

ALAMEDA MUNICIPAL POWER

RENEWABLE ENERGY RESOURCES PROCUREMENT PLAN (PER SENATE BILL X1 2)

Approved by the Alameda Public Utilities Board: August 19, 2013

1. INTRODUCTION

Senate Bill (SB) X1 2, enacted in the 2011-2012 First Extraordinary Session of the Legislature, modified the state's renewable portfolio standard (RPS) program and set forth new RPS requirements applicable to publicly owned utilities (POUs). AMP, as a POU, must comply with SB X1 2. Under Public Utilities Code (PUC) § 399.30(a), each POU must adopt and implement a renewable energy resources procurement plan (RPS Procurement Plan) and revise it as necessary. This document replaces the RPS Procurement Plan approved by the Public Utilities Board (the Board) on November 21, 2011, Resolution No. 4884.2, and reflects the many changes and additions included in the *Enforcement Procedures for the Renewables Portfolio Standard for Local Publicly Owned Electric Utilities* (RPS Regulations), adopted by the California Energy Commission (CEC) on June 12, 2013.

In addition to the development of an RPS Procurement Plan, and in accordance with SBX1 2, Alameda Municipal Power (AMP) adopted and implemented a separate program for the enforcement of the RPS Procurement Plan before January 1, 2012, in accordance with SB X1 2, and will revise it as appropriate. AMP's enforcement program is not addressed in this document, but rather, in a separate report.

AMP's RPS Procurement Plan consists of several sections:

- A. Purpose of the plan
- B. Basic Requirements – the plan elements that are directly mandated by the legislation
- C. AMP's Augmented RPS – renewables procurement that voluntarily exceeds SB X1 2 requirements
- D. Optional Compliance Measures - measures that address each of the optional provisions set forth in PUC § 399.30(d) and RPS Regulations section 3206
- E. Additional Plan Components – components that include plan review, deliberations and changes

Where appropriate, the RPS Procurement Plan includes section citations to PUC §§ 399.11, et seq, as last amended by Statutes 2012, Chapter 162, Section 157, effective January 1, 2013.

2. PURPOSE

In order to comply with PUC § 399.30(a) and fulfill its generation resource needs, AMP adopts and implements an RPS Procurement Plan that:

Effective: September 1, 2013
Revised August 19, 2013

AGENDA ITEM NO.: 5.I.
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A. Requires the utility to procure a minimum quantity of electricity products from eligible renewable energy resources, including renewable energy credits, as a specified percentage of AMP’s total kilowatt hours sold to its retail end-use customers, in each compliance period, to achieve the targets specified in SB X1 2, and

B. Establishes the framework for doing so.

3. BASIC REQUIREMENTS

AMP will comply with the requirements for renewables procurement targets and the portfolio balance percentages for portfolio content categories (PCC), pursuant to the RPS Regulations. Table 1 summarizes those requirements and sections A through D, which follow, provide more detailed information. The procurement targets listed below are minimum requirements established by the CEC.

Table 1 – Summary of Basic Requirements

Compliance Period	Year	CEC Renewables Procurement Target	Portfolio Balancing Requirements	
			PCC 1	PCC 3
Compliance Period 1	2011	Average of 20 %	≥ 50 %	≤ 25 %
	2012			
	2013			
Compliance Period 2	2014	20 %	≥ 65 %	≤ 15 %
	2015	20 %		
	2016	25 %		
Compliance Period 3	2017	27 %	≥ 75 %	≤ 10 %
	2018	29 %		
	2019	31 %		
	2020	33 %		
Annual Period	2021	33 %	≥ 75 %	≤ 10 %
Annual Period	Etc.	33 %	≥ 75 %	≤ 10 %

A. Compliance Periods

PUC § 399.30(b) defines compliance periods as follows:

- a. Compliance Period 1: January 1, 2011, to December 31, 2013, inclusive.
- b. Compliance Period 2: January 1, 2014, to December 31, 2016, inclusive.
- c. Compliance Period 3: January 1, 2017, to December 31, 2020, inclusive.
- d. Annual Compliance Periods: Annually after 2020.

B. Procurement Targets of Renewable Energy Resources for Each Compliance Period
PUC §§ 399.30(c)(1) and (2) require the following:

- a. During Compliance Period 1 – January 1, 2011 to December 31, 2013, AMP shall procure renewable energy resources equivalent to an average of at least 20 percent of retail sales, applying the following formula:

$$\frac{EP_{2011} + EP_{2012} + EP_{2013}}{RS_{2011} + RS_{2012} + RS_{2013}} \geq 0.20$$

Where:

RS_x = total retail sales made by the POU for the specified year x

EP_x = electricity products retired for the specified year x; this may include excess procurement and historic carryover that the POU has chosen to apply to the compliance period containing year x.

