-Exempt</td>
<td>Fixed-Rate</td>
<td>$12,910,000</td>
<td>$6,945,000</td>
<td>2.289%</td>
<td>7/1/2017</td>
<td>7/1/2022</td>
</tr>
<tr>
<td>2016 Series A</td>
<td>Tax-Exempt</td>
<td>Fixed-Rate</td>
<td>$17,530,000</td>
<td>$17,265,000</td>
<td>1.670%</td>
<td>-</td>
<td>7/1/2024</td>
</tr>
</tbody>
</table>
Hydroelectric Project Debt Overview

Hydroelectric Project Participation Percentages

<table>
<thead>
<tr>
<th>Member</th>
<th>Entitlement Share (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alameda</td>
<td>10.000</td>
</tr>
<tr>
<td>Biggs</td>
<td>0.100</td>
</tr>
<tr>
<td>Gridley</td>
<td>1.060</td>
</tr>
<tr>
<td>Healdsburg</td>
<td>1.660</td>
</tr>
<tr>
<td>Lodi</td>
<td>10.370</td>
</tr>
<tr>
<td>Lompoc</td>
<td>2.300</td>
</tr>
<tr>
<td>Palo Alto</td>
<td>22.920</td>
</tr>
<tr>
<td>Roseville</td>
<td>12.000</td>
</tr>
<tr>
<td>Santa Clara</td>
<td>35.860</td>
</tr>
<tr>
<td>Ukiah</td>
<td>2.040</td>
</tr>
<tr>
<td>Plumas-Sierra</td>
<td>1.690</td>
</tr>
</tbody>
</table>

Hydroelectric Project Debt Service

- 1992 Series A
- 2008 Series A
- 2008 Series B
- 2008 Series C
- 2010 Series A
- 2012 Series A
- 2012 Series B

Summary of Outstanding Hydroelectric Project Debt

<table>
<thead>
<tr>
<th>Series</th>
<th>Tax Status</th>
<th>Coupon Type</th>
<th>Issue Size</th>
<th>Outstanding Par</th>
<th>Coupon Range</th>
<th>Call Date</th>
<th>Final Maturity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1992 Series A</td>
<td>Tax-Exempt</td>
<td>Fixed-Rate</td>
<td>$195,610,000</td>
<td>$12,155,000</td>
<td>6.30%</td>
<td>Non-Callable</td>
<td>7/1/2018</td>
</tr>
<tr>
<td>2008 Series A</td>
<td>Tax-Exempt</td>
<td>Variable-Rate</td>
<td>$85,160,000</td>
<td>$85,160,000</td>
<td>Var. (3.819%)</td>
<td>Current</td>
<td>7/1/2032</td>
</tr>
<tr>
<td>2008 Series B</td>
<td>Taxable</td>
<td>Variable-Rate</td>
<td>$3,165,000</td>
<td>$1,235,000</td>
<td>Variable</td>
<td>Current</td>
<td>7/1/2020</td>
</tr>
<tr>
<td>2008 Series C</td>
<td>Tax-Exempt</td>
<td>Fixed-Rate</td>
<td>$128,005,000</td>
<td>$77,130,000</td>
<td>5.00%</td>
<td>Current</td>
<td>7/1/2018</td>
</tr>
<tr>
<td>2010 Series A</td>
<td>Tax-Exempt</td>
<td>Fixed-Rate</td>
<td>$101,260,000</td>
<td>$62,975,000</td>
<td>5.00%</td>
<td>7/1/2019</td>
<td>7/1/2023</td>
</tr>
<tr>
<td>2012 Series A</td>
<td>Tax-Exempt</td>
<td>Fixed-Rate</td>
<td>$76,665,000</td>
<td>$76,665,000</td>
<td>5.00%</td>
<td>7/1/2022</td>
<td>7/1/2032</td>
</tr>
<tr>
<td>2012 Series B</td>
<td>Taxable</td>
<td>Fixed-Rate</td>
<td>$7,120,000</td>
<td>$7,120,000</td>
<td>4.320%</td>
<td>Make-Whole</td>
<td>7/1/2024</td>
</tr>
</tbody>
</table>

Ratings (M/S/F): Aa3/A+/A+, Stable Outlooks
Hydroelectric Project Debt Overview

### Hydroelectric Project Swap Summary

<table>
<thead>
<tr>
<th>Series</th>
<th>NCPA Pays</th>
<th>NCPA Receives</th>
<th>Trade Date</th>
<th>Effective Date</th>
<th>Maturity Date</th>
<th>MTM Value (As of 12/29/17)</th>
<th>Initial Notional</th>
<th>Current Notional</th>
<th>Bank Counterparty</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>3.8190%</td>
<td>54% of USD-LIBOR + 0.54%</td>
<td>11/24/04</td>
<td>11/24/04</td>
<td>7/1/32</td>
<td>($17,210,366)</td>
<td>$85,160,000</td>
<td>$85,160,000</td>
<td>Citibank, N.A., New York (A1/A+/A+)</td>
</tr>
<tr>
<td>Series A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2008</td>
<td>USD-LIBOR</td>
<td>5.2910%</td>
<td>11/24/04</td>
<td>11/24/04</td>
<td>7/1/32</td>
<td>$215,149</td>
<td>$1,574,000</td>
<td>$1,108,537</td>
<td></td>
</tr>
<tr>
<td>Series B</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Citibank, N.A., New York (A1/A+/A+)</td>
</tr>
</tbody>
</table>

### Hydroelectric Project Liquidity Summary

<table>
<thead>
<tr>
<th>Series</th>
<th>LOC Provider</th>
<th>LOC Expiry</th>
<th>Reset (as of 12/28/17)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>Bank of Montreal (A1/A+/AA-)</td>
<td>September 09, 2019</td>
<td>1.60%</td>
</tr>
<tr>
<td>Series A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2008</td>
<td>Bank of Montreal (A1/A+/AA-)</td>
<td>September 09, 2019</td>
<td>1.65%</td>
</tr>
<tr>
<td>Series B</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Breakdown of Hydroelectric Project Debt Type

- Fixed: $85,160,000 (26.4%)
- Variable: $1,235,000 (0.4%)
- Synthetic Fixed: $236,045,000 (73.2%)
Capital Facilities Debt Overview

Capital Facilities Participation Percentages

<table>
<thead>
<tr>
<th>Member</th>
<th>Entitlement Share (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alameda</td>
<td>19.00</td>
</tr>
<tr>
<td>Lodi</td>
<td>39.50</td>
</tr>
<tr>
<td>Lompoc</td>
<td>5.00</td>
</tr>
<tr>
<td>Roseville</td>
<td>36.50</td>
</tr>
</tbody>
</table>

Capital Facilities Debt Service

2010 Series A

Summary of Outstanding Capital Facilities Debt

<table>
<thead>
<tr>
<th>Series</th>
<th>Tax Status</th>
<th>Coupon Type</th>
<th>Issue Size</th>
<th>Outstanding Par</th>
<th>Coupon Range</th>
<th>Call Date</th>
<th>Final Maturity</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010 Series A</td>
<td>Tax-Exempt</td>
<td>Fixed-Rate</td>
<td>$55,120,000</td>
<td>$33,640,000</td>
<td>4.000% - 5.250%</td>
<td>2/1/2020</td>
<td>8/1/2025</td>
</tr>
</tbody>
</table>
Lodi Energy Center Debt Overview

LEC Participation Percentages

<table>
<thead>
<tr>
<th>Member</th>
<th>Entitlement Share (%)</th>
<th>Ind. Group A Cost Share (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDWR</td>
<td>33.5000</td>
<td>-</td>
</tr>
<tr>
<td>Azusa</td>
<td>2.7857</td>
<td>4.9936</td>
</tr>
<tr>
<td>Biggs</td>
<td>0.2679</td>
<td>0.4802</td>
</tr>
<tr>
<td>Gridley</td>
<td>1.9643</td>
<td>3.5212</td>
</tr>
<tr>
<td>Healdsburg</td>
<td>1.6428</td>
<td>2.9448</td>
</tr>
<tr>
<td>Lodi</td>
<td>9.5000</td>
<td>17.0295</td>
</tr>
<tr>
<td>Lompoc</td>
<td>2.0357</td>
<td>3.6491</td>
</tr>
<tr>
<td>Santa Clara</td>
<td>25.7500</td>
<td>46.1588</td>
</tr>
<tr>
<td>Ukiah</td>
<td>1.7857</td>
<td>3.2010</td>
</tr>
<tr>
<td>MID</td>
<td>10.7143</td>
<td>-</td>
</tr>
<tr>
<td>Plumas-Sierra</td>
<td>0.7857</td>
<td>1.4084</td>
</tr>
<tr>
<td>PWRPA</td>
<td>2.6679</td>
<td>4.7824</td>
</tr>
<tr>
<td>SFBART</td>
<td>6.6000</td>
<td>11.8310</td>
</tr>
</tbody>
</table>

Lodi Energy Center Debt Service

- Indenture Group A Debt Service Net of BAB Subsidy (adjusted for 6.8% reduction)
- Indenture Group B Debt Service Net of BAB Subsidy (adjusted for 6.8% reduction)

Summary of Outstanding Lodi Energy Center Debt

<table>
<thead>
<tr>
<th>Series</th>
<th>Tax Status</th>
<th>Coupon Type</th>
<th>Issue Size</th>
<th>Outstanding Par</th>
<th>Coupon Range</th>
<th>Next Call</th>
<th>Final Maturity</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010 Series A</td>
<td>Tax-Exempt</td>
<td>Fixed-Rate</td>
<td>$78,330,000</td>
<td>$17,755,000</td>
<td>5.000%</td>
<td>6/1/2020</td>
<td>6/1/2020</td>
</tr>
<tr>
<td>2010 Series B</td>
<td>Taxable BABs</td>
<td>Fixed-Rate</td>
<td>$176,625,000</td>
<td>$176,625,000</td>
<td>7.311%</td>
<td>Make-Whole</td>
<td>6/1/2040</td>
</tr>
<tr>
<td>2017 Series A</td>
<td>Tax-Exempt</td>
<td>Fixed-Rate</td>
<td>$38,970,000</td>
<td>$38,970,000</td>
<td>2.270%</td>
<td>-</td>
<td>6/1/2025</td>
</tr>
</tbody>
</table>

Indenture Group B—CADWR | Ratings (M/SF): Aa2/AAA | Stable Outlooks

<table>
<thead>
<tr>
<th>Series</th>
<th>Tax Status</th>
<th>Coupon Type</th>
<th>Issue Size</th>
<th>Outstanding Par</th>
<th>Coupon Range</th>
<th>Next Call</th>
<th>Final Maturity</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010 Series A</td>
<td>Tax-Exempt</td>
<td>Fixed-Rate</td>
<td>$30,540,000</td>
<td>$9,685,000</td>
<td>5.000%</td>
<td>Non-Callable</td>
<td>6/1/2019</td>
</tr>
<tr>
<td>2010 Series B</td>
<td>Taxable BABs</td>
<td>Fixed-Rate</td>
<td>$110,225,000</td>
<td>$110,225,000</td>
<td>4.630%-5.679%</td>
<td>Make-Whole</td>
<td>6/1/2035</td>
</tr>
</tbody>
</table>

(1) Taxable Build America Bonds; Interest rate gross of BAB subsidy
FIXED RATE DEBT OVERVIEW
Fixed Rate Debt Overview

- While no new fixed rate debt was issued, staff took advantage of a limited opportunity to do an advance refunding of the Lodi Energy Center, Issue One, 2010 Series A bonds into a Direct Purchase with Bank of America securing a fixed rate of 2.27% through final maturity in 2025.

- October 2017, Moody’s Investor Services:
  - Upgraded the rating on NCPA’s Hydroelectric Revenue Bonds to Aa3 from A1 with a rating outlook of stable
  - Upgraded the rating on NCPA’s Lodi Energy Center, Issue One, Series 2010 A bonds to A1 from A2 with a rating outlook of stable.

- Refunding in progress
  - 2008 Hydroelectric Refunding Bonds, Series C
    - Callable July 1, 2018 but can refund as early as April 3, 2018
    - Lead UW: Citigroup with Goldman Sachs as co-manager
VARIABLE RATE DEBT OVERVIEW
## Variable Rate Debt Overview

<table>
<thead>
<tr>
<th></th>
<th>Hydro 2008A</th>
<th>Hydro 2008B</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Variable Rate Debt</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amount</td>
<td>$85,160,000</td>
<td>$1,574,000</td>
</tr>
<tr>
<td>Priced</td>
<td>Weekly</td>
<td>Weekly</td>
</tr>
<tr>
<td>Payment</td>
<td>Monthly</td>
<td>Monthly</td>
</tr>
<tr>
<td><strong>Swap Counter-party:</strong></td>
<td>Citigroup</td>
<td>Citigroup</td>
</tr>
<tr>
<td><strong>Payments</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NCPA Pays Fixed @ 3.819%</td>
<td></td>
<td>NCPA Receives Fixed @ 5.291%</td>
</tr>
<tr>
<td>NCPA Receives Floating rate (based on 54% of monthly Libor+.54%)</td>
<td>NCPA Pays Floating rate (based on monthly Libor)</td>
<td></td>
</tr>
<tr>
<td><strong>From/To: Counterparty</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NCPA Counterparty</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Payment terms:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Semi-Annual (net)</td>
<td></td>
<td>Semi-Annual (net)</td>
</tr>
<tr>
<td>Semi-Annual (net)</td>
<td></td>
<td>Semi-Annual (net)</td>
</tr>
<tr>
<td><strong>Liquidity/Letter of Credit Provider</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Annual Fee</td>
<td>Bank of Montreal</td>
<td>Bank of Montreal</td>
</tr>
<tr>
<td>Expiration Date</td>
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<td>39.0 bp</td>
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<td>9/9/2019</td>
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<tr>
<td>2</td>
<td>A1/A+/AA-</td>
<td>A1/A+/AA-</td>
</tr>
</tbody>
</table>

1 Effective 9/10/14 Citibank N.A. was replaced as the LOC provider with Bank of Montreal.

2 Effective 5/10/17 Moody's downgraded the Bank of Montreal from Aa3 to A1
Variable Rate Debt Overview

NCPA Variable Rate Debt Performance Versus Indices

2008A Reset Rate (Tax Exempt)  •  SIFMA  •  2008B Reset Rate (Taxable)  •  1m LIBOR
INTEREST RATE SWAPS OVERVIEW
Interest Rate Swaps Overview

Northern California Power Agency
Hydroelectric Project Swaps Performance to Date
December 31, 2017

Total Projected Savings over life of bonds: $13.9 million
Total Project Savings to date: $5.6 million
Actual Savings to date: $9.6 million
## Interest Rate Swaps Overview

<table>
<thead>
<tr>
<th>Transaction Type</th>
<th>Name</th>
<th>Associated Bonds</th>
<th>Client Pay</th>
<th>Client Receives</th>
<th>Trade Date</th>
<th>Effective Date</th>
<th>Maturity Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swap</td>
<td>NCPA 200411240001</td>
<td>Series 2008A</td>
<td>3.8190%</td>
<td>54% of USD-LIBOR + 0.54%</td>
<td>11/24/2004</td>
<td>11/24/2004</td>
<td>7/1/2032</td>
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</tbody>
</table>

<table>
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<tbody>
<tr>
<td>$1,574,000</td>
<td>$1,108,537</td>
<td>Citibank, N.A., New York</td>
<td>A1 / A+ / A+</td>
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<tr>
<td>$86,734,000</td>
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<tr>
<td>Transaction</td>
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<td>Trade Date</td>
<td>Maturity Date</td>
</tr>
<tr>
<td>-------------</td>
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<td>------------</td>
<td>---------------</td>
</tr>
<tr>
<td>Swap</td>
<td>200411240001</td>
<td>54% of USD-LIBOR + 0.54%</td>
<td>5.2910%</td>
<td>11/12/2004</td>
<td>7/1/2032</td>
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<tr>
<td>Swap</td>
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<td>3.8199%</td>
<td>2.30%</td>
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</table>
Interest Rate Swaps Overview

2008 A&B Swap MTM Fair Value
Commission Staff Report

February 13, 2018

COMMISSION MEETING DATE: February 22, 2018

SUBJECT: Updates and Modifications to the Nexant Cost Allocation Model for FY2019

AGENDA CATEGORY: Consent

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<td>Robert Caracristi</td>
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<tr>
<td>Manager of Information Services and Power Settlements</td>
<td></td>
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<td>Administrative Services</td>
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### IMPACTED MEMBERS:

<table>
<thead>
<tr>
<th>All Members</th>
<th>City of Lodi</th>
<th>City of Shasta Lake</th>
</tr>
</thead>
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<td>☑</td>
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</table>

<table>
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<tr>
<th>Alameda Municipal Power</th>
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<th>City of Ukiah</th>
</tr>
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<tbody>
<tr>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>San Francisco Bay Area Rapid Transit</th>
<th>City of Palo Alto</th>
<th>Plumas-Sierra REC</th>
</tr>
</thead>
<tbody>
<tr>
<td>City of Biggs</td>
<td></td>
<td></td>
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<tr>
<td>City of Gridley</td>
<td></td>
<td></td>
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<tr>
<td>City of Healdsburg</td>
<td></td>
<td></td>
</tr>
<tr>
<td>City of Roseville</td>
<td></td>
<td></td>
</tr>
<tr>
<td>City of Santa Clara</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Other</td>
</tr>
</tbody>
</table>

If other, please specify

SR: 116:18
RECOMMENDATION:

Staff recommends approval of Resolution No. 18-10 adopting the modifications to the Nexant Model as proposed by staff in order to allocate budgeted costs to members for Fiscal Year 2019.

