

DOCKETED

Docket Number:	18-RPS-02
Project Title:	Renewables Portfolio Standard Compliance Period 2 (2014-2016)
TN #:	224921
Document Title:	RPS Verification Methodology Report, Second Edition
Description:	CEC-300-2018-008-SF
Filer:	Muoi-Lynn Tran
Organization:	California Energy Commission
Submitter Role:	Commission Staff
Submission Date:	10/8/2018 5:22:30 PM
Docketed Date:	10/9/2018

California Energy Commission
STAFF REPORT

Renewables Portfolio Standard Verification Methodology Report, Second Edition

California Energy Commission
Edmund G. Brown Jr., Governor



October 2018 | CEC-300-2018-008-SF

California Energy Commission

Erica Chac
Theresa Daniels
Chris Metzker
Olga Romaso
Primary Authors

Roxanne Henriquez
Project Manager

Michael J. Sokol
Office Manager
RENEWABLE ENERGY OFFICE

Natalie Lee
Deputy Director
RENEWABLE ENERGY DIVISION

Drew Bohan
Executive Director

DISCLAIMER

Staff members of the California Energy Commission prepared this report. As such, it does not necessarily represent the views of the Energy Commission, its employees, or the State of California. The Energy Commission, the State of California, its employees, contractors and subcontractors make no warrant, express or implied, and assume no legal liability for the information in this report; nor does any party represent that the uses of this information will not infringe upon privately owned rights. This report has not been approved or disapproved by the Energy Commission nor has the Commission passed upon the accuracy or adequacy of the information in this report.

ACKNOWLEDGEMENTS

The *Renewables Portfolio Standard Verification Methodology Report, Second Edition*, was prepared with contributions from the following California Energy Commission staff members:

Kevin Chou
Sean Inaba
Camille Remy-Obad
Yoseph Saaed

ABSTRACT

This *Renewables Portfolio Standard Verification Methodology Report, Second Edition*, describes the methods California Energy Commission staff uses to accomplish the following:

- 1) verify the eligibility of claims for the procurement of renewable energy submitted by load-serving entities for each compliance period of California's Renewables Portfolio Standard,
- 2) confirm the vintage and determine the portfolio content category classification of claims submitted by local publicly owned electric utilities' eligible renewable energy,
- 3) confirm the retail sales for each publicly owned electric utility and calculate each publicly owned electric utilities' procurement requirements based on their retail sales, and
- 4) determine whether each local publicly owned electric utility has met the procurement requirements for each compliance period of the Renewables Portfolio Standard.

For each compliance period, results from the application of the verification analyses covered in this report are issued separately for retail sellers and local publicly owned electric utilities. For retail sellers, a final verification report will be adopted by the Energy Commission at a regularly scheduled business meeting and subsequently transmitted to the California Public Utilities Commission to be used for its compliance and enforcement activities. For each local publicly owned electric utility, verification results will be issued in separate reports that are also adopted by the Energy Commission at a regularly scheduled business meeting to be used for compliance and enforcement activities.

Keywords: Renewables Portfolio Standard, RPS, Renewable Energy Credits, RECs, renewable attributes, annual procurement target, certification, verification, compliance, generation, local publicly owned electric utilities, POU, historic carryover, Western Renewable Energy Generation Information System, WREGIS, retail sellers

Please use the following citation for this report:

Chac, Erica et al. 2018. *Renewables Portfolio Standard Verification Methodology Report, Second Edition*. California Energy Commission, Renewable Energy Division. Publication Number: CEC-300-2018-008-SF

TABLE OF CONTENTS

EXECUTIVE SUMMARY	1
CHAPTER 1: INTRODUCTION.....	2
RENEWABLES PORTFOLIO STANDARD LEGISLATION	2
ROLES AND RESPONSIBILITIES	2
VERIFICATION PROCESS OVERVIEW	3
CHAPTER 2: VERIFICATION OF RPS CLAIMS ELIGIBILITY	5
RPS DATA SOURCES	5
<i>Western Renewable Energy Generation Information System (WREGIS)</i>	5
<i>RPS Online System</i>	6
GENERATION DATA	6
<i>Multifuel Analysis</i>	7
<i>Biomethane Analysis</i>	8
<i>WREGIS Adjustments</i>	8
CLAIMS ELIGIBILITY ANALYSIS.....	9
<i>Facility Eligibility Analysis</i>	9
<i>Claim Vintage Analysis</i>	10
<i>Overclaim Analysis</i>	11
<i>Double-Counting Analysis</i>	12
FINALIZING ELIGIBLE CLAIMS DATA	12
<i>Withdrawing Claims</i>	12
<i>Additional POU Verification Activities</i>	13
CHAPTER 3: PORTFOLIO CONTENT CATEGORY CLASSIFICATION.....	14
PORTFOLIO BALANCE REQUIREMENTS	14
DEFINITION OF PORTFOLIO CONTENT CATEGORIES.....	14
<i>Portfolio Content Category 1 (PCC 1 or Category 1)</i>	15
<i>Portfolio Content Category 2 (PCC 2 or Category 2)</i>	15
<i>Portfolio Content Category 3 (PCC 3 or Category 3)</i>	15
<i>Procurement from Pre June 2010 Contracts</i>	15
VERIFICATION OF PORTFOLIO CONTENT CATEGORIES	16
<i>Contract Analysis</i>	16
<i>Verification of Scheduled Delivery for Facilities Not Interconnected to a California Balancing Authority</i>	16
<i>Hourly Analysis for PCC 1 Claims</i>	17
<i>E-Tag Analysis for PCC 2 Claims</i>	18
FINALIZING PORTFOLIO CONTENT CATEGORY CLASSIFICATION RESULTS	18
CHAPTER 4: PROCUREMENT REQUIREMENT CALCULATIONS.....	19
RETAIL SALES.....	19
PROCUREMENT TARGETS	20
PORTFOLIO BALANCE REQUIREMENTS	21

ADDITIONAL VERIFICATION PROCESSES.....	21
<i>Publicly Owned Utilities with Special Exemptions</i>	21
<i>Historic Carryover</i>	22
<i>Review of Applied or Claimed Excess Procurement</i>	22
<i>Withdrawing Surplus RECs for Future Use</i>	23
FINAL POU VERIFICATION RESULTS.....	23
CHAPTER 5: POU COMPLIANCE PROCESS OVERVIEW	24
COMPLIANCE PROCESS.....	24
GLOSSARY	25

LIST OF TABLES

TABLE 1: PROCUREMENT TARGET CALCULATIONS BY COMPLIANCE PERIOD	20
TABLE 2: PORTFOLIO BALANCE REQUIREMENTS FOR PCC 1 AND PCC 3 BY COMPLIANCE PERIOD	21

EXECUTIVE SUMMARY

Established in 2002, California's Renewables Portfolio Standard is one of the most ambitious renewable energy policies in the nation. Enacted by Senate Bill 1078 (Sher, Chapter 516, Statutes of 2002), and accelerated and expanded by subsequent legislation, California's Renewables Portfolio Standard establishes increasingly progressive renewable energy procurement targets for the state's load-serving entities. Originally applicable to retail sellers, the statewide mandatory Renewables Portfolio Standard was expanded by Senate Bill X1-2 (Simitian, Chapter 1, Statutes of 2011, First Extraordinary Session) to include local publicly owned electric utilities starting in 2011. Senate Bill 100 (De León, Chapter 312, Statutes of 2018) increased the procurement targets, requiring both retail sellers and local publicly owned electric utilities to increase their procurement of eligible renewable energy resources to 60 percent of retail sales by 2030.

California's Renewables Portfolio Standard is administered by the California Energy Commission and the California Public Utilities Commission. As part of its responsibilities, the Energy Commission verifies the eligibility of renewable energy procured by load-serving entities, which include retail sellers, local publicly owned electric utilities, and all other entities serving retail sales of electricity in California that are obligated to participate in California's Renewables Portfolio Standard. The Energy Commission is also responsible for certifying Renewables Portfolio Standard eligible renewable energy resources, developing a tracking system to verify renewable energy procurement for all program participants, and overseeing compliance and enforcement of the local publicly owned electric utilities. The California Public Utilities Commission is responsible for compliance and enforcement for retail sellers.

