STATE OF CALIFORNIA ARNOLD SCHWARZENEGGER, *Governor*

PUBLIC UTILITIES COMMISSION
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TO ALL PARTIES IN RULEMAKING 06-02-012

The revised proposed decision of ALJ Anne E. Simon is enclosed. The revisions address comments filed and served on April 15, 2009, and reply comments filed and served on April 20, 2009, to the initial proposed decision dated March 26, 2009. The revised proposed decision will not appear on the Commission's agenda for at least 30 days after the date it is mailed. The Commission may act then, or it may postpone action until later.

When the Commission acts on the revised proposed decision, it may adopt all or part of it as written, amend or modify it, or set it aside and prepare its own decision. Only when the Commission acts does the decision become binding on the parties.

Parties to the proceeding may file comments on the proposed decision as provided in Article 14 of the Commission's Rules of Practice and Procedure (Rules), accessible on the Commission's website at http://www.cpuc.ca.gov. Pursuant to Rule 14.3, opening comments shall not exceed 15 pages.

Comments must be filed either electronically pursuant to Rule 1.13 or with the Commission's Docket Office. Comments should be served on parties to this proceeding in accordance with Rules 1.9 and 1.10. Electronic and hard copies of comments should be sent to ALJ Simon at aes@cpuc.ca.gov and to the assigned Commissioner. The current service list for this proceeding is available on the Commission's website at www.cpuc.ca.gov.

/s/ MICHELLE COOKE for
Karen V. Clopton, Chief
Administrative Law Judge

KVC:tcg

Attachment

Decision **REVISED PROPOSED DECISION OF ALJ SIMON (Mailed 12/23/2009)**

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Develop Additional Methods to Implement the California Renewables Portfolio Standard Program.	Rulemaking 06-02-012 (Filed February 16, 2006)

(See Appendix E for a list of appearances.)

DECISION AUTHORIZING USE OF RENEWABLE ENERGY CREDITS FOR COMPLIANCE WITH THE CALIFORNIA RENEWABLES PORTFOLIO STANDARD

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DECISION AUTHORIZING USE OF RENEWABLE ENERGY CREDITS FOR COMPLIANCE WITH THE CALIFORNIA RENEWABLES PORTFOLIO STANDARD

1. Summary

This decision authorizes the procurement and use of tradable renewable energy credit (TRECs) for compliance with the California renewables portfolio standard (RPS) program. It also delineates the structure and rules for a TREC market and for the integration of TRECs into the RPS flexible compliance system.

The use of TRECs for RPS compliance will provide more options and flexibility for RPS-obligated load-serving entities to comply with RPS mandates in both the near and longer term. Over time, it will also provide additional flexibility and incentives for the development of RPS-eligible generation by supplying useful revenue options for generation developers.

The market and compliance rules are developed with a view to simplicity, transparency, fairness, and ease of administration. These market and compliance structures are intended to remain the framework for the use of TRECs into the future. Although the TREC market may be modest in the next two or three years, the market rules put in place in this decision will both allow a new market to develop and provide robust rules for a mature TREC market.

The rules create a market in which participation in TREC transactions is not restricted, though participants must meet the requirements set forth by this Commission for TREC trading, as well as any requirements for participation set by the Western Renewable Energy Generation Information System. The decision clarifies that transactions with RPS-eligible renewable generation for which the first point of interconnection with the Western Electricity Coordinating Council (WECC) interconnected transmission system is not physically located within

California and is also not a facility for which the first point of interconnection with the WECC interconnected transmission system lies in the California Independent System Operator or another California balancing authority area will be considered REC-only procurement for RPS compliance purposes.

In order to promote market liquidity while preserving the value of TRECs for RPS procurement planning, the decision requires that TRECs must be committed to use for RPS compliance within three calendar years of the date the electricity associated with the TRECs was generated. Once committed to RPS compliance, TRECs will be treated in substantially the same way as bundled energy purchases for reporting and compliance purposes. This includes application of most flexible compliance mechanisms, with the principal exception that only some TREC contracts may be earmarked for use to make up RPS procurement shortfalls. In order to promote a robust TREC market, the decision allows TRECs from future years of existing RPS contracts to be unbundled and sold under certain conditions.

To maximize the benefit of RPS-eligible generation to California customers, this decision provides a temporary limit on the use of TRECs to meet RPS procurement obligations. Under this limit, the three large California utilities may use TRECs to meet no more than 40 percent of their annual RPS procurement obligations. To protect ratepayers from excessive payments for TRECs in the early stages of the TREC market, the decision imposes a transitional price cap of $50/REC for RECs used for RPS compliance by all investor-owned utilities. The Commission will review both limits within the next two years.

In order to facilitate the integration of TRECs into the RPS program, this decision authorizes Energy Division staff to begin a process of revising the RPS compliance documents and reporting protocols.

Finally, the decision sets forth two standard terms and conditions (STCs) related to RECs that must be used in all RPS contracts and one additional STC governing Commission approval of REC-only contracts.

2. Introduction

In Pub. Util. Code § 399.11,[1] the Legislature set up the renewables portfolio standard (RPS) program

> [i]n order to attain a target of generating 20 percent of total retail sales of electricity in California from eligible renewable energy resources by December 31, 2010, and for the purposes of increasing the diversity, reliability, public health and environmental benefits of the energy mix. . . (§ 399.11(a).)[2]

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[1] RPS legislation is codified at Pub. Util. Code §§ 399.11-399.20. Unless otherwise indicated, all subsequent citations to sections refer to the Public Utilities Code, and citations to rules refer to the Rules of Practice and Procedure, which are codified at Chapter 1, Division 1 of Title 20 of the California Code of Regulations.

[2] The Legislature also described the benefits to be expected from the RPS program:

> (b) Increasing California's reliance on eligible renewable energy resources may promote stable electricity prices, protect public health, improve environmental quality, stimulate sustainable economic development, create new employment opportunities, and reduce reliance on imported fuels.
>
> (c) The development of eligible renewable energy resources and the delivery of the electricity generated by those resources to customers in California may ameliorate air quality problems throughout the state and improve public health by reducing the burning of fossil fuels and the associated environmental impacts and by reducing in-state fossil fuel consumption.
>
> (d) The California Renewables Portfolio Standard Program is intended to complement the Renewable Energy Resources Program administered by the

Footnote continued on next page

In Senate Bill (SB) 107 (Simitian), Stats. 2006, ch. 464, the Legislature gave this Commission express authority to allow the use of TRECs for RPS compliance. Section 399.16 provides both the authorization and several conditions on its exercise.[3]

This decision implements this authorization in light of the overarching purposes of the RPS program. It seeks to improve compliance opportunities for RPS-obligated load-serving entities (LSEs) and to provide incentives for the construction of new RPS-eligible generation. The decision builds on several years of experience with planning, procurement, reporting, and compliance in the use of bundled energy contracts (contracts for delivery of energy and renewable energy credits (RECs)) for RPS compliance. It relies on the tools provided by the Western Renewable Energy Generation Information System (WREGIS) for recording, tracking, and trading tradable renewable energy credits (TRECs) in order to develop the market rules and integrate the use of TRECs into the RPS compliance framework.

3. Procedural Background

The history of the consideration of the use of TRECs in the RPS program was presented in detail in Decision (D.) 08-08-028 and will not be repeated here. This section addresses the procedural steps in this proceeding.

Rulemaking (R.) 06-02-012, the Order Instituting Rulemaking (OIR) for this proceeding, was issued in the framework of the original RPS legislation, SB 1078

State Energy Resources Conservation and Development Commission and established pursuant to Chapter 8.6 (commencing with Section 25740) of Division 15 of the Public Resources Code.

[3] For ease of reference, § 399.16 is reproduced as Appendix A.

(Sher), Stats. 2002, ch. 516. In the OIR, the Commission identified TRECs as an important component of the proceeding. The Scoping Memo and Ruling of Assigned Commissioner (April 28, 2006) set out a number of issues related to TRECs, and assigned them to the second portion of this proceeding.

