



651 Commerce Drive,
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December 28, 2017

TO: Facilities Committee

FROM: Carrie Pollo

SUBJECT: Notice of the Facilities Committee Meeting

Facilities Committee: In compliance with the Brown Act, if participating on the conference call **and/or online presentation**, please attend one of the locations listed below and post this notice at a publicly accessible location at the participation location **72-hours** before the call begins.

Date:	Wednesday, January 3, 2018
Time:	9:00 am
Where:	NCPA Headquarters 651 Commerce Drive Roseville, CA 95678
Contact at NCPA:	Carrie Pollo (916) 781-4282

ALAMEDA MUNICIPAL PWR 2000 Grand St., Alameda 510.748.3901	BAY AREA RAPID TRANSIT 300 Lakeside Drive, Oakland 510.464.6435	CITY OF BIGGS 465 "C" Street, Biggs 530.868.5493
CITY OF GRIDLEY 685 Kentucky Street, Gridley 530.846.5695	CITY OF HEALDSBURG 435 Allen Ct., Healdsburg 707.431.3317	CITY OF LODI 1331 S. Ham Lane, Lodi 209.333.6762
CITY OF LOMPOC 100 Civic Ctr. Plaza, Lompoc 805.875.8299	CITY OF PALO ALTO 250 Hamilton Ave, Palo Alto 650.329.2273	PORT OF OAKLAND 530 Water Street, Oakland 510.627.1100
PLUMAS-SIERRA REC 73233 Hwy 70, Portola 530.832.4261	CITY OF ROSEVILLE 2090 Hilltop Cir, Roseville 916.774.5602	CITY OF SANTA CLARA 1500 Warburton Ave, Santa Clara 408.261.5490
TURLOCK IRR. DISTRICT 333 E. Canal Drive, Turlock 209.883.8300	CITY OF UKIAH 300 Seminary Ave, Ukiah 707.463.6200	



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Agenda

Date: Wednesday, January 3, 2018
Subject: Facilities Committee Meeting
Location: NCPA Headquarters, 651 Commerce Drive, Roseville CA
Time: 9:00 am

The Committee may take action on any of the items listed on this Agenda regardless of whether the matter appears on the Consent Calendar or is described as an Action Item, a Report or an Informational Item. This agenda is often supplemented by various documents which are available to the public upon request. Pursuant to Government Code Section 54957.5, the following is the location at which the public can view agendas and other public writings: NCPA Offices, 651 Commerce Drive, Roseville California, or www.ncpa.com.

Persons requiring accommodation in accordance with the Americans with Disabilities Act in order to attend or participate in this meeting are requested to contact the NCPA Secretary at 916.781.3636 in advance of the meeting to arrange for such accommodations.

1. Call Meeting to Order and Roll Call

PUBLIC FORUM

Any member of the public who wishes to address the Committee on matters not on the Agenda, but within the subject matter jurisdiction of the Committee, or any member of the public who desires to address the Committee on any item considered by the Committee at this meeting before or during the Committee's consideration of that item, shall so advise the Chair and shall thereupon be given an opportunity to do so.

OPEN SESSION

2. **Approve minutes from the December 6, 2017 Facilities Committee meeting, and the December 7, 2017 Special Facilities Committee meeting.**
3. **Hydroelectric Generation Services Facility – Ford Construction, Inc. for Adit 4 Spoils Facility Repairs Construction** – Staff is seeking a recommendation for Commission approval increasing 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. (*Commission Category: Discussion/Action; Sponsor: Hydro*)
4. **Hydroelectric Generation Services Facility - Collierville Generator Rewind Project** – Staff is seeking a recommendation for Commission approval authorizing the General Manager to enter into one or more contracts for a total not-to-exceed amount of \$6,900,000 for rewinding and repairs of the two (2) Collierville generators. (*Commission Category: Discussion/Action; Sponsor: Hydro*)

5. **Approval of NCPA Solar Project Phase 2 Agreement** – Staff will present and seek 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. *(Commission Category: Discussion/Action; Sponsor: Generation Services/Power Management)*
6. **Nexant Cost Allocation Model Billing Determinants** – Staff will review the billing determinants that will be used in the FY2019 Nexant Cost Allocation Model. *(Commission Category: Discussion/Action; Sponsor: Admin Services)*
7. **Approval of Services Agreement with EBCE** – Staff will present and seek a recommendation for approval of a Services Agreement between NCPA and East Bay Community Energy (EBCE), under which NCPA will supply certain wholesale power supply to EBCE. *(Commission Category: Discussion; Sponsor: Power Management)*
8. **Expiration of Acquired Resources Designation** – Staff will present and review the status of NCPA's designated list of Acquired Resources, as such is defined in the CAISO Tariff, and will present a recommendation for the how to classify such Acquired Resources for CY 2018 and beyond. *(Commission Category: N/A; Sponsor: Power Management)*
9. **New Service Opportunities** – Staff will provide a status update regarding the opportunity for NCPA to supply certain wholesale energy services to the following new prospective fee-for-service customers: South Feather Water and Power Agency, San Jose Community Energy and Nevada Irrigation District. *(Commission Category: N/A; Sponsor: Power Management)*
10. **New Services Staffing Update** – Status update. *(Commission Category: Informational; Sponsor: Power Management)*.
11. **Planning and Operations Update** – Staff will provide an update on issues related to planning and operations.
12. **Schedule next meeting date** – The next Facilities Committee meeting is currently scheduled for January 31, 2018.

ADJOURNMENT

/cp



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Minutes

Date: December 8, 2017
To: NCPA Facilities Committee
From: Carrie Pollo
Subject: December 6, 2017 Facilities Committee Meeting Minutes

1. **Call meeting to order & Roll Call** - The meeting was called to order by Committee Chair Melissa Price at 9:02 am. A sign-in sheet was passed around. Attending via teleconference and/or on-line presentation were Alan Hanger and Sarah Liuba (Alameda), Mark Sorensen (Biggs), Monica Padilla (Palo Alto), Basil Wong (Port of Oakland), Kathleen Hughes, and Steve Hance (Santa Clara). Those attending in person are listed on the attached Attendee Sign-in Sheet. Committee Representatives from BART, Gridley, Healdsburg, TID, and Ukiah were absent. A quorum of the Committee was established.