This report describes the methods that Energy Commission staff uses to 1) verify the eligibility of claims for the procurement of renewable energy submitted by load-serving entities for each compliance period of California's Renewables Portfolio Standard, 2) confirm the vintage and the portfolio content category classification of claims submitted by local publicly owned electric utilities, 3) confirm the retail sales and calculate each publicly owned electric utilities' procurement requirements based on their retail sales, and 4) determine whether each local publicly owned electric utility has met the procurement requirements of the Renewables Portfolio Standard for each compliance period. Results of the verification analyses described in this report will be issued separately for retail sellers and local publicly owned electric utilities. For retail sellers, a verification report will be adopted by the Energy Commission at a regularly scheduled business meeting and subsequently transmitted to the California Public Utilities Commission to be used for its compliance and enforcement activities. For each local publicly owned electric utility, verification results will be issued in separate reports that are also adopted by the Energy Commission at a regularly scheduled business meeting to be used for compliance and enforcement activities.

CHAPTER 1: Introduction

Renewables Portfolio Standard Legislation

California's Renewables Portfolio Standard (RPS) program was established in 2002 by Senate Bill (SB) 1078 (Sher, Chapter 516, Statutes of 2002) with the goal of increasing the percentage of renewable energy in California, and advancing the diversity, reliability, public health, and environmental benefits of the state's energy mix. In addition to requiring each retail seller to procure 20 percent of its retail sales from renewable energy sources by no later than the end of 2017, the legislation also required the governing body of each local publicly owned electric utility (POU) to implement and enforce an RPS that recognizes the Legislature's intent to encourage renewable resources, while taking into consideration the effect of the standard on rates, reliability, and financial resources.

In 2006, Senate Bill 107 (Simitian and Perata, Chapter 464, Statutes of 2006) advanced the state's RPS target, requiring retail sellers to increase renewable energy purchases by at least one percent of retail sales per year with a target of 20 percent renewable energy by the end of 2010. The bill also required POUs to report to the California Energy Commission on the status of implementing their RPS programs and the progress made toward achieving their RPS goals.

In April 2011, Governor Edmund G. Brown Jr. signed Senate Bill X1-2 (Simitian, Chapter 1, Statutes of 2011, First Extraordinary Session), which adjusted the RPS target of 20 percent by 2010 to an average of 20 percent for 2011 through 2013; extended the long-term RPS target to 33 percent by 2020; and required the state's POUs to comply with similar RPS procurements requirements as retail sellers starting January 1, 2011. SB X1-2 also gave the Energy Commission and California Air Resources Board (ARB) new oversight responsibilities with respect to POUs compliance with the RPS. Specifically, it authorized the Energy Commission to adopt regulations specifying RPS enforcement procedures for POUs, including a public process for issuing notices of violation for noncompliance and for referring the violations to the ARB for penalty assessment.

The passage of Senate Bill 350 (De León, Chapter 547, Statutes of 2015) increased the RPS to 50 percent by 2030 and made other changes to the state's RPS. The passage of Senate Bill 100 (De León, Chapter 312, Statutes of 2018) further increased the RPS to 60 percent by 2030 and made additional changes to the state's RPS.

Roles and Responsibilities

The Energy Commission and the California Public Utilities Commission (CPUC) jointly implement the RPS program.

The Energy Commission's legislatively mandated responsibilities are, in part, to:

- Certify eligible renewable energy resources under the RPS.

- Adopt regulations specifying RPS enforcement procedures for POU, including a public process under which the Energy Commission is authorized to issue a notice of violation for noncompliance and to refer the violation to the ARB for assessment of penalties.
- Verify procurement of renewable energy by load-serving entities (LSEs).
- Enforce POU compliance with the RPS.
- Refer POU violations to the ARB for the imposition of penalties when applicable.

The Energy Commission’s *Renewables Portfolio Standard Eligibility Guidebook (RPS Eligibility Guidebook)* specifies the criteria and process for certifying generating facilities as eligible renewable energy resources for the RPS. The *RPS Eligibility Guidebook* also includes reporting and verification requirements for program participants.¹

To design and implement an accounting system to verify compliance of program participants, the Energy Commission worked with the Western Governors’ Association to develop the Western Renewable Energy Generation Information System (WREGIS).² WREGIS is an independent renewable energy tracking system for the region covered by the Western Electricity Coordinating Council (WECC).³ WREGIS issues and electronically tracks renewable energy credits (RECs) representing renewable energy generation. Since 2008, the Energy Commission has used WREGIS for RPS reporting and verification.

As part of its responsibilities, the Energy Commission verifies renewable electricity procurement for all RPS program participants. The Energy Commission also determines POU’s compliance with the RPS.⁴ The Energy Commission’s *Enforcement Procedures for the Renewables Portfolio Standard for Local Publicly Owned Electric Utilities*⁵ (*RPS POU Regulations*) establishes the rules and procedures by which the Energy Commission will assess a POU’s procurement actions and determine whether those actions meet the RPS procurement requirements in the law. After the Energy Commission adopts each POU’s verification report, it begins the process to determine if POU’s are complying with the RPS procurement requirements for the compliance period in accordance with the RPS POU Regulations. An overview of the compliance process can be found in Chapter 5.

Energy Commission staff does not evaluate retail sellers’ progress in meeting RPS procurement requirements. The Energy Commission verifies renewable electricity procurement claims for retail sellers and then provides results to the CPUC to use in determining retail sellers’ compliance with the RPS and any enforcement actions.

Verification Process Overview

1 California Energy Commission, *Renewables Portfolio Standard Eligibility Guidebook, Ninth Edition (Revised)*. April 2017. <http://www.energy.ca.gov/renewables/documents/index.html#rps>.

2 More information about WREGIS can be found at <https://www.wecc.biz/WREGIS/Pages/Default.aspx>.

3 The Western Electricity Coordinating Council is the regional entity responsible for coordinating and promoting bulk electric system reliability in the Western Interconnection. <https://www.wecc.biz/Pages/home.aspx>.

4 Public Utilities Code § 399.30 (o) and (p).

5 The *Enforcement Procedures for the Renewables Portfolio Standard for Local Publicly Owned Electric Utilities*. April 2016. http://www.energy.ca.gov/portfolio/pou_rulemaking/index.html. These regulations are set forth in 20 CCR §§ 1240 and 3200 - 3208.

This *Renewables Portfolio Standard Verification Methodology Report, Second Edition*, describes the methods Energy Commission staff uses to:

- Verify the RPS eligibility of the renewable energy facilities from which each reporting LSE⁶ is claiming procurement.
- Verify, to the extent possible, that the amount of renewable electricity procurement claimed does not exceed the amount of renewable electricity generated by each eligible facility.
- Determine the amount of renewable electricity that may be attributed to multifuel and biomethane facilities.
- Verify that RECs are an appropriate vintage, representing energy generated in the allowable years for each compliance period.
- Verify, to the extent possible, that procurement exclusively serves California's RPS and is not double-counted toward another renewable energy regulatory or market program.
- Identify eligible, ineligible, and withdrawn procurement claims for each LSE to provide the total amount of eligible procurement for each LSE.
- Determine the portfolio content categories of each POU's eligible procurement claims.
- Complete calculations of procurement requirements for each POU.

⁶ For purposes of Energy Commission administration of the RPS, "load-serving entity" includes both retail sellers and POUs.

CHAPTER 2:

Verification of RPS Claims Eligibility

This chapter describes the processes to verify the eligibility of RPS claims reported annually by LSEs. The verification of RPS claim eligibility can be grouped into three main verification processes:

1. Facility eligibility: this process determines whether each RPS claim is based on generation from an RPS-certified facility.
2. Generation eligibility: this process determines how much of the total generation from each facility is eligible to be claimed for the RPS.
3. Claim eligibility: this process determines if claims submitted by all LSEs represent no more than the total RPS-eligible generation from each facility, that claims are for energy generated in allowable years for each compliance period, and that individual RPS claims are not double-counted by more than one LSE or in another program.