A staff white paper, "Renewable Energy Certificates and the California Renewables Portfolio Standard Program" (REC white paper), was published April 20, 2006.[4] Comments on the REC white paper were filed in late May 2006; reply comments were filed on June 14, 2006.[5]

Among other things, the REC white paper set out definitions of terms that have been used throughout the subsequent consideration of the use of RECs for RPS compliance. The Commission adopted the white paper's definitions of "unbundled" RECs and "tradable" RECs in D.06-10-019:

> Under an unbundled REC regime, claim over the renewable attributes of energy produced by eligible renewable technologies can be transferred from the renewable generator to one LSE

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[4] The REC white paper may be found at http://www.cpuc.ca.gov/word_pdf/REPORT/55606.doc.

[5] Comments were filed by Central California Power; Sustainable Conservation; Powerex Corp.; California Solar Energy Industries Association (CalSEIA), Clean Power Markets, Inc., PV NOW, Vote Solar Initiative (jointly); Pacific Gas & Electric Company (PG&E); Mountain Utilities (MU); Division of Ratepayer Advocates (DRA); Southern California Edison Company (SCE); San Diego Gas & Electric Company (SDG&E), Pilot Power Group, Inc.; Alliance for Retail Energy Markets (AReM), Western Power Trading Forum (WPTF) (jointly); Aglet Consumer Alliance (Aglet); Green Power Institute (GPI); Center for Energy Efficiency and Renewable Technologies (CEERT); Independent Energy Producers Association (IEP); Union of Concerned Scientists (UCS); The Utility Reform Network (TURN); and California Large Energy Consumers Association and California Manufacturers and Technology Association (jointly).

Reply comments were filed by Central California Power, CEERT, GPI, Aglet, Pilot Power, AReM, SDG&E, SCE, MU, UCS, TURN, PG&E, Powerex, and IEP.

> while the energy is delivered to another. However, once this transfer occurs, claim over the attributes cannot be resold. In contrast, under a tradable REC regime, although the concept of selling the energy and claim over the attributes to different parties remains intact, RECs may be transferred from the renewable generator to any third party, not just obligated LSEs. In addition, these attributes can be resold subsequent to the initial sale.[6]

In D.06-10-019, the Commission decided not to authorize the use of unbundled RECs for RPS compliance at that time. We stated that we would consider the use of unbundled and/or tradable RECs later in this proceeding.[7]

The Amended Scoping Memo and Ruling of Assigned Commissioner (December 29, 2006) (Amended Scoping Memo) revised the tasks for this proceeding, in light of prior work and the enactment of SB 107, effective January 1, 2007. The Amended Scoping Memo identified three areas related to TRECs:

- Exploring the use of tradable RECs for RPS compliance by all RPS-obligated LSEs, including determining what attributes should be included in a REC;
- Determining the appropriate treatment of RECs associated with energy generated by renewable customer-side distributed generation, after examination of two important issues—measurement of renewable output from customer-side

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[6] REC white paper, at 1, n. 1; D.06-10-019, at 33.

[7] In view of our decision to authorize the use of tradable RECs, we will not use the category of "unbundled REC" in this decision. We will refer to transactions in which only TRECs (not energy) are bought or sold as "TREC transactions" or "REC-only transactions." If the context requires a reference to "RECs" because, for example, the RECs were procured through a bundled contract, the RECs so referenced should be presumed to be tradable (unless they are RECs governed by §§ 399.16(a)(5) or (6), as explained in § 4.7, below).

distributed generation, and analysis of the impact of ratepayer subsidies of renewable distributed generation—in R.06-03-004; and

- Determining the status of RECs associated with renewable energy generated by qualifying facilities (QFs) under contract with California utilities.

The Second Amended Scoping Memo and Ruling of Assigned Commissioner (February 25, 2008) noted several developments related to the use of TRECs for RPS compliance since the issuance of the Amended Memo. These changes resolved some of the previously identified issues, added new tasks, and moved other issues forward.

In D.07-01-018, issued in R.06-03-004, the Commission determined that RECs associated with customer-side renewable distributed generation (DG) belong to the DG system owner, irrespective of participation in net energy metering, the California Solar Initiative, or the Self Generation Incentive Program.

SB 107 resolved the status of RECs for renewable energy generated by QFs by prohibiting the creation of RECs associated with energy generated by QFs under contracts pursuant to the Public Utility Regulatory Policies Act of 1978 (Public Law 95-617) (PURPA) executed after January 1, 2005. It also allowed the creation of RECs associated with energy generated under any contract with a California RPS-obligated LSE or publicly owned utility (POU) prior to January 1, 2005 only if the contract explicitly addressed the ownership of RECs.[8]

SB 107 also added the requirement that, in order for us to authorize the use of TRECs for RPS compliance, this Commission and the California Energy

[8] Pub. Util. Code §§ 399.16(a)(6), (5).

Commission (CEC) must each make a determination that the CEC's RPS tracking system (including WREGIS) is ready to support the use of tradable RECs for RPS compliance.[9] Staff of the two agencies jointly produced a report. The joint staff report was adopted by this Commission in Resolution (Res.) E-4178 (November 21, 2008).[10] It was adopted by the CEC at its business meeting on December 3, 2008.[11]

Energy Division staff held a comprehensive workshop on TRECs and RPS compliance on September 5-7, 2007 (TRECs workshop).[12] Parties filed and served pre-workshop comments on August 17, 2007.[13] After the workshop, staff prepared a revised straw proposal (Straw Proposal) covering a number of TREC market and compliance issues. The Straw Proposal was circulated to parties with the Administrative Law Judge's (ALJ) Ruling Requesting Post-Workshop

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[9] Section 399.16(a)(1).

[10] The resolution and attached final report are available at http://docs.cpuc.ca.gov/WORD_PDF/FINAL_RESOLUTION/94349.PDF.

[11] See http://energy.ca.gov/2008publications/CEC-300-2008-001/CEC-300-2008-001-CMF.PDF.

[12] The workshop notice and the assigned administrative law judge's rulings seeking pre-workshop and post-workshop comments were circulated to the service lists in this proceeding, R.06-05-027 (RPS administration), R.06-03-004 (distributed generation and California Solar Initiative), and R.06-04-009 (greenhouse gas policy). The workshop presentations are available at http://www.cpuc.ca.gov/PUC/energy/electric/RenewableEnergy/misc/recpresentations.htm.

[13] Pre-workshop comments in response to the ALJ's Ruling Requesting Pre-Workshop Comments on Tradable Renewable Energy Credits (July 19, 2007) were filed by Central California Power; Powerex, Solar Alliance; PacifiCorp; CEERT; Sustainable Conservation; AReM and WPTF (jointly); CalpinePowerAmerica-CA, LLC (Calpine); Coral Power, LLC; SDG&E; Aglet; IEP; PG&E; UCS; SCE; GPI; PPM Energy, Inc.; CPV Renewable Energy Company, LLC; and Sempra Energy Solutions.

Comments on Tradable Renewable Energy Credits (October 16, 2007) (post-workshop ruling). Post-workshop comments were filed on November 13, 2007.[14] Post-workshop reply comments were filed on December 5, 2007.[15]

At the prehearing conference held December 10, 2007, some parties suggested that parties interested in the subject might try to develop a consensus recommendation on the definition and attributes of a TREC. Informal discussions among the parties were publicized to the service lists in this proceeding, R.06-05-027, R.06-03-004, and R.06-04-009. The discussions did not result in the filing of any recommendations on this topic. On May 9, 2008, the Center for Resource Solutions (CRS) filed a Motion for Leave to File Additional Comments related to REC definition and attributes. This motion was granted by an ALJ's ruling on June 6, 2008.[16] The ruling allowed reply comments to be filed

[14] Post-workshop comments were filed by PG&E; GPI; Powerex; SDG&E; Golden State Water Company; IEP; Pilot Power; Central California Power; EcoSecurities; DRA; CEERT; Calpine Corporation and Calpine (jointly); AReM and WPTF (jointly); MU; SCE; TURN; PacifiCorp; California Farm Bureau Federation and Sustainable Conservation (jointly); Solar Alliance and CalSEIA (jointly).