PUBLIC FORUM

No public comment.

2. **Approve minutes from the November 1, 2017 Facilities Committee meeting, and the November 2, 2017 Special Facilities Committee meeting.** A motion was made by Mike Brozo and seconded by Shannon McCann recommending approval of the November 1, 2017 Facilities Committee meeting minutes, and the November 2, 2017 Special Facilities Committee meeting minutes. A vote was taken by roll call: YES = Alameda, Biggs, Lodi, Lompoc, Plumas-Sierra, Port of Oakland, Roseville, and Santa Clara. ABSTAIN = Palo Alto. The motion passed.
3. **All Generation Services Facilities, Members, SCPPA – Dekomte De Temple, LLC Multi-Task General Services Agreement** – Staff gave background information and recommended Commission approval of a five-year Multi-Task General Services Agreement with Dekomte De Temple, LLC for BOP/HRSG expansion joints and insulation services, with a not to exceed amount of \$500,000, for use at all facilities owned and/or operated by NCPA, its Members, SCPPA, and SCPPA Members. All purchase orders issued pursuant to the agreement will be charged against approved Annual Operating Budgets. A draft Commission Staff Report was available for review.

Motion: A motion was made by Shannon McCann and seconded by Jiayo Chang recommending Commission approval 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. YES = Alameda, Biggs, Lodi, Lompoc, Palo Alto, Plumas-Sierra, Roseville, and Santa Clara. The motion passed.

- 4. NCPA CT Facilities – Alameda Unit 1 Service** – Staff gave background information and recommended Commission approval of a General Services Agreement for exhaust seal service on Alameda Unit 1 with an initial not to exceed amount of \$250,000, with approval to spend up to \$600,000, pending vendor findings once disassembly of the unit is underway. All purchase orders issued pursuant to the agreement will be charged against approved Annual Operating Budgets. A draft Commission Staff Report was available for review.

For option A, the contractor will try to extract seals without removing the rotor. If option A is unsuccessful, option B with rotor removal will follow. The estimated cost for option A is \$220,000, and will take approximately 10 working days. If option A is unsuccessful, option B will be added for the gas turbine rotor removal. This will be an additional 12 working days, plus an estimated additional cost of \$300,000.

Staff is also proposing to change the scheduled Alameda outage currently scheduled for March 12 – 23, 2018, to coincide with the Unit 1 repairs in January. The outage for both Units 1 & 2 will be scheduled to start January 15, 2018, at 7:00 am. Unit 2 and BOP will be scheduled back in service January 26, 2018 at 4:00 pm. Unit 1 will be scheduled back in service either January 30, 2018, or February 15, 2018, depending on the vendor findings of the disassembly.

Motion: A motion was made by Jiayo Chang and seconded by Mike Brozo recommending Commission approval authorizing the General Manager to 1) Enter into General Services Agreement for exhaust seal service on Alameda Unit 1 with an initial not to exceed amount of \$250,000, with approval to spend up to \$600,000, pending vendor findings once disassembly of the unit is underway. All purchase orders issued pursuant to the agreement will be charged against approved Annual Operating Budgets and 2) Approve Budget Supplement in the amount of \$350K, with the understanding that this will not be collected and implemented unless Option A is not successful. A vote was taken by roll call: YES = Alameda, Biggs, Lodi, Lompoc, Plumas-Sierra, Roseville, and Santa Clara. ABSTAIN = Palo Alto and Port of Oakland. The motion passed.

- 5. All Generation Services Facilities, Members, SCPPA – Transmission Distribution Services, LLC Multi-Task General Services Agreement** – Staff gave background information and recommended Commission approval of a five-year Multi-Task General Services Agreement with Transmission Distribution Services, LLC for leak detection and maintenance on transformer leaks, gasket maintenance and circuit breaker leaks, with a not to exceed amount of \$1,000,000, for use at all facilities owned and/or operated by NCPA, its Members, SCPPA, and SCPPA Members. All purchase orders issued pursuant to the agreement will be charged against approved Annual Operating Budgets. A draft Commission Staff Report was available for review.

Motion: A motion was made by Shannon McCann and seconded by Monica Padilla recommending Commission approval authorizing the General Manager or his designee to enter into a Multi-Task General Services Agreement with Transmission and Distribution Service, 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. A vote was taken by roll call: YES = Alameda, Lodi, Lompoc, Palo Alto, Plumas-Sierra, Roseville, and Santa Clara. ABSTAIN = Port of Oakland. The motion passed.

6. Hydro Update – Information Only – Hydro staff updated the Committee on recent Hydro projects, including Beaver Creek Sediment Removal, Adit 4 Stabilization, Murphys Microwave Extension, and Collierville maintenance outages.

January and February flooding filled the Beaver Creek Facility with 11,400 cubic yards of sediment and debris. This prevented hydropower and consumptive water diversions to McKays. NCPA was granted emergency permitting and construction. Beaver Creek was restored and fully operational on November 17, 2017, with 15,400 cubic yards of sediment and debris removed. The total cost for this project was \$2.26 million. Insurance and FEMA reimbursement levels are still pending.

The Adit 4 Spoils Facility failed December 2015. The project is currently 90% complete. During a flow test conducted November 10, 2017, it was confirmed that the baffles were problematic, and needed to be removed. It was also determined the channel needs augmentation to create an additional 2-3 feet of freeboard. The design engineer, GHD, is paying for repairs. A second flow test is scheduled for January 2018. Access road repairs are planned for Spring 2018.

The total authorized construction contract cost is \$2.89 million. The anticipated net contract expenditures are \$2.6 - \$2.8 million. The estimated damage and augmentation costs are \$400,000, with channel augmentation costs under discussion. Insurance reimbursement levels are pending. A meeting is planned in January with McLaren's who verbally indicated an interest to close the reimbursement gap and settle.