These processes, and the methods used in each, are discussed in this chapter. The Energy Commission works closely with LSEs throughout the verification process to keep them informed of issues with their procurement claims and attempt to resolve any identified issues.

RPS Data Sources

For this report, the terms “renewable energy procurement claim,” “RPS procurement claim,” “RPS claim,” and “procurement claim” all refer to a claim submitted to the Energy Commission by a LSE for an amount of electricity or electricity products⁷ procured from a specific RPS-certified generation facility. As of January 1, 2014, all procurement claims must be reported to the Energy Commission using WREGIS with the exception of claims that meet the requirements specified in the *RPS Eligibility Guidebook* to be reported directly to the Energy Commission as WREGIS Adjustments.

Western Renewable Energy Generation Information System (WREGIS)

As described above, WREGIS tracks renewable energy generation from generating units that register and report verifiable data. A facility must be registered and approved in WREGIS before the Energy Commission will approve an application for RPS certification, and with limited exceptions all generation must be tracked in WREGIS to be considered RPS-eligible.

For each megawatt-hour (MWh) of such electricity generated and reported, WREGIS creates a unique electronic renewable energy certificate (REC)⁸. In the WREGIS system RECs are created and initially deposited into the account of a renewable energy generator. Generators transfer

⁷ “Electricity product” means either electricity and the associated renewable energy credit generated by an eligible renewable energy resource or an unbundled renewable energy credit.

⁸ This REC reflects the requirements for a renewable energy credit under Public Utilities Code Section 399.12, subdivision (h).

RECs to the accounts of LSEs or other parties based on procurement contracts. Account holders can transfer RECs to other parties and between accounts, but the RECs can reside in only one account at any given time, thereby preventing possible double-counting of renewable energy generation tracked within WREGIS.

LSEs are required to use WREGIS to report procurement claims to the Energy Commission, except in limited instances⁹.

LSEs authorize WREGIS to submit California RPS compliance reports (WREGIS reports) on their behalf to the Energy Commission. The WREGIS reports provide the RPS claims data by month, listed by RPS-certified facility and fuel type.

Until December 31, 2013, LSEs were allowed to report procurement of generation for the RPS not tracked in WREGIS using the Interim Tracking System (ITS) under certain circumstances. A limited number of RPS claims reported in the second Compliance Period from generation that occurred in the years 2011 through 2013, were reported using the ITS. LSEs must report all procurement claims for generation from January 1, 2014, or later through WREGIS.

RPS Online System

In January 2017, California's RPS Program was updated with the introduction of a web-based online system, through which LSEs submit annual procurement and compliance reports. LSEs began completing annual procurement reporting in the RPS Online System for the 2016 reporting year. For Compliance Period 2 (2014-2016), data previously submitted for years 2014 and 2015 was migrated into the RPS Online System to allow completion of verification activities for the compliance period within the system.

Retail sellers report only procurement claims to the Energy Commission. POU reporting to the Energy Commission includes, among other things, general procurement, contractual information, and additional reports supporting portfolio content category claims through the RPS Online System.

The RPS Online System allows Energy Commission staff to complete multiple steps of analysis, and display the results of the analyses for LSE confirmation or dispute. The system further allows for multiple authorized representatives of each LSE to contribute to completion of verification activities.

Generation Data

As stated above, WREGIS issues and electronically tracks RECs representing renewable energy generation for the region covered by the WECC. WREGIS was designed to ensure that generation is accurately reported, recorded and counted only once for any regulatory or voluntary program. As such, staff have confidence in the generation as reported to WREGIS.

⁹ Effective January 1, 2014, generation amounts that qualify as a WREGIS Adjustment may be reported to the Energy Commission to be included in the verification. LSEs may submit a WREGIS Adjustment to report generation not tracked in WREGIS by submitting a request using the RPS Online System subject to specific requirements as described in the *Renewables Portfolio Standard Eligibility Guidebook, Ninth Edition (Revised)*. See Chapter 7. A. 2: WREGIS Adjustments.

During verification, staff may compare a certain number of claims to confirm that the total claims submitted from any facility do not exceed the total eligible generation for a given year as contained in reports submitted to the U.S. Energy Information Administration (EIA)¹⁰, or other available data sources.

Staff will also confirm that all claims submitted for generation from facilities that are required to report generation data directly to the Energy Commission do not exceed the total allowable generation from that facility. The Energy Commission receives annual generation reporting from facilities that use a nonrenewable fuel in addition to a renewable fuel for energy generation, referred to as multi-fuel facilities as well as RPS eligible facilities that use a common carrier pipeline or a functionally dedicated pipeline for delivery of biomethane which must also report data annually.

In limited circumstances, LSEs also report generation not tracked in WREGIS that qualify as a WREGIS Adjustment. In these instances, staff verify that claims submitted are consistent with the data reported in the WREGIS Adjustment.

Multifuel Analysis

RPS-certified multifuel facilities using renewable and nonrenewable energy resources to generate electricity may count a percentage of the electricity generated as RPS-eligible under certain provisions of the *RPS Eligibility Guidebook*. Energy Commission staff calculates the amount of generation that is RPS-eligible for multifuel facilities. When determining the amount of RPS-eligible generation produced by a RPS-certified facility using multiple energy resources, the total electrical output of the facility for the year will be multiplied by the percent renewable, as calculated using the applicable equations described in the *RPS Eligibility Guidebook*.

All the generation from multifuel facilities using a de minimis quantity of nonrenewable energy resources in the same generation process as the renewable energy resource, as calculated by the approved method, may be counted as RPS-eligible. The amount of RPS-eligible generation for each multifuel facility using a de minimis quantity of nonrenewable energy is determined by calculating the percentage of nonrenewable fuel used, and determining if it is equal to or below the allowed de minimis amount specific to the facility,¹¹ depending on the facility's RPS certification.

If the generation and fuel use data reported directly to the Energy Commission by a multifuel facility varies from the generation data reported to EIA or other source by more than 5 percent, staff will request an explanation from the facility owner. Explanations may include, but are not limited to, unit conversion errors, missing periods of reporting in the EIA data, EIA data that

¹⁰ EIA data includes annual generation information for generation facilities with a capacity greater than one megawatt (MW). Annual generation data from the U.S. EIA is available at: www.eia.doe.gov/cneaf/electricity/page/eia906_920.html.

¹¹ See Chapter 3. B. 2. De Minimis Quantity of Nonrenewable Energy Resources in the *Renewables Portfolio Standard Eligibility Guidebook, Ninth Edition (Revised)*.

included on-site load¹², and estimated generation and fuel use amounts being reported to the EIA. Facilities may submit revised information to correct any reporting errors.

Biomethane Analysis

Verification of claims of procurement from facilities that use biomethane delivered to the generating facility through a common carrier pipeline or functionally dedicated pipeline relies on additional information provided directly to the Energy Commission.

Any RPS certified facility using biomethane delivered in a common carrier pipeline or functionally dedicated pipeline during the prior calendar year is required to annually report information related to the delivery and volume of biomethane and contracts for the biomethane through the RPS Online System as detailed in the *RPS Eligibility Guidebook*. Energy Commission staff conducts specific analysis using the data, delivery and contract information contained in these annual reports to confirm the eligibility of the facility and calculate the RPS-eligible generation.

WREGIS Adjustments

In very limited cases, previously reported data in WREGIS must be corrected. When a discrepancy is identified between actual generation and the RECs issued for a generation month, the WREGIS system makes a prior period adjustment to correct the WREGIS REC total. If the actual generation was less than originally reported, RECs were overproduced and to adjust this discrepancy, WREGIS reduces the number of RECs issued in the current period by an amount equal to the number overproduced in the prior period. Similarly, if the actual generation was more than originally reported, RECs were under produced and to adjust for this discrepancy, WREGIS issues additional RECs in the current period to make up for the number under produced in the prior period. As such, the prior period adjustment will result in either the overproduction or underproduction of the current vintage of WREGIS REC certificates. LSEs should claim procurement based on the date of the actual generation from the facility. When needed, LSEs should submit a WREGIS Adjustment through the RPS Online System when the vintage date(s) on RECs do not correspond to the month of generation due to a WREGIS prior period adjustment.