[15] Post-workshop reply comments were filed by Central California Power; PacifiCorp; Aglet; UCS; California Farm Bureau Federation, Inland Empire Utilities Agency, Sustainable Conservation (jointly); Recurrent Energy, Inc., Solar Alliance, CalSEIA (jointly); Calpine Corporation and Calpine (jointly); TURN; IEP; AReM; SCE; MU; CEERT; SDG&E; DRA; GPI; and PG&E.

[16] Parties were notified informally by e-mail on May 28, 2008.

not later than June 11, 2008.[17] Following this round of comments, the Commission issued D.08-08-028, on the definition and attributes of a REC.[18]

Several significant developments have occurred since the TRECs workshop, including issuance of D.08-08-028; ongoing implementation of the California Global Warming Solutions Act of 2006; Assembly Bill (AB) 32 (Núñez/Pavley), Stats. 2006, ch. 488; and the CEC's revisions to its criteria for delivery of RPS-eligible generation in its *Renewables Portfolio Standard Eligibility Guidebook (Eligibility Guidebook)*, at 23-26 (3d ed. December 19, 2007).[19] In order to allow parties an opportunity to update their positions on TRECs, the ALJ issued a Ruling Requesting Supplemental Comments on the Use of Tradable Renewable Energy Credits for the Renewables Portfolio Standard Program (supplemental comment ruling) on September 4, 2008. Comments were filed on September 12, 2008[20] and reply comments were filed September 18, 2008.[21]

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[17] Reply comments were filed on June 11, 2008 by AReM and WPTF (jointly; collectively, AReM); DRA; GPI; IEP; SCE, PG&E, PacifiCorp, Sierra Pacific, and SDG&E (jointly; collectively, IOUs); Solar Alliance and CalSEIA; TURN; and UCS.

[18] Although the definition of a REC is central to the tradability of a REC, the details of D.08-08-028 are largely not relevant to this decision. One convention that should be kept in mind throughout the discussion, however, is that one REC represents the environmental and renewable attributes associated with one megawatt-hour (MWh) of RPS-eligible generation. See WREGIS Operating Rules, section 2, which may be found at http://www.wregis.org/content/blogcategory/26/47/.

[19] The *Eligibility Guidebook* is available at http://www.energy.ca.gov/2007publications/CEC-300-2007-006/CEC-300-2007-006-ED3-CMF.PDF.

[20] Comments were filed by Aglet, AReM, Bear Valley Electric Service (BVES), Calpine, CEERT, DRA, GPI, Horizon Wind Energy and Iberdrola Renewables (jointly; collectively, Horizon), IEP, MU, PG&E, PacifiCorp, Powerex, SDG&E, SMUD, SCE, UCS, and Wal-Mart.

A proposed decision (PD) on the use of TRECs was issued for comment on October 29, 2008. That PD was withdrawn March 26, 2009 and a new PD was issued the same day. Comments on the PD issued March 26, 2009 (March PD) were filed on April 15, 2009.[22] Reply comments were filed on April 20, 2009.[23]

The March PD has been revised in light of comments and subsequent Commission decisions. In view of the passage of time since March 2009, this revised proposed decision is being circulated for a full period of comments and reply comments.

Finally, the Assigned Commissioner's Ruling Transferring Consideration of Certain Issues from R.06-02-012 to R.08-08-009 (April 3, 2009) transferred all issues remaining in this proceeding other than those addressed in this decision to R.08-08-009.[24]

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[21] Reply comments were filed by Aglet, AReM, IEP, Large-scale Solar Association, PG&E SCE, SDG&E, TURN, and UCS.

[22] Comments were filed by Aglet, BVES, SCE, PacifiCorp, Solar Alliance, NaturEner USA LLC, CEERT, SDG&E, Evolution Markets, Inc., AReM and WPTF (jointly; collectively, AReM), UCS, SMUD, IEP, Horizon, PG&E, DRA, TURN, GPI, and Large-Scale Solar Association.

[23] Reply comments were filed by Aglet, Iberdrola, PacifiCorp, PG&E, AReM, MU, BVES, Large Scale Solar Association, SCE, UCS, CEERT, and NaturEner.

[24] The transferred issues are:

a. The revision of utilities' least-cost best-fit methodologies to include evaluation of REC-only contracts.

b. The process of approval of utilities' bundled energy and REC-only short-term contracts (whether bilateral or the result of solicitations) and long-term bilateral contracts.

c. The development of price benchmarks for evaluating the reasonableness of utilities' short-term bundled contracts (whether bilateral or the result of solicitations) and long-term bilateral bundled contracts.

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4. Discussion

The RPS statute authorizes but does not require this Commission to allow the use of TRECs for RPS compliance, subject to certain statutorily-imposed conditions. It also provides specific direction on the treatment of several aspects of the use of TRECs for RPS compliance. Since the specific statutory guidance is relevant only if the use of TRECs is authorized, we begin with the issue of whether to authorize the use of TRECs for RPS compliance.

4.1. Authorization

The statute does not set out any criteria or standards by which this Commission should judge whether to authorize the use of TRECs, thus leaving this fundamental matter in our discretion. Almost all parties urge that the use of TRECs for RPS compliance be authorized. They advance a variety of reasons, focused on facilitating RPS compliance and promoting development of new RPS-eligible generation. Several parties assert that the use of TRECs will allow RPS procurement to avoid problems of transmission congestion.[25] Some parties argue that the availability of TRECs will make the overall RPS procurement process more efficient, by providing LSEs with additional options for procurement.[26] According to some parties, the use of TRECs will make it easier for RPS-obligated LSEs[27] to achieve their annual procurement targets (APTs).[28]

The latter two issues were resolved in D.09-06-050, with the exception of short-term REC-only contracts. The first is still pending in R.08-08-009.

[25] AReM, Central California Power, and IEP.

[26] AReM, Horizon, PacifiCorp, SDG&E, PG&E.

[27] RPS-obligated LSEs comprise regulated utilities, community choice aggregators (CCAs), and electric service providers (ESPs). In this decision, utilities are sometimes referred to in groupings of "large utilities" (PG&E, SCE, SDG&E), "small utilities" (Bear

Footnote continued on next page

With the use of TRECs, overall compliance costs for RPS-obligated LSEs should be lower, some parties claim.[29] Finally, some parties assert, the availability of a revenue stream from TRECs and options that it may create for developers will promote development of new RPS-eligible generation.[30]

DRA and TURN are skeptical about the use of TRECs for RPS compliance; Aglet opposes it outright. These parties believe that use of TRECs will not improve the RPS program and is unlikely to lead to development of new RPS-eligible generation.

TURN and DRA express concern that the TREC pricing experience in other jurisdictions suggests that TREC prices are likely to be volatile. This would harm consumers and would not provide reliable financing for new renewable projects. Aglet, DRA and TURN suggest that the use of TRECs would lead to a market that overpays for TRECs from existing facilities, and thus would harm consumers and not contribute to new generation. Aglet asserts that the availability of transmission is a major constraint for the development of new RPS-eligible generation; TRECs can not solve that problem, because a new generation facility will not be built if transmission is not available. Both TURN and Aglet express concern that reliance on TRECs rather than long-term bundled contracts will reduce what they describe as the physical hedging value of RPS

Valley Electric Service and Mountain Utilities), and "multi-jurisdictional utilities" (PacifiCorp and Sierra Pacific).

[28] AReM, IEP, PG&E, and SDG&E. GPI and UCS are less certain, but suggest this could be a benefit.

[29] CEERT, IEP, PG&E, and SDG&E.

[30] AReM, CEERT, Coral Power, Horizon, IEP, PG&E, and SDG&E.

procurement. TURN also raises questions about possible hoarding of TRECs and exercise of market power within the TRECs market.

Several of the TREC proponents' arguments are somewhat overstated and do not acknowledge some real problems. It is true that TRECs can expand RPS compliance options, but without new RPS-eligible generation, a robust TREC market to deliver TRECs for RPS compliance will not develop quickly. It is true that TRECs can allow transfer of RPS credit without regard to constrained transmission pathways, but only if there are both RPS-eligible generation to produce the energy associated with the REC and new transmission pathways for the electricity. Current RPS flexible compliance rules also allow LSEs to take delivery of RPS-eligible energy anywhere in the state, thus reducing the impact of transmission constraints.