A microwave hop has been installed between the Murphys office location and the Collierville site allowing networking between the two facilities. This was recently completed after being deferred due to record winter conditions this past year.

During the recent Collierville outage general maintenance and testing was performed. Other major work items included; rebuilding the last needle jet, spiral case drain valve rebuild (x2), turbine runner cavitation weld repairs, main transformer oil processing (x2), isophase bushing oil leak repair, generator end turn partial discharge repairs, and generator condition assessment. Divers also removed 15 cubic yards of debris against the intake at McKays over three days.

Stator Update – Hydro lost some water on the upper end of the project. An RFP will be going out shortly for stator repair services. Pre-qualified companies for the services include Andritz, GE, VOIT, and Toshiba. An update will be presented at the January Facilities Committee meeting with costs and schedules. Tentatively the 49-day outage is scheduled for late 2018.

7. Review of Power Supply Assumptions – Staff provided an informational overview of the Power Supply Assumptions for FY 2019 Annual Budget Schedule.

Milder and drier weather is expected to dominate the winter season across this region, in contrast to last year, which brought record-breaking rain and snow to California. However, there is still potential for a few periods of stormy weather. An active storm track is expected for Northern California that at times could track further to the South. With warmer-than-normal sea surface temperatures across the subtropical Pacific ready to contribute abundant moisture to Pacific systems, the potential is there for a few higher impact rain and mountain snow events.

Staff reviewed the factors that are plugged into the PLEXOS model in order to generate the market price assumption forecast for FY 2019. Staff reviewed the specific data that was utilized for each of NCPA's generation facilities (Geothermal, Western, Natural Gas, etc.). Summaries of the estimated ancillary costs, and revenue summaries for LEC and Hydro were outlined in the presentation and reviewed with the Committee.

Staff also provided a brief update on the Gas Transport Rate Case. PG&E's rate case was approved in June 2016, and will cover rates through 2019. On December 1, 2016 the CPUC adopted a decision to allocate a portion of the \$850M penalty related to the San Bruno tragedy back to PG&E gas customers, bringing the rate down to \$1.04/MMBtu. Effective in September 2017 a negotiated settlement led to a major cost reduction for the LEC plant. The outcome of the settlement will be in effect through 2018 and is reflected in LEC modeling assumptions. The next rate case was filed on November 17, 2017 and requests recovery of \$1.59 billion in costs related to natural gas transmission for 2019 and a rate base of \$4.66 billion, up from 2018's \$3.71 billion.

Preliminary FY 2019 load-resource balances will be ready for Members January 5, 2018. Final budget input is due to the Accounting Division by January 12, 2018, with the final FY 2019 Power Supply Models distributed to members thereafter.

- 8. Approval of Services Agreement with EBCE** – Staff gave back ground information and sought a recommendation for Commission approval of a Services Agreement between NCPA and East Bay Community Energy (EBCE), under which NCPA will supply certain wholesale power supply services to EBCE.

East Bay Community Energy (EBCE) issued a Request for Proposals (RFP) for Wholesale Power Services. In response to the RFP, NCPA submitted a Services Offer to EBCE. NCPA participated in an interview process with EBCE on November 6, 2017. After the interview process, NCPA was selected as the service provider. The EBCE service area includes Alameda County, Albany, Berkeley, Dublin, Emeryville, Fremont, Hayward, Livermore, Oakland Piedmont, San Leandro, and Union City, with an 800Mw system. NCPA welcomes this service offer, and looks forward to establishing a working relationship between EBCE and NCPA members including Alameda Municipal Power, BART, Palo Alto, Port of Oakland, and Santa Clara.

Based on the output of the Nexant Cost Allocation Model, staff is proposing a preauthorized range in which the General Manager of NCPA may negotiate the amount of compensation for the Services rendered. The recommended cost of services is \$640,000, escalated at 2% per year, with a negotiation authority plus or minus 15% of the model estimate. This service offer is very similar to the MEID, PCWA, and Pioneer agreements, with significant protection.

Motion: A motion was made by Monica Padilla and seconded by Mike Brozo generally supporting NCPA entering into a Services Agreement with East Bay Community Energy as presented at the December 6, 2017 Facilities Committee meeting, including any non-substantive modifications to the Services Agreement approved by NCPA's General Counsel, subject to further review of the agreement scheduled on December 7, 2017. A vote was taken by roll call: YES = Alameda, Lodi, Lompoc, Palo Alto, Plumas-Sierra, Port of Oakland, Roseville, and Santa Clara. The motion passed.

- 9. Approval of Assignment, Assumption and Consent Agreement** – Staff will present and seek a recommendation for approval of an Assignment, Assumption and Consent Agreement between NCPA, Noble Americas Gas & Power Corp. (NAGP), and Mercuria Energy America, Inc. (MEA), pursuant to which the NAESB and AMA NCPA currently has in place with NAGP will be assigned to MEA. ***This item was pulled from the agenda.***

10. Planning and Operations Update –

- Order 890 complaint settlement – The last scheduled meeting was cancelled due to the TO18 proceedings. The next meeting will be 12/15. Southern California Edison has

filed a voluntary Order 890 type process for maintenance and replacement type projects that do not go through the CAISO TPP. PG&E will look at Edison's filing to see what they are proposing and is hoping to harmonize processes.