Under certain circumstances LSEs may also submit a WREGIS Adjustment using the RPS Online System to report generation not tracked in WREGIS when the correction cannot be made in WREGIS due to WREGIS Operating Rules. The request will be evaluated by Energy Commission staff for compliance with applicable requirements. If a WREGIS Adjustment is approved, the reported generation will reflect in the verification of claims in the RPS Online System but will not be reflected in WREGIS or in the WREGIS report. Staff may request additional documentation to verify claims made pursuant to a WREGIS Adjustment.

¹² Generation from a certified facility serving onsite load may be claimed for use in the RPS if all eligibility requirements are met and the generation serving onsite load is metered independently from any station service loads using a meter with a verified accuracy rating of 2 percent or higher. See *Renewable Portfolio Standard Eligibility Guidebook, Ninth Edition (Revised)*, Chapter 3. A. 4. Onsite Load.

Claims Eligibility Analysis

The claims eligibility analysis includes analyses completed to determine the following:

- that claims are from eligible facilities,
- that there is sufficient RPS-eligible generation from each facility to cover the total of RPS claims from that facility,
- that claims are from energy generated and retired in allowable months and years indicated by the vintage of the RECs, and
- that generation represented in RPS claims is not also being used in other compliance or voluntary programs.

If a claim is determined to be ineligible for the RPS, staff will notify the LSE submitting the claim and provide an opportunity to dispute this determination or to resolve the reason the claim was found to be ineligible when possible.

Facility Eligibility Analysis

The first step in the Energy Commission's verification process is to determine if RPS claims are based on generation from RPS-certified generating facilities. The Energy Commission certifies generating facilities that meet the eligibility criteria as specified in the *RPS Eligibility Guidebook*. To be RPS-certified, a facility must, among other things, use an eligible renewable resource or fuel, satisfy resource-specific criteria, and be either located within the state or satisfy applicable requirements for out-of-state and out-of-country facilities.

A facility receives an RPS eligibility date based on a number of factors including whether the facility was precertified, the date an application is submitted to the Energy Commission for certification, the commercial operations date of the facility and the WREGIS eligibility date. The RPS eligibility date is the earliest month that generation from the facility can be considered RPS-eligible. The eligibility date for a facility may be revised or the eligibility may change for reasons as described in the *RPS Eligibility Guidebook*. Procurement claims from a facility are eligible only if the facility was eligible for the RPS during the month of the generation.

Staff initially reviews all claims to ensure the RECs were generated from RPS eligible facilities and for generation that occurred during a period of time that the facility was eligible for the RPS.

Biomethane Claims

As described above, claims from certain facilities that use biomethane to generate electricity require additional verification of facility eligibility and eligible generation. Energy Commission staff works closely with LSEs to analyze procurement claims for biomethane-based generation. Staff analyzes all biomethane amounts on an energy basis of British Thermal Units (MMBtu) and all electrical generation in units of megawatt hours (MWh).

Energy Commission staff reviews biomethane delivery contracts to verify the contracted delivery requirement is met. This analysis is conducted to confirm that only the biomethane fuel that was purchased, delivered, and used by the RPS-certified facility is eligible for the RPS.

Staff also examines the monthly invoices of the RPS-certified facility to confirm the purchaser of the biomethane.

Next, staff analyzes the physical verification data by comparing the biomethane fuel purchase invoices, pipeline injection reports, and pipeline nomination reports showing delivery amounts on a monthly basis. The lesser value for each month from these three sources is taken as the verifiable biomethane fuel amount for the month. Only the lesser of the injected, delivered, or invoiced amounts on a monthly basis is accepted to ensure that no nonrenewable fuel is inadvertently counted as RPS-eligible.

After determining the total RPS-eligible amount of biomethane delivered to the RPS facility for the year or the contracted time frame (based on the monthly analysis described above), the data can be compared to the total amount of fuel used at the facility to determine the ratio of renewable fuel used at the facility during the specified period. The ratio of the total RPS-eligible amount of biomethane for the year and the total amount of fuel consumed at the RPS-certified facility for the same year is multiplied by the total electrical output of the RPS-certified facility for the same year to derive the total amount of RPS-eligible generation produced that year, as shown in the following equation:

$$RPS\ Eligible\ Generation = \frac{RPS\ Eligible\ Biomethane\ (MMBtu)}{Total\ Fuel\ Use\ At\ RPS\ Certified\ Facility\ (MMBtu)} \times Total\ Generation\ (MWh)$$

Only the generation that corresponds to the eligible renewable fuel used at the facility is counted as RPS-eligible. Using monthly RPS claims helps account for any WREGIS REC creation issues in which the number of RECs created in one month could be lower than the amount of verified RPS-eligible gas that was delivered to the RPS-certified facility in that same month. Such accounting adjustments may occur in WREGIS, and the lower amount is later adjusted in a subsequent WREGIS REC creation cycle, resulting in REC amounts that may not mirror the monthly biomethane delivered amounts. However, requiring RPS claims to match the amount of RPS-eligible biomethane delivered in a particular month is not necessary as long as the total RPS-eligible biomethane amount does not exceed the amount of verified RPS-eligible biomethane delivered to the facility in a particular year or contracted time frame.

Claim Vintage Analysis

Section 3202 (c) of the RPS POU Regulations states, “A POU may not use a REC associated with electricity products to meet its RPS procurement requirements unless it is retired within 36-months from the initial month of the generation of the associated electricity.”

The “initial month of the generation” is the vintage month, as reported in WREGIS. Staff currently determine the retirement date by the Action Date¹³ in WREGIS. To ensure only RECs that meet the 36-month retirement requirement are counted as eligible for LSEs, Energy Commission staff calculates the number of months from the initial month of generation, to the month in which the REC was retired. For example, a REC generated in January 2011 must have been retired no later than January 31, 2014. In situations where a REC is retired, subsequently

¹³ “Action Date” refers to the date that a REC is retired within WREGIS.

unretired, and then retired again, staff uses the first retirement date to determine compliance with the 36-month requirement.

LSE procurement claims based on RECs retired more than 36 months after the month of the associated electricity generation are determined to be ineligible for the RPS.

Overclaim Analysis

Since WREGIS creates RECs based on reported, metered generation there is limited potential for the total RECs submitted in LSE's claims to equal more than the total generation of any facility for a given year, referred to as overclaims. However, since generation is reported separately to EIA and other third party sources as well as WREGIS, staff compare data reported to third parties, such as EIA, to the total of all LSE claims submitted for a given year to verify consistency in reporting and accuracy. This overclaims analysis is conducted on a sample of facilities that do not report generation directly to the Energy Commission and takes into consideration any generation reported as Green-E voluntary market sales or for green pricing program reductions to retail sales as allowed by Public Utilities Code section 399.30 (c)(4). To conduct this overclaims analysis, the difference between the total generation and the total procurement claims is calculated for each facility. If the result indicates that the total claims for the facility exceeds the total generation reported to the EIA or other source, the facility is considered to have overclaims. These differences may occur for reasons such as errors in reporting and unit conversion errors. Staff will refer to other third party sources or work with the facility or LSEs submitting claims to obtain additional data or supporting documentation to verify that the total claims accurately represent facility generation.

