DOCKETED	
Docket Number:	16-RPS-03
Project Title:	Amendments to Regulations Specifying Enforcement Procedures for the Renewables Portfolio Standard for Local Publicly Owned Electric Utilities
TN #:	229682
Document Title:	Revised Staff Paper - Implementation Proposal for RPS Long-Term Procurement Requirement
Description:	*** This document supersedes TN 229626 *** - Implementation proposal revised to correct three typos in Table 2 (p. 10) and Table 5 (p. A-3).
Filer:	Katharine Larson
Organization:	California Energy Commission
Submitter Role:	Commission Staff
Submission Date:	9/6/2019 11:41:05 AM
Docketed Date:	9/6/2019







California Energy Commission

STAFF PAPER

Implementation Proposal for Renewables Portfolio Standard Long-Term Procurement Requirement for Local Publicly Owned Electric Utilities

Katharine Larson

Renewable Energy Office Renewable Energy Division

Gavin Newsom, Governor August 2019 | CEC-300-2019-007

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 warranty, 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 Energy Commission passed upon the accuracy or adequacy of the information in this report.

Please use the following citation for this report:

Larson, Katharine. 2019. *Implementation Proposal for Renewables Portfolio Standard Long-Term Procurement Requirement for Local Publicly Owned Electric Utilities*. California Energy Commission. Publication Number: CEC-300-2019-007.

ABSTRACT

The Renewables Portfolio Standard (RPS) establishes increasingly progressive renewable energy procurement targets for the state's load serving entities, including retail sellers and local publicly owned electric utilities (POUs). Under the RPS, the California Energy Commission (CEC) is required in part to adopt regulations specifying procedures for enforcement of the RPS for the POUs. The CEC adopted regulations, referred to as the *Enforcement Procedures for the Renewables Portfolio Standard for Local Publicly Owned Electric Utilities* (RPS POU Regulations) in June 2013, and they became effective October 1, 2013. These regulations are codified in the California Code Regulations, title 20, sections 1240 and 3200 – 3208. The CEC subsequently adopted amendments to the RPS POU Regulations, which took effect in April 2016. Since the CEC last amended the RPS POU Regulations, Senate Bill (SB) 350 (de León, Chapter 547, Statutes of 2015), SB 1393 (de León, Chapter 677, Statutes of 2016), SB 1110 (Bradford, Chapter 605, Statutes of 2018), and SB 100 (de León, Chapter 312, Statutes of 2018) made statutory changes to the RPS.

The CEC plans to institute a formal rulemaking to consider amendments to the RPS POU Regulations next year. In advance of the rulemaking, staff is conducting public pre-rulemaking activities to identify and develop proposed changes to the existing regulations. Staff initiated pre-rulemaking activities in 2016 to consider the implementation of SB 350, but these activities were temporarily suspended. Staff resumed pre-rulemaking activities in 2019.

Staff seeks additional input on potential options for implementation of the long-term procurement requirement (LTR) required by SB 350, which staff previously considered during its initial pre-rulemaking activities. The *Implementation Proposal for Renewables Portfolio Standard Long-Term Procurement Requirement for Local Publicly Owned Electric Utilities* summarizes potential implementation options for the LTR based on staff's initial pre-rulemaking activities, public comment staff received, and the California Public Utilities Commission's implementation of the LTR for retail sellers. Staff developed this paper to facilitate discussion of the implementation options for the LTR, the characterization of long-term procurement, and the process by which a POU may elect early compliance with the LTR.

This paper replaces the version posted on August 30, 2019, to correct three minor errors:

- Row 10 of Table 2 (p. 10) now reads "Row (3) + Row (9)" in the equations/notes column.
- Row 17 of Table 5 (p. A-3) now reads "Row (16) Row (1)" in the equations/notes column.
- Row 24 of Table 5 (p. A-3) now reads "PCC 1 Minimum."

Keywords: Renewables Portfolio Standard, RPS, long-term procurement requirement, LTR, local publicly owned electric utility, POU, long-term contract, ownership, enforcement, compliance, renewable energy credit, generation

TABLE OF CONTENTS

	Page
Abstract	i
Table of Contents	iii
List of Tables	iii
Executive Summary	1
Introduction	3
Long-Term Procurement Requirement	3
Next Steps	4
Topic 1: Long-Term Procurement Implementation Options	6
Option 1: Independent Compliance	6
Evaluating Compliance with the LTR	7
Excess Procurement	
Optional Compliance Measures	
Option 2: Dependent Compliance	
Evaluating Compliance in Accordance with the LTR	
Optional Compliance Measures	
Comparison of Implementation Options	
Discussion Questions	
Topic 2: Proposed Characterization of Long-Term Procurement	12
Features of Long-Term Contracts	
Ownership	
Procurement from Contracts Executed Prior to June 1, 2010, and Historic Carryover	
Considerations for PCC 2 Contracts	15
Discussion Questions	15
Topic 3: Early Compliance with the Long-Term Procurement Requirement	17
APPENDIX: Example Compliance Calculations	A-1
LIST OF TABLES	
	Page
Table 1: Summary of LTR Implementation Option Differences	9
Table 2: Example LTR Compliance Calculations	10
Table 3: Example PCC 0 Compliance Calculations	

Table 4: Example Compliance Calculations for Sufficient Long-Term RECs for Both LTR Implementation Options	
A-	1
Table 5: Example Compliance Calculations for Insufficient Long-Term RECs	2

EXECUTIVE SUMMARY

Established in 2002, California's Renewables Portfolio Standard (RPS) establishes increasingly progressive renewable energy procurement targets for the state's load-serving entities. The California Energy Commission's (CEC) responsibilities under the RPS include adopting regulations specifying procedures for RPS enforcement for local publicly owned electric utilities (POUs).

The CEC adopted regulations, referred to as the *Enforcement Procedures for the Renewables Portfolio Standard for Local Publicly Owned Electric Utilities* (RPS POU Regulations) in June 2013, and they became effective October 1, 2013. These regulations are codified in the California Code Regulations, title 20, sections 1240 and 3200 – 3208. The CEC subsequently adopted amendments to the RPS POU Regulations, which took effect in April 2016. Since the CEC last amended the RPS POU Regulations, Senate Bill (SB) 350 (de León, Chapter 547, Statutes of 2015), SB 1393 (de León, Chapter 677, Statutes of 2016), SB 1110 (Bradford, Chapter 605, Statutes of 2018), and SB 100 (de León, Chapter 312, Statutes of 2018) made statutory changes to the RPS.