- b. By the end of Compliance Period 2, December 31, 2016, AMP shall procure renewable energy resources equivalent to at least 25 percent of retail sales, applying the following formula:

$$EP_{2014} + EP_{2015} + EP_{2016} \geq 0.20 (RS_{2014}) + 0.20 (RS_{2015}) + 0.25 (RS_{2016})$$

- c. By the end of Compliance Period 3, December 31, 2020, AMP shall procure renewable energy resources equivalent to at least 33 percent of retail sales. During the intervening years of Compliance Period 3, AMP shall increase procurement annually to reflect an imputed 2020 compliance obligation expressed as:

$$(EP_{2017} + EP_{2018} + EP_{2019} + EP_{2020}) \geq 0.27 (RS_{2017}) + (0.29 (RS_{2018}) + 0.31 (RS_{2019}) + 0.33 (RS_{2020}))$$

- d. For the Compliance Period January 1, 2021 to December 31, 2021, and each calendar year thereafter, AMP shall procure renewable energy resources equivalent to at least 33 percent of retail sales.

C. Procurement Requirements – Definitions for Content Categories

Under Public Utilities Code § 399.16 and the RPS Regulations, AMP's RPS Procurement Plan shall consist of Procurement Content Categories (PCC) that meet the criteria for the following eligible renewable energy resource electricity products:

a. Portfolio Content Category (PCC 1)

Resources in this category shall either:

- i. Have a first point of interconnection with a California balancing authority, have a first point of interconnection with distribution facilities used to serve end users within a California balancing authority area, or are scheduled from the eligible renewable energy resource into a California balancing authority without substituting electricity from another source. The use of another source to provide real-time ancillary services required to maintain an hourly or sub-hourly import schedule into a California balancing authority shall be permitted, but only the fraction of the schedule actually generated by the eligible renewable energy resource shall count toward this portfolio content category, or
- ii. Have an agreement to dynamically transfer electricity to a California balancing authority.

b. Portfolio Content Category 2 (PCC 2)

Electricity products in this category must be generated by an eligible renewable energy resource that is interconnected to a transmission network within the WECC service territory, and the electricity must be matched with incremental electricity that is scheduled into a California balancing authority.

c. Portfolio Content Category 3 (PCC 3)

Resources in this category shall include eligible renewable energy resource electricity products, or any fraction of the electricity generated, including unbundled renewable energy credits, that do not qualify under the criteria of Content Category 1 or Content Category 2.

d. Grandfathered Resources (PCC 0)

Any contract or ownership agreement originally executed prior to June 1, 2010, shall count in full towards the procurement requirements, if all of the conditions listed below are met. Grandfathered resources shall be counted for RPS compliance without regard to the limitations on the use of each portfolio Content Category as described in the following section.

- i. The renewable energy resource was eligible under the rules in place as of the date when the contract was executed.
- ii. Any contract amendments or modifications occurring after June 1, 2010, do not increase the nameplate capacity or expected quantities of annual generation, or substitute a different renewable energy resource.
- iii. The duration of the contract may be extended if the original contract specified a procurement commitment of fifteen or more years.
- iv. “Eligible renewable energy resource” means an electrical generating facility that meets the definition of a “renewable electrical generation facility” in section 25741 of the Public Resources Code, subject to the following: ” A facility approved by the governing board of a local publicly owned electric utility prior to June 1, 2010, for procurement to satisfy renewable energy procurement obligations adopted pursuant to former section 387, shall be certified as an eligible renewable energy resource by the Energy Commission pursuant to this article, if the facility is a “renewable electrical generation facility” as defined in section 25741 of the Public Resources Code.” (§ 399.12(e)(1)(C).

