

Power & Water Resources Pooling Authority
Resolution 23-06-05

AGGREGATION SERVICES AGREEMENT – EXHIBIT E VERSION 10

WHEREAS, Aggregation Services Agreement (“ASA”) Exhibit E describes the rate methodology and cost allocation principles associated with PWRPA’s provision of electric services to the Project Participants, and describes a process by which each Project Participant’s actual cost of service is annually reconciled with revenue collected from such Project Participant through pro forma rates (including any inter-period rate adjustment); and

WHEREAS, a comprehensive amendment to the ASA Exhibit E was approved by Resolution 20-10-19, which among other things, included “a consistent cost and benefit allocation methodology across all power resources, both physical and financial” whereby each “Participant shall pay all costs and receive all benefits for each Specific Project according to the Project participation shares in each Project;” and

WHEREAS, in the summer of 2022, PWRPA participated in the Demand Side Grid Support Program implemented by the California Energy Commission whereby certain of PWRPA’s customers provided demand response services to the State of California; and

WHEREAS, PWRPA received compensation from the State participating and also incurred operational costs for scheduling and administrative tasks.

NOW, THEREFORE, BE IT RESOLVED that the PWRPA Board of Directors hereby:

1. Approves the amendment to ASA Exhibit E, Section VI Cost Allocation Algorithms, Subsection I Load Costs, as shown here in italics:
 1. Cost Allocation: Participant hourly Energy.
 2. Costs include all day-ahead and real-time energy, congestion, and loss charges.
 3. *Demand Response programs will use a combination of Participant hourly energy and Participant load forecast for Cost Allocation.*
2. Authorizes this Resolution to have an Effective Date of January 1, 2023, thereby, being applicable to the demand response cost allocations in the 2022 Annual Reconciliation.
3. Directs the General Counsel to prepare a conformed blackline full copy of Exhibit E signified as Version 10 and attach it to the official version of this Resolution.

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Power & Water Resources Pooling Authority
Resolution 23-06-05

PASSED AND ADOPTED by the PWRPA this 7th day of June 2023, by the following vote on roll call:

AYES	Arvin-Edison WSD, Banta Carbona ID, Byron Bethany ID, Cawelo WD, Glenn-Colusa ID, James ID, Lower Tule River ID, Princeton/Provident ID, RD 108, Santa Clara Valley WD, Sonoma County WA, The West Side ID, West Stanislaus ID, Westlands WD, Zone 7 WA (100.0% voting shares)
NOES	None
ABSENT	None



David Weisenberger
Chairman



Attest by: Bruce McLaughlin
Secretary

**Attachment A
to
Resolution 23-06-05**

Exhibit E
To the
Aggregation Services Agreement
(Version E.10)

- Rate Methodology and Cost Allocation Principles -

This Exhibit E is effective as of: January 1, 2023 (Resolution 23-06-05).

The following sets forth the general principles for allocating estimated costs based upon estimated Project Participant power use, in order to derive pro forma power rates to allocate the estimated costs, and for reconciling revenues collected through rates from Project Participants with the actual, after-the-fact costs of service. The objective of these principles is to ensure that sufficient revenue is collected from each Project Participant to recover actual costs incurred by PWRPA on behalf of the Project Participants and to establish and maintain a reserve fund with sufficient margin to address any potential under-collections.

I. Documents Included

- A. This Exhibit E consists of this document and the documents appended hereto as Appendix 1, entitled “Policy for Allocation of Power Resources” (“Power Allocation Policy”), Appendix 2 entitled Resource Adequacy Cost of Compliance Rule and Appendix 3 entitled RPS Cost of Compliance Rule. In the event of any conflict between this document and any of the Appendices, the terms and provisions of the Appendices shall control, it being the intent of the Project Participants that the Appendices shall be used to interpret, implement and administer the principles set forth in this document.
- B. Any reference to a policy, agreement, statute or regulation means that document as amended, subject to any restrictions on amendment contained in that document.