The CEC anticipates initiating a formal rulemaking to amend its RPS POU Regulations to implement these statutory changes next year. The CEC previously initiated pre-rulemaking activities in 2016 after the enactment of SB 350 and issued *Pre-Rulemaking Amendments to the Enforcement Procedures for the Renewables Portfolio Standard for Local Publicly Owned Electric Utility* (Draft RPS POU Pre-Rulemaking Amendments), conducted an initial pre-rulemaking workshop, and received public comments. Pre-rulemaking activities were subsequently suspended, and additional statutory changes have been enacted since the Draft RPS POU Pre-Rulemaking Amendments were issued. Current pre-rulemaking activities and the anticipated formal rulemaking activities will address the entire range of statutory changes that affect the RPS POU Regulations since the last modifications to the regulations were adopted until the present.

As part of the current pre-rulemaking activities, CEC staff seeks additional input on potential implementation options for the long-term procurement requirement introduced by SB 350. Staff developed this *Implementation Proposal for Renewables Portfolio Standard Long-Term Procurement Requirement for Local Publicly Owned Electric Utilities* to facilitate discussion and summarize potential options based on the Draft RPS POU Pre-Rulemaking Amendments, public comment, and the California Public Utilities Commission's implementation for retail sellers. The CEC plans to hold a workshop on September 10, 2019, to discuss potential implementation of the long-term procurement requirement for POUs, and anticipates holding a subsequent workshop on the full range of statutory changes affecting the RPS program for POUs.

This paper replaces the version posted on August 30, 2019, to correct three minor errors:

- Row 10 of Table 2 (p. 10) now reads "Row (3) + Row (9)" in the equations/notes column.
- Row 17 of Table 5 (p. A-3) now reads "Row (16) Row (1)" in the equations/notes column.
- Row 24 of Table 5 (p. A-3) now reads "PCC 1 Minimum."

Introduction

The Renewables Portfolio Standard (RPS) establishes increasingly progressive renewable energy procurement targets for the state's load serving entities, including retail sellers and local publicly owned electric utilities (POUs). Under the RPS, the California Energy Commission (CEC) is required to certify eligible renewable energy resources that retail sellers of electricity and POUs may use to satisfy their RPS procurement requirements, develop an accounting system to verify the procurement of eligible renewable energy resources by retail sellers and POUs for the RPS, and adopt regulations specifying procedures for enforcement of the RPS for the POUs. The CEC adopted regulations, referred to as the *Enforcement Procedures for the Renewables Portfolio Standard for Local Publicly Owned Electric Utilities* (RPS POU Regulations) in June 2013, and they became effective October 1, 2013. These regulations are codified in the California Code Regulations, title 20, sections 1240 and 3200 – 3208. The CEC subsequently adopted amendments to the RPS POU Regulations, which took effect in April 2016. Since the CEC last amended the RPS POU Regulations, Senate Bill (SB) 350 (de León, Chapter 547, Statutes of 2015), SB 1393 (de León, Chapter 677, Statutes of 2016), SB 1110 (Bradford, Chapter 605, Statutes of 2018), and SB 100 (de León, Chapter 312, Statutes of 2018) made statutory changes to the RPS.

The CEC plans to institute a formal rulemaking to consider amendments to the RPS POU Regulations. In advance of the rulemaking, staff is conducting public pre-rulemaking activities to identify and develop proposed changes to the existing regulation.

The CEC previously initiated pre-rulemaking activities to implement statutory changes to the RPS program after the enactment of SB 350. Staff issued *Pre-Rulemaking Amendments to the Enforcement Procedures for the Renewables Portfolio Standard for Local Publicly Owned Electric Utility* (Draft RPS POU Regulation Pre-Rulemaking Amendments), conducted an initial pre-rulemaking workshop on draft regulatory language in August 2016, and received public comments. Following these activities, pre-rulemaking activities were suspended. Additional statutory changes have been enacted since the Draft RPS POU Regulation Pre-Rulemaking Amendments were issued in August 2016. Current staff pre-rulemaking activities and the anticipated formal rulemaking activities will address the entire range of statutory changes that affect the RPS POU Regulations and have occurred since the last modifications to the regulations were adopted through the present.

Long-Term Procurement Requirement

One of the priority areas that will be addressed in the anticipated rulemaking is the implementation of the long-term procurement requirement (LTR) established by SB 350. Throughout this paper, "long-term" refers to a term of at least 10 years in duration, and "short-term" refers to a term of fewer than 10 years.

Pursuant to SB 350, Public Utilities Code (PUC) section 399.13 (b), applicable to retail sellers, was amended to provide:

"[. . .] Beginning January 1, 2021, at least 65 percent of the procurement a retail seller counts toward the renewables portfolio standard requirement of each compliance period shall be from its contracts of 10 years or more in duration or in its ownership or ownership agreements for eligible renewable energy resources."

Section 399.13(b) establishes the LTR. The LTR applies to POUs pursuant to PUC section 399.30 (d)(1), which requires POU governing boards to adopt rules consistent with PUC section 399.13 (b). SB 350 also amended the provisions of PUC section 399.13 (a)(4)(B) to revise the excess procurement rules for retail sellers concurrent

with the effective date of the LTR, and to provide that retail sellers may elect early compliance with the LTR and the revised excess procurement rules beginning in the 2017-2020 compliance period (Compliance Period 3). PUC section 399.30 (d)(1) also requires POU governing boards to adopt rules consistent with PUC section 399.13 (a)(4)(B). As such, the RPS POU Regulations must be updated to provide rules for POU implementation of the LTR and the process by which POUs may elect for voluntary early compliance with the LTR and excess procurement rules.

Staff's Draft RPS POU Regulation Pre-Rulemaking Amendments, published August 9, 2016, included a proposal to implement the LTR and early compliance process for POUs.¹ Staff received public comment on the Draft RPS POU Regulation Pre-Rulemaking Amendments from nine parties, including comments pertaining to implementation aspects of the LTR.² In addition, during the suspension of the CEC's pre-rulemaking activities, the California Public Utilities Commission (CPUC) adopted Decision (D.) 17-06-026 on June 29, 2017, implementing SB 350 RPS compliance requirements for retail sellers.³ The CPUC's implementation of the LTR for retail sellers differs in part from the implementation proposed in the Draft RPS POU Regulation Pre-Rulemaking Amendments and provides reasonable implementation alternatives to consider.