D. Portfolio Balancing Requirements – Quantity for Content Categories

- a. Compliance Period 1 Procurement Requirements: For Compliance Period 1, AMP shall procure not less than 50 percent of the eligible renewable energy resource electricity products associated with contracts executed after June 1, 2010 from Content Category 1, and not more than 25 percent from Content Category 3.
- b. Compliance Period 2 Procurement Requirements: For Compliance Period 2, AMP shall procure not less than 65 percent of the eligible renewable energy resource electricity products associated with contracts executed after June 1, 2010 from Content Category 1, and not more than 15 percent from Content Category 3.
- c. Compliance Period 3 Procurement Requirements: For Compliance Period 3, AMP shall procure not less than 75 percent of the eligible renewable energy resource electricity products associated with contracts executed after June 1, 2010 from Content Category 1, and not more than 10 percent from Content Category 3.
- d. Annual Procurement Requirements After 2020: Beginning in calendar year 2021 and annually thereafter, AMP shall procure not less than 75 percent of the eligible renewable energy resource electricity products associated with contracts executed after June 1, 2010 from Content Category 1, and not more than 10 percent from Content Category 3.

4. AMP'S AUGMENTED RPS

AMP's Board voluntarily adopted renewables procurement targets that exceed those established in SB X1 2, November 21, 201, Resolution 4887 (AMP's Augmented RPS). These voluntary targets:

- A. Will be subject only to Board specified portfolio balance requirements;
- B. May be satisfied with historical carryover, excess procurement, and any PCC or other type of REC as determined by the Board;
- C. May be satisfied with RECs from any current or past year or compliance period, subject to the 36-month retirement requirement as determined by the Board; and
- D. May be modified by the Board for any given compliance period.

The specifics of AMP's Augmented RPS are provided separately from the RPS Procurement Plan and RPS Enforcement Plan.

5. OPTIONAL COMPLIANCE MEASURES

AMP adopts the use of the five optional compliance measures included in the RPS Regulations and summarized in Table 2. The first two measures - Historic Carryover and Excess Procurement - are measures AMP will immediately use to meet its compliance obligations, whereas AMP *may* implement any or all of the last three measures - Cost Limitations, Delay of Timely Compliance, and Portfolio Balance Requirement Reduction – subject to the Board's approval of their use. Optional compliance measure details are provided in sections A through F, below.

Table 2 – Summary of Optional Compliance Measures

Optional Measure	When Measure May be Used
Historic Carryover	One time calculation for Jan. 1, 2004 –Dec. 31, 2010
Excess Procurement	Calculated annually effective Jan. 1, 2011
Cost Limitations	Use is Triggered by Circumstances
Delay of Timely Compliance	“ “ “ “
Portfolio Balance Requirement Reduction	“ “ “ “

A. Historic Carryover

AMP intends to use Historic Carryover, as defined in the RPS Regulations, to meet its RPS procurement targets. Current calculations indicate that AMP has a significant

amount of historical carryover due to AMP's early investment in renewable energy resources. AMP's use of Historic Carryover is subject to the following provisions:

- a. AMP will apply the following rules that comply with section 3206 (a)(5) of the RPS Regulations and that allow for procurement generated before January 1, 2011 to be applied to AMP's RPS procurement target for the compliance period ending December 31, 2013, or for any subsequent compliance period. The procurement must also meet the criteria of section 3202 (a)(2), be in excess of the sum of the 2004-2010 annual procurement targets defined in section 3206(a)(5)(D) and cannot have been applied to the RPS of another state or to a voluntary claim.
- b. Both the Historic Carryover and the procurement applied to AMP's annual procurement target must be from eligible renewable resources that were RPS-eligible under the rules in place at the time of execution of the ownership agreement.
- c. Historic Carryover must be procured pursuant to a contract or ownership agreement executed before June 1, 2010.
- d. Historic Carryover will be calculated based on the following:

$$Baseline = \frac{(EP_{2001})}{(RS_{2001})} \times RS_{2003} + (0.01 \times RS_{2001})$$

Where,

EP_x = Electricity products procured, retired and applied toward the RPS procurement target for the specified year X

RS_x = Total retail sales made by the POU for the specified year X

and:

$$PT_x = \text{lesser of: } \begin{matrix} 0.20 \times RS_{x-1} \\ \text{or} \\ (RS_{x-1} \times 0.01) + PT_{x-1} \end{matrix}$$

Where,

PT_x = Annual procurement target for year X

- e. The number of RECs qualifying for Historic Carryover is dependent upon the acceptance by the CEC of AMP's applicable procurement claims for January 1, 2004 – December 31, 2010, which are due to the CEC within 90 calendar days after the effective date of the RPS Regulations. The Historic Carryover submittal shall also

include baseline calculations, annual procurement target calculations, and any other pertinent data.