II. Cost of Service Estimate

- C. Annually, PWRPA shall estimate the cost to serve each Project Participant using the cost allocation algorithms set forth in Section VI, below, Participant-specific estimates, and in conformance with the following principles.
- D. Costs shall be allocated to each Project Participant sufficient to recover its respective proportion of costs of service for acquiring, scheduling, transmitting, distributing, and reconciling its own load and resources portfolios.
- E. The cost of estimated resources to serve PWRPA’s load under this Agreement shall be allocated to Project Participants on a pro rata basis for load or contract share basis for Specific Projects.
- F. Costs for Supplemental Power procured under this Agreement shall be in direct proportion to the respective Project Participant’s estimated residual need for power to supplement its Base Resource Contract (“BRC”) Allocation and Specific Projects.

- G. Costs for Capacity are allocated on a pro rata basis and discussed in more detail in Appendix 2 Resource Adequacy Cost of Compliance Rule.
- H. Costs for Renewable Portfolio Standard (“RPS”) compliance are across multiple years. While most of the required Renewable Energy Certificates (“RECs”) come from PWRPA’s portfolio of resources, PWRPA may need to make short-term REC purchases to fill any gaps. Those purchases will be allocated on an RPS net short basis. RPS procedures are more fully outlined in Appendix 3 RPS Cost of Compliance Rule.
- I. Each Project Participant shall bear account for and pay for it its own, individual, third-party transmission and distribution costs incurred in the implementation of this Agreement.

III. Pro Forma Power Rates

- A. PWRPA shall establish pro forma power rates for each Project Participant based on the fiscal year cost of service estimates for each Project Participant.
- B. The pro forma rates may include an energy component designed to over-collect revenue to reasonably mitigate for uncertainties in marginal pricing, loads and resource volumes.
- C. The Project Participants shall be billed monthly based on the established pro forma rates.

IV. Inter-Period Rate Adjustments

- A. The Board of Directors shall review pro forma power rates biannually to determine whether the pro forma power rates should be adjusted to address shortfalls or over-collections that may occur.
- B. The pro forma power rates may be adjusted by the Board of Directors as may be reasonably required to address shortfalls or over-collections. PWRPA shall provide as much advance notice to Project Participants of adjusted pro forma power rates as reasonably practicable, but in no event less than 15 business days. Without limiting the generality of the foregoing, the Board of Directors may adjust pro forma power rates for specific Project Participants to address changes in power portfolio volumes, costs or revenues.
- C. Adjusted rates shall be based on the principles set forth in Sections II and III, above.

V. Annual Reconciliation

- A. As soon as practicable after the fiscal year, PWRPA shall reconcile, on an accrual basis as of that date, each Project Participant’s collected revenue from invoiced power rates with the Project Participant’s actual cost of service.
- B. Actual cost allocation shall conform to the cost allocation algorithms described in Section VI, below.
- C. Upon approval of the Annual Reconciliation statement by the Board of Directors, over- or under-collection of revenue from Project Participants shall be returned or credited to Project Participants after first satisfying any

requirement to contribute to the reserve fund. Project Participants shall have a 90-day review period to propose amendments to the Board, after which the Annual Reconciliation statement shall become final.

VI. Cost Allocation Algorithms

The following algorithms are the mechanisms that implement the foregoing cost allocation principles and shall be adjusted as directed by the Board of Directors to more accurately reflect those principles. These algorithms shall be used to: (1) allocate estimated costs for purposes of establishing the pro forma power rates; and (2) define actual costs attributable to Project Participants for purposes of the Annual Reconciliation process. A precise list of invoices and algorithms for each category will be detailed in each year's Annual Reconciliation report.

As used in this document and the Appendices, the word "energy" whether capitalized or not, means the electrical energy produced, flowing or supplied by generation, transmission or distribution facilities and procured by the Project Participant, being measured in units of kilowatt-hours or standard multiples thereof.

A. Joint Power Authority General Overheads

1. Cost Allocation: Pro Rata of Parties and Stakeholders found in Joint Powers Agreement Exhibit C, Table 2, Section 3.8.2.3.
2. Costs include, but are not limited to, planning, meetings, supplies, and office equipment.

B. Metering and Meter Data Management

1. Cost Allocation: Pro Rata of Active Meters.
2. Costs include, but are not limited to, meter reading, meter communication, meter validation, grid operator meter data management, and annual audits related to meters and meter data.

C. Utility Management are costs incurred for managerial functions required to implement this Aggregation Services Agreement ("ASA"). The basic functions are required regardless of load, however, increased loads may cause commensurate increases in financial risk and the level of managerial services required in this cost category.