Next Steps

Staff seeks additional public input on implementation of the LTR for POUs. The CEC plans to hold a public workshop on September 10, 2019, to discuss the LTR. Staff developed this paper to summarize potential options and proposals for LTR implementation, the characterization of long-term procurement, and the process by which a POU may elect for voluntary early compliance with the LTR, to facilitate discussion. Staff considered the Draft RPS POU Regulation Pre-Rulemaking Amendments, stakeholder comments, and the CPUC's implementation for retail sellers in developing this paper. Differences between the proposals discussed in this paper and the Draft RPS POU Regulation Pre-Rulemaking Amendments include:

- Consideration of an LTR implementation option that links compliance with the RPS procurement target to compliance with the LTR.
- Calculation of contract duration for amended contracts.
- Clarification of requirements for ownership that is considered long-term.
- Options for the treatment of procurement from contracts executed prior to June 1, 2010, and historic carryover under the LTR.
- Clarification on the process for voluntary early compliance with the LTR.

This paper includes several questions that the CEC intends to discuss at the forthcoming workshop, but staff encourages stakeholders to comment on any aspect of the paper. Staff will accept written public comments in advance of the workshop so that they may be considered and addressed at the workshop. An additional two-week public comment period will follow the workshop. The CEC anticipates holding a subsequent workshop on

¹ Refer to the Draft RPS POU Regulation Pre-Rulemaking Amendments at: https://efiling.energy.ca.gov/getdocument.aspx?tn=212630.

² Parties that submitted public comment are: Northern California Power Agency, Southern California Public Power Authority, California Municipal Utilities Association, Pacific Gas & Electric Company, Small POU Coalition, Sacramento Municipal Utility District, Los Angeles Department of Water and Power, City of Riverside, and University of California. Refer to https://www2.energy.ca.gov/portfolio/pou_rulemaking/2016-RPS-03/2016-08-18 comments.php.

³ Refer to CPUC D.17-06-026 at http://docs.cpuc.ca.gov/Published/Docs/Published/G000/M191/K530/191530416.PDF.

the full range of statutory changes affecting the RPS POU Regulations and anticipates initiating a formal rulemaking process to amend the regulations next year.

This paper replaces the version posted on August 30, 2019, to correct three minor errors:

- Row 10 of Table 2 (p. 10) now reads "Row (3) + Row (9)" in the equations/notes column.
- Row 17 of Table 5 (p. A-3) now reads "Row (16) Row (1)" in the equations/notes column.
- Row 24 of Table 5 (p. A-3) now reads "PCC 1 Minimum."

Topic 1: Long-Term Procurement Implementation Options

SB 350 introduced a long-term procurement requirement (LTR) applicable to POUs and retail sellers beginning with the 2021-2024 compliance period. Prior to the enactment of SB 350, POUs were subject to two RPS procurement requirements: the RPS procurement target and the portfolio balance requirements (PBR). The PBR consists of two components: the portfolio content category (PCC) 1 minimum and the PCC 3 maximum. To implement the LTR in the RPS POU Regulations, it is necessary to address how the LTR affects compliance with the RPS procurement target and PBR.

For both POUs and retail sellers, compliance with the RPS procurement target and the PBR are determined separately. However, the PCC 3 maximum component of the PBR is linked to compliance with the RPS procurement target, because no PCC 3 procurement in excess of the PCC 3 maximum can count toward compliance with the RPS procurement target. For compliance periods between 2011 and 2020, retail sellers are also subject to a minimum contracting requirement, which requires the execution of new long-term contracts each compliance period to count short-term procurement toward the RPS procurement target. The CPUC's implementation of this requirement effectively links the execution of new long-term contracts to the RPS procurement target. However, this requirement does not apply to POUs and was replaced by the LTR under SB 350.

This section describes two potential implementation options for the LTR and describes how each option affects compliance with the other RPS procurement requirements, excess procurement calculations, the applicability of optional compliance measures to satisfy procurement requirement deficits, and potential enforcement actions. The first option (hereafter the "independent compliance" option) is the same as the approach proposed in the Draft RPS POU Regulation Pre-Rulemaking Amendments and would establish the LTR as a procurement requirement for which compliance is evaluated separately from the RPS procurement target and the PBR. The second option (hereafter the "dependent compliance" option) is aligned with the CPUC implementation of the LTR for retail sellers in D.17-06-026 and would establish compliance with the LTR as a precondition for compliance with the RPS procurement target and portfolio balance requirement.

Option 1: Independent Compliance

The independent compliance option is the same approach proposed by staff in the Draft RPS POU Regulation Pre-Rulemaking Amendments. Under Option 1, the LTR is implemented as a procurement requirement for which compliance is evaluated separately from the procurement target and PBR and does not affect compliance with those requirements. To satisfy the procurement requirements of a given compliance period, a POU must demonstrate compliance with each of the three procurement requirements. The POU could be subject to enforcement action for failure to meet any RPS procurement requirement (the procurement target, PBR or LTR) following the process in sections 3208 and 1240 of the RPS POU Regulations.

⁴ Refer to RPS POU Regulations section 3204 (a)(1)-(3): "No POU may apply Portfolio Content Category 3 RECs in excess of the maximum limit" calculated for each compliance period, and CPUC D.12-06-038 discussion at p. 54.

⁵ See CPUC D.12-06-038, Ordering Paragraphs 15-16 (p. 98).

Option 1 is also the same approach as the CEC's current implementation of the PCC 1 minimum component of the PBR. PUC section 399.16 (c)(1) requires "not less than" a specified amount of electricity products for each compliance period meet the criteria of PCC 1, and compliance with the PCC 1 minimum is evaluated separately from compliance with the RPS procurement target. Refer to Table 2 below and Tables 4 and 5 in the Appendix for example compliance calculations for the independent compliance option described in Option 1.

Evaluating Compliance with the LTR

For both the independent compliance and dependent compliance options, staff proposes calculating the quantity of long-term procurement needed to satisfy the LTR as 65 percent of the lesser of the RPS procurement target or the total procurement a POU applies to the procurement target. If a POU applied a quantity of long-term procurement greater than or equal to the amount needed to satisfy the LTR for a compliance period, the POU would be deemed to comply with the LTR. This is the same approach for calculating and evaluating compliance with the procurement target and PCC 1 minimum component of the PBR.