- The TO18 discovery process should be wrapped up by the end of December. The hearing is scheduled to start January 9, 2018 and a final FERC order is expected in July 2018.
- New services will start for PCWA the first of the year. NCPA dispatchers have received training the past couple of months. Pioneer Community Energy is moving along, and scheduled to start services February 1, 2018. East Bay Community Energy (EBCE) has accepted the NCPA services offer, and is taking the recommendation to their board today, 12/6. Dave and Tony will be attending the board meeting on behalf of NCPA to answer any questions or concerns. These services would begin May 1, 2018. The City of San Jose CCA has also requested a provision of services, which is bigger than EBCE. These services would begin Summer 2018, after Pioneer and EBCE. Other CCAs may be coming as well. NCPA will keep everyone apprised.
- The IS department has been working on web services with direct scheduling into TABS and Pages for SCs and pre-schedulers to automate processes.
- A conference call is scheduled on 12/8 to discuss an outdated agreement between Alameda and PG&E. General and Special Counsel will also be participating on the call.
- Two renewable energy projects in Kern Co. for procurement for BARTs power supply 2018 – 2019 will be up for board approval.

11. Resolution Commending Melissa Price – Adopt resolution by all Facilities Committee members commending Melissa Price as the 2017 Facilities Committee Chair.

Motion: A motion was made by Mike Brozo and seconded by Shannon to adopt the resolution commending Melissa Price and thanking her as the 2017 Facilities Committee Chair. A voice vote was taken; all were in favor. The motion passed.

12. Schedule next meeting date – the next regular Facilities Committee meeting is scheduled for January 3, 2018.

ADJOURNMENT

The meeting was adjourned at 12:05 pm.





**Northern California Power Agency
December 6, 2017 Facilities Committee Meeting
Attendance List**

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

NAME	AFFILIATION
Carrie Pollo	NCPA
Tony Zimmer	NCPA
Melissa Price	Lodi
John Luckhardt	NCPA
Brent ten Pas	NCPA
Wapo Chiang	Lodi
Randy Howard	NCPA
Shannon McCann	Rsl
Jan Bonatto	NCPA
Ken Goebel	NCPA
Monty Hanks	NCPA
Rafael Samra	NCPA
Ron Yuen	NCPA
Michael DeBorja	NCPA
Jake Eymann	NCPA
Randy Bowers	NCPA
Michael Brozo	NCPA PSREC
Amber Summersett	NCPA
Dave Dockman	NCPA

**Northern California Power Agency
December 6, 2017 Facilities Committee Meeting
Attendance List**

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

MEMBER	NAME
ALAMEDA	
BART	
BIGGS	
GRIDLEY	
HEALDSBURG	
LODI	
LOMPOC	
PALO ALTO	
PLUMAS-SIERRA REC	
PORT OF OAKLAND	
ROSEVILLE	
SANTA CLARA	
TID	
UKIAH	



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Minutes

Date: December 12, 2017
To: NCPA Facilities Committee
From: Carrie Pollo
Subject: December 7, 2017 Facilities Committee Special Meeting Minutes

1. **Call meeting to order & Roll Call** - The meeting was called to order by Committee Vice Chair Mike Brozo at 2:04 pm. A sign-in sheet was passed around. Attending via teleconference and/or on-line presentation were Alan Hanger (Alameda), Mark Sorensen (Biggs), Paul Eckert (Gridley), Jiayo Chang (Lodi), Tikan Singh (Lompoc), Monica Padilla (Palo Alto), Mike Brozo (Plumas-Sierra), and Steve Hance (Santa Clara). Those attending in person are listed on the attached Attendee Sign-in Sheet. Committee Representatives from BART, Healdsburg, TID, and Ukiah were absent. A quorum of the Committee was established.

PUBLIC FORUM

No public comment.

2. **Approval of Services Agreement with EBCE** – Staff was seeking a recommendation for approval of a Services Agreement between NCPA and East Bay Community Energy (EBCE), under which NCPA will supply certain wholesale power supply services to EBCE.

Staff provided a presentation and background information for entering into an EBCE Services Agreement in the prior Committee meeting December 6, 2017. Approval to enter into a Services Agreement with NCPA was also approved by the EBCE board on December 6, 2017. The December 7, 2017 Special Facilities Committee meeting was scheduled to review and discuss the current proposed draft Services Agreement with EBCE. A redline version was available for comparison to the Pioneer Services Agreement, since the EBCE agreement is very similar.

Upon review of the agreement, the Committee decided to revise language in two sections of the agreement. Language was added to section 12.2 to clarify the Customer's Estimated Aggregate Liability (EAL). As well, language was also added to section 3.1.5 of Appendix A, clarifying NCPA is not authorized to directly advocate or assume policy positions on behalf of EBCE that conflict with policy positions of NCPA or NCPA's Members.

Motion: A motion was made by Monica Padilla and seconded by Shannon McCann recommending Commission approval and authorizing NCPA to enter into a 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 Services Agreement approved by NCPA's General Counsel, subject to

adding additional language in Section 12.2 to clarify the method for calculating the initial posting requirement, and adding additional language in Section 3.1.5 of Appendix A clarifying that NCPA is not authorized to advocate policy positions on behalf of East Bay Community Energy that are adverse to NCPA's interests. YES = Alameda, Biggs, Gridley, Lodi, Lompoc, Palo Alto, Plumas-Sierra, Roseville, and Santa Clara. The motion passed.

ADJOURNMENT

The meeting was adjourned at 2:46 pm.

Northern California Power Agency

December 7, 2017 Special Facilities Committee Meeting

Attendance List


NCPA Facilities Committee Members, Alternates & Staff are requested to sign, but signature by

members of the public is voluntary.

[illegible]

**Northern California Power Agency
December 7, 2017 Special Facilities Committee Meeting
Attendance List**

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

MEMBER	NAME
ALAMEDA	
BART	
BIGGS	
GRIDLEY	
HEALDSBURG	
LODI	
LOMPOC	
PALO ALTO	
PLUMAS-SIERRA REC	
PORT OF OAKLAND	
ROSEVILLE	
SANTA CLARA	
TID	
UKIAH	



Commission Staff Report - *DRAFT*

Date: December 26, 2017

COMMISSION MEETING DATE: January 18, 2018

SUBJECT: 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.

