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**REDDING ELECTRIC UTILITY**  
Resources Division

**RPS-002 Renewables Portfolio  
Standard (RPS) Procurement Plan**

 Redding Electric Utility	Reviewed By: <b>Dan Beans (Assistant Director – Resource Planning), Elizabeth Hadley (Legislative &amp; Regulatory Program Supervisor), Barry Tippin (Electric Utility Director)</b>
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## 1. Introduction

Senate Bill 2 in the First Extraordinary Session (SBX1-2)<sup>1</sup> defines the California renewables portfolio standard (RPS) and imposes minimum renewable energy procurement targets for all retail sellers and publicly-owned utilities (POUs), including the City of Redding (Redding). SBX1-2 authorized the California Energy Commission (CEC) to develop procedures for enforcement of the RPS for POUs. As part of that enforcement authority, the CEC adopted “Enforcement Procedures for the Renewables Portfolio Standard for Local Publicly-Owned Electric Utilities” (RPS Enforcement Regulations).<sup>2</sup>

Pursuant to the RPS Enforcement Regulations, within sixty (60) calendar days of the effective date of the regulation, “each POU shall adopt a renewable energy resources procurement plan detailing how the POU will achieve its RPS procurement requirements for each compliance period.” (RPS Enforcement Regulations, section 3205(a)(1)). Unlike the specific provisions for investor-owned utilities, SBX1-2 does not include a detailed list of elements that must be included in a POU RPS Procurement Plan. Instead, the POU governing boards are given considerable discretion in the development of their specific plans. However, to be practical and enforceable, the RPS Procurement Plan should include the elements directly mandated by SBX1-2 and be consistent with the CEC’s RPS Enforcement Regulations.

Several events transpired prior to the effective date of SBX1-2, which are recounted in the following history. These events influenced Redding’s RPS procurement activities and must be taken into consideration when developing a plan to comply with the RPS mandate.

### *Redding’s RPS History:*

#### Early 1980’s

- Redding contracted with Western Area Power Administration (WAPA) for up to 600,000 MWh of carbon-free hydro energy annually (up to 86 percent of Redding’s energy needs).

#### 2003:

- SB 1078 became law on January 1, 2003; SB 1078 set a goal for retail sellers of providing 20 percent of their retail sales from eligible renewable energy resources by 2017.

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<sup>1</sup> SBX1-2 (Simitian, Stats. 2011, ch. 1) was signed by California’s Governor on April 12, 2011, and made significant revisions to Public Utilities Code sections 399.11-399.32, the California Renewables Portfolio Standard Program. Various provisions of sections 399.11, *et seq.*, were subsequently modified.

<sup>2</sup> The CEC adopted the RPS Enforcement Regulations on June 12, 2013, in Order No. 13-0612-5.

- On June 17, 2003, the Redding City Council passed RPS Resolution 2003-92. The Resolution reflected Redding's commitment to meet or exceed the 20 percent by 2017 renewable energy procurement target set forth in SB 1078. The resolution included all hydroelectric generation resources as eligible renewable resources that could be counted toward meeting this goal. REU projections estimated that procurement from eligible renewable energy resources, including hydroelectric, would be over 30 percent through 2017.

2006:

- In 2006, REU acquired additional renewable energy resources in the form of the Big Horn Wind Project. The Big Horn project boosted REU's RPS procurement level to over 55 percent, including hydroelectric energy.

2010:

- As directed by the Governor, the California Air Resources Board (CARB) developed the Renewable Electricity Standard (RES). The RES mandated renewable energy procurement of 20% by 2012, 24% by 2015, 28% by 2018, and 33% by 2020. Under the RES, large hydro was considered an eligible renewable resource, and could be used to meet up to 20 percent of the RES mandate. Redding revised its renewable energy procurement policy to reflect the RES requirements in Resolution 2011-22. Under the revised policy, Redding was still projected to have sufficient resources to meet the RES obligations beyond 2020.