BACKGROUND:

The NCPA Commission accepted and approved the Nexant Power Management Allocation Study Phase Ila Report ('Final Report') on January 28, 2010 as part of Resolution 10-16. This study, supervised by the Facilities Committee, determined the methodology for allocating various program costs related to Power Management, Settlements, Risk Management and information system activities using a Nexant Cost Allocation Spreadsheet Model (otherwise commonly referred to as the "Nexant Model"), which changes or modifications to is governed by the Power Management and Administrative Services Agreement.

Pursuant to the Power Management and Administrative Services Agreement, costs attributed to Power Management and Administrative Services for the Fiscal Year 2019 Annual Budget are allocated to members in accordance with the Nexant Model. This model has been in place at NCPA for the past eight budget cycles and is updated each year as part of the annual budget process. The Nexant Model methodology was developed in part to allocate various budgeted costs that use, among other things, defined allocation parameter percentages and determinants intended to correspond to the amount of time and effort required by NCPA staff to provide applicable services. Determinants prescribed by the Nexant studies for use in the Nexant Model include metered demand, resource energy schedules related to each day ahead, hour ahead and real time market, as well as contract deals that represent agreements for the purchase and sale of various products including long-term and short-term energy, resource adequacy capacity, and renewable energy credit transactions. As NCPA's business model, computer application systems and members' needs have evolved over time, staff has identified the need to adapt or refine various determinants used as inputs into the Nexant Model. Changes as those proposed to the model are necessary to better align the allocation of certain budgeted costs for services consistent with cost causation principles.

Staff’s proposed changes to the Nexant Model for Fiscal Year 2019 are quite detailed and technical in nature and a description of such changes are provided in the table below:

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Proposed Change</th>
<th>Reason for Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Modify the use of Internal Final Schedule (IFS) Counts, as determinants in the Nexant Model, to include only the hourly Internal Final Schedules that have</td>
<td>For background, Information Services staff deployed a software enhancement at the request of dispatch staff that automatically populated the NCPA database for several generating resources with Internal Final Schedule values set equal to the resource’s awarded hourly Day Ahead Energy Schedule. These automated hourly schedules applied to each operating day and each hour throughout calendar year 2017, which provided dispatch staff increased efficiencies in performing real-time balancing of load and supply.</td>
</tr>
</tbody>
</table>
increased or decreased from the corresponding hourly Day Ahead Energy Schedule values.

resources. For the purpose of the Nexant Model, the Nexant Studies prescribed the use of Internal Final Schedules as determinants to represent work performed by dispatch staff to perform real-time balancing activity. In light of the software modification that automatically created thousands of additional Internal Final Schedules, which would inadvertently shift additional costs to participants, NCPA staff recommends performing an adjustment to include only the hourly Internal Final Schedules that changed from the corresponding hourly Day Ahead Energy Schedule values as inputs into the Nexant Model. This change better aligns the use of IFS as a determinant for allocation of Nexant costs that is consistent with cost causation principles.

Account for Contract Deal IDs associated with hourly pool-balancing transactions as daily contract counts for use as determinants rather than monthly deals.

The NCPA Pool utilizes intra-day energy purchases and sales as a means to maintain its sub-hourly, load-supply balancing requirement pursuant to operating as a Load-Following (MSS) Metered Sub-System Aggregator. NCPA has historically contracted with various counter-parties for the delivery of these short-term, intra-day energy transactions. In recent years, however, NCPA has utilized a multi-month agreement with a single counter-party as a means to achieve greater operating efficiency and price certainty. While these short-term energy-balancing transactions are transacted daily under this arrangement, the counter-party agreement is recorded in NCPA’s deal capture system as a pair of long-term, monthly contract deals. For the purpose of the Nexant Model, the monthly deal counts understates the amount of work that dispatch staff performs with respect to hourly load-supply balancing activity. To better align the actual work effort performed by dispatch staff and the contract deals that represent the related balancing work performed, staff recommends accounting for these monthly deal counts as daily counts. This recommended adjustment also serves a second purpose: Treating these short-term transactions as daily contract counts improves the overall Nexant model by increasing the ratio of short-term and long-term contract counts. Maintaining a ratio of short and long-term contract counts that is greater than (1) one is an essential element in the underlying melding of members' contract hours and contract counts for allocation of scheduling costs to the Pool and BART.

The scope of proposed changes for each of the items listed above in Table 1 is intended to be a prospective change only and effective for Fiscal Year 2019, as well as any future year to the extent that the current Nexant Model is used.
FISCAL IMPACT:

The recommended adjustments will result in a change to all members’ allocated share of Power Management costs by varying amounts. Table 2 of Appendix A provides indicative changes in allocated Nexant Power Management costs to members based on current Fiscal Year 2018 budget related to items 1 and 2 as presented at the January 31, 2018 Facilities Committee meeting. Many of the Information Services software enhancements to the dispatch operations and associated scheduling and settlements applications have led to improved efficiencies throughout the Agency, which has essentially increased workload capacity. This has allowed Power Management to expand scheduling coordinator services to new customers, generating new revenue, to offset the members’ Nexant-related costs without adding new staff.

ENVIRONMENTAL ANALYSIS:

This activity would not result in a direct or reasonably foreseeable indirect change in the physical environment and is therefore not a “project” for purposes of Section 21065 the California Environmental Quality Act. No environmental review is necessary.

COMMITTEE REVIEW:

Staff presented the final proposed modifications to the Nexant Model at a Facilities Committee meeting on January 31, 2018. No formal action was taken due to the lack of a quorum, however, the seven (7) Facilities Committee participants who were present at the meeting voiced their unanimous support for recommended Commission approval to the modifications described in this staff report. In addition, staff presented and reviewed the proposed modifications and results at the Utility Director Meeting on February 8, 2018, in which no meeting attendees had any objections.

Respectfully submitted,

RANDY S. HOWARD
General Manager

Attachments:
- Appendix A
- Resolution 18-10

SR: 116:18
Appendix A

Table 2: Indicative allocated Nexant Power Management Costs to members and participants for FY 2019 based on the final version of updated calendar year 2017 data and using current Fiscal Year 2018 budgeted costs for comparison purposes, as presented at the January 31 Special Facilities Committee meeting. These results incorporate the proposed changes related to items 1 and 2 described in Table 1 of the staff report. Note: a positive / (negative) value represents an indicative increase / (decrease) in a member’s cost.

**FY 2019 MEMBER TOTALS**

<table>
<thead>
<tr>
<th>General Power</th>
<th>Direct</th>
<th>Pool</th>
<th>System Integration</th>
<th>FY 2019 Power Mgmt Total</th>
<th>FY 2018 Total</th>
<th>Increase (Decrease)</th>
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</thead>
<tbody>
<tr>
<td>Mgt</td>
<td>Assignments</td>
<td>Allocation</td>
<td>Integration</td>
<td>Mgmt</td>
<td>Mgmt</td>
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<td>$24,982</td>
<td>$922,809</td>
<td>$962,048</td>
<td>($39,239)</td>
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<tr>
<td>BART</td>
<td>$248,803</td>
<td>$194,122</td>
<td>$91,909</td>
<td>$634,275</td>
<td>$717,961</td>
<td>($83,706)</td>
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<td>$909</td>
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<td>$64,005</td>
<td>($2,919)</td>
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<td>$203,525</td>
<td>$205,442</td>
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<td>$309,897</td>
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<td>$375,200</td>
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SR: 116:18
RESOLUTION 18-10

RESOLUTION OF THE NORTHERN CALIFORNIA POWER AGENCY
ADOPTING THE MODIFIED NEXANT COST ALLOCATION MODEL INPUT DETERMINANTS
FOR FISCAL YEAR 2019

(reference Staff Report #116:18)

WHEREAS, the NCPA Commission accepted and approved the Nexant Power Management Allocation Study Phase IIa Report ('Final Report') on January 28, 2010 to establish cost allocation of Power Management related activities among the members; and

WHEREAS, staff has reviewed calendar year 2017 data for input into the Nexant Cost Allocation Model for Fiscal Year 2019, and recommends adjustments be performed to certain contract counts and resource schedules to more accurately reflect their use as allocators as described in Staff Report #116:18 for inputs into the Nexant Power Management Cost Allocation Model in order to allocate certain budgeted costs to members for Fiscal Year 2019; and

WHEREAS, this activity would not result in a direct or reasonably foreseeable indirect change in the physical environment and is therefore not a “project” for purposes of Section 21065 the California Environmental Quality Act. No environmental review is necessary; and

NOW, THEREFORE BE IT RESOLVED, that the Commission of the Northern California Power Agency adopts the modified Nexant Cost Allocation Model input determinants as described in Staff Report #116:18 as inputs into the Nexant Power Management Cost Allocation Model in order to allocate budgeted costs to members for Fiscal Year 2019.

PASSED, ADOPTED and APPROVED this ____ day of ________________, 2018 by the following vote on roll call:

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<tr>
<th></th>
<th>Vote</th>
<th>Abstained</th>
<th>Absent</th>
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<tbody>
<tr>
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<tr>
<td>San Francisco BART</td>
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<tr>
<td>Biggs</td>
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<tr>
<td>Gridley</td>
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<tr>
<td>Healdsburg</td>
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<tr>
<td>Lodi</td>
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<td>Lompoc</td>
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<td>Palo Alto</td>
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<tr>
<td>Port of Oakland</td>
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<td>Redding</td>
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<td>Santa Clara</td>
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<td>Shasta Lake</td>
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BOB LINGL
CHAIR

ATTEST: CARY A. PADGETT
ASSISTANT SECRETARY
Commission Staff Report

Date February 13, 2018

COMMISSION MEETING DATE: February 22, 2018

SUBJECT: Approval of Second Phase Agreement between NCPA and Member Participants for NCPA Solar Project 1

AGENDA CATEGORY: Discussion/Action

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<td>Ken Speer</td>
<td>N/A</td>
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<tr>
<td>Assistant General Manager</td>
<td></td>
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<td>Division:</td>
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<td>Generation Services</td>
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<tr>
<td>Department:</td>
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<table>
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<tr>
<th>IMPACTED MEMBERS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Members ☒</td>
</tr>
<tr>
<td>City of Lodi ☐</td>
</tr>
<tr>
<td>City of Shasta Lake ☐</td>
</tr>
<tr>
<td>Alameda Municipal Power ☐</td>
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<td>San Francisco Bay Area Rapid Transit ☐</td>
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<td>Plumas-Sierra REC ☐</td>
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<td>City of Biggs ☐</td>
</tr>
<tr>
<td>City of Redding ☐</td>
</tr>
<tr>
<td>Port of Oakland ☐</td>
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<tr>
<td>City of Gridley ☐</td>
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</tr>
<tr>
<td>Truckee Donner PUD ☐</td>
</tr>
<tr>
<td>City of Healdsburg ☐</td>
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<tr>
<td>City of Santa Clara ☐</td>
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<tr>
<td>Other ☐</td>
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If other, please specify

SR: 110:18
RECOMMENDATION:

NCPA staff recommends the Commission:

1. Approve the Second Phase Agreement for the NCPA Solar Project 1; and

2. Authorize the NCPA General Manager to execute the Second Phase Agreement for the Solar Project 1 on behalf of NCPA, including any non-substantive modifications approved by NCPA’s General Counsel.

BACKGROUND:

NCPA, in collaboration with interested Member Participants, has identified potential sites within Member Participants’ service territories for new solar photovoltaic generation facilities. Individual project sizes may range from less than 1 MW and greater than 10 MW, with an aggregate project capacity as high as 40 MW.

NCPA and Member Participants desire to enter into a Second Phase Agreement for NCPA Solar Project 1 to allow NCPA to serve as project manager and to manage all activities required to assess the feasibility of each potential site, and to perform all necessary due diligence and preparation required to solicit a Power Purchase Agreement (PPA) from a third party.

This Agreement is intended to authorize Member Participants to initiate, fund, and complete activities related to this Project.

FISCAL IMPACT:

Total cost of Phase 2 of the project will be dependent upon the number of Member Participants, planned capacity, and location. Some sites may not be deemed feasible and may not progress through the entirety of Phase 2. Hence for each potential site, the not-to-exceed cost per Member Participant is $60,000 to perform the site selection and screening (See, Phases 2A/2B in the Second Phase Agreement). In addition, for sites deemed feasible, an additional not-to-exceed cost of $320,000 per Member Participant would be incurred to complete due diligence, preparation (including compliance with CEQA and to gain site control), and PPA solicitation (See, Phases 2C/2D in the Second Phase Agreement).

Cost allocation will be based on site-specific costs and a division of general costs based on a site’s capacity rating relative to the aggregate capacity of the project.

ENVIRONMENTAL ANALYSIS:

This activity would not result in a direct or reasonably foreseeable indirect change in the physical environment and is therefore not a “project” for purposes of Section 21065 of the California Environmental Quality Act. No environmental review is necessary.

COMMITTEE REVIEW:

The recommendation above was reviewed by the Facilities Committee on January 31, 2018 and was recommended for Commission approval as a Discussion/Action Item.