Excess Procurement

As described above, staff proposes calculating the LTR for each compliance period based on the lesser of the RPS procurement target or procurement <u>applied</u> to meet the RPS procurement requirements for the compliance period. Each POU must report procurement retired and separately identify procurement applied to the procurement target, including any banked excess procurement and historic carryover, for each compliance period. RECs retired in excess of the procurement target and not applied will be assessed as long-term or short-term and if eligible may be banked as excess procurement to be used in a future compliance period, but quantities retired and not applied will not be included in the LTR calculation for the current compliance period.

However, staff proposes clarifying that excess procurement may be banked only if a POU retires procurement in excess of the amount needed to satisfy all RPS procurement requirements, including the LTR. Staff's proposal is based on the plain language of the statute and precludes a POU from banking excess procurement if it meets the procurement target but fails to satisfy the LTR in a compliance period. Staff proposes this same clarification for the dependent compliance option described in Option 2.

Optional Compliance Measures

The RPS POU Regulations specify optional compliance measures (OCM) that POUs may use to satisfy RPS procurement requirement deficits based on the provisions of PUC section 399.15 (b)(5) and (c), section 399.16 (e), and section 399.30 (c)(3) and (d)(2).7 These OCMs are: delay of timely compliance, cost limitations, and PBR reduction.8 Under the independent compliance option, if a POU incurs a deficit in the LTR, it may apply cost limitations to satisfy the deficit, subject to all applicable statutory and regulatory requirements for adopting and applying OCMs. The cost limitation OCM in PUC section 399.15 (c) applies to "procurement expenditures for all eligible renewable energy resources used to comply with the renewables portfolio standard," which could include costs to satisfy the new LTR. However, staff interprets the statutory requirements for delay of timely compliance

⁶ Staff's proposal differs slightly from the CPUC's implementation of excess procurement for retail sellers, which is based on procurement in excess of the RPS procurement target. However, the CPUC has implemented the LTR as a filter on the procurement target, not as a separate procurement requirement. See D.17-06-026 discussion at pp. 13 and 26, and Ordering Paragraph 22 (p. 56), and D. 12-06-038, discussion at p. 61.

⁷ PUC section 399.15 (b)(5) and (c) and section 399.16 (e) set requirements for retail sellers, and section 399.30 (c) and (d)(2) makes these requirements applicable to POUs.

⁸ Refer to section 3206 of the RPS POU Regulations for the requirements for adopting and applying OCMs.

in PUC section 399.15 (b)(5) and the PBR reduction in section 399.16 (e), respectively, to preclude the use of these measures to address a deficit in the LTR. As provided in PUC section 399.15 (b)(5), the delay of timely compliance OCM applies to requirements within "this section," whereas PUC section 399.13 establishes the LTR. Similarly, the PBR reduction may only be used to reduce the PCC 1 minimum component of the PBR, as provided in PUC section 399.16 (e).

Option 2: Dependent Compliance

The dependent compliance option is aligned with the CPUC's implementation of the LTR for retail sellers in D.17-06-026. For this option, the LTR is implemented as a condition that must be satisfied before procurement can be counted toward the RPS procurement and PBR, inextricably linking compliance with these requirements to the LTR. In effect, all procurement applied toward the RPS procurement target must follow a minimum ratio of 65 percent long-term to 35 percent short-term ("minimum LT ratio"), creating a de facto cap on short-term procurement that may count toward the procurement target in a given compliance period. Refer to Table 2 below and Tables 4 and 5 in the Appendix for examples illustrating how staff proposes calculating the LTR for this implementation option.

Failure to apply procurement to satisfy the RPS procurement target in accordance with the minimum LT ratio would adversely affect a POU's ability to meet its procurement target, and in some circumstances may also affect PBR compliance, and may lead to enforcement action for failure to satisfy these requirements. The dependent compliance option is similar to the CEC's implementation of the PCC 3 maximum component of the PBR.

Evaluating Compliance in Accordance with the LTR

Under the dependent compliance option, compliance for the RPS procurement target and PBR is evaluated in accordance with the 65 percent minimum LTR. However, as previously discussed in Option 1, staff proposes assessing the LTR on the lesser of the RPS procurement target or procurement applied to the target.

Staff proposes the following process to evaluate compliance in accordance with the LTR:

- 1. Calculate the LTR as 65 percent multiplied by the lesser of the RPS procurement target or procurement applied to the target.
- 2. Calculate the PCC 3 maximum.
- 3. If a POU applied a lesser amount of long-term procurement (measured in applied Renewable Energy Credits, RECs) than the LTR, disallow short-term RECs until the ratio of long-term to remaining short-term RECs is 65 percent to 35 percent. Short-term PCC 3 RECs should be preferentially disallowed, then PCC 2 RECs, then PCC 1 RECs.
- 4. In the event that a POU's remaining PCC 3 RECs after Step 3 exceeds the maximum calculated in Step 2, disallow PCC 3 RECs until the PCC 3 maximum is reached. Short-term PCC 3 should be preferentially disallowed prior to long-term PCC 3. Although it is an unlikely scenario, if disallowance of excess PCC 3 removes long-term PCC 3 RECs, the long-term procurement requirement will be reevaluated and short-term procurement will be disallowed as in Step 3.
- 5. Evaluate compliance with the RPS procurement target and PCC 1 minimum component of the PBR based on the remaining applied procurement after evaluating the PCC 3 maximum and LTR.

If a POU fails to meet the procurement target or PBR due to insufficient long-term procurement or disallowance of short-term procurement, it may be subject to enforcement action for failing to meet the procurement target or PBR requirements.

Excess Procurement

As described above and in Option 1, staff proposes calculating the LTR only on the lesser of the RPS procurement target or procurement applied to the target. Thus, if a POU has any retired short-term PCC 1 RECs remaining that are not applied to the procurement target, the POU may bank those RECs without regard to the minimum LT ratio under the SB 350 excess procurement rules. If a POU applies insufficient long-term procurement to meet its procurement target, it will have a procurement target deficit and thus be ineligible to bank excess procurement of short-term PCC 1 RECs.

Optional Compliance Measures

Under the dependent compliance option, a POU must always meet the minimum LT ratio, even if that causes the POU to incur deficits in the RPS procurement target and PBR. Because the deficits associated with insufficient long-term procurement occur in the procurement target and PBR, POUs may use cost limitations, delay of timely compliance, and PBR reduction OCMs to satisfy these shortfalls, as is currently provided in section 3206 (a)(2)-(4) of the RPS POU Regulations.