AGENDA CATEGORY: Discussion/Action

FROM:	Ken Speer	METHOD OF SELECTION:
	Assistant General Manager	<i>Public Works Bid</i>
Division:	Generation Services	
Department:	Hydroelectric	

IMPACTED MEMBERS:		
All Members	<input type="checkbox"/>	City of Lodi <input checked="" type="checkbox"/>
City of Shasta Lake	<input type="checkbox"/>	
Alameda Municipal Power	<input checked="" type="checkbox"/>	City of Lompoc <input checked="" type="checkbox"/>
City of Ukiah	<input checked="" type="checkbox"/>	
Bay Area Rapid Transit	<input type="checkbox"/>	City of Palo Alto <input checked="" type="checkbox"/>
Plumas-Sierra REC	<input checked="" type="checkbox"/>	
City of Biggs	<input type="checkbox"/>	City of Redding <input type="checkbox"/>
Port of Oakland	<input type="checkbox"/>	
City of Gridley	<input type="checkbox"/>	City of Roseville <input checked="" type="checkbox"/>
Truckee Donner PUD	<input type="checkbox"/>	
City of Healdsburg	<input checked="" type="checkbox"/>	City of Santa Clara <input checked="" type="checkbox"/>
Other	<input type="checkbox"/>	
<i>If other, please specify</i>		
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RECOMMENDATION:

Authorize 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.

BACKGROUND:

The Collierville Powerhouse, part of the North Fork Stanislaus River Hydroelectric Project, consists of two (2) MW Pelton turbine generators, Unit 1 and Unit 2, each coupled to a 140 MVA generator. Collierville Powerhouse turbine runners were up-rated in 1993 with modified turbine nozzle jets and modified runners. On May 30th, 2017, the Collierville Unit 2 generator experienced a C-phase stator ground. The NCPA Commission passed Resolution 17-59 on June 29, 2017 for the interim repair of the Unit 2 generator. The grounded coil (2 bars) was located, identified, and bypassed. The unit was returned to service with a de-rating to a maximum of 110 MW.

The Collierville generators are approaching 30 years old, and even prior to the May 30th ground fault were starting to show signs of deterioration as documented by partial discharge testing and as evidenced by visual burn damage which is inspected and repaired as-needed during annual outages. Generator winding insulation is exposed to many aging mechanisms which shorten its life, including electrical and mechanical stresses during normal operation. When the stator winding insulation fails, high voltage can arc to the surrounding framework, and protective relaying shuts down the generating unit. Planned, scheduled rewinds provide the most cost-effective means to maintain the reliability of older generators. At the request of Hydro participants, Capital Development Reserve funds are being collected for rewinds of both Collierville units.

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:

	Unit 2	Unit 1
Material procurement	\$1,000,000	\$1,000,000
Millwright work	\$1,000,000	\$1,000,000
Rewind labor	\$1,000,000	\$1,000,000
TOTAL ESTIMATED	\$3,000,000	\$3,000,000

SELECTION PROCESS:

The material procurement and rewind labor portion of the project was publicly advertised for pre-qualification October 12th and 19th, 2017. Four (4) firms expressed interest in the project and received pre-qualification packages. Four (4) contractors submitted pre-qualification documents to NCPA. Staff conducted interviews of the references and scored the respective firms' experience/qualifications. Four (4) contractors: Andritz Hydro, GE Hydro Power, Toshiba USA, and Voith Hydro, Inc. were determined to be qualified for the work. All contractors were ultimately approved by NCPA to bid on the project.

A Public Works bid package was released on December 14th, 2017 with a pre-mandatory bid meeting set for January 3, 2018 and bid opening scheduled for January 25, 2018. Manufacturing generator bars is typically a long lead time item, often ranging from 6 to 18 months, so time is of the essence with respect to awarding the project if it is desired to potentially proceed with a rewind in 2018.

ENVIRONMENTAL ANALYSIS:

CEQA Guidelines section 15301 states that a project is categorically exempt from CEQA review when the project "consists of the operation, repair, maintenance ... or minor alteration of existing public or private structures, facilities, mechanical equipment, or topographical features, involving negligible or no expansion of use beyond that existing at the time of the lead agency's determination." There is no reasonable possibility that repairing the Collierville Unit 2 generator will result in a significant impact on the environment. A Notice of Exemption for this type of work was approved by the NCPA Commission and filed with Calaveras County on March 27, 2014.

COMMITTEE REVIEW:

Pending committee review.

Respectfully submitted,

RANDY S. HOWARD
General Manager

Attachments:

RESOLUTION 18-XX

RESOLUTION OF THE NORTHERN CALIFORNIA POWER AGENCY DELEGATING TO THE GENERAL MANAGER AUTHORITY TO ENTER INTO ONE OR MORE AGREEMENTS AND TO ISSUE PURCHASE ORDERS NOT TO EXCEED \$6,900,000 FOR COLLIERVILLE POWERHOUSE REPLACEMENT STATOR WINDINGS AT THE NCPA HYDROELECTRIC PROJECT

(reference Staff Report #xxx:18)

WHEREAS, the Northern California Power Agency (NCPA) operates and maintains the Collierville Powerhouse on behalf of the project participants in the North Fork Stanislaus River Hydroelectric Development Project; and

WHEREAS, on May 30th, 2017, the Hydroelectric Facility's Collierville Powerhouse Unit 2 generator experienced a stator ground; and

WHEREAS, Collierville Unit 2 generator repair returned the unit to service with a de-rating to 110 MW; and

WHEREAS, Collierville Unit 1 and Unit 2 generators are approaching 30 years old and are showing signs of deterioration; and

WHEREAS, replacement stator windings are the most cost-effective way to maintain reliability of older generators; and

WHEREAS, Capital Development Reserve are being collected for the Collierville generator rewinds; and

WHEREAS, both rewinds are anticipated to be completed over the next five years; and

WHEREAS, this Project is exempt from CEQA under Regulation 15301 and a Notice of Exemption was filed with Calaveras County on March 27, 2014; and

NOW, THEREFORE BE IT RESOLVED, that the Commission of the Northern California Power Agency authorizes 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 Collierville Unit 1 and Unit 2 generator stator windings at the NCPA Hydroelectric Project.