SR: 110:18
Respectfully submitted,

[Signature]

RANDY S. HOWARD
General Manager

Attachments: (2)
Resolution
Draft Second Phase Agreement for NCPA Solar Project 1
RESOLUTION 18-07
RESOLUTION OF THE NORTHERN CALIFORNIA POWER AGENCY APPROVING THE SECOND PHASE AGREEMENT FOR NCPA SOLAR PROJECT 1

(reference Staff Report #110:18)

WHEREAS, the Northern California Power Agency (NCPA) is working with interested Members to develop additional Renewable Energy Supply sources to meet the future demands of Member Participants; and

WHEREAS, NCPA and Member Participants desire to build multiple Photovoltaic (PV) Solar Power Plants throughout participating Member service territories to meet these demands; and

WHEREAS, NCPA and Member Participants desire to enter into a Second Phase Agreement for the NCPA Solar Project 1 to allow NCPA to serve as project manager and to manage all activities required to assess the feasibility of each potential site, and to perform all necessary due diligence and preparation required to solicit a Power Purchase Agreement (PPA) from a third party; and

WHEREAS, this activity would not result in a direct or reasonably foreseeable indirect change in the physical environment and is therefore not a “project” for purposes of Section 21065 of the California Environmental Quality Act. No environmental review is necessary; and

NOW, THEREFORE BE IT RESOLVED that the Commission of the Northern California Power Agency approves the Second Phase Agreement for the NCPA Solar Project 1 and authorizes the NCPA General Manager to execute the Second Phase Agreement for the Solar Project 1 on behalf of NCPA, including any non-substantive modifications approved by NCPA’s General Counsel.

PASSED, ADOPTED and APPROVED this ___ day of _____________, 2018, by the following vote on roll call:

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BOB LINGL
CHAIR

ATTEST: CARY A. PADGETT
ASSISTANT SECRETARY
SECOND PHASE AGREEMENT FOR
NCPA SOLAR PROJECT 1
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SECOND PHASE AGREEMENT FOR NCPA SOLAR PROJECT 1
This SECOND PHASE AGREEMENT FOR NCPA SOLAR PROJECT 1 ("this Agreement") is dated as of __________, 20__ by and among the Northern California Power Agency, a joint powers agency of the State of California ("NCPA"), and the signatories to this Agreement other than NCPA ("Participants"). NCPA and the Participants are referred to herein individually as a “Party” and collectively as the “Parties”.

RECITALS

A. NCPA has heretofore been duly established as a public agency pursuant to the Joint Exercise of Powers Act of the Government Code of the State of California and, among other things, is authorized to acquire, construct, finance, and operate buildings, works, facilities and improvements for the generation and transmission of electric capacity and energy for resale.

B. Each of the Participants is a signatory to the Joint Powers Agreement which created NCPA and therefore is a Member.

C. Each of the Participants to this Agreement have executed the Amended and Restated Facilities Agreement which establishes the framework under which Project Agreements are created for the development, design, financing, construction, and operation of specific NCPA Projects.

D. NCPA and each of the Participants are interested in developing additional Renewable Energy Supply to meet the future demands of the Participants.
E. NCPA, working in collaboration with Participants, proposes new solar photovoltaic generation facilities, located in or near Participants' service territories, with anticipated individual project sizes ranging from less than 1 megawatt ("MW") and up to 16 MW, with a total project capacity of up to approximately 35 MW ("NCPA Solar Project 1").

F. The Parties desire to utilize NCPA as a project manager to oversee study, planning, and operations of the facility, and plan to solicit services of a third party ("Seller") to develop, own, and operate the Project during its initial term of commercial operations.

G. This Agreement is intended to cover all pre-construction activities associated with the development of the Project. The Parties desire to divide Phase 2 activities authorized under this Agreement into four (4) sub-phases, designated as Phase 2A (Site Recommendation), 2B (Site Screening), 2C (Preliminary Development and Planning), and 2D (Project Development and Financing). This agreement is intended to authorize NCPA and Participants to initiate, fund, and complete activities of Phases 2A and 2B; and to describe subsequent processes and approvals needed in order to authorize NCPA to initiate Phase 2C and 2D activities.

H. Each Participant is authorized by its Constitutive Documents to obtain electric capacity and energy for its present or future requirements, through contracts with NCPA or otherwise.
I. To enable NCPA to develop additional Renewable Energy Supply and negotiate and enter into the Renewable PPA on behalf of the Participants, pursuant to the terms and conditions of the Amended and Restated Facilities Agreement, NCPA and the Participants wish to enter into this Agreement to provide all means necessary for NCPA to perform its duties under this Agreement, and to enable and obligate the Participants to pay NCPA for all costs it incurs for undertaking the foregoing activities.

J. The Parties desire NCPA to commence work on Phase 2A, if necessary, and Phase 2B activities on or shortly after the Effective Date of this Agreement.

K. The Parties desire all plants developed under this Agreement to enter commercial operations within a three-month window of each other and that all plants reach completion not later than December 31, 2019.

L. Contingent upon negotiating mutually acceptable terms and conditions with one or more prospective suppliers, NCPA will present the proposed Renewable PPA to the NCPA Commission for review and approval. Contemporaneously, NCPA will seek final approval from Participants through a Third Phase Agreement for the Project that would govern the rights and obligations of NCPA and Participants related to the sale and purchase of Products.

M. Each of the Parties intends to observe the provisions of this Agreement in good faith and shall cooperate with all other Parties in order to achieve the full benefits of joint action.
N. The Parties desire to equitably allocate costs of NCPA’s provision of services under this Agreement among the Participants, with costs of each site and each sub-process established in Section 3.5 of this Agreement.

O. The Participants further desire, insofar as possible, to insulate other Members who are not Participants, from risks inherent in the services and transactions undertaken on behalf of the Participants pursuant to this Agreement.

NOW, THEREFORE, the Parties agree as follows:

Section 1. Definitions.

1.1 Definitions. Whenever used in this Agreement (including the Recitals hereto), the following terms shall have the following respective meanings, provided, capitalized terms used in this Agreement (including the Recitals hereto) that are not defined in Section 1 of this Agreement shall have the meaning indicated in Section 1 of the Power Management and Administrative Services Agreement:

1.1.1 “Agreement” means this Second Phase Agreement for NCPA Solar Project 1 including all Exhibits attached hereto.

1.1.2 “Authorizing Participants” means a subset of Participants that grant written authority to NCPA to commence Phase 2C and Phase 2D activities of this Agreement, using a Project Development Authorization Form found in Exhibit D of this Agreement.
1.1.3  "Authorized Project Site" means the generation facility that
NCPA will conduct Phase 2C and Phase 2D activities for, as directed by Authorizing
Participants using a Project Development Authorization Form. There may be multiple
Authorized Project Sites addressed under this Agreement.

1.1.4  "Capacity Attributes" means any and all current or future defined
characteristics consistent with the operational limitations of the Project, certificates, tags,
credits, ancillary service attributes, or accounting constructs, howsoever entitled, including
resource adequacy benefits, Flexible Capacity Benefits, and any tracking or accounting
associated with the foregoing, intended to value any aspect of the capacity of the Project to
produce Energy or ancillary services, attributed to or associated with the Project.

1.1.5  "Constitutive Documents" means, with respect to NCPA, the
Joint Powers Agreement and any resolutions or bylaws adopted thereunder with respect
to the governance of NCPA, and with respect to each Participant, the California
Government Code and other statutory provisions applicable to such Participant, any
applicable agreements, charters, contracts or other documents concerning the formation,
operation or decision making of such Participant, including, if applicable, its City Charter,
and any codes, ordinances, bylaws, and resolutions adopted by such Participant’s
governing body.

1.1.6  "Effective Date" shall have the meaning set forth in Section 9 of
this Agreement.
1.1.7 "Energy" means electric energy expressed in units of kWh or MWh.

1.1.8 "Environmental Attributes" means any and all credits, benefits, emissions reductions, offsets, and allowances, howsoever entitled, attributable to the generation from the Project, as the case may be, and its displacement of conventional energy generation. Environmental Attributes include: (i) any avoided emissions of pollutants to the air, soil or water such as sulfur oxides (SOx), nitrogen oxides (NOx), carbon monoxide (CO) and other pollutants; (ii) any avoided emissions of carbon dioxide (CO2), methane (CH4) and other greenhouse gases that have been determined by the United Nations Intergovernmental Panel on Climate Change to contribute to the actual or potential threat of altering the Earth’s climate by trapping heat in the atmosphere; and (iii) the reporting rights to these avoided emissions such as, but not limited to, a Renewable Energy Certificate ("REC").

Environmental Attributes do not include: (i) any Energy, capacity, reliability or other power attributes from the Project, (ii) production tax credits associated with the construction or operation of the Project, and other financial incentives in the form of credits, reductions, or allowances associated with the Project that are applicable to a state or federal income taxation obligation, (iii) fuel-related subsidies or "tipping fees" that may be paid to Seller to accept certain fuels, or local subsidies received by Seller or the owners of the site for the destruction of particular pre-existing pollutants or the promotion
of local environmental benefits, or (iv) emission reduction credits encumbered or used by
the Project for compliance with local, state, or federal operating and/or air quality permits.

1.1.9 "Flexible Capacity" has the meaning set forth in the CAISO
Tariff.

1.1.10 "Flexible Capacity Benefits" means the rights and privileges
attached to any generating resource that satisfy any entity's Flexible Capacity requirement.

1.1.11 "Initiating Members" shall have the meaning as set forth in
Section 5.2.

1.1.12 "NCPA" has the meaning set forth in the recitals hereto.

1.1.13 "Participant" has the meaning set forth in the recitals of this
Agreement.

1.1.14 "Power Management and Administrative Services Agreement"
means the NCPA Power Management and Administrative Services Agreement, dated as of
October 1, 2014 between NCPA and the Members who are signatories to that agreement
by which NCPA provides Power Management and Administrative Services.

1.1.15 "Product" means Energy, Capacity Attributes and Environmental
Attributes delivered to the Participants pursuant to the Renewable PPA.

1.1.16 "Project" means the NCPA Solar Project 1 as defined in the
Recitals of this Agreement.
1.1.17 "Project Development Authorization Form" is Exhibit D of this Agreement, and one form is required for each site for which NCPA will conduct Phase 2C and Phase 2D activities.

1.1.18 "Party" or "Parties" has the meaning set forth in the preamble hereto; provided that "Third Parties" are entities that are not Party to this Agreement.

1.1.19 "Renewable Energy Supply" refers to power supply resources eligible for use under the Renewable Portfolio Standard Program.

1.1.20 "Renewable PPA" means the Power Purchase Agreement to be negotiated by NCPA and Seller, under which NCPA, on behalf of the Participants, purchases Product from newly constructed solar photovoltaic resources.

1.1.21 "RPS" or "Renewable Portfolio Standard Program" means the State of California Renewable Portfolio Standard Program, as codified at California Public Utilities Code Section 399.11, et seq.

1.1.22 "Seller" has the meaning set forth in the recitals of this Agreement.

1.1.23 "Term" has the meaning set forth in Section 9.

1.2 **Rules of Interpretation.** As used in this Agreement (including the Recitals hereto), unless in any such case the context requires otherwise: The terms "herein," "hereto," "herewith" and "hereof" are references to this Agreement taken as a whole and not to any particular provision; the term "include," "includes" or "including" shall mean
"including, for example and without limitation;" and references to a "Section,
subsection," clause," Appendix", "Schedule", or "Exhibit" shall mean a Section,
subsection, clause, Appendix, Schedule or Exhibit of this Agreement, as the case may be.
All references to a given agreement, instrument, tariff or other document, or law,
regulation or ordinance shall be a reference to that agreement, instrument, tariff or other
document, or law, regulation or ordinance as such now exists and as may be amended
from time to time, or its successor. A reference to a "person" includes any individual,
partnership, firm, company, corporation, joint venture, trust, association, organization or
other entity, in each case whether or not having a separate legal personality and includes
its successors and permitted assigns. A reference to a "day" shall mean a Calendar Day
unless otherwise specified. The singular shall include the plural and the masculine shall
include the feminine, and vice versa.

Section 2. Purpose.

The purpose of this Agreement is to establish the rights and obligations of the
Parties, define Phase 2 activities and sub-phases, and establish a cost allocation
methodology for Phase 2 activities.

Section 3. Authorities, Obligations, and Allocation of Project Cost.

3.1 Authorities.
3.1.1 Upon the Effective Date of this Agreement, NCPA is hereby authorized to conduct all work necessary to complete its obligations of Phase 2A and Phase 2B.

3.1.2 NCPA shall conduct all work necessary to complete its obligations under Phase 2C and Phase 2D upon full execution of a Project Development Authorization Form, with a template attached hereto as Exhibit D. Such form shall apply to a single Authorized Project Site and shall become effective when signed by NCPA and all Authorizing Participants of the Authorized Project Site.

3.2 Obligations of NCPA. Upon the Effective Date of this Agreement, NCPA shall commence work pertaining to its duties under Phase 2A and/or Phase 2B, as described further below. Upon the effective date of a Project Development Authorization Form, NCPA shall commence work pertaining to its duties under Phase 2C and Phase 2D, as described further below. NCPA, on behalf of itself and Participants, shall act as lead or responsible agency for the purposes of environmental review of the Project, shall act as project manager for all Phase 2 activities, and is responsible for engaging necessary expert professional services including those of NCPA staff. NCPA shall divide Phase 2 activities into 4 sub-phases, defined below.

3.2.1 Phase 2A (Site Recommendation): NCPA shall assist Participants that have provided multiple potential sites in a single service territory to identify the best site(s) for further evaluation in subsequent Phase 2 sub-processes.
3.2.2 Phase 2B (Site Screening): NCPA shall complete a feasibility study for each proposed site listed in Exhibit C. For Participants that have identified multiple potential sites in a single service territory, NCPA shall conduct a Phase 2B feasibility study only for those sites identified in Phase 2A for subsequent Phase 2 sub-phases, or as mutually agreed to in writing by NCPA and the Participant(s) of the selected sites. NCPA shall deliver a “Go / No Go” determination for each project site. NCPA shall advance the due diligence investigation required for each proposed site, initiate environmental studies, initiate financial planning, and complete a feasibility assessment for each proposed site. Participants may also opt, at an additional cost, for a Storage Feasibility Study to determine the technical and economic feasibility of incorporating energy storage (e.g. batteries) at their site.

3.2.3 Phase 2C (Preliminary Development & Planning): NCPA shall finalize project design and specifications, prepare conceptual physical and electrical layout diagrams, provide capital, identify site preparation requirements, identify permit requirements, and identify other risks and recommendations.

3.2.4 Phase 2D (Project Development and Project Financing): NCPA shall complete CEQA review; gain site control; complete financing arrangements; and negotiate a Renewable Energy Power Purchase Agreement (“Renewable PPA”) to purchase electric capacity, energy, and environmental attributes produced by eligible
renewable resources for the benefit of the Participants’ customers, and to include an option to purchase the project facilities from the third party at a future date.

3.3 **Obligations of Participants.**

3.3.1 Participants hereby agree to continue to pay or advance to NCPA its allocated share of the costs authorized by Participants in accordance with this Agreement in connection with its participation in the Project.

3.3.2 Upon execution of this Agreement, Participant shall identify the individual who is authorized to initiate Phase 2C and Phase 2D activities using a Project Development Authorization Form. Participants’ designees shall be listed in Exhibit A.

3.4 **Obligations of the Parties.** NCPA and Participants hereby agree to conduct all necessary work, secure all necessary authorities, transmit all necessary forms, and to work collaboratively to complete all Phase 2 activities in a timely manner, with the goal that all facilities developed under this Agreement enter commercial operations within a three-month window of each other and that all plants reach completion not later than December 31, 2019.