The TREC skeptics, on the other hand, focus solely on negative possibilities, such as hoarding of TRECs and loss of interest in the development of new RPS-eligible generation in California. They also argue that consumers may be harmed by high or volatile TREC prices, and TURN proposes measures to mitigate those harms. But TURN does not appear to have confidence that the mitigation strategies it proposes will have a positive impact.

Considering all the arguments, the benefits of allowing the use of TRECs for RPS compliance substantially outweigh the potential harms. Greater compliance flexibility, procurement efficiency, and potentially lower costs are real benefits, even if they may be relatively small in the early years of a TREC market. The availability of a revenue stream from TRECs may encourage new renewable development. Though many other factors, such as transmission siting, are also important determinants of new renewable development, the possibility of more money, or money arranged more flexibly, is only a plus for

possible development. Furthermore, a TREC market will provide important pricing information to developers and the investment community, potentially providing them greater confidence in the long-term financial viability of renewable energy projects.

The possible negative consequences of TRECs, such as high payments to existing facilities, market manipulation, or high prices, can be mitigated or removed by the rules this Commission sets for the use of TRECs and the design of the TREC market. Additionally, some of these problems, specifically high payments to existing facilities, are not inherent or unique to TRECs, but are problems that can exist in a bundled regime as well. Such issues might be better resolved through changes in the relevant statutes or guidelines governing RPS eligibility. This decision sets rules to allow the best chance for a healthy TREC market to develop and aid in the attainment of California's RPS goals.

We therefore exercise the discretion granted to this Commission in § 399.16(a) to authorize the use of tradable RECs for RPS compliance, in accordance with the rules set forth in this decision.[31]

4.2. Sources of TRECs

Our decision to authorize the use of TRECs for RPS compliance is not based on any estimate of the probable quantity of TRECs that may be available in the near term. A brief review of that topic can, however, usefully inform our

[31] This authorization is qualified by the restrictions on the use of RPS-eligible generation from facilities with contracts with California LSEs or POUs prior to 2005 in which the ownership of RECs is not specified, and from QFs with contracts pursuant to PURPA signed after January 1, 2005. (§§ 399.16(a)(5),(6).) These restrictions are discussed further in § 4.7 below.

design of any interim, transitional rules or requirements for the market and for the RPS flexible compliance regime.

Parties were asked to present their best quantitative estimates of the sources of TRECs that could be available for California RPS compliance in the period ending January 1, 2012. From those estimates it is possible to develop a broad-brush picture of the TREC landscape for the near future.

4.2.1. Larger-Scale RPS-Eligible Generation

Calpine suggests that essentially all RPS-eligible generation in California that is or will be capable of delivering energy by the end of 2010 is already under contract to one of the large investor-owned utilities (IOUs). This assertion is not disputed.

In response to a question posed in the ALJ's post-workshop ruling, several parties provided estimates, of varying precision, of possible sources of TRECs for the period until the end of 2011. Evolution Markets and UCS submitted the most substantial information, which was reasonably consistent. Evolution Markets estimates that existing RPS-eligible wind and biomass facilities in the Northwest might provide up to 1,100 megawatts (MW) of RPS-eligible nameplate capacity, while planned new geothermal, wind, biomass or biogas generation throughout the Western Electricity Coordinating Council (WECC) region could provide up to 7,500 MW of nameplate capacity. UCS estimates that the Northwest might supply up to 4,000 MW of new nameplate capacity. The timeframe within which any of the projects included in these estimates might be built, however, is not clear. Nor is it possible for the parties to suggest what proportion of such new generation might be available to California LSEs, whether in the form of bundled energy contracts or REC-only purchases.

Other parties[32] point to smaller and more diffuse potential sources. These include small hydropower generation, excess renewable generation from POUs, or RPS-eligible QFs whose contracts under PURPA with large utilities expire and are not renewed, but which still will produce RPS-eligible generation.[33]

PG&E and SCE each state that new merchant RPS-eligible generation is not a reasonable source of TRECs prior to 2012 because of the long lead time needed to make the business decision to build a merchant plant and to design and develop the project. SCE also notes that the large IOUs are unlikely to be in a position to sell RECs to other LSEs prior to attaining the 20% goal. No party disputes these comments.

4.2.2. Distributed Generation

AReM, BVES, PG&E, SCE, and TURN suggest that various forms of distributed generation (DG) may provide some available TRECs, though not at a very large scale over the next few years.

There are several types of renewable DG projects. These include on-site RPS-eligible generation at customers; solar photovoltaic (PV) installations, largely constructed under the aegis of the California Solar Initiative (CSI) and the Self Generation Incentive Program (SGIP) administered by this Commission and the New Solar Homes Partnership (NSHP) administered by the CEC; generation using biodiesel or biogas; and small biomass facilities. [34]

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[32] These parties include AReM, BVES, DRA, IEP, SDG&E, and TURN.

[33] Pursuant to § 399.16(a)(6), RPS-eligible generation from a QF under a PURPA contract may count for RPS compliance, but may not be the basis of a TREC.

[34] Formal determination of the RPS eligibility of types of generation or particular systems is made by the CEC. The most current statement of CEC guidance is the *Eligibility Guidebook*, (3d ed., December 2007), available at

Footnote continued on next page

The availability of TRECs from such installations has been addressed in a variety of contexts. In D.07-01-018, the Commission determined that owners of DG installations own the RECs associated with the generation, and can therefore sell them, regardless of whether the DG owners participate in net metering, CSI, or the SGIP.[35] In D.07-07-027 and D.08-09-033, implementing § 399.20, the Commission provided for tariffs or standard contracts for utilities' bundled purchase of RPS-eligible generation from DG of not more than 1.5 MW in size located at public water and wastewater facilities and other customers, with an overall statewide limit on such purchases. The generation so acquired counts toward the utilities' RPS targets. In this program, customers may sell to the utility either the full output of the DG facility (energy and RECs) or only the excess (energy and RECs) not used for on-site consumption. In the latter case, the RECs associated with the energy used on-site remain with the system owner.[36]

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http://www.energy.ca.gov/2007publications/CEC-300-2007-006/CEC-300-2007-006-ED3-CMF.PDF. The *Eligibility Guidebook* provides that "[t]he Energy Commission will not certify distributed generation facilities as RPS-eligible unless the CPUC authorizes tradable RECs to be applied toward the RPS." (at 18.)

We anticipate that the CEC will review the issue of the RPS eligibility of DG during its next revision of the *Eligibility Guidebook*.

[35] The CEC has likewise determined that RECs associated with customer-side DG belong to the DG system owner, irrespective of participation in the NSHP. See *New Solar Homes Partnership Guidebook* (revised 2d edition August 2008), at 7-8. This guidebook is available at http://www.energy.ca.gov/2008publications/CEC-300-2008-006/CEC-300-2008-006.PDF.

[36] TRECs from RPS-eligible DG installations that are tracked in WREGIS are, for RPS compliance purposes, the same as TRECs from RPS-eligible utility-scale generation. No matter the type of DG generation or the kind of transaction, RECs associated with RPS-eligible DG—like RECs from any other RPS-eligible generation—"shall be counted only

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AReM states that the CSI program estimates that the program will have installed about 800 gigawatt hours (GWh) of generation by 2010. AReM additionally estimates that CSI will have provided incentives for approximately 1,100 GWh by 2011. No other party provides quantitative DG estimates. [37]

4.2.2.1. WREGIS Requirements for DG

In order for RECs from any source to be available for RPS compliance, they must be recognized in WREGIS. The requirements for WREGIS are set forth in the WREGIS Operating Rules (June 4, 2007).[38] Several of the rules have implications for the availability of RECs from DG installations for RPS compliance. WREGIS can not register a system smaller than one kilowatt, so some owners of very small DG systems may not be able to participate.[39] Another WREGIS rule states that RECs cannot be recognized in WREGIS unless the energy associated with the RECs is metered to an accuracy of +/-2%.[40] DG

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once for compliance with the renewables portfolio standard of this state or any other state, or for verifying retail product claims in this state or any other state." (§ 399.16(a)(2).)