1. Cost Allocation: Project Participant Voting Share found in Joint Powers Agreement Exhibit C, Table 1.
2. Costs include staff and contractor costs for treasurer services, annual cost reconciliation, annual audits, power budget and pro forma rate development, operations planning, contractor coordination, meeting implementation, meeting materials development, legal services involving public utility and electricity law, legislative/regulatory policy development and compliance, and legal services involving the PG&E Wholesale Distribution Tariff.

D. Utility Operations (Fixed) are costs incurred for operations functions required to implement the ASA. The basic functions are required regardless of load, however, increased loads may cause commensurate increases in financial risk and the level of managerial services required.

1. Cost Allocation: Project Participant Voting Share found in Joint Powers Agreement Exhibit C, Table 1.
2. Costs include staff and contractor costs for certain scheduling coordinator services, load/resource scheduling, regulatory reporting, risk management policy compliance, trading controls, power invoices, quarterly rate analysis, operations reporting, pre-reconciliation reporting, power settlements, and information technology services.

E. Utility Operations (Variable) are costs incurred for operations functions required to implement the ASA that are variable in nature. Increased loads may cause commensurate increases in financial risk and the level of operations services required.

1. Cost Allocation: Energy.
2. Costs include staff and contractor costs for daily load-resource optimization (load profiles, resource shaping, congestion revenue rights schedules) and short-term portfolio planning (net short analysis, monthly portfolio management, forward contract purchases).

F. Distribution

1. Cost Allocation: Peak Demand for interval meters and Energy for energy meters.
2. Costs include distribution and cost of ownership invoices from the wholesale distribution service provider.

G. Transmission

1. Cost Allocation: Distribution Loss Factor Energy.
2. Costs include pro rata share of transmission owner revenue requirement.

H. Balancing Authority Operator Charges

1. Cost Allocation:
 - a. Grid Management & Miscellaneous charges: Energy.
 - b. Ancillary Services: Energy less qualifying generation.
2. Costs include all charges from the grid operator and other reliability governing bodies that are not explicitly handled in the load and resource allocation rules.

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I. Load Costs

1. Cost Allocation: Participant hourly Energy.
2. Costs include all day-ahead and real-time energy, congestion, and loss charges.
3. Demand Response programs will use a combination of Participant hourly energy and Participant load forecast for Cost Allocation.

J. Base Resource (“BR”)

1. Cost Allocation:
 - a. Energy: Annual Contract Share basis.
 - b. Displacement: Net Use of BR energy.
 - c. Pooling: Split the Savings / Revenue (further defined in Appendix 1).
 - d. Overhead: Annual Contract Share.
2. Costs include invoices for Energy, Restoration Fund, WREGIS fees, prior year true-ups, and grid operator revenue or expenses.

K. Specific Projects (as further described in Appendix 1)

1. Cost Allocation: Project Share.
2. Costs include, but are not limited to, Energy, grid operator revenue or expenses, plant operator costs, grid management costs, staff overhead for scheduling, settlement, and reporting costs.

L. Supplemental Power – Energy

1. Cost Allocation: Net Short energy as determined at time of contract solicitation.
2. Costs include contract energy charges and grid operator revenue or expenses.

M. Supplemental Power – Other

1. Cost Allocation: contract share at time of solicitation.
2. Costs may include, but are not limited to, procurement for Resource Adequacy, Renewable Energy Credits, Greenhouse Gas allowances, and other attributes not covered in the Base Resource, Specific Project, or Supplemental Power categories.

Appendix 1 to Exhibit E

Policy for Allocation of Power Resources

Purpose: This policy describes the mechanisms employed by PWRPA under the Aggregation Services Agreement to allocate the costs and benefits of power resources between and among Project Participants.

Background: Project Participants are moving away from generic Supplemental Power and are procuring more tailored portfolios. Specifically, Project Participants are entering into an increasing number of contracts classified in the Specific Project-Renewable tier. The original process of aggregating all Specific Projects unnecessarily complicated the energy and cost allocation and inhibited capabilities to accurately assess Specific Project performance metrics. Version 9 eliminates resource pooling except for BR from the Central Valley Project. BR pooling is now calculated on a daily basis rather than hourly thereby enabling Project Participants to retain more of their BR contract share and maximize the economic opportunities from the markets.