Comparison of Implementation Options

Although RPS compliance is evaluated differently under Options 1 and 2, the outcomes do not materially differ if a POU applies sufficient long-term procurement to meet all of its procurement requirements. However, substantial differences arise when a POU has a shortfall in meeting the LTR.

Table 1 below summarizes some of the major differences between Options 1 and 2.

Table 1: Summary of LTR Implementation Option Differences

	Option 1: Independent Compliance	Option 2: Dependent Compliance
Relationship to procurement target and PBR compliance	LTR compliance has no effect on target or PBR compliance.	LTR compliance required prior to target and PBR compliance. Only procurement that comports with the minimum LT ratio counts toward target and PBR.
Implications for insufficient long-term procurement	POU may incur a deficit in the LTR.	POU does not have an LTR deficit, but may incur a deficit in the procurement target and/or PBR.
Possible enforcement action (if not excused by OCMs)	Complaint may be issued for failure to meet LTR.	Complaint may be issued for failure to meet procurement target and/or PBR.

Source: CEC Staff

For Option 1, compliance with the LTR has no effect on the other procurement requirements. A POU with insufficient long-term procurement may incur a deficit in the LTR and may be subject to enforcement action, unless the deficit is excused by the adoption and application of a cost limitation measure that comports with all statutory and regulatory requirements.

For Option 2, the LTR is inextricably linked to compliance with the RPS procurement target and PBR. If a POU has applied insufficient long-term procurement to satisfy the LTR, its short-term procurement will be disallowed until the minimum LT ratio is met. The POU may incur deficits in the RPS procurement target and/or PBR based on the

disallowance of its short-term procurement, and may be subject to enforcement action for these deficits unless excused by the application and adoption of OCMs.

Although satisfying the LTR is required for RPS compliance under both implementation options, the dependent compliance option may yield a more punitive outcome if a POU with excessive short-term procurement applies insufficient long-term procurement to meet all RPS procurement requirements. This is so, because the number of disallowed short-term RECs needed to bring a POU into compliance with the LTR would likely exceed the simple long-term REC shortfall under the independent compliance option described in Option 1.

For example, consider Table 2 below for the hypothetical POU that has a procurement target of 100,000 RECs and retires and applies 100,000 RECs for RPS compliance, half of which are classified as short-term and half as long-term. For simplicity, assume all RECs are classified as PCC 1 so the POU satisfies the PBR. Under the independent compliance option, the POU satisfies its RPS procurement target and incurs a deficit of 15,000 RECs in the LTR. Under the dependent compliance option, the POU's excess applied short-term RECs are disallowed until all remaining applied RECs satisfy the minimum LT ratio, so that the POU complies with the LTR but incurs a procurement target deficit of 23,077 RECs.

Table 2: Example LTR Compliance Calculations

	Quantity (RECs)	Equation/Notes	Reference
	Quantity (RE03)	Equation/ Notes	Row Number
Procurement Target	100,000	Set in above narrative	1
LTR	65,000	Row (1) x 65%	2
LT RECs applied (all PCC 1)	50,000	Set in above narrative	3
ST RECs applied (all PCC 1)	50,000	Set in above narrative	4
	Option 1: Indep	endent Compliance LTR	
LTR Deficit	15,000	Row (3) – Row (2)	5
RECs Applied to	100,000	Row (3) + Row (4)	6
Procurement Target			
Target Deficit 0		Row (6) – Row (1)	7
	Option 2: Depe	ndent Compliance LTR	
Initial LTR Deficit	15,000	Row (3) – Row (2)	8
Maximum ST RECs allowed	26,923	Row (3) x (35%/65%)	9
Allowed RECs Applied to Procurement Target	76,923	Row (3) + Row (9) (8)	10
Updated LTR	50,000	Row (10) x 65%	11
LTR Deficit	0	Row (3) - Row (11)	12

Quantity (RECs)		Equation/Notes	Reference Row Number
Procurement Target Deficit	23,077	Row (10) – Row (1)	13

Source: CEC staff

Discussion Questions

- 1. Do both implementation options effectively implement the long-term procurement requirement? Explain.
- 2. Which implementation option best supports the state's 100 percent clean energy policy? Explain.
- 3. What reasons (e.g., policy, factual, financial, practical, legal) support the independent compliance LTR implementation for POUs? Explain.
- 4. What market impacts, if any, could result if the CEC implements the LTR for POUs as the independent compliance option? Explain.
- 5. Are there alternative implementation options that are less burdensome and sufficiently effectuate the purpose of the statute? Explain.

Topic 2: Proposed Characterization of Long-Term Procurement

PUC section 399.13 (b) provides that procurement from a retail seller's contracts of 10 years or more in duration and from ownership or ownership agreements shall count toward the 65 percent LTR. While this provision establishes some clear features of long-term procurement, such as a minimum 10-year contract term, there are other implementation issues that must be addressed, such as how the 10-year term is measured and the treatment of procurement that is designated as count in full toward the RPS procurement requirements.

Features of Long-Term Contracts

Staff proposes that, in order to count toward the LTR, long-term contracts must include at least one continuous 10-year term between the POU or its contracting representative and the party through which the POU procures electricity products. Long-term contracts are differentiated from short-term contracts because they provide long-term planning stability. A short-term contract that is subsequently extended through a short-term amendment does not provide the same level of long-term planning stability, even if the combined terms amount to ten years. Staff's proposed requirement of a continuous 10-year term differs from the Pre-Rulemaking Draft RPS POU Regulation Amendments and the previously adopted rules for determining excess procurement, as provided in the current RPS POU Regulations. Staff believes this proposal more accurately defines a contract term that provides long-term planning stability. Staff's proposal is the same as the CPUC's implementation for retail sellers. Description of the contract term that provides long-term planning stability.

To calculate contract duration, staff proposes the contract period to be defined as the contract's stated delivery term, measured from the month and year of the stated start date of electricity product delivery to the month and year of the stated end date of electricity product delivery. The dates during which the POU expects to procure eligible renewable energy electricity products most accurately reflects the contract duration, particularly if a facility has yet to be built when the contract is executed. This is the same proposal as in the Pre-Rulemaking Draft RPS POU Regulation Amendments, and consistent with the CPUC's implementation to date.