[37] In D.09-06-049, the Commission approved a new SCE program to procure RPS-eligible energy from rooftop solar PV installations of one to two MW in size. Because the program is new, it is not currently possible to know what, if any, impact it will have on DG as a resource for RPS procurement over the next two to three years.

[38] The Operating Rules may be found at http://www.wregis.org/Documents.php.

[39] With respect specifically to solar PV installations, Appendix F to the Operating Rules allows aggregation of rooftop solar installations in certain circumstances. Appendix F may also be found at http://www.wregis.org/Documents.php.

[40] Operating Rules 9.3.3. The WREGIS rules allow government regulators or voluntary program administrators to make exceptions to this rule.

installations that do not provide metering accuracy to that level are not currently eligible for the creation of a REC in WREGIS (called a WREGIS Certificate).[41]

4.2.3. Availability of TRECs

Summarizing this information, it appears that existing RPS-eligible generation is largely already included in utilities' portfolios. Many utility-scale projects are under contract, but are not yet built and delivering energy. The construction of new RPS-eligible generation not located in California is uncertain, and the availability of TRECs from that generation is similarly unknown.[42] The use of TRECs from new DG installations is dependent both upon the technical requirements of WREGIS and upon whether the DG owner wishes to retain the RECs to support its own green claims. Since TRECs come from RPS-eligible generation, and the supply of new RPS-eligible generation not already committed to RPS compliance is likely to be limited, the supply of TRECs in the next few years will be similarly limited.

4.3. Guiding Principles

Before, during, and after the TRECs workshop, staff offered several proposals, including guiding principles, to provide guidance and food for thought to the parties. Because these staff proposals form the basis for many of

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[41] For example, a CSI-subsidized installation taking advantage of the expected performance based buydown (EPBB) program is required to have a meter accurate only to +/-5%. Projects using the CSI performance-based incentives are required to have a meter accurate to +/-2%. Unless the owner of a project with an EPBB incentive voluntarily installs the more accurate (and more expensive) meter, WREGIS would not, under its current rules, allow any RECs to be registered from that facility without an exception authorized by a regulatory agency.

the parties' suggestions and comments, we briefly review them to provide a background for the rules this decision adopts.

The proposed Guiding Principles distributed in the July 19, 2007 ALJ's Ruling Requesting Pre-Workshop Comments are:

1. Use of REC trading for RPS compliance should be consistent with the legislative goals for the RPS program.
2. REC trading should result in minimal disruption to the current RPS program.
3. REC trading should not increase the cost of RPS compliance in the near term, and should lower the cost of RPS compliance over the longer term.
4. REC trading should promote development of new infrastructure in California and neighboring states for renewable energy generation.
5. REC trading rules, guidelines, and policies should not be inconsistent with the development of a regional REC trading regime.
6. REC trading rules, guidelines, and policies should take account of the process of implementing California's greenhouse gas (GHG) reduction policy and the potential for regional or federal programs for GHG reduction.
7. REC trading rules, guidelines, and policies should meet the Commission's requirements for REC trading set out in D.03-06-071.
8. REC trading rules, guidelines, and policies should be simple, transparent, easily administered, uniformly applied, and equitable to all LSEs.

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[42] Pub. Res. Code § 25741(b)(2)(B) allows RPS-eligible generation from facilities located outside California to count for RPS compliance provided, among other things, the facility began commercial operation after January 1, 2005.

Parties largely support or at least accept these guiding principles as laying the groundwork for thinking about a TREC market. Since these principles do not form the basis for this decision and are not part of the rules for the TREC market, it is not necessary to fine-tune them to accommodate all the views expressed by the parties.[43]

4.4. REC-Only Transactions

A critical component of authorizing REC-only transactions is identifying the difference between a bundled contract and a REC-only contract. The two types of contracts have some important commonalities. The most important in this context are:

1. The energy connected to the transaction must be produced by an RPS-eligible generation facility.
2. The energy connected to the transaction must be delivered to California.

The RPS statute provides that RPS procurement requires "receiv[ing] delivered electricity generated by an eligible renewable energy resource. . . ." (§ 399.12(d).) This requirement extends to the electricity associated with RECs; the associated electricity must be "delivered to a retail seller, the Independent System Operator, or a local publicly owned electric utility." (§ 399.16(a)(3).) Statutory definitions provide that RPS-eligible energy is deemed delivered if is either generated at a location within the state, or is scheduled for consumption by California end-use retail customers. Pub. Res. Code § 2741(a).[44] The CEC

[43] We do, however, note IEP's suggestion that the commitment to equity should be applied to all TREC market participants, not simply LSEs.

[44] Pub. Res. Code § 25741(a) provides:

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may adopt criteria for determining when RPS-eligible energy may be considered "delivered." The CEC has done so in its current *Eligibility Guidebook* (at 22-26).

Because energy must be delivered to California regardless of whether the transaction is a bundled or REC-only contract, the application of the CEC's delivery criteria to transactions with generators not located in California has engendered some controversy in this proceeding. The parties have provided extensive arguments about the significance of the delivery criteria for the RPS program. The focus of parties' comments is the examples of firming and shaping[45] arrangements for RPS-eligible transactions that are provided in the *Eligibility Guidebook*.[46]

"Delivered" and "delivery" mean the electricity output of an in-state renewable electricity generation facility that is used to serve end-use retail customers located within the state. Subject to verification by the accounting system established by the commission pursuant to subdivision (b) of Section 399.13 of the Public Utilities Code, electricity shall be deemed delivered if it is either generated at a location within the state, or is scheduled for consumption by California end-use retail customers. Subject to criteria adopted by the commission, electricity generated by an eligible renewable energy resource may be considered "delivered" regardless of whether the electricity is generated at a different time from consumption by a California end-use customer.

[45] Firming and shaping are methods of using other generation resources to supplement the delivery of power from intermittent renewable resources. A fuller explanation is provided in Appendix A of the REC White Paper.

[46] In full, the examples are:

1. The facility could provide firming and shaping services. For example, the retail seller could enter into a PPA with an RPS-eligible facility and, as part of the PPA, the facility would provide firming and shaping to deliver a firm or non-firm product into California.

2. A third party could provide firming and shaping services. For example: a retail seller could buy energy and RECs from an RPS-eligible facility and execute a second PPA to resell the energy from the RPS-eligible facility, but not the RECs, to a third party that provides firming and shaping services. Then, the third party could provide the retail seller with a firm schedule for delivery into California.

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Some of the disagreement among the parties about this issue apparently stems from the statement in the *Eligibility Guidebook* that the examples of delivery given there are not intended to "constitute tradable RECs or authorize tradable RECs for RPS compliance." (At 23, n.21.) Since this Commission, not the CEC, has the discretion to authorize the use of tradable RECs for RPS compliance, it is true that the examples in the *Eligibility Guidebook* cannot and do not authorize the use of tradable RECs. Nor do they define different delivery rules for REC-only and bundled contracts, or make a determination about which contracts are REC-only rather than bundled contracts. These limitations do not, however, alter the CEC's guidance about *delivery*.

GPI and UCS each assert in their supplemental comments that this portion of the *Eligibility Guidebook* expands the scope of "delivery" to allow renewable generation that never enters California (whether directly or through conventional firming and shaping arrangements) to count for RPS compliance. They suggest that this will alter the balance of RPS-eligible procurement between facilities located in California and those located in other areas, with an increasing portion of RPS procurement contracts going to facilities located in other states.

TURN argues, following a line of argument made by DRA in protest to some advice letters for RPS contracts,[47] that the CEC has made the requirement of delivery almost meaningless. According to TURN, the negative consequences

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3. The retail seller could provide firming and shaping services. The retail seller could buy energy and RECs from an RPS-eligible facility, sell the energy back to the facility, and "match" the RECs with energy delivery into California from a second PPA and/or with imports under a pre-existing PPA.

Eligibility Guidebook, at 23-24, n. 21.