3.5 **Project Costs and Cost Allocation.**

3.5.1 **Project Costs.** Estimated costs for each sub-process at each site are listed in Exhibit C, including a 15% contingency. Upon execution of this Agreement, NCPA is authorized to expend funds listed in Exhibit C to conduct Phase 2A and Phase 2B activities for each site for Parties to this Agreement. NCPA is authorized to expend funds
for Phase 2C and Phase 2D activities, contingent upon receiving a duly authorized written consent from Authorizing Participants under a completed Project Development Authorization Form for each Authorized Project Site, which shall specify the not-to-exceed costs for Phase 2C and Phase 2D. To the extent that Phase 2C and Phase 2D costs differ between Exhibit C of this Agreement and that of Section 4 of the completed Project Development Authorization Form, the latter will control.

3.5.2 NCPA shall assign costs to Participants using a three-step process.

i. NCPA shall designate a cost as either “General” or “Site-Specific.”

ii. All General costs shall be assigned to each site, in proportion to each site’s capacity rating relative to the total capacity of the NCPA Solar Project 1.

iii. General costs assigned to each site, and all site-specific costs, shall be allocated to each Participant in proportion to Participants’ site-specific GES.

3.6 Adjustments to Generation Entitlement Shares. The GES of each Participant shall be revised proportionately if less than the full megawatt capacity of the Project is subscribed. The GES of each Participant shall be revised if and when any Participant withdraws in whole or in part. The full megawatt capacity of the Project shall be revised if and when project specification of individual sites are added, modified, or eliminated for consideration. Notwithstanding the foregoing, Participants are responsible for all obligations and actual costs incurred up to the effective date of changes to participation levels and site specifications.
3.7 Third Phase Agreement Funding and Participation. The Third Phase Agreement that supersedes and replaces this Agreement, if any, shall provide for reimbursement, retirement or refunding of (1) any preliminary expenditures including financing costs, architectural, engineering, surveying, soil testing, debt issuance costs, and (2) expenditures relating to the acquisition, construction, and land acquisition of the project, of any expenditure of the Participants in the Second Phase of the Project, out of final long-term financing of the Project, or other funding method, including but not limited to cash payments. It is expected that the amount of long term bonds or other reimbursement is not expected to exceed $4,000,000. This provision is also meant to establish with the requirements of Section 1.150-2 of the Treasury Regulations.

Section 4. Billing and Payments.

4.1 Participant Payment Obligations. Each Participant agrees to pay to NCPA each month its respective portion of the actual costs associated with activities authorized under this Agreement and the Amended and Restated Facilities Agreement.

4.2 Invoices. NCPA will issue an invoice to each Participant for its share of actual costs associated with negotiation and implementation of the Renewable PPA, and all other costs for services provided in accordance with this Agreement and the Amended and Restated Facilities Agreement. Such invoice may be either the All Resources Bill or separate special invoice, as determined by NCPA. At NCPA’s discretion, invoices may be issued to Participants using electronic media or physical distribution.
4.3 Payment of Invoices. All invoices delivered by NCPA (including the All Resources Bill) are due and payable thirty (30) Calendar Days after the date thereof; provided, however, that any amount due on a day other than a Business Day may be paid on the following Business Day.

4.4 Late Payments. Any amount due and not paid by a Participant in accordance with Section 4.3 shall be considered late and bear interest computed on a daily basis until paid at the lesser of (i) the per annum prime rate (or reference rate) of the Bank of America NT&SA then in effect, plus two percent (2%) or (ii) the maximum rate permitted by law.

4.5 Billing Disputes. A Participant may dispute the accuracy of any invoice issued by NCPA under this Agreement by submitting a written dispute to NCPA, within thirty (30) Calendar Days of the date of such invoice; nonetheless the Participant shall pay the full amount billed when due. If a Participant does not timely question or dispute the accuracy of any invoice in writing, the invoice shall be deemed to be correct. Upon review of a submitted dispute, if an invoice is determined by NCPA to be incorrect, NCPA shall issue a corrected invoice and refund any amounts that may be due to the Participant. If NCPA and the Participant fail to agree on the accuracy of an invoice within thirty (30) Calendar Days after the Participant has disputed it, the General Manager shall promptly submit the dispute to the Commission for resolution. If the Commission and the Participant fail to agree on the accuracy of a disputed invoice within sixty (60) Calendar Days of the disputed invoice.
Days of its submission to the Commission, the dispute may then be resolved under the mediation and arbitration procedures set forth in Section 11 of this Agreement. Provided, however, that prior to resorting to either mediation or arbitration proceedings, the full amount of the disputed invoice must be paid.

4.6 **Billing/Settlement Data and Examination of Books and Records.**

4.6.1 **Settlement Data.** NCPA shall make billing and settlement data available to the Participants in the All Resources Bill, or other invoice, or upon request. NCPA may also, at its sole discretion, make billing and settlement support information available to Participants using electronic media (e.g. electronic data portal). Procedures and formats for the provision of such electronic data submission may be established by the Commission from time to time. Without limiting the generality of the foregoing, NCPA may, in its reasonable discretion, require the Participants to execute a non-disclosure agreement prior to providing access to the NCPA electronic data portal.

4.6.2 **Examination of Books and Records.** Any Participant to this Agreement shall have the right to examine the books and records created and maintained by NCPA pursuant to this Agreement at any reasonable, mutually agreed upon time.

**Section 5. Participation.**

5.1 **Eligibility.** All Members who are signatory to the Amended and Restated Facilities Agreement are eligible to participate in this Agreement by delivering a duly
executed copy of this Agreement to NCPA, and subject to availability of the Renewable Energy Supply as described in Section 5.2.

5.2 Priority. This Agreement has been developed in response to certain Members’ request for NCPA to acquire Renewable Energy Supply on their behalf (hereinafter referred to as the “Initiating Members”). The Initiating Members are listed in Exhibit A. To the extent the amount of Renewable Energy Supply that is made available by Seller is not sufficient to satisfy all Members’ requests for a desired amount of Renewable Energy Supply; first priority will be given to the Initiating Members, and secondary priority will be given to all other Members who become a Participant. If after meeting the requests of the Initiating Members, any remaining available Renewable Energy Supply will be allocated to all other Participants based on a first-come first-serve basis, until the total amount of available Renewable Energy Supply is exhausted, or until all Participants’ requests have been satisfied, whichever comes first.

5.3 Final Participation Percentages. Upon the Effective Date of this Agreement, NCPA shall include each Participant’s Final Project Participation Percentage in Exhibit B. NCPA shall update Exhibit B to reflect changes in Participants and/or GES, in writing, and shall provide written notice to Participants of such changes.

Section 6. Cooperation and Further Assurances.

Each of the Parties agree to provide such information, execute and deliver any instruments and documents and to take such other actions as may be necessary or
reasonably requested by any other Party which are consistent with the provisions of this Agreement and which do not involve the assumption of obligations other than those provided for in this Agreement, in order to give full effect to this Agreement and to carry out the intent of this Agreement. The Parties agree to cooperate and act in good faith in connection with obtaining any credit support required in order to satisfy the requirements of this Agreement.

Section 7. **Administration of Agreement**

7.1 **Commission.** The Commission is responsible for the administration of this Agreement. Each Participant shall be represented by its Commissioner or their designated alternate Commissioner ("Alternate") pursuant to the Joint Powers Agreement. Each Commissioner shall have authority to act for the Participant represented with respect to matters pertaining to this Agreement.

7.2 **Forum.** Whenever any action anticipated by this Agreement is required to be jointly taken by the Participants, such action shall be taken at regular or special meetings of the NCPA Commission.

7.3 **Quorum.**

7.3.1 **General Administration.** For purposes of acting upon matters that relate to general administration of this Agreement, a quorum of the Commission shall consist of those Commissioners, or their designated Alternates, representing a numerical majority of the Participants.
7.3.2 Relating to a Project Site. For purposes of acting upon matters that relate to a specific Project site, a quorum of the Participants shall consist of those Commissioners, or their designated Alternate, representing a GES majority of the Participants with an entitlement interest in such Project site.

7.4 Voting.

7.4.1 General Administration. For acting upon matters that relate to the general administration of this Agreement, each Participant shall have the right to cast one (1) vote. Actions of the Commission shall be effective only upon a majority vote of the Participants.

Section 8. Relating to a Project Site. For acting upon matters that relate to a specific Project site, Participant shall have the right to cast one (1) vote. Actions of the Commission shall be effective only upon a majority vote of the Participants with an entitlement interest in such Project site.

Participant Covenants and Defaults

8.1 Each Participant covenants and agrees: (i) to make payments to NCPA, from its Electric System Revenues, of its obligations under this Agreement as an operating expense of its Electric System; (ii) to fix the rates and charges for services provided by its Electric System, so that it will at all times have sufficient Revenues to meet the obligations of this Agreement, including the payment obligations; (iii) to make all such payments due NCPA under this Agreement whether or not there is an interruption in, interference with, or reduction or suspension of services provided under this Agreement, such payments not
being subject to any reduction, whether by offset or otherwise, and regardless of whether any dispute exists; and (iv) to operate its Electric System, and the business in connection therewith, in accordance with Good Utility Practices.

8.2 **Events of Default.** An Event of Default under this Agreement shall exist upon the occurrence of any one or more of the following by a Participant (the "Defaulting Participant"):

(i) the failure of any Participant to make any payment in full to NCPA when due;

(ii) the failure of a Participant to perform any covenant or obligation of this Agreement where such failure is not cured within thirty (30) Calendar Days following receipt of a notice from NCPA demanding cure. Provided, that this subsection shall not apply to any failure to make payments specified by subsection 8.2 (i));

(iii) if any representation or warranty of a Participant material to the services provided hereunder shall prove to have been incorrect in any material respect when made and the Participant does not cure the facts underlying such incorrect representation or warranty so that the representation or warranty becomes true and correct within thirty (30) Calendar Days of the date of receipt of notice from NCPA demanding cure; or

(iv) if a Participant is in default or in breach of any of its covenants or obligations under any other agreement with NCPA and such default or breach is not cured within the time periods specified in such agreement.
8.3 **Uncontrollable Forces.** A Party shall not be considered to be in default in respect of any obligation hereunder if prevented from fulfilling such obligation by reason of Uncontrollable Forces. Provided, that in order to be relieved of an Event of Default due to Uncontrollable Forces, a Party affected by an Uncontrollable Force shall:

(i) first provide oral notice to the General Manager using telephone communication within two (2) Business Days of the onset of the Uncontrollable Force, and provide subsequent written notice to the General Manager and all other Parties within ten (10) Business Days of the onset of the Uncontrollable Force, describing its nature and extent, the obligations which the Party is unable to fulfill, the anticipated duration of the Uncontrollable Force, and the actions which the Party will undertake so as to remove such disability and be able to fulfill its obligations hereunder; and

(ii) use due diligence to place itself in a position to fulfill its obligations hereunder and if unable to fulfill any obligation by reason of an Uncontrollable Force such Party shall exercise due diligence to remove such disability with reasonable dispatch.

Provided, that nothing in this subsection shall require a Party to settle or compromise a labor dispute.

8.4 **Cure of an Event of Default.** An Event of Default shall be deemed cured only if such default shall be remedied or cured within the time periods specified in Section 8.2 above, as may be applicable, provided, however, upon request of the Defaulting
Participant the Commission may waive the default at its sole discretion, where such waiver shall not be unreasonably withheld.

8.5 Remedies in the Event of Uncured Default. Upon the occurrence of an Event of Default which is not cured within the time limits specified in Section 8.2, without limiting other rights or remedies available under this Agreement, at law or in equity, and without constituting or resulting in a waiver, release or estoppel of any right, action or cause of action NCPA may have against the Defaulting Participant, NCPA may take any or all of the following actions:

(i) suspend the provision of services under this Agreement to such Defaulting Participant; or

(ii) demand that the Defaulting Participant provide further assurances to guarantee the correction of the default, including the collection of a surcharge or increase in electric rates, or such other actions as may be necessary to produce necessary Revenues to correct the default.

8.6 Effect of Suspension.

8.6.1 Generally. The suspension of this Agreement will not terminate, waive, or otherwise discharge any ongoing or undischarged liabilities, credits or obligations arising from this Agreement until such liabilities, credits or obligations are satisfied in full.
8.6.2 **Suspension.** If performance of all or any portion of this Agreement is suspended by NCPA with respect to a Participant in accordance with subsection 8.5(i), such Participant shall pay any and all costs incurred by NCPA as a result of such suspension including reasonable attorney fees, the fees and expenses of other experts, including auditors and accountants, or other reasonable and necessary costs associated with such suspension and any portion of the Project Costs, scheduling and dispatch costs, and Administrative Services Costs that were not recovered from such Participant as a result of such suspension.

**Section 9. Term and Termination.**

This Agreement shall become effective when it has been duly executed by NCPA and at least one Participant (the “Effective Date”). The date on which NCPA makes this Agreement effective shall be determined by NCPA, at its sole discretion. NCPA shall deliver a written notice to all signatories to this Agreement and to all Members that are signatory to the Amended and Restated Facilities Agreement, stating the Effective Date of this Agreement. This Agreement shall commence on the Effective Date and shall continue until the Agreement terminates, which shall occur when either:

9.1 All activities pursuant to this Agreement are terminated by NCPA in its discretion; or

9.2 Upon the effective date of a Third Phase Agreement with one or more Participants relating to a Renewable Energy PPA.

**Section 10. Withdrawal of Participants.**
If at any time following the execution of this Agreement, NCPA issues a written notice of a change to Exhibit B or an increase in the financial commitment beyond that contemplated in Exhibit C, Participants may partially withdraw (i.e., from participating in the increase), or may withdraw wholly from the Project. Any withdrawal shall be subject to honoring any commitments made to them or on their behalf pursuant to authorization of this Agreement. To withdraw, such Participant shall give NCPA written notice of such withdrawal, in part or in whole, within thirty (30) days of the receipt of the notice by them of the increase. Notwithstanding the above, a Participant may withdraw following the completion of any sub-process. In this event the Participants may vote to consider modifications to this Agreement and/or the applicable executed Project Development Authorization Form for affected site(s).

Section 11. Settlement of Disputes and Arbitration.

The Parties agree to make best efforts to settle all disputes among themselves connected with this Agreement as a matter of normal business under this Agreement. The procedures set forth in Section 10 of the Power Management and Administrative Services Agreement shall apply to all disputes that cannot be settled by the Participants themselves; provided, that the provisions of Section 5.5 of this Agreement shall first apply to all disputes involving invoices prepared by NCPA.

Section 12. Miscellaneous.

12.1 Indemnification and Hold Harmless. Subject to the provisions of Section 12.3, each Participant agrees to indemnify, defend and hold harmless NCPA and its
Members, including their respective governing boards, officials, officers, agents, and employees, from and against any and all claims, suits, losses, costs, damages, expenses and liability of any kind or nature, including reasonable attorneys’ fees and the costs of litigation, including experts, to the extent caused by any acts, omissions, breach of contract, negligence (active or passive), gross negligence, recklessness, or willful misconduct of that Participant, its governing officials, officers, employees, subcontractors or agents, to the maximum extent permitted by law.

12.2 Several Liabilities. No Participant shall, in the first instance, be liable under this Agreement for the obligations of any other Participant or for the obligations of NCPA incurred on behalf of other Participants. Each Participant shall be solely responsible and liable for performance of its obligations under this Agreement, except as otherwise provided for herein. The obligation of each Participant under this Agreement is, in the first instance, a several obligation and not a joint obligation with those of the other Participants.

Notwithstanding the foregoing, the Participants acknowledge that any debts or obligations incurred by NCPA under this Agreement on behalf of any of them shall be borne solely by such Participants, and not by non-Participant Members of NCPA, pursuant to Article IV, Section 3(b) of the Joint Powers Agreement.