Policy Statement: This Policy Statement shall, together with the specific parameters defined in Table 1, constitute PWRPA's policy for allocating the costs and benefits of physical and financial power sources to Project Participants. As it relates to Renewable Portfolio Standard Compliance ("RPS") and Resource Adequacy ("RA"), this Policy Statement is subject to Appendix 2 (RA Cost of Compliance Rule) and Appendix 3 (RPS Cost of Compliance Rule) to Exhibit E. The Appendices shall be used to further interpret, implement and administer the principles set forth in this Policy Statement as related to allocating all power resources. Relevant technical documentation shall be included as part of, and included in, PWRPA's annual reconciliation process.

- 1) Each Participant should communicate its load estimate on a day-ahead basis. PWRPA will estimate the load based on historical usage in absence of a confirmed Participant forecast (ASA Section 7.2).
- 2) PWRPA will aggregate all Participant load into zonal forecasts as designed by the CAISO. PWRPA or its agent will schedule as accurately as possible into the day-ahead market for each hour (ASA Section 7.3).
- 3) Each Participant's hourly net load will be allocated all load costs associated with energy, congestion, and losses from the CAISO's day-ahead and real-time markets. For avoidance of doubt, this includes all Congestion Revenue Right hedging activity.
- 4) PWRPA shall employ a consistent cost and benefit allocation methodology across all power resources, both physical and financial. Each Participant shall pay all costs and receive all benefits for each Specific Project according to the Project participation shares in each Project.
- 5) All operational decisions in regard to shaping resources (if applicable) and scheduling (physically or financially) shall be defined in the Project contract or at the discretion of the General Manager, subject to BROCC oversight.
- 6) PWRPA categorizes all resources into tiers for the purpose of grouping similarly treated resources together. These tiers are set forth in merit order consistent with the loading order adopted by the State of California. Table 1 identifies tiers and general allocation rules consistent with this Policy Statement. Projects will be classified into one tier only.
- 7) Resources classified in the Specific Project-Offsetting tier are treated similarly to the Energy Efficiency tier. The Participant's full allocation of energy from a Specific

Project-Offsetting is counted as an offset against the Participant’s load before calculating the BR pooling allocation as described below.

- 8) Base Resource is the only resource that is pooled in PWRPA primarily because it is a must-take resource. Pooling applies when there is excess BR energy after serving a Participant’s load. Participants that have excess BR energy contribute their excess to the Pool and Participants that are short receive energy from the pool. Pooling is used to keep BR within PWRPA when it is a benefit over the market alternative.
- 9) When BR energy is pooled, there are two split-the-savings transfers; one for the cost of the energy and the other for the revenue (or expense) from the CAISO. Because all Project Participants receive their allocation share of energy costs and revenues, it is important to transfer both the costs and credits for the pooled energy to the pooled energy recipient.
- 10) Supplemental Power physical or financial forward purchases and sales shall be classified in the Supplemental Power tier. Forward contracts are allocated to Participants based on the net position at the time the forward contract is procured. These net positions are guided by the Risk Management Policy and/or at the discretion of each Participant. For avoidance of doubt, each fixed forward contract can have a separate allocation matrix for Participant participation. Similar to Specific Projects, costs and revenues for Supplemental Power are allocated by Participant allocation with no pooling.
- 11) Day-ahead purchases and sales are done at the discretion of the Scheduling Agent and guided by written scheduling protocols. Day-ahead contracts are allocated based on monthly net long or short positions with no pooling.
- 12) Pursuant to ASA Section 2.3, the Board of Directors may modify the methodologies, procedures and specific parameters of this Policy Statement from time to time as necessary to address the unique attributes of Projects.

Specific Project-Offsetting:

- 1) Pursuant to Board Resolution 09-07-11, in determining the “residual load” or net short position of the Sonoma County Water Agency (“SCWA”) for purposes of sharing surplus BR under ASA Section 4.4.2, the full allocation of energy from the Warm Springs Hydroelectric Project (a Specific Project-Offsetting) will first be counted as an offset to SCWA’s load. As such, SCWA’s residual load will be calculated as SCWA’s total load minus: (a) the full allocation of energy from the Warm Springs Hydroelectric Project; and (b) SCWA’s BR contract share.
- 2) Pursuant to Board Resolution 16-02-04, in determining the “residual load” or net short position of the Westlands Water District (“WWD”) for purposes of sharing surplus BR under ASA Section 4.4.2, the full allocation of energy from the Westlands BOR (a Specific Project-Offsetting) will first be counted as an offset to WWD load. As such, WWD’s residual load will be calculated as WWD’s total load minus: (a) the full allocation of energy from the Westlands BOR; and (b) WWD’s BR contract share.