2011:

- SBX1-2 became law on December 11, 2011 (effective January 1, 2012), adopting a statewide RPS mandate and requiring 20% average renewable energy procurement from 2011 to 2013, 20% by 2014, 25% by 2016, and 33% by 2020. The legislation also included a definition of eligible renewable energy resources that could be counted toward meeting the RPS; this definition excludes hydroelectric generation of greater than 30MW (Public Utilities Code (PUC) section 399.12(e)).

2013:

- On June 12, 2013, the CEC adopted the RPS Enforcement Regulations, defining interim RPS targets in the annual compliance periods requiring 27% by 2017, 29% by 2018, 31% by 2019, and 33% by 2020.

## 2. RPS Procurement Plan

### 2.1 Purpose (PUC section 399.30(a))

The purpose of the RPS Procurement Plan is to identify the policies and procedures for Redding to meet the requirements of SBX1-2.

In order to fulfill unmet long-term generation resource needs, Redding will procure a minimum quantity of electricity products from eligible renewable energy resources, including renewable energy credits, as a specified percentage of Redding's total kilowatt hours sold to its retail end-use customers, each compliance period, to achieve the targets specified in PUC sections 399.11, *et seq.*

Further, PUC section 399.30(k) states that a local, publicly-owned electric utility shall retain discretion over both of the following:

- A. The mix of eligible renewable energy resources procured by the utility and those additional generation resources procured by the utility for purposes of ensuring resource adequacy and reliability.
- B. The reasonable costs incurred by the utility for eligible renewable energy resources owned by the utility.

## 2.2 Compliance Periods

SBX1-2 established the following compliance periods (PUC section 399.30(b)):

- 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.

## 2.3 Definitions for Portfolio Content Categories

SBX1-2 established Portfolio Content Categories (PCC) that outlines the eligible renewable energy resource electricity products that may be procured for compliance (PUC Sections 399.30(c)(3), 399.16, RPS Enforcement Regulations section 3203):

### A. **PCC 1: (PUC section 399.16(b)(1), RPS Enforcement Regulations 3203(a))**

- (1) PCC 1 electricity products must be procured bundled to be classified as PCC 1, and the POU may not resell the underlying electricity from the electricity product back to the eligible renewable energy resource from which the electricity product was procured. The electricity products must be generated by an eligible renewable energy resource that is interconnected to a transmission network within the Western Electricity Coordinating Council (WECC) service territory. For purposes of this section 3203, the first point of interconnection to the WECC transmission grid is the substation or other facility where generation tie lines from the eligible renewable energy resource interconnect to the network transmission grid.

- (a) Electricity products must be generated by an eligible renewable energy resource that has its first point of interconnection within the metered boundaries of a California balancing authority area.
  - (b) Electricity products must be generated by an eligible renewable energy resource that has its first point of interconnection to an electricity distribution system used to serve end-users within the metered boundaries of a California balancing authority area. For purposes of this section 3203, the first point of interconnection to an electricity distribution system is within the service area boundaries of a utility distribution company.
  - (c) Electricity products from the eligible renewable energy resource with a first point of interconnection outside the metered boundaries of a California balancing authority area must be scheduled into a California balancing authority area without substituting electricity from another source. For purposes of this section 3203, electricity generated by the eligible renewable energy resource must be scheduled into a California balancing authority area on an hourly or subhourly basis, and the POU's governing board or other authority, as delegated by the POU governing board, must have approved an agreement, before the electricity is generated, to schedule the electricity from the eligible renewable energy resource into the California balancing authority area on an hourly or subhourly basis. If there is a difference between the amount of electricity generated within an hour and the amount of electricity scheduled into a California balancing authority area within that same hour, only the lesser of the two amounts shall be classified as PCC 1.
  - (d) Electricity products must be subject to an agreement between a California balancing authority area and the balancing authority in which the eligible renewable energy resource is located, executed before the product is generated, to dynamically transfer electricity from the eligible renewable energy resource into the California balancing authority area.
- (2) Electricity products originally qualifying in PCC 1 and resold must meet the following criteria to remain in PCC 1:
- (a) The original contract for procurement of the electricity products meets one of the criteria in section 3203 (a)(1)(A) – (D).
  - (b) The resale contract transfers only electricity and RECs that have not yet been generated prior to the effective date of the resale contract.