12.3 No Consequential Damages. FOR ANY BREACH OF ANY PROVISION OF THIS AGREEMENT FOR WHICH AN EXPRESS REMEDY OR MEASURE OF DAMAGES
IS PROVIDED IN THIS AGREEMENT, THE LIABILITY OF THE DEFAULTING PARTY SHALL BE LIMITED AS SET FORTH IN SUCH PROVISION, AND ALL OTHER DAMAGES OR REMEDIES ARE HEREBY WAIVED. IF NO REMEDY OR MEASURE OF DAMAGE IS EXPRESSLY PROVIDED, THE LIABILITY OF THE DEFAULTING PARTY SHALL BE LIMITED TO ACTUAL DAMAGES ONLY AND ALL OTHER DAMAGES AND REMEDIES ARE HEREBY WAIVED. IN NO EVENT SHALL NCPA OR ANY PARTICIPANT OR THEIR RESPECTIVE SUCCESSORS, ASSIGNS, REPRESENTATIVES, DIRECTORS, OFFICERS, AGENTS, OR EMPLOYEES BE LIABLE FOR ANY LOST PROFITS, CONSEQUENTIAL, SPECIAL, EXEMPLARY, INDIRECT, PUNITIVE OR INCIDENTAL LOSSES OR DAMAGES, INCLUDING LOSS OF USE, LOSS OF GOODWILL, LOST REVENUES, LOSS OF PROFIT OR LOSS OF CONTRACTS EVEN IF SUCH PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, AND NCPA AND EACH PARTICIPANT EACH HEREBY WAIVES SUCH CLAIMS AND RELEASES EACH OTHER AND EACH OF SUCH PERSONS FROM ANY SUCH LIABILITY.

The Parties acknowledge that California Civil Code section 1542 provides that: “A general release does not extend to claims which the creditor does not know or suspect to exist in his or her favor at the time of executing the release, which if known by him or her must have materially affected his or her settlement with the debtor.” The Parties waive the provisions of section 1542, or other similar provisions of law, and intend that the
waiver and release provided by this Section of this Agreement shall be fully enforceable despite its reference to future or unknown claims.

12.4 Waiver. No waiver of the performance by a Party of any obligation under this Agreement with respect to any default or any other matter arising in connection with this Agreement shall be effective unless given by the Commission. Any such waiver by the Commission in any particular instance shall not be deemed a waiver with respect to any subsequent performance, default or matter.

12.5 Amendments. Except where this Agreement specifically provides otherwise, this Agreement may be amended only by written instrument executed by the Parties with the same formality as this Agreement.

12.6 Assignment of Agreement.

12.6.1 Binding Upon Successors. This Agreement shall inure to the benefit of and shall be binding upon the respective successors and assignees of the Parties to this Agreement.

12.6.2 No Assignment. Neither this Agreement, nor any interest herein, shall be transferred or assigned by a Party hereto except with the consent in writing of the other Parties hereto, which such consent shall not be unreasonably withheld, provided that such transfer or assignment shall be only to another NCPA Member.

12.7 Severability. In the event that any of the terms, covenants or conditions of this Agreement or the application of any such term, covenant or condition, shall be held
invalid as to any person or circumstance by any court having jurisdiction, all other terms, covenants or conditions of this Agreement and their application shall not be affected thereby, but shall remain in force and effect unless the court holds that such provisions are not severable from all other provisions of this Agreement.

12.8  **Governing Law.** This Agreement shall be interpreted, governed by, and construed under the laws of the State of California.

12.9  **Headings.** All indices, titles, subject headings, section titles and similar items are provided for the purpose of convenience and are not intended to be inclusive, definitive, or affect the meaning of the contents of this Agreement or the scope thereof.

12.10 **Notices.** Any notice, demand or request required or authorized by this Agreement to be given to any Party shall be in writing, and shall either be personally delivered to a Participant’s Commissioner or Alternate, and to the General Manager, or shall be transmitted to the Participant and the General Manager at the addresses shown on the signature pages hereof. The designation of such addresses may be changed at any time by written notice given to the General Manager who shall thereupon give written notice of such change to each Participant. All such notices shall be deemed delivered when personally delivered, two (2) Business Days after deposit in the United States mail first class postage prepaid, or on the first Business Day following delivery through electronic communication.
12.11 **Warranty of Authority.** Each Party represents and warrants that it has been duly authorized by all requisite approval and action to execute and deliver this Agreement and that this Agreement is a binding, legal, and valid agreement enforceable in accordance with its terms. Upon execution of this Agreement, each Participant shall deliver to NCPA a resolution of the governing body of such Participant evidencing approval of and authority to enter into this Agreement.

12.12 **Counterparts.** This Agreement may be executed in any number of counterparts, and each executed counterpart shall have the same force and effect as an original instrument and as if all the signatories to all of the counterparts had signed the same instrument. Any signature page of this Agreement may be detached from any counterpart of this Agreement without impairing the legal effect of any signatures thereon, and may be attached to another counterpart of this Agreement identical in form hereto but having attached to it one or more signature pages.

12.13 **Venue.** In the event that a Party brings any action under this Agreement, the Parties agree that trial of such action shall be vested exclusively in the state courts of California in the County of Placer or in the United States District Court for the Eastern District of California.

12.14 **Attorneys’ Fees.** If a Party to this Agreement brings any action, including an action for declaratory relief, to enforce or interpret the provisions of this Agreement, each
Party shall bear its own fees and costs, including attorneys’ fees, associated with the action.

12.15 **Counsel Representation.** Pursuant to the provisions of California Civil Code Section 1717 (a), each of the Parties were represented by counsel in the negotiation and execution of this Agreement and no one Party is the author of this Agreement or any of its subparts. Those terms of this Agreement which dictate the responsibility for bearing any attorney’s fees incurred in arbitration, litigation or settlement in a manner inconsistent with the provisions of Section 12.1 were intentionally so drafted by the Parties, and any ambiguities in this Agreement shall not be interpreted for or against a Party by reason of that Party being the author of the provision.

12.16 **No Third Party Beneficiaries.** Nothing contained in this Agreement is intended by the Parties, nor shall any provision of this Agreement be deemed or construed by the Parties, by any third person or any Third Parties, to be for the benefit of any Third Party, nor shall any Third Party have any right to enforce any provision of this Agreement or be entitled to damages for any breach by the Parties of any of the provisions of this Agreement.

IN WITNESS WHEREOF, NCPA and each Participant have, by the signature of its duly authorized representative shown below, executed and delivered a counterpart of this Agreement.

NORTHERN CALIFORNIA POWER AGENCY

CITY OF ALAMEDA

2000 Grand Street

SECOND PHASE AGREEMENT FOR NCPA SOLAR PROJECT 1
<table>
<thead>
<tr>
<th>By:</th>
<th>Randy S. Howard</th>
<th>By:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title:</td>
<td>General Manager</td>
<td>Title:</td>
</tr>
<tr>
<td>Date:</td>
<td></td>
<td>Date:</td>
</tr>
</tbody>
</table>

Approved as to form:

<table>
<thead>
<tr>
<th>By:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Title:</td>
<td></td>
</tr>
<tr>
<td>Date:</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>By:</th>
<th>Jane Luckhardt</th>
<th>By:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title:</td>
<td>General Counsel</td>
<td>Title:</td>
</tr>
<tr>
<td>Date:</td>
<td></td>
<td>Date:</td>
</tr>
</tbody>
</table>

Attestation (if applicable)

<table>
<thead>
<tr>
<th>By:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Title:</td>
<td></td>
</tr>
<tr>
<td>Date:</td>
<td></td>
</tr>
</tbody>
</table>
EXHIBIT A: INITIATING MEMBERS

The following is a list of the Initiating Members who submitted a request for NCPA to purchase Renewable Energy Supply on their behalf. Their respective Initial Project Participation Percentage share of the Project* are:

<table>
<thead>
<tr>
<th>Participant</th>
<th>MW (estimated)</th>
<th>GES (estimated)</th>
<th>Authorized Representative to Initiate Phases 2C and 2D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alameda</td>
<td>2.4</td>
<td>6.45%</td>
<td></td>
</tr>
<tr>
<td>Healdsburg</td>
<td>1.8</td>
<td>4.84%</td>
<td></td>
</tr>
<tr>
<td>Lodi</td>
<td>5.0</td>
<td>13.44%</td>
<td></td>
</tr>
<tr>
<td>Lompoc</td>
<td>5.6</td>
<td>15.05%</td>
<td></td>
</tr>
<tr>
<td>Palo Alto</td>
<td>0.7</td>
<td>1.88%</td>
<td></td>
</tr>
<tr>
<td>Plumas-Sierra</td>
<td>4.7</td>
<td>12.63%</td>
<td></td>
</tr>
<tr>
<td>Port of Oakland</td>
<td>2.0</td>
<td>5.38%</td>
<td></td>
</tr>
<tr>
<td>Redding</td>
<td>10.0</td>
<td>26.88%</td>
<td></td>
</tr>
<tr>
<td>Shasta Lake</td>
<td>3.0</td>
<td>8.06%</td>
<td></td>
</tr>
<tr>
<td>Ukiah</td>
<td>2.0</td>
<td>5.38%</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>37</td>
<td>100.00%</td>
<td></td>
</tr>
</tbody>
</table>

*Example only. Subject to change.
## Entitlement Share

The following is a list of the Participants who are signatory to this Agreement, and their respective Generation Site Description, Est. Size (MW), and Participation Share for each facility contemplated under this Agreement.

<table>
<thead>
<tr>
<th>Site Location</th>
<th>Site Description</th>
<th>Est. Size (MW)</th>
<th>Participant Share for Each Site*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alameda</td>
<td>Doolittle</td>
<td>2.4</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td>Headesburg</td>
<td>1.8</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td>Century</td>
<td>4.9</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td>pixley Basin</td>
<td>1.4</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td>pixley West</td>
<td>1.4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Locust</td>
<td>0.5</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td>World of Wonders</td>
<td>0.5</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td>Awani</td>
<td>1.3</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td>Lompoc</td>
<td>5.6</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td>Golf Course</td>
<td>0.7</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td>Beckwourth</td>
<td>4.6</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td>Herlong</td>
<td>5.3</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td>Marble</td>
<td>3.9</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td>Army Depot</td>
<td>5.3</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td>Port of Oakland</td>
<td>2.0</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td>Airport</td>
<td>2.0</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td>East</td>
<td>13.9</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td>Landfill</td>
<td>10.3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Stillwater</td>
<td>3.1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ukiah</td>
<td>2.0</td>
<td>TBD</td>
</tr>
</tbody>
</table>
*As of 1/12/2018 and subject to change. Assumes each participant participates 100% of its own generation.
## EXHIBIT C: LIST OF POTENTIAL SITES AND ESTIMATED CONTRACTOR COSTS PER PHASE

<table>
<thead>
<tr>
<th>Participant</th>
<th>Site Description</th>
<th>Est. Size (MW)</th>
<th>Phase 2A</th>
<th>Phase 2B</th>
<th>Phase 2C</th>
<th>Phase 2D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alameda</td>
<td>Doolittle (Capped Landfill)</td>
<td>2.4</td>
<td>NA</td>
<td>$34,500</td>
<td>$63,250</td>
<td>$258,750</td>
</tr>
<tr>
<td>Healdsburg</td>
<td>WWT (Floating)</td>
<td>1.8</td>
<td>NA</td>
<td>$34,500</td>
<td>$63,250</td>
<td>$258,750</td>
</tr>
<tr>
<td>Lodi</td>
<td>Century</td>
<td>1.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pixley Basin</td>
<td>4.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pixley West</td>
<td>1.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Locust</td>
<td>0.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>World of Wonders (Rooftop)</td>
<td>0.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Awani (Capped Landfill)</td>
<td>1.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lompoc</td>
<td>Parcel 11003</td>
<td>5.6</td>
<td>NA</td>
<td>$27,600</td>
<td>$69,000</td>
<td>$253,000</td>
</tr>
<tr>
<td>Palo Alto</td>
<td>Golf Course (Carport)</td>
<td>0.7</td>
<td>NA</td>
<td>NA</td>
<td>$63,250</td>
<td>$253,000</td>
</tr>
<tr>
<td>Plumas-Sierra</td>
<td>Beckwourth</td>
<td>4.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Marble</td>
<td>3.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Port of Oakland</td>
<td>Airport (Carport)</td>
<td>2</td>
<td>NA</td>
<td>$27,600</td>
<td>$69,000</td>
<td>$258,750</td>
</tr>
<tr>
<td>Redding</td>
<td>East</td>
<td>13.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Landfill (Capped Landfill)</td>
<td>10.3</td>
<td>$16,790</td>
<td>$27,600</td>
<td>$80,500</td>
<td>$270,250</td>
</tr>
<tr>
<td></td>
<td>Stillwater</td>
<td>3.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ukiah</td>
<td>WWT (Floating) or Carport TBD</td>
<td>2.0</td>
<td>$15,000</td>
<td>$28,000</td>
<td>$69,000</td>
<td>$270,250</td>
</tr>
<tr>
<td>Optional</td>
<td>Storage Feasibility Study</td>
<td>--</td>
<td>--</td>
<td>+$15,000/site</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

### Notes:

1. Figures above are based on high-side estimates as if each site were to be evaluated as a standalone project, plus 15% contingency. GES costs are not included.
2. Phase 2A costs only apply when multiple potential sites are identified for a single service territory.
3. Phase 2B, Phase 2C, and Phase 2D costs apply per site.
4. Phase 2D costs include California Environmental Quality Act (CEQA) expenses ($25,000 est. for full study) and expenses to attain site control ($80,000 est.). These costs may vary by site and not be entirely applicable for each site.
5. Storage Feasibility Study - Optional study to determine technical and financial feasibility of incorporating energy storage (e.g. batteries) at the site. Cost is per site.

---

C-i

SECOND PHASE AGREEMENT FOR NCPA SOLAR PROJECT 1
EXHIBIT D

PROJECT DEVELOPMENT AUTHORIZATION FORM

This Project Development Authorization Form is made as of _____________, 20___ (the “Phase 2C/2D Effective Date”), by and between Northern California Power Agency (“NCPA”) and the certain signatories to the SECOND PHASE AGREEMENT FOR NCPA SOLAR PROJECT 1 that are directing NCPA to continue work into Phase 2 activities into pre-construction, project development, and financing (“Authorizing Participants”). NCPA and the Authorizing Participants of this Project Development Authorization Form are referred to herein as “Parties”.

RECITALS
A. NCPA and the Authorizing Participants are party to the Second Phase Agreement For NCPA Solar Project 1, which has an effective date of ________ (“Second Phase Agreement”).

B. Pursuant to the Second Phase Agreement, NCPA is developing Renewable Energy Supply on behalf of Participants, which consists of environmental analysis, pre-construction studies, design, and contract negotiation for several potential solar photovoltaic generation facilities located in or near Participants’ electric service territories.

C. The Second Phase Agreement, as executed, authorizes NCPA to carry out certain feasibility assessments and screening analyses (i.e. Phase 2A and Phase 2B activities) to help inform Participants if proposed sites and projects are viable
and/or economical to pursue, and Participants agree to provide funding to cover all related costs for activities conducted on their behalf.

D. The Second Phase Agreement requires supplemental action and authorities from Participants prior to NCPA conducting any Phase 2C or Phase 2D activities.