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Table 1

Tiers	Loadin g Order	Allocation Percentage	Pooling Access Rule	Pooling Price Formul a	Split Savings %	Pooling Price Limit	Comments
Energy Efficiency	-3	100% Participant	None	None	None	None	Internal to Participant
Demand Response	-2	100% Participant	None	None	None	None	Internal to Participant
Onsite Generation supplied by Participant	-1	100% Participant	None	None	None	None	Load Offset
Retail Sale Load	0	100% Participant	None	None	None	None	Internal to Participant
Specific Project-Offsetting	1	Project Share	None	None	None	None	Warm Springs and WWD BOR
Base Resource (ASA Section 4.4)	2	BRC Allocation %	Sequential Net Short (SNS)	Split-the-Benefit	50%	Minimum of BR Rate	Allocation and Pooling on a Daily basis (not hourly)
Specific Project-Renewable (ASA Section 4.5b and 4.6)	3	Project Share	None	None	None	None	
Specific Project- Other (Section 4.5b and 4.6)	4	Project Share	None	None	None	None	
Supplemental Power – Forward Purchase	5	Supplemental Power Allocation %	None	None	None	None	Allocation % to be based on a Net Short established at time of transaction
Supplemental Power - Forward Sale	6	Supplemental Power Allocation %	None	None	None	None	Allocation % to be established at time of transaction
Supplemental Power – Day-Ahead (Purchase or Sale)	7	Remaining Net Short or Net Long	SNS or SNL	None	None	None	

Definitions for Table 1:

- 1) Allocation Percentage –
 - a. Base Resource tier and all Specific Project tiers – the Allocation percentage shall be the pro-rata share of each Participant’s contract rights to the resource, as deliverable to PWRPA load, to the total contract rights to the resource, e.g., the Participants’ proportional rights to PWRPA’s aggregate right to BR.
 - b. Supplemental Power-Forward tiers – the Allocation percentage is contract-specific and based on the net position for each Participant at the time the forward contract is procured. The Risk Management Policy guides the timing and volume of procurement.

- c. Supplemental Power Day-Ahead tier – the Allocation percentage for Supplemental Power Day-Ahead shall be based on the monthly net long or net short position.

2) Base Resource Pooling Details

- a. Pooling Price Formula – shall mean some form of a “split-the-benefit” formula (savings or revenue). The split-the-benefit methodology applies when there is some savings or revenue between the pooled BR energy’s price and a market price alternative. The split-the-benefit formula requires a: (a) Unit Price; (b) Splitting Percentage; and (c) Market Price. The two Participants (donor and recipient) will split the benefit according to the splitting percentage. A price limit is optional.
- b. Pooling Price Formula application: When pooling BR resources, there are two pooling rates to derive and use; the rate to pool the BR energy cost, and also the rate to transfer the CAISO revenue.
 - i. Pooling of BR energy cost
 - 1. BR Unit Price: An annual rate derived by taking annual invoices divided by annual invoiced energy (imports and displaced energy). The annual rate will be estimated for purposes of pre-reconciliation reports.
 - 2. BR Market Price: The locational marginal price (“LMP”) most directly associated with the pooled energy’s reasonable market alternative is TH_NP15. Since BR pooling is done daily, a daily weighted market price is derived from the hourly BR energy scheduled and the hourly LMP at TH_NP15. In the event a market LMP cannot be calculated, this methodology will revert to using a proxy price such as the Intercontinental Exchange (“ICE”) daily price index or successor.
 - 3. Optional BR Price Limit: Floor set at BR Unit Price
 - ii. Pooling of CAISO revenue
 - 1. CAISO Unit Price: The LMP where energy was imported (or Displaced). BR pooling is done daily, therefore a daily weighted credit is derived from the actual hourly transactions and the hourly CAISO revenue rates applicable to imported and displaced BR.
 - 2. CAISO Market Price: Same as for pooling of the BR energy cost which is a daily weighted market price derived from the hourly BR energy scheduled and the hourly LMP at TH_NP15.
 - 3. Optional CAISO Price Limit: Floor set at CAISO Unit Price.
- c. Splitting percentage for all split-the-benefit calculations shall be 50%, absent Board action to the contrary.
- d. Price Limits may be used to set a minimum or cap to the split-the-benefit rate derivation.