- (c) The electricity and associated RECs must be transferred by the resale contract to the ultimate buyer, and the electricity must be transferred in real time.
  - (d) For those electricity products that satisfy section 3203 (a)(1)(C), the original hourly or subhourly schedule is maintained, and the criteria of section 3203 (a)(2)(A) – (C) are met.
- (3) Electricity products originally qualifying in PCC 1 and resold that do not meet the criteria of section 3203 (a)(2)(A) – (D) shall not be counted in PCC 1.

**B. PCC 2: (PUC section 399.16(b)(2), RPS Enforcement Regulations Section 3203(b))**

- (1) PCC 2 electricity products 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 area.
- (2) PCC 2 electricity products must be procured bundled and must meet all of the following criteria:
  - (a) The first point of interconnection to the WECC transmission grid for both the eligible renewable energy resource and the resource providing the incremental electricity must be located outside the metered boundaries of a California balancing authority area.
  - (b) The incremental electricity used to match the electricity from the eligible renewable energy resource must be incremental to the POU. For purposes of this section 3203, “incremental electricity” means electricity that is generated by a resource located outside the metered boundaries of a California balancing authority area and that is not in the portfolio of the POU claiming the electricity products for RPS compliance prior to the date the contract or ownership agreement for the electricity products from the eligible renewable energy resource, with which the incremental electricity is being matched, is executed by the POU or other authority, as delegated by the POU governing board.
  - (c) The contract or ownership agreement for the incremental electricity is executed by the governing board, or other authority, as delegated by the POU governing board, at the same time or after the contract or ownership agreement for the electricity products from the eligible renewable energy resource is executed.

- (d) The incremental electricity must be scheduled into the California balancing authority area within the same calendar year as the electricity from the eligible renewable energy resource is generated.
  - (e) The electricity from the eligible renewable energy resource must be available to be procured by the POU and may not be sold back to that resource.
- (3) Electricity products originally qualifying in PCC 2 and resold must meet the following criteria to remain in PCC 2:
- (a) The original contract for procurement of the electricity products meets the criteria of section 3203 (b)(2)(A) – (E).
  - (b) The resale contract transfers only electricity and RECs that have not yet been generated prior to the effective date of the resale contract.
  - (c) The resale contract transfers the original arrangement for incremental electricity, including the source and quantity for the incremental electricity.
  - (d) The resale contract retains the scheduling of the incremental electricity into the California balancing authority area as set out in the original transaction.
  - (e) The transaction provides incremental electricity for the POU claiming the transaction for RPS compliance.
  - (f) The incremental electricity is scheduled into the California balancing authority area.
- (4) Electricity products originally qualifying in PCC 2 and resold that do not meet the criteria above must be counted in PCC 3.

**C. PCC 3: (PUC section 399.16(b)(3), RPS Enforcement Regulations section 3203(c))**

All unbundled renewable energy credits and other electricity products procured from eligible renewable energy resources located within the WECC transmission grid that do not meet the requirements of either PCC 1 or PCC 2 fall within PCC 3.

**D. PCC 0: (PUC section 399.16(d), RPS Enforcement Regulations section 3204(a)(2))**



- (1) Any contract or ownership agreement originally executed prior to June 1, 2010, shall count in full toward the procurement requirements, if all of the following conditions are met:
  - (a) The renewable energy resource met the Commission's RPS eligibility requirements that were in effect when the original procurement or ownership agreement was executed.
  - (b) 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.
  - (c) If contract amendments or modifications after June 1, 2010, increase nameplate capacity or expected quantities of annual generation, increase the term of the contract substitute a different eligible renewable energy resource, only the MWhs or resources procured prior to June 1, 2010, shall count in full toward the RPS procurement targets. The remaining procurement must be classified into PCC 1, 2, or 3, and follow the portfolio balance requirements in accordance with RPS Enforcement Regulations section 3204 (c).
  - (d) The duration of the contract may be extended if the original contract specified a procurement commitment of fifteen (15) or more years.
- (2) PCC 0 resources may not be applied to the balancing requirements defined in RPS Enforcement Regulations 3204(c) or Paragraph 2.4(C) of this plan.