An overclaims analysis is also conducted for all multifuel and biomethane facilities that report generation directly to the Energy Commission. As described above in the Generation Data section of this report, multifuel and certain biomethane facilities report generation directly to the Energy Commission. Staff determine the total allowable amount of generation from these facilities that is eligible for the RPS for each year. The calculated, total allowable generation may differ from the generation reported to WREGIS from these facilities. Staff reviews total procurement claims from facilities that report generation directly to the Energy Commission to ensure that total claims do not exceed the maximum allowable generation. If claims exceed the allowable generation for a multifuel or biomethane facility, staff will notify the facility's owners and the LSEs submitting claims to determine if additional documentation can be considered in reviewing the claims. If, after further analysis, the procurement claims still exceed the total allowable generation, staff will determine those procurement claims to be ineligible.

Since LSEs are allowed to retire RECs to meet RPS procurement requirements up to 36 months from when the electricity is generated, procurement claims may include RECs that were generated in previous years and from prior compliance period terms. As such, the overclaim analysis requires review of data from previously verified years, because RECs generated in the same year from the same facility may be retired in different reporting years.¹⁴ To complete

¹⁴ "Reporting year" refers to a particular year within a compliance period for which the annual generation has already occurred and for which the RECs are being retired and used for RPS compliance. The reporting year is the year for

overclaims analysis, staff compiles and reviews claims data based on the vintage year of the REC, not the year that it was reported. If an overclaim is identified specific to a year from a prior compliance period in which verification reports have been adopted by the Energy Commission, the adopted reports will not be revised and only the current claims may be determined to be ineligible.

Double-Counting Analysis

Staff verification activities ensure that a REC is counted only once for compliance with the California RPS. A REC cannot be counted for compliance with the California RPS if it has been used to satisfy any other retail, regulatory, or voluntary market claim. Tracking of RECS in WREGIS prevents a REC from being counted more than once in California's RPS or for compliance with the California RPS and for the regulatory requirements of any other state or voluntary program in the WECC. Staff analyses ensure that a REC is not claimed for both the RPS and programs that are not tracked and retired in WREGIS.

Coordinating with Other State and Voluntary Programs

WREGIS was developed as a regional tracking system in part to prevent RECs from being used in more than one regulatory or voluntary program in the WECC. By design, claims tracked and reported through WREGIS and submitted for California's RPS program cannot be double-counted in other States' RPS programs that also require the use of WREGIS. The Energy Commission collaborates with staff from other states within the WECC, and has the ability to further confirm data as needed and based on the reporting requirements and availability of data in each state.

In addition, Energy Commission staff coordinates with other California agencies and the voluntary REC market to help ensure against double-counting in voluntary programs. Generators and brokers sell RECs to individuals, companies, utilities, and other organizations for voluntary environmental and sustainability programs. The Energy Commission collaborates with Green-e Energy¹⁵ (Green-e), which administers the most widely used voluntary REC market, to verify that RECs represented in RPS claims are not also being counted in the voluntary REC market.

Finalizing Eligible Claims Data

Withdrawing Claims

If a claim is determined to be ineligible during the verification process, the affected LSE may "withdraw" the claim from the total procurement amount being claimed so that no ineligible claims appear on their final verification report. Withdrawn claims are removed from the

which the retired RECs are reported and, on an annual basis, should represent the calendar year preceding the reporting due date.

¹⁵ Green-e Energy, a program of the Center for Resource Solutions, is an independent consumer protection program for the sale of renewable energy in the voluntary retail market; see www.green-e.org. Green-e Energy does not require the use of WREGIS.

verification process and are not counted toward the LSE's total RPS-eligible procurement amount. In WREGIS, an LSE can also "unretire" RECs within 12 months of when the certificates were retired and submit a revised WREGIS report to the Energy Commission.

Results of the claims eligibility analyses are issued separately for retail sellers and POU. For retail sellers, a verification report is adopted by the Energy Commission at a regularly scheduled business meeting and subsequently transmitted to the California Public Utilities Commission to be used for its compliance and enforcement activities.

Additional POU Verification Activities

The Energy Commission is responsible for enforcing POU compliance with the RPS. As such, determination of claims eligibility is only the initial step in verification activities completed by the Energy Commission for POU. The following chapters of this report describe the additional verification activities conducted for POU. When all POU verification activities are completed, POU verification results will be issued in separate reports that are adopted by the Energy Commission at a regularly scheduled business meeting and used for further compliance and enforcement activities conducted by the Energy Commission.

CHAPTER 3:

Portfolio Content Category Classification

The Energy Commission is responsible for determining POU's compliance with the RPS. The Energy Commission's *RPS POU Regulations* establish the rules and procedures by which the Energy Commission will assess a POU's procurement actions and determine whether those actions meet the RPS procurement requirements. For POU's only, the Energy Commission further analyzes procurement claims verified as RPS-eligible to determine if the claims meet additional requirements, as described in the RPS POU Regulations.

Portfolio Balance Requirements

Public Utilities Code Sections 399.16 and 399.30 (c)(3) require that POU's procure a "balanced portfolio of eligible renewable energy resources" consisting of three portfolio content categories, which are further defined in Section 3203 of the RPS POU Regulations. The portfolio balance requirements set a minimum level of electricity products that must be procured within a specific portfolio content category and maximum level of electricity products that can be procured within another portfolio content category.

POU's initially identify the portfolio content category classification of each claim by retiring RECs into subaccounts specific to each portfolio content category and each year of a compliance period. The Energy Commission verifies that the claims for procurement of electricity products are classified into the correct portfolio content categories, and subsequently calculates whether POU's have met the portfolio balance requirements.

The following provides an overview of the portfolio content categories for procurement claims and the specific verification methods used by the Energy Commission to verify the classification of procurement claims into either a portfolio content category or as another category including "count in full."

Definition of Portfolio Content Categories

Public Utilities Code Section 399.16 and Section 3202 of the RPS POU Regulations draw a distinction between ownership agreements and procurement contracts for electricity products executed before June 1, 2010, and ownership agreements and procurement contracts executed on or after this date as follows:

- 1) Electricity products procured under contracts or ownership agreements executed before June 1, 2010, that satisfy the conditions of Public Utilities Code Section 399.16(d) are referred to as "count-in-full procurement" in accordance with Section 3202(a)(2) of the RPS POU Regulations, and are identified as Portfolio Content Category 0 (PCC 0).
- 2) Electricity products procured under contracts or ownership agreements executed on or after June 1, 2010, must satisfy one of the three portfolio content categories

specified in Public Utilities Code Section 399.16(b) in accordance with Section 3202(a)(1) of the RPS POU Regulations, and are identified as Portfolio Content Categories 1, 2, and 3 (PCC 1, PCC 2, and PCC 3).

The following describes these three portfolio content categories, which are sometimes referred to as “buckets”.

Portfolio Content Category 1 (PCC 1 or Category 1)

PCC 1 RECs must be procured bundled¹⁶ from a facility that has its first point of interconnection with a California Balancing Authority (CBA), a distribution facility used to serve end users within a CBA, or the electricity product must be scheduled into a CBA on an hourly or sub-hourly basis without substituting electricity from another source in accordance with Section 3203(a) of the RPS POU Regulations.

Portfolio Content Category 2 (PCC 2 or Category 2)

PCC 2 RECs must be procured bundled and scheduled into a CBA, and firmed and shaped¹⁷ with incremental electricity in accordance with Section 3203(b) of the RPS POU Regulations.

Portfolio Content Category 3 (PCC 3 or Category 3)

PCC 3 RECs are all electricity products that do not meet the criteria of PCC 1 or PCC 2, including the procurement of unbundled RECs, in accordance with Section 3203(c) of the RPS POU Regulations.

Procurement from Pre June 2010 Contracts

Count in Full (Portfolio Content Category 0 or PCC 0)

As mentioned above, electricity products procured under contracts or ownership agreements executed before June 1, 2010, from a facility that met the requirements to be certified according to the *RPS Eligibility Guidebook* in place at the time the contract was executed, in accordance with Section 3202 (a)(2) of the *RPS POU Regulations*, are considered “count in full” and are not included in the calculation of the portfolio balance requirements. For electricity products generated by a facility that is not interconnected to a CBA to qualify as “count in full,” the electricity product must have been procured, bundled, and the procurement contract must have included delivery terms. Electricity products qualifying as “count in full” are categorized as PCC 0 when retired in WREGIS, to distinguish them from PCC 1, 2, or 3.