Appendix 2 to Exhibit E

Resource Adequacy Cost of Compliance Rule (“RA Rule”)

Effective 2013 Operating Year pursuant to Resolution 13-08-10.

Purpose: As provided in Section II.E. of Exhibit E, this RA Rule revises and implements mechanisms to be employed by PWRPA under the ASA to forecast and allocate costs associated with RA compliance.

Applicability: The PWRPA RA compliance obligations for Operating Year 2013, and thereafter, or until amended.

Summary: This RA Rule consists of four components: 1) Compliance Information; 2) Counting Conventions for RA; 3) Allocation of RA Costs; and 4) Additional Charges. Unless otherwise specified, all capitalized terms used in this RA Rule have the meanings given to such terms in the Aggregation Services Agreement.

- 1) Compliance Information:** The GM will provide information to Project Participants. The purpose of this information is to inform Project Participants of PWRPA's current and planned RA compliance activities and positions.

The GM, at a minimum, shall report quarterly to the Board the current and projected RA compliance position of PWRPA based on the best available forecast information of loads and resource performance available at the time of the report.

- 2) Counting Conventions:** The GM shall be responsible for the acquisition of sufficient RA products to assure PWRPA meets its compliance obligations, as described in the ISO tariff. In general, PWRPA's RA compliance obligation is to secure sufficient RA products to cover at least 115% of its peak load. RA products include, but are not limited to, system, local or fast ramp qualified demand response; unit contingent and firm capacity with or without associated energy sourced in California within the CAISO controlled grid, or sourced outside the CAISO controlled grid when accompanied with sufficient firm transmission and associated CAISO import capability allocations. The GM shall also rely on the RA counting conventions adopted by the Board, acting as PWRPA's Local Regulatory Authority ("LRA"), that include other forms of capacity that are accepted for submittal to the CAISO's RA process. In general, annual RA plans are submitted in October of each year, and monthly RA plans are submitted for approval each month.

Finally, the CAISO monitors RA plan performance as defined and described in the CAISO tariff. Actual RA resource performance in the CAISO markets is compared to RA planned performance. Absent a performance waiver, any RA deficiency on an hourly basis is subject to an CAISO RA performance penalty (as described in CAISO tariff).

- 3) Allocation of RA Costs:** For purposes of this RA Rule, each Project Participant shall be assigned responsibility for a share of PWRPA's RA compliance capacity by applying the criteria applicable to PWRPA to each Project Participant individually, where the sum of the individual Project Participant's responsibility shall equal PWRPA's responsibility in total.

On a planned and operational basis, total RA performance for PWRPA is equal to the sum of each Project Participant's share of PWRPA resources counted towards RA compliance. To the extent a specific resource satisfies a CAISO RA requirement for PWRPA, each Project Participant's share of that resource shall likewise satisfy the requirement for the Project Participant.

Any RA shortfall or deficiency that might accrue to PWRPA and require correction or adjustment, shall be allocated, for purposes of this RA Rule and as the case may be: (a) to each Project Participant on a pro-rata basis in relation to the Project Participant's share of the PWRPA RA resource(s) performance that caused the shortfall or deficiency; or (b) to the Project Participant's share of uncovered load (namely, electric load of the Project Participants for which no RA products have been secured to cover).

- 4) Additional Charges:** PWRPA will endeavor to plan its RA portfolio to cost-effectively minimize the total cost of RA compliance on a planned basis. However, as noted in Section 2, above, the CAISO monitors RA plans and RA performance in real-time where market participants like PWRPA have little means to correct any imbalance that might occur from its RA Plans, which were submitted months in advance of the real time market. Any RA shortfall or deficiency that might accrue to PWRPA may, in certain circumstances, result in an CAISO charge, RA assessment or penalty ("Economic Sanction") applied to PWRPA after the fact without opportunity for cure by PWRPA. Each occurrence of an Economic Sanction depends on the circumstances at hand, and may be the result of resource performance, load volatility, or actions (inactions) by others out of PWRPA's control.