Staff proposes that contract duration will be assessed based on the version of the contract in place when the electricity product was generated – the vintage of the REC (month and year) that tracks the procured generation. This will ensure that excess procurement banked for use in a future compliance period is characterized based on the contract in effect when the electricity product is generated, and not based on any subsequent amendments that may change the contract duration. Additional considerations for the use of previously banked excess procurement will be discussed in additional documents issued as a part of pre-rulemaking activities.

To calculate the duration of an amended contract, staff proposes the following:

• If a short-term contract is amended by a term of fewer than 10 years, the duration of the contract will be measured from the short-term contract delivery start date to the short-term contract delivery end date.

⁹ For the CPUC's consideration of this topic, see D.17-06-026, pp. 5-6, and 15-16. 10 Refer to D.17-06-026, Ordering Paragraph 2 (pp. 49-50).

- If a short-term contract is amended by a term of at least 10 years, procurement from the short-term contract will be considered long-term from the date that the amendment is effective, because long-term planning stability is provided with the effective date of the amendment.
- If a contract with a term of at least 10 years is amended by a term of any length, procurement from that contract will continue to be characterized as long-term.

In addition, staff interprets "its contracts" in PUC section 399.13 (b) to require the 10-year duration to apply to the POU's own procurement commitment. Therefore, short-term assignment of an original long-term contract is not considered long-term procurement and may not be used to meet the LTR. This proposal differs from the Draft POU Pre-Rulemaking Amendments, which did not specifically require the 10-year term to apply to the POU's own commitment, and is similar to the CPUC's implementation for retail sellers.¹¹

Ownership

Ownership is assumed to be permanent. Staff proposes that procurement from ownership of a facility be considered long-term, and procurement from a facility for which the POU has an ownership agreement be considered long-term unless otherwise specifically noted to be for a specific duration of less than 10 years. If a POU enters into ownership or an ownership agreement with a specified term length, then the term must be at least 10 years in duration for procurement to count as long-term.

Staff also proposes that under an ownership agreement, any procurement claimed in excess of the POU's proportionate share of that agreement may be counted as long-term only if the POU procured it via a long-term contract. Both proposals presented here are aligned with the CPUC's implementation for retail sellers in D.17-06-026.^{12 13}

Procurement from Contracts Executed Prior to June 1, 2010, and Historic Carryover

Procurement from contracts executed prior to June 1, 2010, that meet the requirements to be considered "count in full" under PUC section 399.16 (d) and the RPS POU Regulations is referred to as count-in-full or PCC 0 procurement.

PUC section 399.16 (d) provides:

"Any contract or ownership agreement originally executed prior to June 1, 2010, shall count in full toward the procurement requirements established pursuant to this article, if all of the following conditions are met ..." 14

Staff has identified two potential options for treatment of PCC 0 procurement for the LTR. The first option would characterize PCC 0 procurement as long-term regardless of the associated contract duration, so that it counts in full toward both the RPS procurement target and the LTR. This option is consistent with the treatment of PCC 0 procurement in the CPUC's implementation of the LTR for retail sellers. ¹⁵ It differs from treatment of PCC 0

¹¹ See D.17-06-026, discussion at p. 21.

¹² See D. 17-06-026, discussion at p. 23, Conclusions of Law 13 (p. 43), and Ordering Paragraph 12 (pp. 52-53).

¹³ See D. 17-06-026, discussion at p. 23 and Ordering Paragraph 12 (pp. 52 -53).

¹⁴ Refer to PUC section 399.16 (d)(1) and (d)(3) and section 3202 (a)(2) of the RPS POU Regulations. For a POU, section 3202 (a)(2) of the RPS POU Regulations require: (1) the renewable energy resource must have been RPS-eligible under the CEC's RPS eligibility requirements in effect when the original contract or ownership agreement was executed; (2) any contract amendments or modifications after June 1, 2010, may not increase the capacity or annual generation, or substitute a different resource. A contract may be extended only if the original contract specified a procurement commitment of 15 or more years.

¹⁵ See D.17-06-026, Conclusions of Law 7 and 8 (p. 42) and Ordering Paragraph 7 (p. 51).

procurement for the PBR in the RPS POU Regulations; however, unlike the PBR limitations set forth in PUC section 399.16, the statute does not specify that the LTR applies only to procurement from contracts executed on or after June 1, 2010.

The second option would exclude PCC 0 procurement from the LTR calculation, so that PCC 0 procurement counts in full toward the RPS procurement target without being subject to the LTR. This option is the same as the treatment of PCC 0 procurement for the PBR in the RPS POU Regulations and would ensure that PCC 0 procurement associated with short-term contracts is not counted as long-term procurement, but still counts in full toward the RPS procurement target.

To illustrate the difference in these options, Table 3 provides an example scenario for the hypothetical POU that applies PCC 0 procurement to a procurement target of 50,000 RECs. For simplicity, all procurement applied is either PCC 0 or PCC 1 to ensure compliance with the PBR. Under Option 1, PCC 0 procurement is treated as long-term and counts in full toward both the LTR and the RPS procurement target, and the POU satisfies both requirements. Under Option 2, PCC 0 procurement is excluded from the calculation of the LTR and does not count as long-term. In this example, the POU incurs a deficit of 3,750 RECs in the LTR under the independent compliance option (refer to Row 10) or 5,770 RECs in the RPS procurement target under the dependent compliance implementation option (refer to Rows 11-15).

Table 3: Example PCC 0 Compliance Calculations

	Quantity (RECs)	Equation/Notes	Reference Row Number
Procurement Target	50,000	Set in above narrative	1
PCC 0 Applied	25,000	Set in above narrative	2
LT PCC 1 Applied	12,500	Set in above narrative	3
ST PCC 1 Applied	12,500	Set in above narrative	4
Opt	ion 1: Count in full tov	ward LTR and RPS procurement target	
LTR	32,500	Row (1) x 65%	5
LT Applied	37,500	Row (2) + Row (3)	6
LTR Deficit	None	Row (6) – Row (5) > 0	7
Option 2: 0	Count in full toward RI	PS procurement target without regard to	LTR
LTR	16,250	65% x (Row (1) – Row (2))	8
LT Applied	12,500	Row (3)	9
LTR Deficit	3,750	Row (9) – Row (8)	10
Maximum ST RECs allowed	6,730	Row (9) x 35%/65%	11
Allowed RECs Applied to Procurement Target	44,230	Row (2) + Row (9) + Row (11)	12

	Quantity (RECs)	Equation/Notes	Reference Row Number
Updated LTR	12,500	65% x (Row (12) – Row (2))	13
LTR Deficit	0	Row (13) - Row (9)	14
Procurement Target Deficit	5,770	Row (12) - Row (1)	15

Source: CEC staff

Staff also proposes that historic carryover, as defined in section 3201 (m) of the RPS POU Regulations, be treated equally with PCC 0 for the LTR, because both involve procurement from contracts or ownership agreement executed prior to June 1, 2010, that counts in full toward the RPS procurement requirements under specified conditions.