**2.4 Procurement Requirement for Each Compliance Period**

- A. SBX1-2 established the following procurement requirements for each compliance period (PUC Section 399.30(c)(1) and (2), RPS Enforcement Regulations section 3204(a)):
  - (1) During Compliance Period 1, January 1, 2011 to December 31, 2013, Redding shall procure, at a minimum, renewable energy resources equivalent to an average of twenty percent (20%) of retail sales over the three years of the compliance period.

Expressed as:  
***EP 2011 + EP 2012 + EP 2013 > .20 (RS 2011 + RS 2012 + RS 2013)***

RSx = total retail sales made by POU for the specified year x  
 EPx = electricity products procured 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.

- (2) For Compliance Period 2, January 1, 2014 to December 31, 2016, Redding shall procure renewable energy resources to meet or exceed the sum of twenty percent (20%) of retail sales for each of 2014 and 2015, and twenty-five percent (25%) of retail sales for 2016.

Expressed as:  
 **$EP\ 2014 + EP\ 2015 + EP\ 2016 > 0.20(RS\ 2014) + 0.20(RS\ 2015) + 0.25(RS\ 2016)$**

- (3) For Compliance Period 3, January 1, 2017 to December 31, 2020, Redding shall procure renewable energy resources to meet or exceed thirty-three percent (33%) of retail sales by 2020. During the intervening years of Compliance Period 3, Redding shall increase procurement to reflect an imputed compliance obligation.

Expressed as:  
 **$(EP\ 2017 + EP\ 2018 + EP\ 2019 + EP\ 2020) > 0.27(RS\ 2017) + 0.29(RS\ 2018) + 0.31(RS\ 2019) + 0.33(RS\ 2020)$**

- (4) Commencing on December 31, 2021, and annually thereafter, Redding shall procure renewable energy resources equivalent to thirty-three percent (33%) of retail sales.

**B. Interim Targets Compliance Period.** (PUC Section 399.30(c)(1) and (2), RPS Enforcement Regulations section 3204(a)(1))

- (1) In each of year 2014, 2015, 2016, Redding shall demonstrate that it is making reasonable progress toward ensuring that it shall meet the twenty-five percent (25%) RPS target by 2016.
- (2) In each of year 2017, 2018, and 2019, Redding shall demonstrate that it is making reasonable progress toward ensuring that it shall meet the thirty-three percent (33%) RPS target by 2020.

**C. Procurement Balancing Requirements** (PUC Section 399.30(c)(3), PUC Section 399.16(c)(1) and (2), RPS Enforcement Regulations section 3204(c))

- (1) Compliance Period 1 Procurement Requirements: For Compliance Period 1, Redding shall procure not less than fifty percent (50%) of the eligible renewable energy resource electricity products associated with contracts

executed after June 1, 2010 from PCC 1, and not more than twenty-five percent (25%) from PCC 3.

- (2) Compliance Period 2 Procurement Requirements: For Compliance Period 2, Redding shall procure not less than sixty-five percent (65%) of the eligible renewable energy resource electricity products associated with contracts executed after June 1, 2010 from PCC 1, and not more than fifteen percent (15%) from PCC 3.
- (3) Compliance Period 3 Procurement Requirements: For Compliance Period 3, Redding shall procure not less than seventy-five percent (75%) of the eligible renewable energy resource electricity products associated with contracts executed after June 1, 2010 from PCC 1, and not more than ten percent (10%) from PCC 3.
- (4) Annual Procurement Beginning in 2021: Beginning in calendar year 2021 and annually thereafter, Redding shall procure not less than seventy-five percent (75%) of the eligible renewable energy resource electricity products associated with contracts executed after June 1, 2010 from PCC1, and not more than ten percent (10%) from PCC 3.