¹⁶ “Bundled” is defined by section 3201 of the RPS POU Regulations as an electricity product that includes both the electricity and the associated renewable energy credits from an eligible renewable energy resource.

¹⁷ “Firmed and shaped” refers to transactions where the bundled procurement from a renewable resource is matched with an equivalent amount of incremental energy from another facility, which is scheduled into a California Balancing Authority (CBA).

Other Pre-June 2010 RECs

Electricity products procured under contracts or ownership agreements executed before June 1, 2010 from a facility that did not meet the requirements to be RPS-certified according to the *RPS Eligibility Guidebook* in place at the time the contract or ownership agreement was executed are still classified into the portfolio content categories, but are not included in the calculation of the portfolio balance requirements. Electricity products qualifying as either pre-June 1, 2010 PCC 1 or pre-June 1, 2010 PCC 3 are classified as either PCC 1 or PCC 3 when retired in WREGIS and are labeled during verification as “pre-June 2010” based on the associated contract or ownership agreement execution date.

Verification of Portfolio Content Categories

Contract Analysis

POUs are required to submit documentation of electricity product procurement contracts and ownership agreements, including master agreements and amendments that may be relevant, for all RPS claims. Staff reviews this documentation and matches procurement claims to relevant contracts to ensure that any electricity products procured are correctly classified into a PCC or as “count in full” based on:

1. Contract or ownership execution date.
2. Contract or ownership agreement amendment execution date, when applicable.
3. Contract or ownership agreement end date.
4. Contracted amount of electricity products.
5. Scheduling and delivery terms, when applicable.
6. Whether electricity products were procured as a bundled product.

If inconsistencies are found during contract matching, staff may ask the POU for additional documentation. If documentation does not substantiate the PCC claims identified by the POU, staff will reclassify procurement claims into the appropriate PCC based on the information and documentation provided.

Verification of Scheduled Delivery for Facilities Not Interconnected to a California Balancing Authority

For procurement claims of PCC 1 and PCC 2 electricity products from RPS-certified facilities not interconnected to a CBA, staff verifies that procurement satisfies the scheduling requirements of the RPS POU Regulations.

To demonstrate that an electricity product procured from a facility that is not interconnected to a CBA meets the requirements for PCC 1 or PCC 2, the POU is required to submit e-Tag data. There are two processes for submitting e-Tag data for the verification of scheduled claims, one that is used when e-Tags are tracked in WREGIS and another that is used when e-Tags are not

available in WREGIS. WREGIS provides e-Tag data on the CA e-Tag Report¹⁸, which includes the information necessary to verify that the claim meets the scheduling requirement. When e-Tags are not available in WREGIS¹⁹, the POU must report the same information in the CA e-Tag Report directly to the Energy Commission. This information includes the delivery start and stop date, generator (source point), point of delivery (load or sink point), and total MWh on the e-Tag, as well as the amount matched to the specific RPS ID or WREGIS certificate serial number of the claimed procurement.

Energy Commission staff analyzes the e-Tag information provided to ensure that the source or “point of receipt” was located outside a CBA and within the WECC; the final sink/load center or “point of delivery” was located in a CBA; the amount of electricity scheduled was sufficient to cover the RPS claim amount; and the scheduled amount of electricity on the e-Tag is not also assigned to another LSE.

Energy Commission staff will request that POUs provide randomly selected e-Tags, based on the number of claims reported for the compliance period, to audit the e-Tag information provided. If staff identifies reporting issues such as identical e-Tags listed more than once, insufficient e-Tags to substantiate claims, or duplicate e-Tags reported with the same “Total MWh” and “Used MWh,” staff will work with POUs to resolve the issues through e-Tag form corrections and the submittal of additional e-Tags.

Hourly Analysis for PCC 1 Claims

For procurement claims of PCC 1 electricity products from facilities not interconnected to a CBA, the generation must be scheduled into a CBA using standard hourly or subhourly scheduling (not dynamic transfer). Hourly data must be submitted using the Hourly report within the RPS Online System. To demonstrate that this requirement was satisfied, POUs are required to submit the hourly meter data and hourly scheduled amount for each hour that is claimed as PCC 1 procurement, in addition to the CA e-Tag Report. The amount eligible for PCC 1 is calculated by taking the lesser amount of the hourly meter or schedule amount. The eligible hourly PCC 1 amounts are then summed for the entire calendar year, and compared with the POU’s total PCC 1 procurement claims from the same facility and vintage year. If the procurement claims are equal to or less than the eligible PCC 1 amount, the entire claim may qualify as PCC 1. However, if the procurement claim exceeds the eligible PCC 1 amount, then the procurement claim amount in excess of the eligible PCC 1 amount will be reclassified as either PCC 2 or PCC 3.

¹⁸ WREGIS updated its “Matched e-Tag Summary Report” to a format designed by Energy Commission staff. The new CA e-Tag Report became available on October 26, 2015, and is the new required report for submitting e-Tag data from WREGIS.

¹⁹ WREGIS provides information to verify scheduled delivery of energy into a CBA from out-of-state facilities. This service, which uses data from e-Tags to report scheduling information, became available in WREGIS in early 2009. However, WREGIS stakeholders identified a technical issue that precludes POUs from accessing the e-Tag in WREGIS if third-party importers schedule delivery into a CBA. Since these technical issues are beyond the control of the POU, Energy Commission staff allow submission of e-Tag information using an alternative method. For additional information, refer to the *Renewables Portfolio Standard Eligibility Guidebook, Ninth Edition (Revised)*.

E-Tag Analysis for PCC 2 Claims

To verify that a sufficient amount of electricity scheduled into a CBA was matched with the PCC 2 procurement claims using the submitted data, Energy Commission staff sums the total annual amount of MWh as reported for each POU through e-Tags, and then compares that amount to the total annual PCC 2 procurement claim reported by each POU. This analysis ensures that a sufficient amount of scheduled substitute electricity was matched with the POU's PCC 2 procurement claims.

Finalizing Portfolio Content Category Classification Results

After Energy Commission staff has completed verification of portfolio content category classifications for each POU, staff will share the preliminary results with the respective POU for review and confirmation. Staff considers any requests for changes to the findings and allows POU's to submit additional supporting documentation, as needed, to resolve identified issues.

CHAPTER 4:

Procurement Requirement Calculations

The RPS includes two major procurement requirements for each POU for each compliance period: the RPS procurement target and the portfolio balance requirement. This chapter describes the methods used to determine POU compliance with the RPS procurement requirements. This chapter also describes the exemptions to the procurement requirements for qualifying POUs, the verification process for retail sales, the calculation of excess procurement, and a process for the withdrawal of surplus RECs.

Retail Sales

For POUs, retail sales are defined in Section 3201(cc) of the RPS POU Regulations as “sales of electricity by a POU to end-use customers and their tenants, measured in MWh. This does not include energy consumption by a POU, electricity used by a POU for water pumping, or electricity produced for onsite consumption (self-generation) that was not sold to a customer by the POU.”

Energy Commission staff compares the annual retail sales reported to the Energy Commission with the retail sales reported on the annual EIA 861 report. When the EIA 861 report does not have retail sales to compare for a POU, the retail sales reported in the annual Power Source Disclosure reporting is used for comparison. If the difference between annual retail sales submitted in RPS Annual Reports and the sales as reported in the EIA 861 Report or Power Source Disclosure reporting is greater than five percent, the POU is required to revise the retail sales reported or provide an explanation for staff consideration. Staff may request additional documentation to support the determination of retail sales, and POUs may submit corrected retail sales amounts.

Green Pricing Program Provisions

Pursuant to Public Utilities Code section 399.30 (c)(4), beginning January 1, 2014, a POU may exclude from its total retail sales used to calculate its RPS procurement requirements any electricity generated by an eligible renewable energy resource that is credited to a participating customer pursuant to a voluntary green pricing or shared renewable generation program.