Any Economic Sanction that accrues to PWRPA will be allocated to each Project Participant on a pro-rata basis in relation to the Project Participant's share of the PWRPA RA resource(s) the performance of which caused the shortfall or deficiency or to the Project Participant's share of uncovered load, both of which as described in Section 3, above.

Appendix 3 to Exhibit E

RPS Cost of Compliance Rule ("RPS Rule")

Effective January 1, 2014 pursuant to Resolution 14-04-04.

Purpose: As provided in Section II.F. of Exhibit E, this RPS Rule revises and implements mechanisms to be employed by PWRPA under the ASA to forecast and allocate costs associated with RPS compliance.

Applicability: The PWRPA RPS compliance obligations for Compliance Period 2 (Jan 1, 2014 - Dec 31, 2016) & Period 3 (Jan 1, 2017 - Dec 31, 2020), and thereafter, or until amended.

Summary: The PWRPA Renewable Energy Resources Procurement Plan ("Procurement Plan") describes how PWRPA will achieve its RPS procurement requirements in each compliance period. This RPS Rule provides cost allocation rules, as contemplated in the RMP. This RPS Rule consists of six components: 1) Compliance Information; 2) Acquisition of Compliance Instruments; 3) Allocation of Compliance Costs; 4) RPS Funding; 5) Supplemental Power Cost Allocation Methodology Interaction; and 6) Additional Charges.

Unless otherwise specified, all capitalized terms used in this RPS Rule have the meanings given to such terms in the Aggregation Services Agreement.

- 1) Compliance Information:** The GM will provide information to Project Participants. The purpose of this information is to inform Project Participants of PWRPA's current and planned RPS compliance activities and positions.

The GM, at a minimum, shall report quarterly to the Board the current and projected RPS compliance position of PWRPA based on the best available forecast information of loads and resource performance available at the time of the report.

- 2) Acquisition of RPS Compliance Instruments:** The PWRPA Board of Directors shall be responsible for procuring sufficient compliance instruments to assure PWRPA meets its obligations for all compliance periods and thereafter unless amended. For the purpose of this RPS Rule, a Compliance Instrument shall mean an "electricity product" as defined in Section 6 of the Procurement Plan..

In order to facilitate planning and acquisition activities, the GM will develop, and the Board will periodically adopt, hedge guidelines applicable to PWRPA's acquisition of Compliance Instruments. These hedge guidelines will prescribe percentage hedge positions relative to the remaining quarters in a compliance period that will guide PWRPA's RPS acquisition activities. To the extent practical, PWRPA will endeavor to create opportunities pursuant to rate agreements by which Project Participants may be directly assigned costs and rights to specific renewable energy resources sufficient to reliably meet PWRPA's RPS compliance obligations. In the event such opportunities do not materialize, or rate agreements are not executed by Project Participants, the GM shall procure in a cost effective manner sufficient RPS Compliance Instruments and allocate the costs of such compliance activities pursuant to this RPS Rule.

- 3) Allocation of RPS Costs:** For purposes of this RPS Rule, each Project Participant shall be assigned responsibility for a share of PWRPA's RPS compliance obligation costs, by applying the compliance obligation metric applicable to PWRPA to each Project Participant the sum of the individual Project Participant's obligation costs shall equal PWRPA's obligation costs in total. As described in Section 2, Project Participants are expected to be given the opportunity to voluntarily underwrite, subscribe or otherwise execute a rate agreement(s) governing a share of a specific renewable energy project or instrument that satisfies all or a portion of the Individual Participant's RPS compliance obligation. To the extent that the projected sum of all Compliance Instruments from such rate agreements for any Project Participant exceeds that Project Participant's assigned share of PWRPA RPS compliance obligations for any compliance period, the Project Participant may elect to bank those excess Compliance Instruments in a manner consistent with Section 10 of the Procurement Plan. Absent this election, the excess Compliance Instruments shall pro-rata reduce all other Project Participants' assigned responsibility for that period.

For purposes of this RPS Rule, PWRPA's RPS compliance obligation was calculated using a 7-year rolling average of retail sales multiplied by the applicable RPS percentages for each year.