B. Excess Procurement

By adopting the Excess Procurement compliance option, as defined in the RPS Regulations, AMP will satisfy its future RPS compliance targets in the most cost-effective manner by applying excess eligible renewable resources accumulated in one compliance period to any subsequent compliance period. The following conditions must be met to be eligible for Excess Procurement:

- a. Accumulation of Excess Procurement begins on January 1, 2011.
- b. In calculating the quantity of Excess Procurement, AMP shall deduct from actual procurement quantities, the total amount of procurement associated with contracts of less than 10 years in duration.
- c. Eligible resources must be from Content Category 1, Content Category 2 or Grandfathered Resources to be Excess Procurement.
- d. Resources from Content Category 3 shall not be counted as Excess Procurement.
- e. Excess Procurement shall be calculated as follows for multi-year compliance periods:

$$\text{Excess Procurement} = (EP_{CP}) - (RPS_{CP} + S3_{CP} + STC_{CP})$$

Where,

EP_{CP} = Electricity products retired and applied toward the RPS procurement target for the compliance period CP

RPS_{CP} = The RPS procurement target calculated in section 3204(a) of the RPS Regulations, for the compliance period CP

$S3_{CP}$ = Retired PCC 3 RECs that meet the criteria of section 3202 (a)(1) in excess of the maximum calculated in section 3204 (c) for the compliance period CP

STC_{CP} = All electricity products that meet the criteria of section 3202 (a)(1) or section 3202 (a)(3), are associated with contracts less than 10 years in duration, and are retired and applied toward the RPS procurement target for the compliance period CP.

- f. Excess Procurement shall be calculated as follows for single year compliance periods:

$$\text{Excess Procurement} = (EP_Y) - (RPS_Y + S3_Y + STC_Y)$$

Where,

EP_Y = Electricity products retired and applied toward the RPS procurement target for the year

RPS_Y = The RPS procurement target calculated in section 3204(a) of the RPS Regulations for the year

S3_Y = Retired PCC 3 RECs that meet the criteria of section 3202 (a)(1) in excess of the maximum calculated in section 3204 (c) for the year

STC_Y = All electricity products that meet the criteria of section 3202 (a)(1) or section 3202 (a)(3), are associated with contracts less than 10 years in duration, and are retired and applied toward the RPS procurement target for the year

C. Cost Limitations

AMP elects to establish Cost Limitations per PUC § 399.30(d)(3) and § 399.15(c and d) and the RPS Regulations, to protect AMP's ratepayers in the event additional resources must be procured for compliance.

- a. AMP shall request the Board's approval to implement the Cost Limitation compliance option when the marginal cost, in \$/MWh, of the additional renewable resource needed for compliance is greater than the highest contract price of AMP's existing supply portfolio.
- b. In adopting this option, AMP shall rely on this RPS Procurement Plan and consider:
 - a) procurement expenditures that approximate the expected cost of building, owning, and operating eligible renewable energy resources, and b) the potential that some planned resource additions may be delayed or canceled.
- c. In addition to PUC § 399.15(c), AMP may take into account local and regional economic conditions and the ability of AMP's customers to accommodate the rate impact of AMP's procurement of additional energy products. These economic conditions may include, but are not limited to, unemployment, wages, cost of living expenses, the housing market, and cost burden of other utility rates on the same customers. AMP may also consider cost disparities between customer classes within AMP, and between AMP customers and other POU and IOU customers in the region.
- d. AMP shall review the need for cost limitations as part of the annual review process described in Additional Plan Components, section 6 of this document, and inform the Board that the Cost Limitation measure has been triggered.

D. Delay of Timely Compliance

Pursuant to Public Utilities Code § 399.15 and § 399.30 and the RPS Regulations, AMP adopts the option of requesting the Board's approval to delay AMP's timely compliance with SB X1 2 and the RPS Regulations under conditions beyond AMP's control. AMP shall demonstrate to the Board that it would have met its RPS procurement requirements, but for the cause of delay.

a. Acceptable Causes of Delay:

- i. *Inadequate Transmission:* There is inadequate transmission capacity to allow sufficient electricity to be delivered from AMP's eligible renewable energy resource projects using the current operational protocols of AMP's Balancing Authority, the California Independent System Operator (CAISO). In making its findings relative to the existence of this condition, AMP's deliberations shall include, but not be limited to, the following:
 - a) Whether AMP has undertaken, in a timely fashion, reasonable measures under its control and consistent with its obligations under local, state, and federal laws and regulations, to develop and construct new transmission lines or upgrades to existing lines intended to transmit electricity generated by eligible renewable energy resources. In determining the reasonableness of AMP's actions, AMP shall consider its expectations for full-cost recovery for these transmission lines and upgrades, and
 - b) Whether AMP has taken all reasonable operational measures to maximize cost-effective deliveries of electricity from eligible renewable energy resources in advance of transmission availability.
- ii. *Permitting, interconnection, or other factors that delayed procurement or caused insufficient supply:* In making its findings relative to the existence of this condition, AMP's deliberations shall include, but not be limited to, the following:
 - a) Whether AMP prudently managed portfolio risks, including relying on a sufficient number of resources and viable projects;
 - b) Whether AMP sought to develop one of the following:
 1. its own eligible renewable energy resources,
 2. transmission to interconnect to eligible renewable energy resources, or
 3. energy storage used to integrate eligible renewable energy resources.
 - c) Whether AMP procured an appropriate minimum margin of procurement above the minimum level necessary to comply with the renewables portfolio standard to compensate for foreseeable delays or insufficient supply;
 - d) Whether AMP had taken reasonable measures under its control to procure cost-effective distributed generation and allowable unbundled renewable energy credits;
 - e) Whether actions or events beyond the control of AMP had adversely impacted timely deliveries of renewable energy resources including, but not limited to,

acts of nature, terrorism, war, labor difficulty, civil disturbance, or market manipulation.

iii. *Unanticipated curtailment to address the needs of the balancing authority* as per PUC § 399.15(b)(5)(C).

b. Procedures Upon Approving the Delay

In the event of a delay of timely compliance due to any of the factors set forth above, AMP shall implement the following procedures as per PUC § 399.15:

- i. Establish additional reporting for intervening years to demonstrate that reasonable actions under AMP's control are being taken.
- ii. Demonstrate that all reasonable actions within AMP's control have been taken to ensure compliance.

c. Prior Deficits

In no event shall deficits from prior compliance periods be added to future compliance periods.

E. Portfolio Balance Requirement Reduction

AMP may reduce the portfolio balance requirement for PCC1 for a specific compliance period, consistent with PUC §399.16 (e) and the following:

- a. The need to reduce the portfolio balance requirements for PCC 1 must have resulted because of conditions beyond AMP's control, as provided in the RPS Regulations.
- b. AMP may not reduce its portfolio balance requirement for PCC 1 below 65 percent for any compliance period after December 31, 2016.
- c. AMP must comply with the requirements of section 3206 (a)(4) of the RPS Regulations should it proceed with this option.
- d. AMP must receive the Board's approval to reduce its portfolio balance requirement.

F. Adoption of Optional Compliance Measure Rule or Rule Revision

Any rule or rule revision adopted under Optional Compliance Measures section 3206 of the RPS Regulations shall be submitted to the CEC within 30 calendar days after adoption.

6. ADDITIONAL PLAN COMPONENTS

In addition to the Basic Requirements and Optional Compliance Measures specified above, AMP's RPS Procurement Plan includes the following components:

A. Exclusive Control

Under PUC § 399.30(k), in all matters regarding compliance with the RPS Procurement Plan, AMP shall retain exclusive control and discretion over the following:

- a. The mix of eligible renewable energy resources procured by AMP and those additional generation resources procured by AMP for purposes of ensuring resource adequacy and reliability.
- b. The reasonable costs incurred by AMP for eligible renewable energy resources owned by it.

B. Plan Review

The Board shall review AMP's RPS Procurement Plan in accordance with AMP's "Renewable Portfolio Standard Enforcement Program."

C. Deliberations on the RPS Procurement Plan

The following deliberations are required pursuant to Public Utilities Code §399.30(f) and Section 9605 of the RPS Regulations:

- a. *Public Notice*: Annually, AMP shall post notice of meetings prior to the Board deliberating in public regarding this RPS Procurement Plan.
- b. *Notice to the California Energy Commission (CEC)*: Contemporaneous with the posting of a notice for such a meeting, AMP shall notify the CEC of the date, time and location of the meeting to enable the CEC to post the information on its Internet website.
- c. *Documents and Materials Related to Procurement Status and Plans*: All information related to AMP's renewable energy resources procurement status and future plans that is provided to the Board for its consideration at a noticed public meeting, shall be made available to the public. AMP shall also provide the CEC with an electronic copy of the documents for posting on the CEC's Internet website.

D. Plan Modifications/Amendments

The RPS Procurement Plan may be modified by an affirmative vote of the Board during a public meeting. Any Board action to modify the plan must be publicly noticed in accordance with section 7C of this document.