E. This Project Development Authorization Form is intended to serve as the requisite supplemental action and authority from Authorizing Participants to direct NCPA to conduct Phase 2C and Phase 2D activities into pre-construction, project development, and financing on behalf of the Authorizing Participants; and is intended to serve as the Authorizing Participant(s) consent to provide funding to cover all related Phase 2C and Phase 2D costs for activities conducted on their behalf.

NOW THEREFORE, the Parties agree as follows:

Section 1. Purpose.

The purpose of this Project Development Authorization Form is for the Authorizing Participants signatory hereto to authorize NCPA to conduct Phase 2C and Phase 2D activities, as defined in the Second Phase Agreement, on their behalf; and for Authorizing Participant to agree to provide funding for all such activities.

Section 2. Description of Site and Project.

This Project Development Authorization Form pertains to the project at the location described below ("Authorized Project Site").

<table>
<thead>
<tr>
<th>Location (City):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facility Description:</td>
</tr>
<tr>
<td>Approximate Acreage:</td>
</tr>
</tbody>
</table>

D-ii
SECOND PHASE AGREEMENT FOR NCPA SOLAR PROJECT 1
Capacity (MW AC): 

Section 3. List of Authorizing Participants & Site-Specific GES.

The following Authorizing Participants encompass all Members interested in further development of the Authorized Project Site and lists each Authorizing Participant’s GES of the Authorized Project Site.

<table>
<thead>
<tr>
<th>Authorizing Participant</th>
<th>GES (%)</th>
<th>GES (MW AC)</th>
</tr>
</thead>
</table>

Section 4. Project Costs for Phase 2C and Phase 2D

The not-to-exceed cost for Phase 2C and Phase 2D activities for the Authorized Project Site is $__,__,___.00 (text description of NTE cost).

Section 5. Authorities and Obligations.

5.1 Authorization and Funding. The Authorizing Participants hereby authorize NCPA to conduct Phase 2C and Phase 2D activities, as defined in the Second Phase Agreement, for the Authorize Project Site identified above. The Authorizing Participants hereby agree to provide all necessary funds to NCPA to conduct these activities, with costs not to exceed the figures listed in Exhibit C of the Second Phase Agreement for the Authorized Project.

5.2 Obligations of NCPA. Upon full execution of this Project Development Authorization Form, NCPA shall commence work on all Phase 2C and Phase 2D activities, as defined in the Second Phase Agreement, for the Authorized Project Site on behalf of the Authorizing Participants.
5.3 **Obligations of Authorizing Participants.** Authorizing Participants hereby agree to continue to pay or advance to NCPA its allocated share of the costs in accordance with the Second Phase Agreement and this Project Development Authorization Form in connection with its participation in the Authorized Project.

IN WITNESS WHEREOF, NCPA and each Participant have, by the signature of its duly authorized representative shown below, executed and delivered a counterpart of this Agreement.

<table>
<thead>
<tr>
<th>NORTHERN CALIFORNIA POWER AGENCY</th>
<th>AUTHORIZING PARTICIPANT</th>
</tr>
</thead>
<tbody>
<tr>
<td>651 Commerce Drive</td>
<td>ADDRESS</td>
</tr>
<tr>
<td>Roseville, CA 95678</td>
<td>CITY, STATE ZIP</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>By: Randy S. Howard</th>
<th>By:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title: General Manager</td>
<td>Title:</td>
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<td>Date:</td>
<td>Date:</td>
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</tbody>
</table>

Approved as to form:  

<table>
<thead>
<tr>
<th>By: Jane Luckhardt</th>
<th>By:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title: General Counsel</td>
<td>Title:</td>
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<tr>
<td>Date:</td>
<td>Date:</td>
</tr>
</tbody>
</table>

Attestation (if applicable)  

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<tr>
<th>By:</th>
<th>By:</th>
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<tbody>
<tr>
<td>Title:</td>
<td>Title:</td>
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<td>Date:</td>
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</table>
Commission Staff Report

February 13, 2018

COMMISSION MEETING DATE: February 22, 2018

SUBJECT: Authorizing and Approving the Issuance of up to $80 Million Hydroelectric Project Number One Revenue Bonds, 2018 Refunding Series A (tax-exempt) and $4 Million Hydroelectric Project Number One Revenue Bonds, 2018 Taxable Refunding Series B

AGENDA CATEGORY: Discussion/Action

FROM: Monty Hanks
Assistant General Manager/CFO
Division: Administrative Services
Department: Accounting & Finance

METHOD OF SELECTION: Other

IMPACTED MEMBERS:

- All Members □
- City of Lodi ☒
- City of Shasta Lake □
- Alameda Municipal Power ☒
- City of Lompoc ☒
- City of Ukiah ☒
- San Francisco Bay Area Rapid Transit □
- City of Palo Alto ☒
- Plumas-Sierra REC ☒
- City of Biggs ☒
- City of Redding □
- Port of Oakland □
- City of Gridley ☒
- City of Roseville ☒
- Truckee Donner PUD □
- City of Healdsburg ☒
- City of Santa Clara ☒
- Other □

If other, please specify

______________________________
RECOMMENDATION:

Staff is recommending the Commission approve Resolution 18-08 which is authorizing and approving the issuance of up to $80 million of fixed rate Hydroelectric Project Number One Revenue Bonds, 2018 Refunding Series A (tax-exempt) and up to $4 million fixed rate Hydroelectric Project Number One Revenue Bonds, 2018 Refunding Series B (taxable) and delegates the General Manager and other NCPA officials the authority to execute related legal documents needed to issue these bonds.

BACKGROUND:

Policy and RFP
The NCPA Finance Committee, NCPA staff and the Agency’s financial advisors carefully monitor the bond market for potential opportunities to refinance NCPA bonds for debt service savings. According to NCPA’s Debt and Interest Rate Management Policy, a target of 5% net present value (NPV) savings is desired before considering a bond refunding. In October 2017, a Request for Proposals was issued to over a dozen investment banks seeking a potential refunding of the 2008 Hydroelectric Bonds, Series C (2008C bonds). Upon evaluation of the various proposals, Citigroup (Citi) offered the best approach and understanding of this transaction with Goldman Sachs being a close second. The Finance Committee directed staff to move forward with the refunding using Citi as the lead Underwriter (UW) and Goldman Sachs as co-manager.

Outstanding Bonds to be Refunded
The 2008C bonds were originally issued in the aggregate principal amount of $128,005,000 for the purpose of refinancing Hydroelectric Project Number One Revenue Bonds, 2002 Refunding Series A, 2002 Refunding Series B, 2003 Refunding Series A, and 2003 Refunding Series B. As of today, $77,130,000 of the 2008C bonds remains outstanding. The 2018 Series A&B refunding bonds are being issued for the purpose of providing funds to redeem the 2008C bonds on or about July 1, 2018 and pay costs of issuance (COI) of this transaction. In addition, the 2008C bonds carry transferred proceeds related to the refunding of the prior bond series and is subject to a proceeds-to-proceeds restriction which is limited to the par amount of the refunded bonds ($77,130,000). The 2018 Series B Taxable bonds has to cover the remainder of the required uses (i.e., purchase of the escrow securities, COI and U/W discount) in addition to any transferred proceeds penalty (approximately $325,000).

Documents for Approval
To complete the bond refunding, the Commission will be required to approve Resolution 18-XX authorizing and approving the issuance of the refunding bonds and related documents including the following:

1. Preliminary Official Statement (POS);
2. Twenty-Fourth Supplemental Indenture (tax-exempt);
3. Twenty-Fifth Supplemental Indenture (taxable);
4. Escrow Deposit Agreement;
5. Bond Purchase Contract;
6. Continuing Disclosure Agreement; and
7. And other related documents
Draft copies of these documents are attached to this report. Upon approval by the Commission, pricing of the refunding bonds will occur around the first week of April with the bond closing shortly thereafter.

**FISCAL IMPACT:**

With the passage of SB450, the following details of the refunding must be disclosed prior to authorization of the bonds. The numbers reflect rates as of January 31, 2018.

<table>
<thead>
<tr>
<th>Entitlement Percentage</th>
<th>2008C Hydro Debt Service Obligation</th>
<th>Estimated NPV Savings</th>
<th>Est. Annual Debt Service Savings</th>
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<tr>
<td>10.00%</td>
<td>10.98%</td>
<td>$816,386</td>
<td>$140,977</td>
</tr>
<tr>
<td>0.10%</td>
<td>0.00%</td>
<td>$-</td>
<td>$-</td>
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<tr>
<td>1.06%</td>
<td>0.00%</td>
<td>$-</td>
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<td>1.66%</td>
<td>0.63%</td>
<td>$47,180</td>
<td>$8,147</td>
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<tr>
<td>10.37%</td>
<td>11.38%</td>
<td>$846,614</td>
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<tr>
<td>2.30%</td>
<td>2.52%</td>
<td>$187,775</td>
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<td>22.92%</td>
<td>25.16%</td>
<td>$1,871,160</td>
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<td>35.86%</td>
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<td>1.85%</td>
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<tr>
<td>Total</td>
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<td>$7,436,965</td>
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**Estimated NPV savings over the current debt service is approximately $7.4 million or 9.64% of refunded bonds through final maturity in 2024.** The estimated average annual debt service savings for a full bond year is over $1.28 million. The breakdown of cost allocation per Participant for debt service savings (net of all fees) is shown below:

[1] In 2002 certain 1992A bonds were defeased with variable rate debt. Two participants opted out of the refunding by paying their respective shares of the the refunded bonds in cash. As a result, the 2002A&B bonds had different participant shares-normalized without the opt-out participants. Additionally, in 2008 the 2002 and 2003 bonds were refunded into the 2008C&D which caused the participant shares to be recalculated again on the proportionate shares of the bonds refunded.

[2] Based on full bond year. Estimated savings through 7/1/2018 is approx. $311,000
ENVIRONMENTAL ANALYSIS:

This activity would not result in a direct or reasonably foreseeable indirect change in the physical environment and is therefore not a “project” for purposes of Section 21065 the California Environmental Quality Act. No environmental review is necessary.

COMMITTEE REVIEW:

The recommendation was reviewed by the Finance Committee on February 13, 2018 and was recommended for Commission approval.

Respectfully submitted,

RANDY S. HOWARD
General Manager

Attachments:
   1. Resolution 18-08;
   2. Preliminary Official Statement (POS);
   3. Twenty-Fourth Supplemental Indenture (tax-exempt);
   4. Twenty-Fifth Supplemental Indenture (taxable);
   5. Escrow Deposit Agreement;
   6. Bond Purchase Contract;
   7. Continuing Disclosure Agreement; and
   8. And other related documents
RESOLUTION 18-08

RESOLUTION OF THE NORTHERN CALIFORNIA POWER AGENCY
AUTHORIZING AND APPROVING THE ISSUANCE OF HYDROELECTRIC PROJECT
NUMBER ONE REVENUE BONDS, 2018 REFUNDING SERIES A AND 2018 TAXABLE
REFUNDING SERIES B; APPROVING THE SUPPLEMENTAL INDENTURES OF TRUST
PURSUANT TO WHICH SUCH BONDS ARE TO BE ISSUED; AUTHORIZING AND
APPROVING CERTAIN DOCUMENTS IN CONNECTION WITH THE ISSUANCE, SECURING
AND SALE OF SUCH BONDS; AND AUTHORIZING CERTAIN OTHER MATTERS
RELATING THERETO

(reference Staff Report #113:18)

WHEREAS, the Northern California Power Agency (“NCPA”) is a public entity duly organized and existing pursuant to the Amended and Restated Northern California Power Agency Joint Powers Agreement, dated as of January 1, 2008, as supplemented (the “Agreement”) and the provisions relating to the Joint Exercise of Powers Act constituting Chapter 5 of Division 7 of Title 1 of the Government Code of the State of California; and

WHEREAS, NCPA is authorized pursuant to the provisions of the Agreement and the Act (capitalized terms used herein and not otherwise defined shall have the meanings given such terms in the Indenture mentioned below) to acquire and construct, or cause to be acquired and constructed, and to operate or cause to be operated, a project within the State of California for the generation or transmission of electric energy (including a capacity right in such a project) and to sell the capacity and energy of such project; to enter into agreements with respect to any matters relating to the acquisition, construction and operation of such project and the sale of capacity and energy of such project; and to finance the acquisition, construction and operation of such project through the issuance of bonds, notes and other evidences of indebtedness under the Act; and to issue bonds to refund such bonds, notes or other evidences of indebtedness; and

WHEREAS, NCPA and Calaveras County Water District have entered into the Power Purchase Contract whereby CCWD has granted NCPA the right to the capacity and energy of the Project in exchange for, among other things, NCPA’s providing the funds necessary to construct the Project and NCPA’s construction and operation of the Project, all on the terms and conditions specified in the Power Purchase Contract; and

WHEREAS, NCPA and the cities of Alameda, Biggs, Gridley, Healdsburg, Lodi, Lompoc, Palo Alto, Roseville, Santa Clara, and Ukiah and the Plumas-Sierra Rural Electric Cooperative (the “Project Participants”) have entered into the Agreement for Construction, Operation and Financing of the North Fork Stanislaus River Hydroelectric Development Project, dated as of September 1, 1982, as amended, to provide for the construction, operation, and financing of the Project, the sale by NCPA of capacity and energy of the Project to the Project Participants, and the security for the bonds, notes and other evidences of indebtedness to be issued to finance the Project; and

WHEREAS, pursuant to an Indenture of Trust (as the same may be amended and supplemented from time to time, the “Original Indenture”), dated as of March 1, 1985, between NCPA and U.S. Bank Trust National Association, as successor trustee (the “Trustee”), NCPA has authorized the issuance of its Hydroelectric Project Number One Revenue Bonds to finance the Cost of Acquisition and Construction of the Project or to refund any Outstanding Bond or Bonds; and

WHEREAS, pursuant to the Original Indenture, as amended and supplemented (the Original Indenture, as amended and supplemented, the “Indenture”) NCPA has issued its Hydroelectric Project Number One Revenue Bonds, 2008 Refunding Series C (the “2008 Series C Bonds”); and
WHEREAS, NCPA has determined to provide for the refunding all or a portion of the outstanding 2008 Series C Bonds as determined pursuant to this Resolution (the “Refunded Bonds”); and

WHEREAS, NCPA has determined to issue its Hydroelectric Project Number One Revenue Bonds, 2018 Refunding Series A (the “2018 Series A Bonds”), for the purpose, among others, of providing a portion of the funds necessary to refund the Refunded Bonds; and

WHEREAS, the 2018 Series A Bonds are to be issued under and pursuant to the Indenture as supplemented by the Twenty-Fourth Supplemental Indenture of Trust by and between NCPA and the Trustee (such Twenty-Fourth Supplemental Indenture of Trust, in the form presented to this meeting with such changes, insertions and deletions as are made pursuant to this Resolution, being referred to herein as the “Twenty-Fourth Supplemental Indenture”); and

WHEREAS, NCPA has determined to issue its Hydroelectric Project Number One Revenue Bonds, 2018 Taxable Refunding Series B (the “2018 Series B Bonds” and, together with the 2018 Series A Bonds, the “2018 Series A and B Bonds”), for the purpose, among others, of providing a portion of the funds necessary to refund the Refunded Bonds; and

WHEREAS, the 2018 Series B Bonds are to be issued under and pursuant to the Indenture as supplemented by the Twenty-Fifth Supplemental Indenture of Trust by and between NCPA and the Trustee (such Twenty-Fifth Supplemental Indenture of Trust, in the form presented to this meeting with such changes, insertions and deletions as are made pursuant to this Resolution, being referred to herein as the “Twenty-Fifth Supplemental Indenture”); and