To apply for this reduction, any procurement credited to a participating customer pursuant to a voluntary green pricing or shared renewable generation program must be tracked and retired in WREGIS separate from any generation retired for the RPS. Energy Commission staff verifies documentation including WREGIS reports and data provided by other agencies to verify that any procurement assigned to a green pricing or shared renewable generation program is not also being used for RPS procurement or in other voluntary programs. Staff also verifies that any RECs reported for the Green Pricing Program reduction in retail sales meet the provisions for PCC1 claims, as required by Public Utilities Code section 399.30 (c)(4). This analysis is described in the previous chapter.

Energy Commission staff may request program documentation and sample contracts to confirm the validity of a POU claim for a reduction in retail sales.

Publicly Owned Utilities with Different Retail Sales Calculations

Section 3204 (a)(5) of the RPS POU Regulations provides that for a qualifying POU the percentage of total retail sales upon which the RPS procurement target is calculated is based on the POU’s average annual retail sales over the seven years preceding the end of each year within that compliance period. To qualify, a POU must:

1. Be a joint powers authority of districts established pursuant to state law on or before January 1, 2005;
2. Furnish electric services other than to residential customers; and
3. Be formed under the Irrigation District Law (Division 11, commencing with section 20500 of the Water Code).

Procurement Targets

Public Utilities Code, Section 399.30(b) establishes multi-year compliance periods for the RPS and 399.30(c) requires that POU’s procure electricity products from eligible renewable energy resources equal to 25 percent of retail sales by December 31, 2016, 33 percent by December 31, 2020, 44 percent by December 31, 2024, 52 percent by December 31, 2027, and 60 percent by December 31, 2030. The RPS procurement targets for each year within Compliance Periods 1 through 3 are specified in Section 3204 (a) of the *RPS POU Regulations* and shown in Table 1 below. These “soft targets” are the percentage of retail sales for a single year within a compliance period that are used to calculate the RPS procurement target for that compliance period. The soft targets for later compliance periods are anticipated to be established in the next update to the *RPS POU Regulations*.

Table 1: Procurement Target Calculations by Compliance Period

Compliance Period	Procurement Target
Compliance Period 1 (2011-2013)	2011 retail sales * 20% + 2012 retail sales * 20% + 2013 retail sales * 20%
Compliance Period 2 (2014-2016)	2014 retail sales * 20% + 2015 retail sales * 20% + 2016 retail sales * 25%
Compliance Period 3 (2017-2020)	2017 retail sales * 27% + 2018 retail sales * 29% + 2019 retail sales * 31% + 2020 retail sales * 33%

Source: California Energy Commission (based on information contained in the *Enforcement Procedures for the Renewables Portfolio Standard for Local Publicly Owned Electric Utilities*. April 2016.²⁰ and *Public Utilities Code Section 399.30(c)*).

²⁰ http://www.energy.ca.gov/portfolio/pou_rulemaking/index.html. See 20 CCR § 3204 (a).

Each POU's specific procurement target for each compliance period is calculated by multiplying the POU's annual retail sales for each year by the annual soft target for that year, rounding each year's value down to the closest MWh, and summing the values for all years within the compliance period.

Portfolio Balance Requirements

As provided in Public Utilities Code Section 399.16 (c), applicable to POU's under Public Utilities Code Section 399.30(c)(3), and as specified in the RPS POU Regulations Section 3204(c), the portfolio balance requirements are minimum and maximum percentages of specific PCC products that POU's are required to procure through contracts or ownership agreements executed on or after June 1, 2010, to apply toward the RPS procurement requirements. RPS POU Regulations Section 3204(c) specifies the following portfolio balance requirements for PCC 1 and PCC 3:

Table 2: Portfolio Balance Requirements by Compliance Period

Compliance Period	PCC 1 Minimum	PCC 3 Maximum
Compliance Period 1 (2011-2013)	50%	25%
Compliance Period 2 (2014-2016)	65%	15%
Compliance Periods beginning 2017	75%	10%

Source: The Enforcement Procedures for the Renewables Portfolio Standard for Local Publicly Owned Electric Utilities. April 2016.

The minimum percentage of PCC 1 RECs procured pursuant to contracts or ownership agreements executed on or after June 1, 2010, that must be applied towards the RPS procurement target for each compliance period is calculated as:

$$(\text{PCC 1 Minimum}) \times [(\text{Lesser of: Target or Total RECs retired}) - (\text{Count in Full, Pre-June 2010 RECs Applied to Target, and Historic Carryover})]$$

The maximum percentage of PCC 3 RECs procured pursuant to contracts or ownership agreements executed on or after June 1, 2010, that are allowed to be applied towards the RPS procurement target for each compliance period is calculated as:

$$(\text{PCC 3 Maximum}) \times [(\text{Lesser of: Target or Total RECs retired}) - (\text{Count in Full, Pre-June 2010 RECs Applied to Target, and Historic Carryover})]$$

Additional Verification Processes

Publicly Owned Utilities with Special Exemptions

The RPS POU Regulations describe a number of specific exemptions and adjustments to the RPS procurement requirements. Staff factors in any allowed exemptions and adjustments when

completing the analysis of procurement requirements. In many cases, a POU that wishes to apply an exemption or adjustment must notify the Energy Commission of the intent to apply the allowed adjustment in their annual reporting and must provide supporting documentation to support the application. Staff will verify the application of any special provisions applied to meet procurement requirements and adjust calculations as needed.

Pursuant to the RPS POU regulations if a qualifying POU can show that it meets the criteria for one of the allowed exemptions, the procurement target will be adjusted or in some cases will be determined annually, instead of on a compliance period basis, and in some cases a POU will be exempt from the portfolio balance requirement. POU's that serve customers that are located within California, but not interconnected to a CBA, do not classify their procurement of electricity products into the portfolio content categories; instead, they categorize them as either "count in full," "bundled", or "unbundled".

Historic Carryover

In accordance with Section 3206 (a)(5) of the RPS POU Regulations, a POU that procured electricity from qualifying renewable energy resources from January 1, 2004, through December, 31, 2010, that was in excess of its 2004-2010 RPS procurement targets that was not otherwise applied to another state RPS program or a voluntary program may apply that excess amount to its procurement requirements for Compliance Period 1 or any subsequent compliance period. While this historic carryover procurement may count toward a POU's RPS procurement target, the historic carryover procurement is not categorized into a portfolio content category and is not included in the calculation of the portfolio balance requirements.

Review of Applied or Claimed Excess Procurement

Section 3206 of the RPS POU Regulations specifies optional compliance measures that can be adopted and applied by a POU, including excess procurement, which provides that RPS-eligible RECs retired by a POU that are in excess of the POU's procurement target for a specific compliance period can be used to meet the procurement requirements for any future compliance period. Subdivision 3206 (a)(1) specifies criteria for excess procurement and describes the restrictions on excess procurement associated with PCC 3 electricity products and procurement under contracts of less than 10 years in duration.

Excess procurement²¹ is calculated by summing the total number of eligible RECs retired for the compliance period and subtracting:

1. The RECs applied toward the RPS procurement target.
2. Any retired PCC 3 RECs that are procured pursuant to a contract or ownership agreement executed on or after June 1, 2010 in excess of the PCC 3 maximum, as calculated for the portfolio balance requirements.

²¹ The way the calculation is described here varies from the equation appearing in the RPS POU Regulations Section 3206(a)(1)(D). The equation appearing in Section 3206(a)(1)(D) inadvertently includes the required procurement twice instead of just once. The equation described in this Methodology Report accurately describes the excess procurement calculation applied during compliance periods 1 and 2. It is anticipated that the description of the calculation for excess procurement will be clarified in the next update to the *RPS POU Regulations*.

3. Any RECs retired during the compliance period that were procured pursuant to a contract or ownership agreement less than 10 years in duration that was also executed on or after June 1, 2010, or executed before June 1, 2010 from a facility that did not meet the requirements to be certified for the RPS when the contract was executed.