Considerations for PCC 2 Contracts

PCC 2 electricity products include eligible renewable energy generated outside of a California balancing authority (CBA) that is matched with incremental energy scheduled into a CBA. ¹⁶ For the purpose of determining whether PCC 2 electricity products can be characterized as long-term, staff proposes requiring only the duration of the eligible renewable energy procurement contract to meet the 10-year requirements for the procurement to be considered long-term. Under staff's proposal, the substitute energy delivered to a CBA is not required to be procured from a contract with a duration of 10 years or more. Additionally, the contract or ownership agreement for the incremental electricity can be executed at the same time or after the contract or ownership agreement for the electricity products from the eligible renewable energy resource is executed. Requiring the incremental energy portion of a PCC 2 contract arrangement to be subject to a 10-year duration would not be consistent with the current definition of PCC 2 resources and would likely decrease procurement flexibility for POUs. Staff's proposal is consistent with the CPUC's implementation for retail sellers.¹⁷

Discussion Questions

- 1. For an amended contract to be considered long-term, staff proposes that the current term or at least one prior term have a continuous duration of at least 10 years. Can certain amendments to short-term contracts, in which the duration of the amendment is also short-term in nature but the entire amended term has a duration of at least 10 years, provide long-term planning stability? Explain.
- 2. What reasons (e.g., policy, factual, practical, financial, legal), if any, would support characterizing short-term amendments of short-term contracts as long-term, provided the entirety of the amended term is at least 10 years? Explain.
- 3. Should procurement from short-term assignments of contracts that were initially long-term in nature be allowed to count as long-term procurement when determining compliance with the LTR? Explain.

16 Specific requirements for PCC 2 electricity products are established in section 399.16 (b)(2) of the Public Utilities Code and section 3203 (b) of the RPS POU Regulations.

¹⁷ D.11-12-052 requires an IOU's initial contract for substitute energy for a PCC 2 electricity product to be at least five years in duration, or as long as the contract for the RPS-eligible energy, whichever is shorter. (See Ordering Paragraph 7, pp. 79-80.) The CPUC did not change the requirements for PCC 2 substitute energy established in D.11-12-052 when it implemented the long-term procurement requirement in D.17-06-026.

- 4. Should contract modifications that do not explicitly change the stated duration of the contract, such as changes to procurement quantities, changes in price, or assignment of certain rights or obligations under the contract, affect the contract's duration for purpose of determining the long-term nature of the procurement? Explain.
- 5. Under what circumstances should a POU's assignment of its rights and obligations under a long-term contract serve to nullify the long-term nature of the contract? Explain.
- 6. Do both treatment options for PCC 0 and historic carryover effectively implement both the LTR and the count-in-full provisions under PUC section 399.16? Explain.
- 7. What market impacts, if any, could occur if the requirements for long-term procurement under the LTR differ for POUs and retail sellers? Explain.
- 8. What other conditions need to be addressed to fully characterize the duration of procurement for the purposes of evaluating POU compliance with the LTR? Explain.

Topic 3: Early Compliance with the Long-Term Procurement Requirement

Pursuant to SB 350, the LTR takes effect beginning Compliance Period 4 (2021-2024) for all POUs and retail sellers, except for those who elect to comply with the LTR during Compliance Period 3 (2017-2020), referred to as early compliance. PUC section 399.30 does not provide for any exemptions to the long-term procurement requirement for any POUs.

For a POU that elects early compliance with the LTR, staff proposes the following requirements:

- The POU's governing board must adopt rules in its RPS procurement plan or enforcement program prior to the end of Compliance Period 3 that allow the POU the option to comply early with the LTR, consistent with PUC sections 399.13 (b) and 399.13 (a)(4)(B)(iii).
- If the POU elects for early compliance with the LTR pursuant to its board's adopted rules, the POU must describe this election in the compliance period report submitted for the final year of Compliance Period 3. The POU must further demonstrate that it complied with the LTR in order to use the SB 350 excess procurement rules early.
- If during verification activities for Compliance Period 3, the POU that has elected early compliance is
 determined not to have met the LTR, it may revise its compliance reporting to remove the election for early
 compliance. In other words, there will be no penalty for the POU that elects early compliance but is unable
 to meet the LTR, though the POU will not be able to use the new excess procurement rules during
 Compliance Period 3.

Under staff's proposal, a POU whose governing board adopts rules permitting the option for early compliance may wait to decide until after Compliance Period 3 whether or not to take advantage of this option.

Staff's proposal is aligned with the existing regulatory requirements for POU OCMs, including excess procurement, which require OCMs be adopted and in place for the applicable compliance period and requirements for reporting on usage of the OCMs. ¹⁸ This proposal differs slightly from the CPUC's implementation for retail sellers, which requires retail sellers seeking early compliance to file an election with the CPUC within 60 days of the effective date of D.17-06-026 ¹⁹ and specifies that failure to meet the LTR in Compliance Period 3 after making that election will result in enforcement actions. ²⁰ However, staff suggests that a different approach to the early compliance process for POUs, including consequences of not complying early with the LTR after voluntary early election, is justified in part based on the historical differences in statutory requirements for OCMs between POUs and retail sellers. Whereas the statute requires the CPUC to adopt rules for retail sellers for the use of excess procurement and the delay of timely compliance and cost limitations OCMs, the POU governing board has discretion in adopting its own rules subject to the statutory requirements and the regulatory requirements in the RPS POU

¹⁸ Section 3206 (b) of the RPS POU Regulations requires OCM rules to be adopted and in place for the applicable compliance period, and section 3207 (d)(6) requires a POU to report on its usage of the OCM during its compliance period report, due July 1 following the end of the compliance period.

¹⁹ D.17-06-026 was adopted June 29, 2017.

²⁰ Refer to D.17-06-026, pp. 33-34, and Ordering Paragraph 23 (p. 56).