WHEREAS, the 2018 Series A Bonds and the 2018 Series B Bonds are to be payable from and secured by a pledge and assignment of the Trust Estate on a parity with all other Bonds issued and Outstanding under the Indenture; and

WHEREAS, Citibank Global Markets Inc., as representative (the “Representative”), on behalf of itself and Goldman Sachs & Co. LLC (the “Underwriters”) have submitted a proposal to purchase the 2018 Series A Bonds and the 2018 Series B Bonds in the form of a Contract of Purchase (such Contract of Purchase, in the form presented to this meeting with such changes, insertions and deletions as are made pursuant to this Resolution, being referred to herein as the “Purchase Contract”); and

WHEREAS, the offer of the 2018 Series A Bonds and the 2018 Series B Bonds to the public is to be made pursuant to a Preliminary Official Statement (such Preliminary Official Statement in the form presented to this meeting with such changes, insertions and deletions as are made pursuant to this Resolution, being referred to herein as the “Preliminary Official Statement”); and

WHEREAS, NCPA will provide for the refunding of the Refunded Bonds by depositing funds in an escrow fund established by an Escrow Deposit Agreement with the Trustee (such Escrow Deposit Agreement, in the form presented to this meeting with such changes, insertions and deletions as are made pursuant to this Resolution, being referred to herein as the “Escrow Agreement”); and

WHEREAS, there have been prepared and submitted to this meeting drafts of the following:

(1) the Twenty-Fourth Supplemental Indenture;
(2) the Twenty-Fifth Supplemental Indenture;
(3) the Preliminary Official Statement;
(4) the Escrow Agreement;
(5) the Continuing Disclosure Agreement; and
(6) the Purchase Contract.
WHEREAS, after having reviewed and considered the proposal of the Underwriters to purchase the 2018 Series A Bonds and the 2018 Series B Bonds on the terms and conditions contained in the Purchase Contract, this Commission now desires to authorize the issuance and sale of the 2018 Series A and B Bonds, including the execution of such documents and the performance of such acts as may be necessary or desirable to effect such issuance and sale and the other actions contemplated by this Resolution; and

WHEREAS, this bond refunding would not result in a direct or reasonably foreseeable indirect change in the physical environment and is therefore not a “project” for purposes of Section 21065 of the California Environmental Quality Act. No environmental review is necessary; and

NOW, THEREFORE, BE IT RESOLVED by the Commission of the Northern California Power Agency, as follows:

Section 1. The Commission hereby finds and determines that the issuance and sale of the 2018 Series A and B Bonds that refund the 2008 Series C Bonds, and approval of the other matters referred to in this Resolution, will not result in either a direct physical change in the environment, nor a reasonably foreseeable indirect physical change in the environment. As a consequence, such activity is not a “project” as defined by the California Environmental Quality Act (California Public Resources Code section 21000 et seq.).

Section 2. The issuance of the 2018 Series A Bonds on the terms and conditions set forth in, and subject to the limitations specified in, the Twenty-Fourth Supplemental Indenture is hereby authorized and approved. The aggregate principal amount of the 2018 Series A and B Bonds shall not exceed Eighty-Four Million Dollars ($84,000,000). The 2018 Series A Bonds will be dated, will bear interest at the per annum interest rates, will mature on the date or dates, will be issued in the form, will have the Sinking Fund Installments (if any), will be subject to redemption, and will have such other terms, as shall be provided in the Twenty-Fourth Supplemental Indenture as the same is completed as provided in this Resolution.

Section 3. The Twenty-Fourth Supplemental Indenture, in substantially the form submitted to this meeting and made a part thereof as though set forth in full herein, be and the same is hereby approved. Each of the Chairman of this Commission (the “Chairman”), the General Manager of NCPA (the “General Manager”), the Assistant General Manager, Finance and Administrative Services Chief Financial Officer, and the Treasurer-Controller of NCPA (each an “Authorized Officer”), acting singly, is hereby authorized to execute and deliver the Twenty-Fourth Supplemental Indenture, in the name of and on behalf of NCPA, in the form presented to this meeting with such changes, insertions and deletions as may be consistent with this Resolution and the determinations made pursuant hereto and as may be approved by the Authorized Officer executing the Twenty-Fourth Supplemental Indenture, said execution being conclusive evidence of such approval.

Section 4. The Authorized Officer executing the Twenty-Fourth Supplemental Indenture is hereby authorized to determine the following: (i) the aggregate principal amount of the 2018 Series A Bonds; (ii) the maturity date or dates of the 2018 Series A Bonds (the final maturity of such 2018 Series A Bonds to be not later than July 1, 2028); (iii) the principal amount of the 2018 Series A Bonds maturing on each maturity date; (iv) the 2018 Series A Bonds which are to be term bonds, if any, and the Sinking Fund Installments for any such term bonds; (v) the redemption provisions for the 2018 Series A Bonds; and (vi) subject to the provisions of Section 17 hereof, which of the outstanding 2008 Series C Bonds are to be refunded as Refunded Bonds pursuant to this Resolution.

Section 5. The proceeds of the sale of the 2018 Series A Bonds shall be applied to the refunding of the Refunded Bonds on the terms set forth in the Twenty-Fourth Supplemental Indenture and the Escrow Agreement.

Section 6. The issuance of the 2018 Series B Bonds on the terms and conditions set forth in, and subject to the limitations specified in, the Twenty-Fifth Supplemental Indenture is hereby authorized and approved. The aggregate principal amount of the 2018 Series A and B Bonds shall not exceed Eighty-Four Million Dollars ($84,000,000). The 2018 Series B Bonds will be dated, will bear interest at the per annum interest
rates, will mature on the date or dates, will be issued in the form, will have the Sinking Fund Installments (if any), will be subject to redemption, and will have such other terms, as shall be provided in the Twenty-Fifth Supplemental Indenture as the same is completed as provided in this Resolution. This Commission hereby finds and determines, based on advice of Bond Counsel, that interest on the 2018 Series B Bonds will be subject to federal income tax.

Section 7. The Twenty-Fifth Supplemental Indenture, in substantially the form submitted to this meeting and made a part thereof as though set forth in full herein, be and the same is hereby approved. Each of the Authorized Officers, acting singly, is hereby authorized to execute and deliver the Twenty-Fifth Supplemental Indenture, in the name of and on behalf of NCPA, in the form presented to this meeting with such changes, insertions and deletions as may be consistent with this Resolution and the determinations made pursuant hereto and as may be approved by the Authorized Officer executing the Twenty-Fifth Supplemental Indenture, said execution being conclusive evidence of such approval.

Section 8. The Authorized Officer executing the Twenty-Fifth Supplemental Indenture is hereby authorized to determine the following: (i) the aggregate principal amount of the 2018 Series B Bonds; (ii) the maturity date or dates of the 2018 Series B Bonds (the final maturity of such 2018 Series B Bonds to be not later than July 1, 2028); (iii) the principal amount of the 2018 Series B Bonds maturing on each maturity date; (iv) the 2018 Series B Bonds which are to be term bonds, if any, and the Sinking Fund Installments for any such term bonds; and (v) the redemption provisions for the 2018 Series B Bonds.

Section 9. The proceeds of the sale of the 2018 Series B Bonds shall be applied to the refunding of the Refunded Bonds, the payment of the costs of issuance of the 2018 Series A and B Bonds, and other costs related to the refunding of the Refunded Bonds on the terms set forth in the Twenty-Fifth Supplemental Indenture and the Escrow Agreement.

Section 10. The Purchase Contract, in substantially the form submitted to this meeting and made a part hereof as though set forth in full herein, be and the same is hereby approved. Each of the Authorized Officers, acting singly, is hereby authorized to execute and deliver the Purchase Contract, in the name of and on behalf of NCPA, in the form presented to this meeting, with such changes, insertions and deletions as may be approved by the Authorized Officer executing said Purchase Contract and as are consistent with the determinations of the terms of the 2018 Series A and B Bonds made pursuant to this Resolution, said execution being conclusive evidence of such approval.

Each of the Authorized Officers, acting singly, is hereby authorized to determine the purchase price to be paid for the 2018 Series A Bonds under the Purchase Contract; provided, however, that the aggregate underwriters' discount (not including original issue discount) on the 2018 Series A Bonds shall be not more than 1.00% of the principal amount of the 2018 Series A Bonds. The sale of the 2018 Series A Bonds to the Underwriters on the terms and conditions contained in the Purchase Contract, as the same may be completed in accordance with the provisions of this Resolution, with such changes, insertions and deletions as are authorized hereby, is hereby approved and authorized.

Each of the Authorized Officers, acting singly, is hereby authorized to determine the purchase price to be paid for the 2018 Series B Bonds under the Purchase Contract; provided, however, that the aggregate underwriter's discount (not including original issue discount) on the 2018 Series B Bonds shall be not more than 1.00% of the principal amount of the 2018 Series B Bonds. The sale of the 2018 Series B Bonds to the Underwriters on the terms and conditions contained in the Purchase Contract, as the same may be completed in accordance with the provisions of this Resolution, with such changes, insertions and deletions as are authorized hereby, is hereby approved and authorized.

Section 11. The Escrow Agreement, in substantially the form presented to this meeting and made a part hereof as though set forth in full herein, be and the same is hereby approved. Each of the Authorized Officers, acting singly, is hereby authorized to execute and deliver, in the name of and on behalf of NCPA, the Escrow Agreement to the Trustee in the form presented to the meeting with such changes, insertions and
deletions as may be approved by the Authorized Officer executing the same, said execution being conclusive evidence of such approval.

Section 12. The Preliminary Official Statement, in substantially the form presented to this meeting and made a part hereof as though set forth in full herein, be and the same is hereby approved and the use of the Preliminary Official Statement in connection with the offering and sale of the 2018 Series A and B Bonds by the Underwriters is hereby authorized and approved.

Each of the Authorized Officers is hereby authorized and directed to prepare and deliver to the Underwriters a final official statement in connection with the 2018 Series A and B Bonds (the "Official Statement"). The Official Statement shall be in the form of the Preliminary Official Statement with the addition of the final terms of the 2018 Series A and B Bonds to be contained in the Twenty-Fourth Supplemental Indenture and the Twenty-Fifth Supplemental Indenture and with such other changes, insertions and deletions as may be approved by the officer of NCPA executing the same, said execution being conclusive evidence of such approval. Each of the Chairman and the General Manager of NCPA, acting singly, is hereby authorized to execute the Official Statement and any amendment or supplement thereto contemplated by the Purchase Contract, in the name and on behalf of NCPA, and thereupon to cause the Official Statement and any such amendment or supplement to be delivered to the Underwriters with such execution being conclusive evidence of the approval thereof. The use of the Official Statement in connection with the offering and sale of the 2018 Series A and B Bonds by the Underwriters is hereby authorized and approved.

Each of the Authorized Officers, acting singly, is hereby authorized to determine that the Preliminary Official Statement is deemed final for purposes of Rule 15c2-12 of the Securities and Exchange Commission ("Rule 15c2-12").

Section 13. Each of the Authorized Officers, acting singly, is hereby authorized to acquire credit enhancement for the 2018 Series A Bonds and/or the 2018 Series B Bonds in the form of municipal bond insurance provided that the cost of such municipal bond insurance is estimated by an Authorized Officer to be less than the savings achieved on the sale of the related Series of 2018 Series A and B Bonds compared to selling such Bonds without such credit enhancement. In connection with such municipal bond insurance, each of the Authorized Officers, acting singly, is hereby authorized to enter into agreements with respect to the repayment of amounts paid under such municipal bond insurance and interest thereon and expenses in connection therewith substantially in the form of the insurance agreements previously entered by NCPA in connection with municipal bond insurance for Bonds.

Section 14. The refunding of the Refunded Bonds on the terms and conditions specified in the Twenty-Fourth Supplemental Indenture, the Twenty-Fifth Supplemental Indenture and the Escrow Agreement, including the application of moneys for such purposes as therein provided, is hereby approved and authorized.

Section 15. Pursuant to Section 12 of the Hydroelectric Project Member Agreement, NCPA is hereby directed by the Project Participants (as conclusively evidenced by the affirmative votes for this Resolution of the representatives of the Project Participants to the Commission) to refund the Refunded Bonds as provided in the Twenty-Fourth Supplemental Indenture and the Twenty-Fifth Supplemental Indenture, to issue the 2018 Series A Bonds and the 2018 Series B Bonds, to enter into, and perform its obligations under, the documents and instruments approved or authorized by this Resolution and to take such further actions as herein authorized in connection with the refunding of the Refunded Bonds and the issuance, security and sale of the 2018 Series A Bonds and the 2018 Series B Bonds, and NCPA shall comply with such direction, while not stayed or nullified, to the fullest extent authorized by law. The Project Participants recognize and agree (as conclusively evidenced by the affirmative votes for this Resolution of the representatives of the Project Participants to the Commission) that amounts payable under Section 5(a) of the Hydroelectric Project Member Agreement based on anticipated monthly electric sales include all such amounts accrued during any period during which there were no such anticipated sales and are payable under Section 5(a) of the Hydroelectric Project Member Agreement with respect to the first month in which there are anticipated electric sales regardless of the amount of such anticipated sales.
Section 16. The Treasurer-Controller of NCPA and the Administrative Assistant to the Assistant General Manager, Finance and Administrative Services Chief Financial Officer are each hereby appointed as an Assistant Secretary for the purpose of executing any documents, making any certification on behalf of NCPA or taking any other action necessary or convenient in carrying out the transactions contemplated by this Resolution.

Section 17. Notwithstanding any other provision or grant of authority to an Authorized Officer in this Resolution to the contrary, none of the documents approved and authorized to be executed and delivered by this Resolution shall be executed and delivered by an Authorized Officer unless as of the date of execution and delivery the Assistant General Manager, Finance and Administrative Services Chief Financial Officer or the Treasurer-Controller shall certify in writing that the net present value of the savings to be realized by the bond issuance contemplated by this Resolution is not less than five (5%) percent of the principal amount of the Refunded Bonds; and further provided, that any approval or grant of authority in this Resolution shall, without further action of the Commission, expire and be void as of 12:01 a.m. on July 1, 2018 unless exercised prior to that time.

Section 18. The Chairman and the Vice Chairman of the Commission, and the Authorized Officers acting singly, be and each of them hereby is authorized to execute and deliver any and all documents and instruments and to do and cause to be done any and all acts and things necessary or convenient in carrying out the transactions contemplated by this Resolution or the documents and instruments approved or authorized by this Resolution, including without limitation, entering into any continuing disclosure required by Rule 15c2-12, credit enhancement agreements, investment agreements, financial guaranty agreements, investment agreements, and/or financial guaranty agreements, and making any determinations or submission of any documents or reports which are required by any rule or regulation of any governmental entity in connection with the issuance and sale of the 2018 Series A Bonds and/or the 2018 Series B Bonds, the refunding of the Refunded Bonds and the authorization, execution, delivery and performance by NCPA of its obligations under the documents and instruments approved or authorized by this Resolution. Without limiting the generality of the foregoing, the Chairman, the Vice Chairman, and the Authorized Officers, are hereby authorized and directed to enter into such amendments and supplements to documents and agreements entered into in connection with the 2008 Series C Bonds as shall be necessary or desirable to carry out the purposes of the Resolution. The Secretary or an Assistant Secretary of NCPA is hereby authorized to affix and attest the seal of NCPA to any of the documents approved or authorized pursuant to this Resolution.