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

	<u>Vote</u>	<u>Abstained</u>	<u>Absent</u>
Alameda	_____	_____	_____
San Francisco BART	_____	_____	_____
Biggs	_____	_____	_____
Gridley	_____	_____	_____
Healdsburg	_____	_____	_____
Lodi	_____	_____	_____
Lompoc	_____	_____	_____
Palo Alto	_____	_____	_____
Port of Oakland	_____	_____	_____
Redding	_____	_____	_____

Roseville
Santa Clara
Shasta Lake
Truckee Donner
Ukiah
Plumas-Sierra

BOB LINGL
CHAIR

ATTEST:

CARY A. PADGETT
ASSISTANT SECRETARY



Commission Staff Report – *DRAFT*

Date: December 27, 2017

COMMISSION MEETING DATE: January 18, 2018

SUBJECT: 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.

AGENDA CATEGORY: Discussion/Action

FROM:	Ken Speer	METHOD OF SELECTION:
	Assistant General Manager	<i>Public Works Bid</i>
Division:	Generation Services	<i>If other, please describe:</i>
Department:	Hydroelectric	

IMPACTED MEMBERS:		
All Members <input type="checkbox"/>	City of Lodi <input checked="" type="checkbox"/>	City of Shasta Lake <input type="checkbox"/>
Alameda Municipal Power <input checked="" type="checkbox"/>	City of Lompoc <input checked="" type="checkbox"/>	City of Ukiah <input checked="" type="checkbox"/>
Bay Area Rapid Transit <input type="checkbox"/>	City of Palo Alto <input checked="" type="checkbox"/>	Plumas-Sierra REC <input checked="" type="checkbox"/>
City of Biggs <input type="checkbox"/>	City of Redding <input type="checkbox"/>	Port of Oakland <input type="checkbox"/>
City of Gridley <input type="checkbox"/>	City of Roseville <input checked="" type="checkbox"/>	Truckee Donner PUD <input type="checkbox"/>
City of Healdsburg <input checked="" type="checkbox"/>	City of Santa Clara <input checked="" type="checkbox"/>	Other <input type="checkbox"/>
<i>If other, please specify</i>		
<hr/>		
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RECOMMENDATION:

Authorize the General Manager to issue additional purchase orders to Ford Construction, Inc., 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.

BACKGROUND:

NCPA operates the North Fork Stanislaus Hydroelectric Project (FERC Project No. 2409), which was constructed from 1986 to 1989. One of the project features is an 8.5 mile long pressurized water conveyance tunnel between the McKays Point Diversion Dam and the Collierville Power House. The tunnel has two (2) access adits. At one of these adits (Adit No. 4), tunnel rock cuttings (spoils) were permanently stockpiled immediately below in a natural drainage in compliance with the Revised Spoils Disposal Plan dated April 1987 under a Right-of-Way Grant (CA 8281) from the United States Department of the Interior, Bureau of Land Management.

The Adit 4 Tunnel Spoils (Spoils Facility) are located approximately 1 ½ miles up canyon from the Collierville Powerhouse in Calaveras County. The Spoils Facility incurred water-related damage in December 2015 and required remediation to stabilize the facility and prevent further erosion to Clark Creek. In April 2017 the NCPA Commission authorized the General Manager to execute a public works agreement and to issue purchase orders not to exceed \$2,897,507 for construction of the repairs. Construction has been ongoing for the past 6+ months.

On November 11, 2017, the Spoils Facility sustained approximately \$200,000 in damages during a 20 minute test at a water flowrate of 20 cubic feet/second (cfs). After engineering review of the event, the channel was determined to require augmentation to provide a higher level of safety during high flow events, with augmentation costs estimated at \$300,000 to \$500,000. The damages and additional required augmentations were determined to be due to hydraulic design errors. The design engineer, GHD, designed the related repairs, oversaw the construction work, and has agreed to reimburse NCPA for all of the repair work as well as a significant portion of the channel augmentation costs. Precise cost sharing between NCPA and GHD for the channel augmentation portion is under discussion.

A second flow test was conducted on December 20, 2017 for 2.5 hours peaking at 71 cfs. The site safely handled all test flows without damage to the site. The water levels in select locations was measured and is currently being used to calibrate the hydraulic model. Results from these tests will be used to extrapolate the predicted hydraulic performance of the facility under higher flow conditions that could occur during flooding conditions. Potential further site augmentation may be necessary if findings warrant.

ENVIRONMENTAL ANALYSIS:

The additional repair work is within the scope of the previous CEQA determination that "The repair Project was determined to be categorically exempt from CEQA under Class 1, §15301(b) and (d). A class 1 exemption, *"consists of the operation, repair, maintenance.. of existing public or private structures,..involving negligible or no expansion of use beyond that existing, including but not limited to: b) Existing facilities of both investor and publicly owned utilities used to provide electric power.. and (d) Restoration or rehabilitation of deteriorated or damaged structures..."* A Notice of Exemption was filed with Calaveras County and posted January 27

through February 24, 2017 for the repair Project. No comments were received.

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.

SELECTION PROCESS: The project was competitively bid in compliance with the CA Public Works Contracting procedures. All additional work is being executed based upon this agreement and best value to NCPA.