Withdrawing Surplus RECs for Future Use

In March 2016, the Energy Commission adopted Resolution 16-0309-4A, which established a process for the Energy Commission's Executive Director to allow POU's with surplus RECs, in specific circumstances, to withdraw the RECs from one compliance period and use them in the next compliance period. This process was incorporated into Chapter 7 Section D of the subsequent *RPS Eligibility Guidebook*.

Final POU Verification Results

The results of all analyses are compiled for each POU in a verification results report. All verification results reports are adopted by the Energy Commission at a regularly scheduled business meeting and subsequently used for compliance and enforcement activities.

Each verification results report for a given compliance period includes the following:

- The amount of eligible renewable energy procured by the POU
- The portfolio content category classification of eligible renewable energy.
- The POU's procurement target and portfolio balance requirements.
- Any optional compliance measures being applied by the POU.
- The POU's additional procurement above requirements, which may be applied to a future compliance period.

When adopting each verification results report, the Energy Commission finds that the procurement claim amounts listed in the report are eligible for the RPS, consistent with the RPS certification and procurement rules and requirements specified in the *RPS Eligibility Guidebook* and *RPS POU Regulations*, and should therefore count toward meeting the POU's RPS procurement requirements. After each POU Verification Report is adopted, Energy Commission staff will begin the process of determining if a POU is in compliance in accordance with the statutes and *RPS POU Regulations*.

CHAPTER 5:

POU Compliance Process Overview

Compliance Process

One of the Energy Commission's duties under the RPS is to determine POU compliance with the RPS. The *RPS POU Regulations* establish the rules and procedures by which the Energy Commission will assess a POU's procurement actions and determine whether those actions meet the RPS procurement requirements.

The Energy Commission will adopt a verification report for each POU for each compliance period. Each POU verification report will contain the results of the POU's claims eligibility, portfolio content category analyses, procurement requirement calculations, the POU's procurement for the compliance period, and additional information. After each POU Verification Report is adopted, Energy Commission staff will begin the process of determining if a POU is in compliance in accordance with the RPS statutes and RPS POU Regulations.

For POU's that did not meet the procurement target or portfolio balance requirement for a given compliance period the Energy Commission will evaluate optional compliance measures as applied by each POU. The available optional compliance measures are detailed in the *RPS POU Regulations* and include:

1. Cost limitations for procurement expenditures.
2. Conditions that allow for delaying timely compliance.
3. Portfolio balance requirement reduction for the reduction of the PCC1 portfolio balance requirement.

The Energy Commission's Executive Director will make a compliance determination informed by the verification results presented in each POU's verification report and, if applicable, the application of optional compliance measures by the POU. The Executive Director will issue a letter to each POU documenting the RPS compliance determination. If the Executive Director determines a POU is not in compliance with the RPS requirements, a complaint will be issued against the POU, and adjudicated by the Energy Commission in accordance with the Enforcement Procedures for the Renewables Portfolio Standard for Local Publicly Owned Electric Utilities.

Glossary

- ARB — California Air Resources Board.
- CBA — California balancing authority – means a balancing authority primarily located in California with more than 50 percent of its end-use electric load physically located within the political boundaries of California. This includes balancing authority areas operated by the California Independent System Operator Corporation, Los Angeles Department of Water and Power, Balancing Authority of Northern California, Imperial Irrigation District, and Turlock Irrigation District.
- CPUC — California Public Utilities Commission – an agency that regulates utilities in California, including electric power, telecommunications, natural gas, and water companies. Energy Commission staff and CPUC staff have special status to work collaboratively and participate in confidential deliberations concerning decision-making on the implementation of the Renewables Portfolio Standard.
- e-Tag — Consistent with 20 CCR section 3201 (o), an electronic record that contains the details of a transaction to transfer energy from a source point to a sink where the energy is scheduled for transmission across one or more balancing authority area boundaries. For purposes of this definition, “source point” refers to the generation source of the energy, and “sink” refers to the balancing authority in which the electric load is located. Previously referred to as a “NERC e-Tag.”
- EIA — U.S. Energy Information Administration – part of the U.S. Department of Energy, and responsible for collecting and analyzing energy information. EIA programs cover data on coal, petroleum, natural gas, electric, renewable and nuclear energy.
- ITS — Interim Tracking System - the process that the Energy Commission used to verify RPS procurement claims during the development of the Western Renewable Energy Generation Information System and certain other types of claims.
- LSE — Load-serving entity – an entity that provides electric service to end users and wholesale customers. This includes investor owned utilities, local publicly owned electric utilities, community choice aggregators, and electric service providers.
- MMBtu — One million British thermal units (BTU) – a measure of the energy content in fuel, and is used in the power, steam generation, heating and air conditioning industries.

- MW — Megawatt – 1,000 kilowatts. One megawatt is about the amount of power required to meet the peak demand of a large hotel.
- MWh — Megawatt hour – a unit of measure describing the amount of electricity consumed over time. It means 1 megawatt of electricity supplied for one hour.
- PCC — Portfolio Content Category - refers to one of three categories of electricity products procured from an eligible renewable energy resource, as specified in 20 CCR Section 3203.
- POU — Local publicly owned electric utility - as defined in Public Utilities Code section 224.3, a municipality or municipal corporation operating as a "public utility" furnishing electric service as provided in section 10001 of the Public Utilities Code, a municipal utility district furnishing electric service formed pursuant to Division 6 (commencing with section 11501 of the Public Utilities Code), a public utility district furnishing electric services formed pursuant to the Public Utility District Act set forth in Division 7 (commencing with section 15501 of the Public Utilities Code), an irrigation district furnishing electric services formed pursuant to the Irrigation District Law set forth in Division 11 (commencing with section 20500) of the Water Code, or a joint powers authority that includes one or more of these agencies and that owns generation or transmission facilities, or furnishes electric services over its owners' or its members' electric distribution system.
- REC — Renewable Energy Credit - as defined in Public Utilities Code Section 399.12, Subdivision (h), a certificate of proof, issued through the accounting system established by the Energy Commission under Section 399.25, that one unit of electricity was generated and delivered by an eligible renewable energy resource.
- Retail seller — As defined in Public Utilities Code section 399.12, subdivision (j), an entity engaged in the retail sale of electricity to end-use customers located within the state. Retail sellers include electrical corporations (as defined in Public Utilities Code Section 218), community choice aggregators (as defined in Public Utilities Code section 331.1), and electric service providers (as defined in Public Utilities Code section 218.3). Retail sellers do not include local publicly owned electric utilities, entities employing cogeneration technology or producing power consistent with Public Utilities Code section 218(b), or the Department of Water Resources acting within its capacity pursuant to Division 27 of the Water Code (commencing with section 80000).

- RPS — California’s Renewables Portfolio Standard – as established in Public Utilities Code Section 399.11, et seq. and defined in Public Utilities Code Section 399.12, Subdivision (i), is the specified percentage of electricity generated by eligible renewable energy resources that a retail seller or local publicly owned electric utility is required to procure under Public Utilities Code Section 399.11 et seq.
- SB — Senate Bill - legislation that originates in the California State Senate.
- Vintage — The month and year that a megawatt hour of energy was generated.
- WECC — Western Electricity Coordinating Council - the electricity coordinating council as defined in Public Utilities Code Section 399.12 (k). WECC is one of several regional electric reliability councils with delegated authority under the North American Electric Reliability Corporation and the regional entity responsible for coordinating and promoting bulk electric system reliability in the Western Interconnection serving all or part of the 14 western states and portions of Mexico (in northern Baja California) and Canada (in British Columbia and Alberta). The western states include Arizona, California, Colorado, Idaho, Montana, Nebraska, Nevada, New Mexico, Oregon, South Dakota, Texas, Utah, Washington, and Wyoming.
- WREGIS — Western Renewable Energy Generation Information System - an independent, renewable energy tracking system implemented for the region covered by the WECC. WREGIS electronically tracks RECs (Renewable Energy Credit or WREGIS Certificates) representing renewable energy generation and, beginning with 2008 data, is used for RPS reporting and verification by the Energy Commission.