## 2.5 Redding’s Plan For Compliance with SBX1-2

### 2.5.1 Existing Eligible Renewable Resources

Redding currently has the following renewable energy resources under contract and/or ownership that meet the RPS eligibility requirements set forth in PUC sections 399.11, *et.seq.* and the RPS Enforcement Regulations:

**Wind:**

*Big Horn Wind project (PCC 0)* - In 2006, Redding entered into a 20-year contract for wind energy through the M-S-R Public Power Agency by participation in the Big Horn Wind Project. Redding has contracted for 70MW of capacity that yields approximately 190,000 MWh of energy annually.

**Hydro (<30MW):**

*Whiskeytown Hydro (PCC 0)* - In the mid-1980s, Redding invested in small hydro-generation at Whiskeytown Dam. The Whiskeytown project has a capacity of approximately 3MW and yields roughly 26,000 MWh of energy annually.

*WAPA Small Hydro Program (PCC 0)* - Redding participates in WAPA’s small hydro program; this contributes approximately 6,000 MWh of energy annually to Redding and will increase in the future as modifications are made to existing hydro facilities within the Central Valley Project.

*Lewiston Hydro Project (PCC 1)* - In 2011, Redding entered into a 30-year agreement with Trinity Public Utilities District for the purchase of renewable energy from the upgrade of the Lewiston Dam Hydro facilities. This project has 2.2MW of capacity and is expected to begin delivering approximately 10,600 MWh of energy annually beginning in 2016.

### **2.5.2 Procurement Plan for Future Renewable Resources**

In order to meet the RPS mandates, Redding plans to preserve its existing PCC 0 resources, carry forward excess procurement from one compliance period to the next, and look for timely and economic opportunities to diversify and expand its RPS portfolio, while protecting Redding's customers from excessive rate increases that could jeopardize economic growth and viability within the City.

As the contracts for PCC 0 resources near expiration, Redding will either renew the existing contracts or replace the resources. Redding will seek to develop a diverse RPS portfolio, with a combination of small hydroelectric, wind, biomass, solar PV, and other renewable sources, based on the forecasted need for additional energy resources, as well as the economics and timing of any particular projects.

## **3. Review and Updating Requirements** (RPS Enforcement Regulations section 3205(a))

Redding adjusts its load forecast annually. This forecast will be used to anticipate RPS needs in future years. This plan will be updated as new eligible renewable resources have been procured.

- A. Redding will provide the following notice regarding new or updated renewable energy resources procurement plans:
- (1) Redding shall post notice, in accordance with Chapter 9 (commencing with section 54950) of Part 1 of Division 2 of Title 5 of the Government Code, whenever the City Council will deliberate in public on the RPS Procurement Plan.
  - (2) Along with the posting of the notice of a public meeting to consider the RPS Procurement Plan, Redding shall notify the CEC of the date, time, and location of the public meeting to consider the RPS Procurement Plan. This requirement is satisfied if Redding provides the CEC with the uniform resource locator (URL) that directly links to the notice for the public meeting. Alternatively, an e-mail with information on the public meeting in Portable Document Format (PDF) may also be provided to the CEC.

- (3) Redding will notify the CEC if any URL provided by Redding no longer contains the correct link, and Redding will send the CEC a corrected URL that links to the information or a PDF containing the information as soon as it becomes available.
- (4) If Redding distributes information to its City Council related to its renewable energy resources procurement status or future procurement plans or enforcement programs, for the City Council’s consideration at a public meeting, Redding shall make all that information available to the public at the same time it is distributed to its City Council and shall provide an electronic copy of that information to the CEC for posting on the CEC’s website.
  - (a) This requirement is satisfied if Redding provides to the CEC the URL that directly links to the documents or information regarding other manners of access to the documents. Alternatively, an e-mail with the information in PDF may also be provided to the CEC.
  - (b) Redding will notify the CEC if any URL provided by Redding no longer contains the correct link, and Redding will send the CEC a corrected URL that links to the information or a PDF containing the information as soon as it becomes available.

## 4. Review and Revision History

Revision Number	Revision Date	Summary of Changes
1	10/15/2013	Original version adopted by City Council Date:10/15/2013