Regulations.²¹ Furthermore, in staff's view it is unreasonable to expect POUs to make an election on early compliance before the necessary updates to the RPS POU Regulations are complete.

Discussion Questions

- 1. Does staff's proposal effectively implement the provisions of PUC section 399.13 (a)(4)(B)(iii) and section 399.30 (d)(1) for POUs? Explain.
- 2. Under staff's proposal, if a POU that elected early compliance for Compliance Period 3 is determined not to have satisfied the LTR for that period during the CEC's verification activities, which occur after the completion of Compliance Period 3, the POU may revise its election. What are the potential compliance impacts if the early election is revised? Explain.

_

²¹ As enacted by SB X1-2, PUC section 399.13 (a)(4)(B) required the CPUC to adopt, by rulemaking, excess procurement rules for retail sellers; section 399.15 (b)(5) allowed the CPUC to waive RPS compliance for retail sellers based on specified conditions; and section 399.15 (c) provided for the CPUC to establish cost limitations for electrical corporations. By contrast, PUC section 399.30 (d), as enacted by SB X1-2, allowed POU governing boards to adopt rules for applying excess procurement, conditions that allow for delay of timely compliance, and cost limitations consistent with the requirements for retail sellers.

APPENDIX: Example Compliance Calculations

To illustrate specific LTR implementation aspects, staff prepared example compliance calculations for a hypothetical POU that retires procurement in excess of the amount needed to satisfy the LTR and a hypothetical POU that applies insufficient long-term procurement to satisfy the LTR. Note that actual compliance results may vary based on the manner in which the POU decides to retire and apply procurement for compliance.

Table 4 shows a compliance evaluation for a hypothetical POU that retires long- and short-term PCC 1 procurement in excess of the amount needed to satisfy the LTR and other RPS procurement requirements. As shown in Row 5, the 65 percent LTR is calculated based on the RPS procurement target, not the total number of RECs retired. In this example, the POU applies the minimum number of long-term RECs needed to satisfy the LTR and satisfies the balance of the RPS procurement target with short-term RECs. This leaves the POU with an additional 10,000 long-term PCC 1 and 15,000 short-term PCC 1 RECs retired but not applied, which may be eligible for banking as excess procurement. Note that the SB 350 changes to excess procurement rules will be addressed in a subsequent proposal. The results of Table 4 are the same for both proposed LTR implementation options.

Table 4: Example Compliance Calculations for Sufficient Long-Term RECs for Both LTR

Implementation Options

	Quantity (RECs)	Equation/Notes	Reference Row Number
Procurement Target	100,000	Set in above narrative	1
RECS Retired	125,000	Set in above narrative	2
LT PCC 1	75,000	Set in above narrative	3
ST PCC 1	50,000	Set in above narrative	4
LTR	65,000	Row (1) x 65%	5
RECs Applied	100,00	Set in above narrative	6
LT PCC 1	65,000	Set in above narrative	7
ST PCC 1	35,000	Set in above narrative	8
LTR Deficit	0	Row (7) – Row (5)	9
Procurement Target Deficit	0	Row (6) – Row (1)	10
PBR Deficit	0	Row (7) + Row (8) \geq 75% x Row (1)	11
RECs Retired, Not Applied to Procurement Target	25,000	Row (2) – Row (6)	12

	Quantity (RECs)	Equation/Notes	Reference Row Number
LT PCC 1	10,000	Row (3) – Row (7)	13
ST PCC 1	15,000	Row (4) – Row (8)	14

Source: CEC staff

Table 5 shows example compliance calculations based on the independent compliance and dependent compliance implementation options for the hypothetical POU that applies insufficient long-term procurement to satisfy its RPS procurement requirements for a compliance period. Both calculations use identical inputs for the amounts and types of procurement applied for compliance. Under the independent compliance option, the POU satisfies its RPS procurement target and PBR but incurs a deficit of 15,000 RECs in the LTR. Under the dependent compliance option, the POU's excessive short-term procurement is disallowed until all procurement counted toward the RPS procurement target and PBR comports with the minimum LT ratio. After evaluating the LTR and PCC 3 maximum, the POU's applied procurement that is allowed to count toward the target comports with the LTR, but the POU has incurred deficits of 23,077 RECs in the RPS procurement target and 5,769 in the PCC 1 minimum component of the PBR.

Table 5: Example Compliance Calculations for Insufficient Long-Term RECs

	Quantity (RECs)	Equation/Notes	Reference Row Number
Procurement Target	100,000	Set in above narrative	1
LTR	65,000	Row (1) x 65%	2
LT RECs Applied	50,000	Set in above narrative	3
LT PCC 1	25,000	Set in above narrative	4
LT PCC 2	15,000	Set in above narrative	5
LT PCC 3	10,000	Set in above narrative	6
ST RECs Applied	50,000	Set in above narrative	7
ST PCC 1	50,000	Set in above narrative	8
	Optior	1: Independent Compliance	
LTR Deficit	15,000	Row (3) – Row (2)	9
PCC 3 Maximum	10,000	Row (1) x 10%	10
PCC 3 Applied	10,000	Row (6)	11
Excess PCC 3	N/A	Row (11) ≤ Row (10)	12
PCC 1 Minimum	75,000	Row (1) x 75%	13
PCC 1 Applied	75,000	Row (4) + Row (8)	14
PCC 1 Deficit	0	Row (14) – Row (13)	15

	Quantity (RECs)	Equation/Notes	Reference Row Number
RECs Applied to Procurement Target	100,000	Row (3) + Row (7)	16
Procurement Target Deficit	0	Row <u>(16)(10)</u> – Row (1)	17
	Ор	tion 2: Dependent Compliance	,
LTR Deficit	15,000	Row (3) – Row (2)	18
Maximum ST RECs allowed	26,923	Row (3) x (35%/65%) [Note: all PCC 1]	19
PCC 3 Maximum	10,000	Row (1) x 10%	20
Disallowed ST RECs	23,077	Row (8) – Row (19) (All ST are PCC 1)	21
Excess PCC 3	0	Row (6) – Row 20	22
Allowed Applied to Procurement Target	76,923	Row (19) + Row (3)	23
PCC 1 Minimum Max	57,692	Row (23) x 75%	24
PCC 1 Applied	51,923	Row (4) + Row (19)	25
PCC 1 Deficit	5,769	Row (25) – Row (24)	26
Procurement Target Deficit	23,077	Row (23) – Row (1)	27

Source: CEC staff