[47] TURN cites to DRA's Protest to PG&E Advice Letter 3183-E (January 10, 2008).

of the CEC's criteria include sanctioning the delivery of any kind of power, including coal-fired generation, to be "matched" with a REC to satisfy the delivery requirements. TURN also supports the assertions made by GPI and Aglet that allowing RECs to be so unmoored from their underlying associated energy will increase prices by requiring the purchase of replacement energy (since, in the third *Eligibility Guidebook* example, no additional energy equivalent to the energy associated with the RECs will be delivered into California). TURN additionally argues that this result would undermine one of the principal values of renewable energy generation—promoting price stability.

CEERT, the large utilities, SMUD, Evolution Markets, and NaturEner oppose TURN's position. Several of these parties assert that TURN's analysis is not correct and the CEC has made the correct determinations about delivery. CEERT, NaturEner, and SCE focus on their views that, in any event, the CEC's delivery criteria are not reviewable by this Commission.

We agree that the RPS statute gives the CEC the responsibility to determine RPS eligibility, including establishing the criteria for delivery of RPS-eligible electricity. We therefore do not resolve the dispute among parties in this proceeding about the merits of the CEC's criteria for RPS-eligible energy delivery. The CEC has determined that, for RPS compliance purposes, transactions that meet the delivery criteria set out in the current *Eligibility Guidebook* are RPS-eligible; therefore, they are RPS-eligible.

The CEC's RPS eligibility criteria are not, however, the end of the story. This Commission has exclusive authority over the approval of utilities' RPS procurement contracts (see § 399.14(d)) and over the conditions for the use of TRECs for RPS compliance by all LSEs (see § 399.16(a)(7), (9)). We must bring

our perspective and experience to bear on actual RPS procurement and compliance activities.

Prior versions of the PD focused on the structure of the contract as the basis for clarifying which RPS-eligible deals are, for RPS procurement purposes, REC-only transactions. This approach won support from several parties, but support was far from unanimous. Lack of enthusiasm for this element of the March PD took varied forms, but most parties commenting on the REC-only transaction classification in the March PD argue that the classification determination was complicated and awkward.[48] The large utilities point out that the method in the March PD does not accurately track how electricity is actually bought and sold in the large and complex WECC market. Taken together, the comments suggest that a simpler, more direct method of delineating REC-only transactions would be better.

A sound way to simplify is to make the REC-only classification independent of the details of individual procurement contracts. It is clear that a contract to purchase only RECs from a counter party should be considered

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[48] In comments filed in April 2009, DRA, GPI, Iberdrola/Horizon and UCS support the classification determination made in the March PD.

Among parties opposing the classification determination, CEERT and NaturEner argue that the REC-only classification both usurps the authority of the CEC and would create market uncertainty. Evolution Markets argues that the classification was a misguided attempt to manage risk. PG&E asserts that the contract-based classification method was artificial; SDG&E also claims that it was too complex and involved too much analysis of contract details. SCE proposes a different classification method, based on the buying LSE's control over the treatment of the energy in the transaction. SMUD expresses concern about the impact of the classification method on GHG accounting.

TURN argues that the March PD does not provide a firm enough basis for making the bundled transaction/REC-only transaction distinction, which TURN would like strengthened.

REC-only. Beyond that relatively obvious contractual arrangement, however, contracts can be complex. As the large utilities point out, commercially viable contracts may take many different forms. Although any deal, REC-only or bundled, must comply with the RPS delivery requirements, it is unnecessarily complicated and uncertain to make the classification as REC-only or bundled depend on how the delivery requirement is met. There are many commercially viable delivery options; this Commission should not have to put each one under a microscope in order to determine whether the procurement should be classified as REC-only.

An initial step in simplifying the identification of a REC-only transaction is considering the nature and benefits of REC-only and bundled (REC plus energy) transactions. REC-only transactions provide to California consumers the general benefits of increased use of renewable energy, such as reduction in the emission of greenhouse gases. Use of TRECs as a procurement tool also provides the benefit to the renewable energy market of providing additional flexibility to LSEs and potential additional revenue streams to developers of renewable generation projects.

Transactions that convey both RECs and energy to the procuring LSE also provide more specific and sometimes more local benefits to the customers of the procuring LSE.[49] Renewable energy procurement in which the energy is physically delivered to the IOU is more likely to obviate the need for reliance on conventional resources in or near the utility's service territory. This can result in local air quality benefits and the attendant public health benefits improved air

[49] Since the vast majority of such procurement is undertaken by IOUs, this discussion focuses on them.

quality provides. Also, as several parties note, fixed price energy contracts such as RPS bundled contracts also reduce the amount of price volatility to which a utility's energy portfolio is subject.[50]

Some RPS procurement transactions that involve both RECs and energy nevertheless are more like REC-only transactions in the benefits they provide and their ability to reduce use of fossil fuel. These transactions involve the delivery of the renewable output to someplace other than the customers of the purchasing California LSE, with the provision of energy to the California customers from other sources, which typically are not renewable resources.[51] Such transactions do not reduce the extent to which the procuring utility is relying on conventional resources, because such resources are used for the physical delivery of energy to the utility. We now turn to the identification of such transactions.

A transparent way to identify a REC-only transaction[52] for RPS compliance purposes is to rely on direct, physical characteristics of the generation, rather than specifics of contract terms or delivery arrangements. The WECC transmission system is large and complex, but a generator's first point of interconnection with it is fixed.[53] An RPS-eligible generator's first point of

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[50] These benefits, among others, have been identified by the Legislature in § 399.11.

[51] See, e.g., Resolution (Res.) E-4128 (Nov. 16, 2007) and Res. E-4204 (Nov. 21, 2008), approving RPS contracts with firming arrangements using unspecified power.

[52] That is, a transaction that has not been characterized by the parties to it as REC-only, but that should be treated as REC-only for RPS compliance purposes.

[53] In the Overall Program Guidebook for its renewable energy program, the CEC defines "WECC interconnection" as "the substation where radial lines from a given power plant interconnect to the WECC-controlled transmission system." California Energy Commission, Overall Program Guidebook, at 24 (second edition, January 2008).

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interconnection with the WECC provides a bright-line criterion that is easy to understand and administer. As a general matter, transactions involving RPS-eligible facilities whose first point of interconnection with the WECC interconnected transmission system is not physically located within California and is also not a facility for which the first point of interconnection with the WECC lies in the California Independent System Operator (CAISO) or another California balancing authority area[54] does not provide the benefits of physical delivery of renewable energy to California customers, but does provide the more general benefits of renewable generation that are characteristic of REC-only transactions.

Accordingly, all procurement from generators of RPS-eligible energy for which the first point of interconnection with the WECC interconnected transmission system is not physically located within California and is also not a facility for which the first point of interconnection with the WECC interconnected transmission system lies in the CAISO or another California balancing authority area will be considered REC-only procurement for RPS

It is available at http://www.energy.ca.gov/2007publications/CEC-300-2007-003/CEC-300-2007-003-ED2-CMF.PDF.

[54] The North American Electricity Reliability Corporation (NERC) defines a balancing authority area as "[t]he collection of generation, transmission, and loads within the metered boundaries of the Balancing Authority. The Balancing Authority maintains load resource balance within this area." The balancing authority is "[t]he responsible entity that integrates resource plans ahead of time, maintains load-interchange-generation balance within a Balancing Authority Area, and supports Interconnection frequency in real time." NERC, Glossary of Terms Used in Reliability Standards, at 21 (February 12, 2008). This glossary may be found at http://www.nerc.com/files/Glossary_12Feb08.pdf.

compliance purposes.[55] This criterion focuses on the direct provision of renewable energy to California. That is, an RPS-eligible generator that is directly interconnected sends its electric generation into the California transmission system without the necessity of any intermediary energy transactions that in effect substitute energy that is not RPS-eligible for energy that is.[56]

When the generator is not directly interconnected to the California grid, California customers receive only the more general benefits, such as reduction in the emission of greenhouse gases, that accrue because RPS-eligible generation has occurred within the WECC. These benefits are captured by the REC, the credit for renewable energy generation. In these circumstances, California customers should pay for the benefit they receive—the existence of more renewable energy in the WECC. California customers should not have to pay for the full value of the REC and the delivered energy, since they typically receive energy sent into the California grid that is not itself RPS-eligible.