4) RPS Funding -RPS Rate and the P3-RPS Compliance Account:

- a. Periodically, but not less than quarterly, the GM shall evaluate PWRPA's RPS position and net short positions relative to the applicable RPS compliance period requirements for PWRPA in total and for each Project Participant, as allocated pursuant to this RPS Rule. The evaluation shall identify three categories: (a) Subscribed Positions (i.e., expected deliveries from agreements under which PWRPA and Project Participants have contracted to procure Compliance Instruments); (b) Allocated Positions (i.e., the RPS obligations of PWRPA and Project Participants allocated as per Section 3); and (c) Net Short Positions (i.e., the difference between (b) and (a)). At least one evaluation shall be coincident with PWRPA's annual budget and rate cycle, which typically occurs at the start of a calendar year.
- b. The GM shall develop, and the Board shall adopt, rates for each Project Participant sufficient to cover the costs of meeting the "Net Short" RPS positions as determined in in Section 4.a., above, plus a reasonable margin for contingencies ("RPS Rates"). (Rates for Subscribed Positions will be as set forth in the applicable rate agreements associated with each subscribed position.) The RPS Rates shall consist of (i) a fixed charge (that may equal zero); and (ii) a per kilowatt-hour charge to be applied to each Project Participant's energy load.
- c. Thereafter, the revenues collected from the RPS Rates shall be deposited in a sub account of the PWRPA Public Purpose Program ("P3") account known as the P3-RPS Compliance Account ("P3- RCA") by Project Participant. The funds deposited in the P3-RCA shall be tracked by Project Participant and reported monthly to the Board.
- d. The costs of any RPS Compliance Instrument not otherwise procured as the result of a rate agreement and directly assigned to a Participant shall be paid out of the P3-RCA. Expenditures from the P3-RCA shall be tracked by Project Participant, and shall

reflect each Project Participant's allocated cost responsibility for such Compliance Instruments.

- e. For the purposes of this section and within any compliance period, the GM may transfer the amount of banked "excess Compliance Instruments" from one or more Participant's Subscribed Positions that have been declared surplus by said Participants ("Surplus Compliance Position") to other Participant's with Net Short Positions, pursuant to notice and transfer rules adopted by the Board. The Board shall establish the transfer price for Surplus Compliance Positions, at least annually, to be equal to the market value of equivalent Compliance Instruments that the GM would otherwise procure the GM to meet the RPS obligations reflected in the Net Short Positions. In the event such a transfer is implemented, those Participants transferring a Surplus Compliance Position shall receive a credit of the applicable transfer price in their P3-RCA from the corresponding transferees whose P3-RCA account is debited. The term "market value of equivalent Compliance Instruments" refers to a to a transfer of electricity products of the same Portfolio Content Category for a specific compliance period, and are separate and distinct from the term "pool transfer price for energy" which shall continue to apply to hourly pool transfers.
 - f. If a Project Participant(s) enters into a rate agreement relating to a new Compliance Instrument (i.e., a Compliance Instrument not already included in the Project Participant(s)' Subscribed Positions) during any compliance period, then at the request of a Project Participant, all or a portion of the costs of that newly subscribed Compliance Instrument shall be paid out of the P3-RCA in proportion to the Participant(s)'s allocated cost responsibility for such Compliance Instrument, up to the total amount in the P3-RCA attributed to that Participant(s). The GM shall soon thereafter undertake a new evaluation of RPS positions and, if necessary, adjust the RPS Rates as required going forward.
- 5) Additional Charges:** Each Project Participant shall indemnify and hold PWRPA harmless for all damages and costs incurred due to any penalty, fine or other sanction imposed on PWRPA for not meeting its RPS compliance obligation ("Economic Sanctions") as a result of that Project Participant's failure to satisfy its allocated share of PWRPA's RPS compliance obligations. To the extent allowed by law, Economic Sanctions attributed to a non-compliant Project Participant shall be paid out of remaining funds in its respective P3-RCA. Any remaining balance shall be added to the Project Participant's next monthly billing statement of which the full amount shall be subject to Article 9 of the Aggregation Services Agreement.

Version History			
Version 1			
Version 2			
Version 3			
Version 4			
Version 5			
Version 6			
Version 7			
Version 8			
Version 9			
Version 10	6/07/23	R23-06-05	Added Exhibit E, Section VI Cost Allocation Algorithms, Subsection I Load Costs