Section 19. All actions heretofore taken by any committee of the Commission, or any officer, representative or agent of NCPA, in connection with the issuance and sale of the 2018 Series A Bonds, the 2018 Series B Bonds, the refunding of the Refunded Bonds, or the authorization, execution, delivery or performance of NCPA’s obligations under the documents and instruments approved or authorized by this Resolution and the other actions contemplated by this Resolution are hereby ratified, approved and confirmed.

Section 20. This Resolution shall take effect immediately upon its adoption.
PASSED, ADOPTED and APPROVED this ____ day of _______________, 2018 by the following vote on roll call:

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<tr>
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</tr>
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BOB LINGL     ATTEST: CARY A. PADGETT
CHAIR        ASSISTANT SECRETARY
Commission Staff Report

Date       February 14, 2018

COMMISSION MEETING DATE:   February 22, 2018

SUBJECT:     Approval of Amendment to the Joint Operating Agreement for the Southeast Geysers Effluent Pipeline (SEGEP) Project

AGENDA CATEGORY: Discussion/Action

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SR: 118:18
RECOMMENDATION:

NCPA Staff is recommending Commission approval of Resolution 18-11, an Amendment to the Joint Operating Agreement for the Southeast Geysers Effluent Pipeline Project (SEGEP), requiring NCPA to provide the entire power supply for the Bear Canyon Pump Stations except in outage situations, and stating that Calpine will compensate NCPA for its relative share of such electricity costs at an agreed-upon index price.

BACKGROUND:

The Southeast Geysers Effluent Pipeline Project (SEGEP) is a cooperative project between Lake County Sanitation District, Calpine, and NCPA, that has been in operation since September 23, 1997. The project provides wastewater to The Geysers for the purposes of maintaining the reservoir pressure and increasing steam reserves of the geothermal field.

Calpine and NCPA share in the operating and maintenance costs for the pipeline and pump stations that bring approximately 6,000 gallons per minute to The Geysers. Electrical power to operate the pumps stations can be supplied by either Calpine or NCPA. The value of the electrical power is based on the Local Market Price. Calpine and NCPA either pays or reimburses the other entity for their share of electrical power. The payment or reimbursement is based on the volume of water each receive during a calendar year.

Both Calpine and NCPA also receive Bucket 0 Renewable Energy Credits (REC’s) for the electrical power supplied to the effluent pipeline. Calpine sells their energy from the Geysers, and the REC’s available for Calpine to sell are matched up to the energy on a 1-for-1 basis. Bucket 0 REC’s Calpine receives for the effluent pumping can only be sold as Bucket 3 REC’s, which are worth about $0.50/MWhr, because there is no corresponding energy sale. As a public agency, NCPA Members are allowed to use the Bucket 0 REC’s to meet their RPS requirements. These are valued around $15 per MWhr.

This Amendment to the SEGEP Joint Operating Agreement would require that NCPA provide the entire power supply for the Bear Canyon Pump Stations, except in outage situations. Calpine would compensate NCPA for its share of the electricity costs at the Local Market Price and further pay to NCPA one half the value of a Bucket 1 REC, or $7.50 per MWhr. Approval of the Amendment will result in approximately $90,000 per year in payment from Calpine to NCPA.

FISCAL IMPACT:

Approval of this Amendment to the SEGEP Joint Operating Agreement will result in approximately $90,000 per year in revenue to NCPA.

ENVIRONMENTAL ANALYSIS:

This activity would not result in a direct or reasonably foreseeable indirect change in the physical environment and is therefore not a “project” for purposes of Section 21065 the California Environmental Quality Act. No environmental review is necessary.
COMMITTEE REVIEW:

The recommendation was reviewed by the Facilities Committee on February 13, 2018, and was recommended for Commission approval as a Discussion/Action Item.

Respectfully submitted,

RANDY S. HOWARD
General Manager

Attachments (2):
- Resolution
- Amendment to the SEGEP Joint Operating Agreement
RESOLUTION 18-11

RESOLUTION OF THE NORTHERN CALIFORNIA POWER AGENCY
AMENDMENT TO THE SEGEP JOINT OPERATING AGREEMENT

(reference Staff Report #118:18)

WHEREAS, the Parties originally entered into a Steam Suppliers Joint Operating Agreement Southeast Geysers Effluent Pipeline Project on July 25, 1995, which established and provided for certain terms and conditions relating to their participation in and responsibility for the operation of that portion of the Southeast Geysers Effluent Pipeline Project ("Project") which commences at the Point-of-Delivery and terminates at The Geysers Terminus; and

WHEREAS, the Parties first amended that Steam Suppliers Joint Operating Agreement Southeast Geysers Effluent Pipeline Project on December 20, 2001 to recognize that Calpine had acquired the geothermal interests of PG&E and Unocal at The Geysers and therefore owned a 2/3 interest in all of the Steam Suppliers Facilities of the Project, to recognize that NCPA had entered into an agreement with Lake County Sanitation District to fund Basin 2000 Facilities to deliver additional effluent to the Project, and to provide how the Project Water was to be distributed among other issues; and

WHEREAS, the Parties entered into the Agreement on September 18, 2003 to amend and restate certain terms and conditions relating to the Parties’ participation in the Project, re-allocate the Parties’ rights to the Project Water, and agree that each Parties’ share of the monthly electricity costs needed to pump the Project Water would be equal to its percentage of the Project Water actually received for that month; and

WHEREAS, Section 5.1.2 of the Agreement states that “[t]he Party required to supply the power to operate the three Bear Canyon Pump Stations in order to deliver the Project Water shall be established from time to time by the Parties”, Section 6.5 of the Agreement states that “[e]ach Party’s share of the pumping power costs shall be equal to its percentage of Project Water actually received for that month”, and Exhibit A of the Agreement (“Exhibit A”) identified the Parties’ agreed-upon statement of the value of the electricity that NCPA would provide to pump the Project Water, specifically that NCPA would provide all electricity to operate the three Bear Canyon Pump Stations at a set price for the period April 01, 2003 through December 31, 2006; and

WHEREAS, the Parties agreed by letters dated December 20, 2006 to amend Exhibit A to revise certain of the terms related to the power supply for the Bear Canyon Pump Stations and the value of the electricity used for that power supply; and

WHEREAS, the Parties agreed by letter dated June 26, 2008 to further amend Exhibit A to revise certain of the terms related to the power supply for the Bear Canyon Pump Stations and the value of the electricity used for that power supply; and

WHEREAS, the parties agreed by letter dated June 1, 2009 ("2009 Letter Agreement") to further amend Exhibit A to revise certain of the terms related to the power supply for the Bear Canyon Pump Stations and also to extend the term of Exhibit A for an additional 36 months; and

WHEREAS, between 2012 and the present, the Parties have agreed upon their relative responsibility for the electricity costs needed to operate the Bear Canyon Pump Stations in connection with the yearly budgeting process for Project operations and maintenance ("O&M") expenses, and have each year executed written agreements approving the Project’s O&M budget (which includes line items for electricity costs for the Bear Canyon Pump Stations as well as the Calpine Share (as defined below)); and
WHEREAS, this activity would not result in a direct or reasonably foreseeable indirect change in the physical environment and is therefore not a “project” for purposes of Section 21065 the California Environmental Quality Act. No environmental review is necessary; and

WHEREAS, the Parties now wish to revise the terms of the Agreement to require that NCPA provide the entire power supply for the Bear Canyon Pump Stations except in outage situations, and that Calpine compensate NCPA for its relative share of such electricity costs at an agreed-upon index price; and

NOW, THEREFORE BE IT RESOLVED, that the Commission of the Northern California Power Agency approves the Amendment to the Joint Operating Agreement for the Southeast Geysers Effluent Pipeline Project.

PASSED, ADOPTED and APPROVED this ___ day of _________________, 2018 by the following vote on roll call:

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BOB LINGL  
CHAIR

ATTEST: CARY A. PADGETT  
ASSISTANT SECRETARY
[January__, 2018] AMENDMENT TO THE
SECOND AMENDMENT AND RESTATEMENT OF THE
STEAM SUPPLIERS JOINT OPERATING AGREEMENT

SOUTHEAST GEYSERS EFFLUENT PIPELINE PROJECT (SEGEPS)

THIS AMENDMENT ("Amendment") to the Second Amendment and Restatement of the Steam Suppliers Joint Operating Agreement Southeast Geysers Effluent Pipeline Project ("Agreement"), is entered into and dated as of the ___ day of ____________, 2017, by and between NORTHERN CALIFORNIA POWER AGENCY, a California joint powers authority and public entity ("NCPA"), and CALPINE CORPORATION, a Delaware corporation ("Calpine"), referred to herein individually as “Party” and collectively as the “Parties.”

RECITALS

A. WHEREAS, the Parties originally entered into a Steam Suppliers Joint Operating Agreement Southeast Geysers Effluent Pipeline Project on July 25, 1995, which established and provided for certain terms and conditions relating to their participation in and responsibility for the operation of that portion of the Southeast Geysers Effluent Pipeline Project ("Project") which commences at the Point-of-Delivery and terminates at The Geysers Terminus; and

B. WHEREAS, the Parties first amended that Steam Suppliers Joint Operating Agreement Southeast Geysers Effluent Pipeline Project on December 20, 2001 to recognize that Calpine had acquired the geothermal interests of PG&E and Unocal at The Geysers and therefore owned a 2/3 interest in all of the Steam Suppliers Facilities of the Project, to recognize that NCPA had entered into an agreement with Lake County Sanitation District to fund Basin 2000 Facilities to deliver additional effluent to the Project, and to provide how the Project Water was to be distributed among other issues; and

C. WHEREAS, the Parties entered into the Agreement on September 18, 2003 to amend and restate certain terms and conditions relating to the Parties’ participation in the Project, re-allocate the Parties’ rights to the Project Water, and agree that each Parties’ share of the monthly electricity costs needed to pump the Project Water would be equal to its percentage of the Project Water actually received for that month; and

D. WHEREAS, Section 5.1.2 of the Agreement states that “[i]the Party required to supply the power to operate the three Bear Canyon Pump Stations in order to deliver the Project Water shall be established from time to time by the Parties”, Section 6.5 of the Agreement states that “[e]ach Party’s share of the pumping power costs shall be equal to its percentage of Project Water actually received for that month”, and Exhibit A of the Agreement ("Exhibit A")
identified the Parties’ agreed-upon statement of the value of the electricity that NCPA would provide to pump the Project Water, specifically that NCPA would provide all electricity to operate the three Bear Canyon Pump Stations at a set price for the period April 01, 2003 through December 31, 2006; and

E. WHEREAS, the Parties agreed by letters dated December 20, 2006 to amend Exhibit A to revise certain of the terms related to the power supply for the Bear Canyon Pump Stations and the value of the electricity used for that power supply; and

F. WHEREAS, the Parties agreed by letter dated June 26, 2008 to further amend Exhibit A to revise certain of the terms related to the power supply for the Bear Canyon Pump Stations and the value of the electricity used for that power supply; and

G. WHEREAS, the parties agreed by letter dated June 1, 2009 ("2009 Letter Agreement") to further amend Exhibit A to revise certain of the terms related to the power supply for the Bear Canyon Pump Stations and also to extend the term of Exhibit A for an additional 36 months; and

H. WHEREAS, between 2012 and the present, the Parties have agreed upon their relative responsibility for the electricity costs needed to operate the Bear Canyon Pump Stations in connection with the yearly budgeting process for Project operations and maintenance ("O&M") expenses, and have each year executed written agreements approving the Project’s O&M budget (which includes line items for electricity costs for the Bear Canyon Pump Stations as well as the Calpine Share (as defined below)); and

I. WHEREAS, the Parties now wish to revise the terms of the Agreement to require that NCPA provide the entire power supply for the Bear Canyon Pump Stations except in outage situations, and that Calpine compensate NCPA for its relative share of such electricity costs at an agreed-upon index price. Should the index be named here?

**AGREEMENT**

THEREFORE, in consideration of the promises and the mutual agreements contained herein, the Parties agree as follows:

1. **Definitions.** Capitalized terms used and not defined herein shall have the meanings set forth in the Agreement.

2. **Term and Termination.** The term of Exhibit A as revised by this Amendment shall begin on the date this Amendment is executed and extend for two (2) years from that date; provided that either Party in its sole discretion may elect to revert to the prior terms of Exhibit A (as set forth in the 2009 Letter Agreement) by providing thirty (30) written notice to the other Party.
3. **Supply of Power to the Bear Canyon Pump Stations.** Exhibit A to the Agreement is replaced and superseded in its entirety with the following:

The supply of electricity to power the Bear Canyon Pump Stations shall be as follows:

A. NCPA shall supply the electricity needed to operate Bear Canyon Pump Stations #1, #2, and #3 (collectively, the "**Bear Canyon Pump Stations**").

B. If NCPA is temporarily unable to provide electricity to power the Bear Canyon Pump Stations, Calpine will provide backup power service to the Bear Canyon Pump Stations as needed and as available.

C. On or about the 10th day of each calendar month, NCPA (as Operator) shall provide Calpine with a calculation of the electricity costs to supply the Bear Canyon Pump Stations during the prior month. NCPA shall calculate Calpine’s responsibility for such costs ("**Calpine’s Cost Responsibility**") using the following formula:

\[
\text{Calpine’s Cost Responsibility} = (\text{Electricity Usage} \times \text{Average Supply Cost}) \times \text{Calpine Share} + (\text{Electricity Usage} \times \text{Cost Adder})
\]

For purposes of this calculation, the following definitions apply:

"**Electricity Usage**" is the amount of electricity (in kWhs) that NCPA used to supply the Bear Canyon Pump Stations during the prior calendar month, less the amount of electricity (if any, in kWhs) that Calpine provided as temporary backup power service to the Bear Canyon Pump Stations during the prior calendar month.

"**Average Supply Cost**" is the average Locational Marginal Price ("**LMP**") for the Geysers Plant 1, Unit 2 LMP node during the prior calendar month.

"**Calpine Share**" is the percentage of Project Water that Calpine received in the prior calendar month (as expressed in decimal terms (0.00)). For instance, if Calpine received 40% of the Project Water in a prior month, the Calpine Share for that month would be 0.40.

"**Cost Adder**" is equal to $0.00750/kWh (i.e. $7.50/MWh).
D. To the extent the Parties disagree as to Calpine's Cost Responsibility for any particular month, the Operating Committee shall attempt to resolve such disagreement. If the Operating Committee is unable to resolve the disagreement, the Parties shall use the dispute resolution procedures set forth in Section 16 of the Agreement.

4. No Other Changes. Except as set forth herein, the Agreement, as previously amended, remains in full force and effect.

5. Execution and Delivery. This Amendment may be executed in one or more counterparts, all of which will be considered one and the same. This Amendment may be delivered by the electronic exchange of executed signature pages (e.g., by email), and any printed or copied version of any signature page so delivered will have the same force and effect as an originally executed version of such signature page.

6. Governing Law. The validity, interpretation, and effect of this Amendment are governed by and will be construed in accordance with the laws of the State of California applicable to contracts made and performed in such state and without regard to conflicts of law doctrines except to the extent that certain matters are preempted by federal law or are governed by the law of the jurisdiction of organization of the respective Parties.

[signature page follows]
IN WITNESS WHEREOF, the Parties hereto, intending to be legally bound hereby, have caused this Amendment to be signed by their respective officers hereunto duly authorized as of the day and year first set forth above.

NORTHERN CALIFORNIA POWER AGENCY    CALPINE CORPORATION

By: ____________________________        By: ____________________________
Name: ____________________________    Name: ____________________________
Title: ____________________________    Title: ____________________________
Date: ____________________________    Date: ____________________________