Classifying as REC-only a procurement contract with a generation facility that is not directly interconnected clarifies the allocation of benefits and costs of that contract in a transparent, physical manner that is based on the real system for the generation and delivery of electricity. It allows such contracts to be used for RPS compliance in accordance with the requirements of this decision, but

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[55] For convenience only, we will sometimes refer to such generation as "not directly interconnected." This phrasing is not intended to create any new category of generation or transmission, nor to substitute for the generally accepted terms of art in the industry. It is intended solely to reduce readers' fatigue.

[56] This situation is different from the necessary use of ancillary services within a balancing authority area to manage deliveries from intermittent resources, for example CAISO's Participating Intermittent Resources Program, discussed in D.06-10-019, at 37.

does not require California customers to pay for renewable energy they do not receive.

Therefore, we conclude that a REC-only transaction for purposes of RPS compliance is one that either:

1. Expressly transfers only RECs, not energy; or
2. Transfers RECs and energy from an RPS-eligible generation facility for which the first point of interconnection with the WECC interconnected transmission system is not physically located within California and is also not a facility for which the first point of interconnection with the WECC interconnected transmission system lies in the CAISO or another California balancing authority area.

This determination of classification applies to contracts for RPS procurement that are signed on or after the effective date of this decision.[57] Contracts for RPS procurement that were signed prior to the effective date of this decision that meet the criteria for classification as REC-only contracts set forth in this decision will be considered REC-only contracts from the effective date of this decision going forward. Such contracts will then be subject to the limits and rules applying to REC-only contracts. However, deliveries from such contracts prior to the effective date of this decision will be considered bundled deliveries.

4.5. Market Structure and Rules

Drawing on the views of the parties and the ideas in the staff Guiding Principles, it is possible to set some basic goals for the TREC market. It must, at a

[57] This characteristic remains with the TREC for the duration of its existence. Suppose, for example, a TREC is transferred from an RPS-eligible generator that is not directly interconnected to the California transmission system to a California LSE, and then sold to a second California LSE, which retires that TREC for RPS compliance. Even though it was acquired from a California LSE, the TREC would still be subject to the limitation, because it is associated with energy from a generator that is not directly interconnected.

minimum, enable compliance with California RPS requirements. It should not make RPS compliance more difficult or expensive than it currently is. It should put in place processes that can be used to improve RPS compliance options over time. Beyond compliance, the TREC market should be transparent and able to encourage development of new RPS-eligible generation and maximize the effective use of existing RPS-eligible generation resources. The TREC market should function in a way that protects ratepayers without unnecessarily confining innovation in the market. Finally, the market must allow accountability with respect to RPS flexible compliance rules, reporting, and verification.

4.5.1. Staff Straw Proposal

At the TRECS workshop, Energy Division staff presented a Straw Proposal addressing many areas of concern. That proposal was revised and attached to the ALJ's post-workshop ruling for the parties' consideration. Most post-workshop commenters responded to some or all of the points in the Straw Proposal.[58] The Straw Proposal identifies five areas of concern:

- Market participants
- Limits on TREC usage
- Application of flexible compliance rules on banking and earmarking
- Treatment of existing and future bundled RPS contracts
- Utility cost recovery, including bid evaluation, contract review, and price reasonableness.

[58] For ease of reference, the Straw Proposal is attached as Appendix B. Appendix B does not contain the "rationale" sections provided with the straw proposal attached to the ALJ's ruling.

We turn our consideration to these areas, though not necessarily in the order set out in the Straw Proposal.

4.5.2. Participants

Parties unanimously agree that there should be no restrictions on participation in a TREC market, and that the TREC trading rules should be the same for all participants. This will provide the foundation for a market that is transparent and fair, with the simplest possible rules and the largest range of participants. RPS-obligated LSEs, RPS-eligible generators, California POUs, parties that aggregate small numbers of RECs into larger packages, financial institutions, and other third parties will all be able to contribute to the developing TREC market. Although this decision places no formal restrictions on who can participate in the California TREC market, we note that, as a practical matter, participants must meet the requirements for participation set by WREGIS, through which TREC trades will occur.

4.5.3. Limits on Use of TRECs

In response to direction in SB 107, in D.07-05-028 the Commission established, for a limited period of time, minimum quantities of RPS-eligible energy to be procured through contracts with new facilities[59] or long-term contracts[60] with existing facilities necessary in order for LSEs to count deliveries

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[59] Those that entered commercial operation on or after January 1, 2005.

UCS points out that this fixed date for determining whether a facility is "new" becomes less relevant with each passing year. Nothing in this decision depends on this determination, so we do not address it. We do, however, note that it would be useful to have more flexibility in determining when a "new" facility has become an "existing" facility.

[60] Contracts with durations of 10 years or more.

from short-term RPS-eligible contracts with existing facilities for RPS compliance.[61] This requirement will end when an LSE reaches its 20% RPS target.[62]

The Straw Proposal would extend a modified version of these requirements to the use of short-term contracts for TRECs from existing facilities. The Straw Proposal would require that, in order to count short-term TREC contracts with existing facilities, an LSE must in the same year sign long-term contracts or contracts with new facilities whose aggregated annual expected deliveries total at least 0.25% of the prior year's retail sales.[63]

Parties' responses to this proposal vary widely. Calpine, DRA, PG&E, SCE, TURN, and UCS urge that such an extension is justified for the same reasons it is useful for bundled energy contracts. Long-term contracts, they assert, are fundamentally necessary for new development of RPS-eligible generation. The Commission recognized this fact in D.06-10-019, and no party currently disputes it. It therefore makes sense, these parties urge, to apply similar requirements to encourage long-term contracting in the context of TREC

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[61] Section 399.14(b) provides that:

> The commission may authorize a retail seller to enter into a contract of less than 10 years' duration with an eligible renewable energy resource, if the commission has established, for each retail seller, minimum quantities of eligible renewable energy resources to be procured either through contracts of at least 10 years' duration or from new facilities commencing commercial operations on or after January 1, 2005.

At the time D.07-05-028 was issued, this statutory requirement was found in § 399.14(b)(2). Prior § 399.14(b)(1) was repealed by SB 1036 (Perata), Stats. 2007, ch. 685 and the section was renumbered.

[62] D.07-05-028, Ordering Paragraph 5.

[63] UCS proposes that this figure be 0.75%, rather than 0.25%.

contracts. UCS proposes an alternative restriction that short-term TREC transactions with existing facilities can make up no more than 50% of the MWh contracted for in any year by an RPS-obligated LSE. TURN supports this suggestion, arguing that it would reduce the harmful impact on long-term RPS contracting introduced by the use of TRECs.[64]

In comments submitted in response to the supplemental comment ruling, several parties addressed the question of how to balance the use of TRECs against the perceived benefits offered by long-term bundled RPS contracts. Aglet asserts that the benefits of long-term fixed price bundled RPS contracts include (1) reduced exposure to natural gas price volatility and (2) reduced dependence on spot market energy purchases. If the use of TRECs were to increase and displace bundled contracts, Aglet argues, the effects of RPS contracts on electric price stability would be reduced.[65] GPI also points out that only contracts for delivered energy, not TRECs, can contribute to price stability for ratepayers. UCS, while generally supportive of the use of TRECs, makes a similar point about price stability and argues in favor of more stringent limits on use of TRECs than those in the Straw Proposal. TURN agrees with these positions.

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[64] Aglet makes a different type of proposal: that IOUs be allowed to engage in REC-only transactions with other IOUs, but only limited TREC transactions with other LSEs. Aglet does not address third-party market participants. No other party supports this proposal.

[65] The parties sometimes use the term "price stability" and sometimes use the term "hedging" to refer to reducing the risk of uncertain cost impacts on ratepayers. In this decision, we will refer to price stability, consistent with the Legislature's finding that the RPS program "may promote stable electricity prices." (§ 399.11(b).)

TURN also asserts that price stability is the "primary" economic advantage of renewable energy. This advantage would be undermined, TURN argues, if an LSE were forced to purchase electricity to make up for TREC purchases, assuming such electricity purchases are not likely to have a fixed, long-term price. SDG&E contends that these views of the benefits of RPS contracts are too narrow, and that other methods of guarding against the risk of increased costs, such as hedging on a portfolio-wide basis, may be as, or more, effective.