COMMITTEE REVIEW:

Pending Committee review

Respectfully submitted,

RANDY S. HOWARD
General Manager

Attachments:

RESOLUTION 18-XX

RESOLUTION OF THE NORTHERN CALIFORNIA POWER AGENCY INCREASING THE GENERAL MANAGER'S AUTHORITY TO ISSUE CHANGE ORDERS AND PURCHASE ORDERS FROM \$2,897,507 TO \$3,250,000 FOR THE EXISTING PUBLIC WORKS AGREEMENT WITH FORD CONSTRUCTION INC. FOR THE ADIT 4 SPOILS FACILITY REPAIRS AT THE NCPA HYDROELECTRIC PROJECT

(reference Staff Report #xxx:18)

WHEREAS, the Northern California Power Agency (NCPA) operates and maintains on behalf of the project owners Hydroelectric Facilities; and

WHEREAS, the Hydroelectric Facilities Adit 4 Spoils Facility incurred substantial damage and required repair to prevent further damage and ensure the safe and environmentally compliant operation; and

WHEREAS, the design, and public construction bidding is complete; and

WHEREAS, a California Environmental Quality Act Notice of Exemption Class1, §15301(b) and (d) was filed January 27 through February 24, 2017 for the repair Project; and

WHEREAS, flow testing, conducted on the repaired Adit 4 Spoils Facility in November 2017, indicated that additional site work was required; and

NOW, THEREFORE BE IT RESOLVED, that the Commission of the Northern California Power Agency increases the General Manager's authority to issue change orders and purchase orders from the current level of \$2,897,507 to \$3,250,000 associated with the existing public works agreement with Ford Construction, Inc. for construction of the Adit 4 Spoils Facility Repairs at the NCPA Hydroelectric Project.

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

	<u>Vote</u>	<u>Abstained</u>	<u>Absent</u>
Alameda	_____	_____	_____
BART	_____	_____	_____
Biggs	_____	_____	_____
Gridley	_____	_____	_____
Healdsburg	_____	_____	_____
Lodi	_____	_____	_____
Lompoc	_____	_____	_____
Palo Alto	_____	_____	_____
Port of Oakland	_____	_____	_____
Redding	_____	_____	_____
Roseville	_____	_____	_____
Santa Clara	_____	_____	_____
Shasta Lake	_____	_____	_____
Truckee Donner	_____	_____	_____
Ukiah	_____	_____	_____
Plumas-Sierra	_____	_____	_____

BOB LINGL
CHAIR

ATTEST: CARY A. PADGETT
ASSISTANT SECRETARY

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**SECOND PHASE AGREEMENT FOR
NCPA SOLAR PROJECT 1**

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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.

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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 20 MW, with a total project capacity of up to approximately 68 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, 2B, 2C, and 2D. 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. Phase 2A (Site Recommendation) is intended to assist Participants that have provided multiple potential project sites in their service territories to identify a leading site to pursue in subsequent Phase 2 sub-phases.

I. Phase 2B (Site Screening) is intended to determine if each site is feasible to pursue under a "Go / No Go" determination. The activities Participants desire NCPA to

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undertake in Phase 2B include but are not limited to advancing the due diligence investigation of each proposed site, initiating environmental studies, initiating financial planning, and completing a feasibility assessments for each proposed site.

J. Phase 2C (Preliminary Development & Planning) is intended to begin prerequisite activities for project construction. The activities Participants desire NCPA to undertake in Phase 2C include but are not limited to finalizing project design and specifications, preparing conceptual physical and electrical layout diagrams, arranging for capital financing, identifying site preparation requirements, identifying permit requirements, and identifying other risks and recommendations. Parties desire Phase 2C to require supplemental approvals from NCPA and Participants as a prerequisite for NCPA to commence Phase 2C activities.

K. Phase 2D (Early Project Development and Project Financing) is intended complete all prerequisite activities for construction. The activities Participants desire NCPA to undertake in Phase 2D include but are not limited to completing CEQA; gaining site control; completing financing arrangements; and negotiating a Renewable Energy Power Purchase Agreement (“Renewable PPA”) to purchase electric capacity, energy, and environmental attributes produced by eligible renewable resources from the Seller for the benefit of the Participants’ customers, and to include an option to purchase the project facilities from the Seller at a future date.

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L. 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.

M. 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.

N. 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.

O. 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.

P. 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.

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Q. 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.

R. 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.

S. 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

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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.

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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 (SO_x), nitrogen oxides (NO_x), 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

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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.

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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,”

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“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.

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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 a single site for further evaluation in subsequent Phase 2 sub-processes.

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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 (Early 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

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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.

Section 4. Billing and Payments.

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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

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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 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.

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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. For purposes of acting upon matters that relate to administration of this Agreement, a quorum of the Participants shall consist of those Commissioners, or their designated Alternate, representing a GES majority of the Participants.

7.4 Voting. Each Participant shall have the right to cast one vote with respect to matters pertaining to this Agreement, with a simple majority vote of those present for matters related to general administration of this Agreement, and a simple majority vote of Participants of each site for matters related to specific sites.

Section 8. 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.

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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

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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.

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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

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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

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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

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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

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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.

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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

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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

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651 Commerce Drive
Roseville, CA 95678

P.O. Box H
Alameda, CA 94501

By: _____
Title: Randy S. Howard
Date: _____

By: _____
Title: _____
Date: _____

Approved as to form:

Approved as to form:

By: _____
Title: Jane Luckhardt
Date: _____

By: _____
Title: _____
Date: _____

Attestation (if applicable)

Attestation (if applicable)

By: _____
Title: _____
Date: _____

By: _____
Title: _____
Date: _____

DRAFT

CITY OF HEALDSBURG
401 Grove Street
Healdsburg, CA 95448

CITY OF LODI
221 W. Pine Street
Lodi, CA 95240

By: _____
Title: _____
Date: _____

By: _____
Title: _____
Date: _____

Approved as to form:

Approved as to form:

By: _____
Title: _____
Date: _____

By: _____
Title: _____
Date: _____

Attestation (if applicable)

Attestation (if applicable)

By: _____
Title: _____
Date: _____

By: _____
Title: _____
Date: _____

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CITY OF LOMPOC
100 Civic Center Plaza
Lompoc, CA 93436

CITY OF OAKLAND, acting by and
through its Board of Port Commissioners
530 Water Street
Oakland, CA 94607

By: _____
Title: _____
Date: _____

By: _____
Title: _____
Date: _____

Approved as to form:

Approved as to form:

By: _____
Title: _____
Date: _____

By: _____
Title: _____
Date: _____

Attestation (if applicable)

Attestation (if applicable)

By: _____
Title: _____
Date: _____

By: _____
Title: _____
Date: _____

DRAFT

CITY OF PALO ALTO
250 Hamilton Avenue
Palo Alto, CA 94301

PLUMAS-SIERRA RURAL
ELECTRIC COOPERATIVE
73233 Highway 70
Portola, CA 96122

By: _____
Title: _____
Date: _____

By: _____
Title: _____
Date: _____

Approved as to form:

Approved as to form:

By: _____
Title: _____
Date: _____

By: _____
Title: _____
Date: _____

Attestation (if applicable)

Attestation (if applicable)

By: _____
Title: _____
Date: _____

By: _____
Title: _____
Date: _____

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CITY OF REDDING
777 Cypress Avenue
Redding, CA 96001

CITY OF SANTA CLARA
1500 Warburton Avenue
Santa Clara, CA 95050

By: _____
Title: _____
Date: _____

By: _____
Title: _____
Date: _____

Approved as to form:

Approved as to form:

By: _____
Title: _____
Date: _____

By: _____
Title: _____
Date: _____

Attestation (if applicable)

Attestation (if applicable)

By: _____
Title: _____
Date: _____

By: _____
Title: _____
Date: _____

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CITY OF SHASTA LAKE
1650 Stanton Drive
Shasta Lake, CA 96019

CITY OF UKIAH
300 Seminary Avenue
Ukiah, CA 95482

By: _____
Title: _____
Date: _____

By: _____
Title: _____
Date: _____

Approved as to form:

Approved as to form:

By: _____
Title: _____
Date: _____

By: _____
Title: _____
Date: _____

Attestation (if applicable)

Attestation (if applicable)

By: _____
Title: _____
Date: _____

By: _____
Title: _____
Date: _____

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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:

Participant	MW (estimated)	GES (estimated)	Authorized Representative to Initiate Phases 2C and 2D
Alameda	2.4	3.51%	
Healdsburg	1.8	2.63%	
Lodi	2.2	3.22%	
Lompoc	5.6	8.19%	
Palo Alto	0.7	1.02%	
Plumas-Sierra	4.7	6.87%	
Port of Oakland	2.0	2.92%	
Redding	10.0	14.62%	
Santa Clara	20.0	29.24%	
Shasta Lake	3.0	4.39%	
Ukiah	16.0	23.39%	
TOTAL	68	100.00%	

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EXHIBIT B: LIST OF PARTICIPANTS AND GES

Effective Date: _____

The following is a list of the Participants who are signatory to this Agreement, and their respective Generation

Entitlement Share for each facility contemplated under this Agreement.

Participant GES for Each Site*

Site Location	Site Description	Est. Size (MW)	ALA	HEA	LOD	LO M	PAL	PLU	PORT	REU	SVP	SHL	UKI
Alameda	Doolittle	2.4	100%										
Healdsburg	WWT	1.8		100%									
Lodi	Century	1.1			100%								
	Pixley Basin	4.9											
	Pixley West	1.4											
	Locust	0.5											
	World of Wonders	0.5											
	Awani	1.3											
Lompoc	Parcel 11003	5.6				100%							
Palo Alto	Golf Course	0.7					100%						
Plumas-Sierra	Beckwourth	4.6						100%					
	Herlong	5.3											
	Marble	3.9											
	Army Depot	5.3											
Port of Oakland	Airport	2.0							100%				
Redding	East	13.9								100%			
	Landfill	10.3											
	Stillwater	3.1											
Santa Clara	WWT	20.0									100%		
Ukiah	WWT	16.0											100%

*As of 12/21/2017. Assumes each participant participates 100% of its own generation.

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EXHIBIT C: LIST OF POTENTIAL SITES AND ESTIMATED CONTRACTOR COSTS PER PHASE

Participant	Site Description	Est. Size (MW)	Phase 2A	Phase 2B	Phase 2C	Phase 2D
Alameda	Doolittle (Capped Landfill)	2.4	NA	\$34,500	\$63,250	\$258,750
Healdsburg	WWT (Floating)	1.8	NA	\$34,500	\$63,250	\$258,750
Lodi	Century	1.1	\$25,760	\$33,350	\$69,000	\$270,250
	Pixley Basin	4.9				
	Pixley West	1.4				
	Locust	0.5				
	World of Wonders (Rooftop)	0.5				
	Awani (Capped Landfill)	1.3				
Lompoc	Parcel 11003	5.6	NA	\$27,600	\$69,000	\$253,000
Palo Alto	Golf Course (Carport)	0.7	NA	NA	\$63,250	\$253,000
Plumas-Sierra	Beckwourth	4.6	\$21,275	\$27,600	\$69,000	\$253,000
	Herlong	5.3				
	Marble	3.9				
	Army Depot	5.3				
Port of Oakland	Airport (Carport)	2	NA	\$27,600	\$69,000	\$258,750
Redding	East	13.9	\$16,790	\$27,600	\$80,500	\$270,250
	Landfill (Capped Landfill)	10.3				
	Stillwater	3.1				
Santa Clara	WWT	TBD	NA	\$27,600	\$92,000	\$281,750
Ukiah	WWT (Floating)	16	NA	\$34,500	\$69,000	\$270,250
Optional	Storage Feasibility Study	--	--	+\$15,000/site	--	--

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.

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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

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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").

Location (City): _____
Facility Description: _____
Approximate Acreage: _____

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.

Authorizing Participant	GES (%)	GES (MW AC)

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.

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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.

NORTHERN CALIFORNIA
POWER AGENCY
651 Commerce Drive
Roseville, CA 95678

AUTHORIZING PARTICIPANT
ADDRESS
CITY, STATE ZIP

By: _____
Title: Randy S. Howard
Date: General Manager _____

By: _____
Title: _____
Date: _____

Approved as to form:

Approved as to form:

By: _____
Title: Jane Luckhardt
Date: General Counsel _____

By: _____
Title: _____
Date: _____

Attestation (if applicable)

Attestation (if applicable)

By: _____
Title: _____
Date: _____

By: _____
Title: _____
Date: _____

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