Most parties, consistent with their views that a nascent TREC market should have few if any regulatory requirements, oppose extension of the minimum quantity requirement. AReM, CEERT, GPI, Horizon, IEP, MU, PacifiCorp and SDG&E all argue that such a requirement would reduce liquidity in the TREC market, tend to drive up TREC prices, and make it more difficult to move to a fully competitive TREC market. PacifiCorp asserts that limits on the use of TRECs will make it more difficult for LSEs to employ the least-cost alternatives in RPS procurement.

CEERT, PG&E, and SCE oppose UCS's suggestion of a more stringent minimum quantity requirement. AReM, PG&E, and SCE oppose UCS' suggestion of a percentage usage limit. PG&E would prefer a minimum quantity requirement like that set forth in D.07-05-028. SCE argues that the UCS position is based on a theoretical concern that the use of TRECs could lead to a reduction in an LSE's commitment to long-term contracts. SCE asserts that, in practice, essentially all parties acknowledge that the supply of TRECs will be limited in the near term; the primary source of short-term TRECs is likely to be facilities whose existing contracts with IOUs are expiring. Therefore, SCE argues, the kind of limits UCS proposes are simply unnecessary.

While the Legislature mandated that a minimum quantity requirement be established for the use of short-term bundled contracts with existing facilities, it did not impose a similar requirement for TREC contracts. We therefore take a fresh look at the desirability of limits on the use of TREC contracts.

Although the issue of limits on the use of TRECs was originally framed in the Straw Proposal as an extension of the minimum quantity contracting requirement to cover the use of short-term TRECs from existing facilities, it is actually broader than that. Two goals of the RPS program are implicated: providing incentives for development of more renewable generation, and providing price stability for ratepayers.

A mature TREC market will contribute to development of new RPS-eligible resources. At the outset, however, it is important that the developing TREC market not undermine long-term commitments to construction of new renewable generation.[66]

Price stability for ratepayers is an important consideration both at the outset of the TREC market and on an ongoing basis. We expect that TRECs will prove to be a useful complement to other RPS procurement strategies over the longer term. We do not, however, want the early years of the TREC market to undermine price stability as the role of TRECs in overall RPS procurement is being sorted out.

A temporary limit on the use of TRECs for RPS compliance addresses both new renewable resource development and price stability goals, without limiting the future place of a TREC market in RPS procurement.

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[66] UCS advances this argument most strongly; Calpine, DRA, PG&E, SCE, and TURN share the concern to varying degrees.

The issue of a limit on TRECs was framed in the Straw Proposal and in UCS' alternative proposals as a limit on contracting, like the minimum quantity requirement for bundled contracts. However, it is more appropriate to establish a limit on TRECs usage as a percentage of the LSE's APT.[67] The current RPS reporting process is based on APT, and LSEs are used to considering their RPS obligations in terms of APT. By contrast, the number of contracts signed in a year, and the amount of energy and/or RECs those contracts will procure, is variable and can not be estimated as accurately. It would therefore be more difficult for an LSE to have confidence that its TREC purchases would be within a limit based on annual contracting. It is more transparent, practical, and enforceable to impose a limit on the proportion of TRECs used to meet APT.

This limit will require that no more than 40% of the MWh used by PG&E, SCE, or SDG&E to meet APT in any year may be in the form of TRECs, beginning with the 2010 compliance year. This limitation, like the minimum quantity requirement for bundled contracts, is an annual limit. Each year, no more than 40% of APT may be met with TRECs. Also like the minimum quantity requirement for bundled contracts if one of the large IOUs acquires more than 40% of APT as TRECs in any year, it may carry over the excess in TRECs for compliance in future years (subject to any TRECs usage limitation applicable to the later year).

Although this limitation does not precisely correspond to any of the quantitative limits suggested by parties, it furthers the important goals we

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[67] APT for any year prior to 2010 is determined by taking the prior year's APT and adding 1% of the prior year's retail sales (the incremental procurement target, or IPT). D.06-10-050, Attachment A. For 2010 and later years in which APT is 20% of retail sales, APT is calculated as 20% of the current year's retail sales. D.09-11-028.

identify of maintaining incentives for new generation and providing a measure of price stability. This limit is significantly higher than the 5% of APT limit in the March PD. Most parties opposed any limit, though Aglet, DRA, LSA, TURN, and UCS supported it. A number of parties, including Evolution Markets, GPI,[68] Iberdrola/Horizon, IEP, and Solar Alliance, urged that, if a usage limitation were imposed, it should be higher. The 40% limit allows extensive use of REC-only procurement but maintains bundled contracts as the source of the majority of RPS procurement in any year.

It is not unreasonable that this limitation apply just to the three large utilities. They are responsible for the vast majority of RPS procurement in California; they provide contracts supporting new construction; and they have by far the largest number of customers. They also have the largest array of RPS procurement options and resources, enabling them to have greater flexibility incorporating the TREC limitation of 40% of APT into their procurement planning. Since the limitation is temporary and transitional, the large utilities can take account of it in their longer-term RPS procurement strategies without being unduly constrained in those strategies.

For the two small California utilities, Bear Valley Electric Service and Mountain Utilities, benefit for their customers in the early years of the TREC market is more likely to be promoted by exempting them from the 40% limitation than by imposing it. As the small utilities have explained in several sets of comments, because of their remote locations and peak loads occurring in

[68] GPI presented calculations suggesting that the limit of 5% of APT would not allow the use of TRECs to make any significant contribution to the attainment of the 20% goal by 2010 (or later, applying the flexible compliance rules) on a statewide basis.

winter and at night (the inverse of those of the large utilities), their ability to contract for reasonably priced RPS-eligible resources is currently quite limited.[69] Their ratepayers would be better served by allowing as much RPS procurement flexibility as possible, within the general requirements of the program and the existing flexible compliance rules.[70] Moreover, including the small utilities in the 40% limit would have no practical impact on the potential for new renewable generation development, since their total RPS procurement is so small. We therefore will not now apply the 40% of APT limitation to the two small utilities.

The TREC usage limitation is fundamentally a protection for California utility ratepayers. This limitation applies to the multi-jurisdictional utilities (MJUs), PacifiCorp and Sierra Pacific, only in particular, limited circumstances. This Commission does not generally approve their RPS procurement contracts. Further, the MJUs may proportionally allocate to California RPS compliance their system-wide RPS-eligible procurement. See § 399.17; D.08-05-029. Thus, the role of California- specific bundled RPS contracts in promoting price stability for MJU customers is much less significant, and much less within the sphere of our responsibility, than it is for California utilities. However, analogous to their bundled contracts,[71] if an MJU signs contracts for TRECs for use for California RPS compliance, such contracts would be subject to the limitation of 40% of APT.

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[69] Of course, because Mountain Utilities is not now connected to the California grid, it simply cannot procure electricity from third parties.

[70] In their supplemental comments, Calpine, DRA, and UCS all recognize the difficult situations of the small utilities, and make varying suggestions for providing them with more flexibility in meeting RPS requirements. We do not adopt any particular suggestion, but acknowledge the concerns of these parties.

[71] See D.08-05-029, at 34.

Finally, this Commission has different responsibilities with respect to utilities, on the one hand, and ESPs and CCAs on the other. This Commission does not set the rates of ESPs or CCAs and has no responsibility to ensure that their charges to their customers are just and reasonable. If an ESP or CCA chooses to take the price risk associated with using TRECs rather than fixed-price bundled contracts for RPS compliance, that is a business decision whose consequences are borne solely by the ESP or CCA and its customers. Therefore, the limitation on the use of TRECs to 40% of APT will not now apply to ESPs or CCAs.

This limit is enforceable through the existing RPS compliance reporting process. For each compliance year, LSEs would identify how many MWh applied to the LSE's APT were provided through REC-only transactions. Any MWh from TREC transactions that exceeded 40% of APT would be disallowed for RPS compliance in that year, but could be carried forward for compliance in succeeding years. Energy Division staff is authorized to make any adjustments to the RPS compliance spreadsheet that are necessary to implement this limitation.

This limit on the use of TRECs for RPS compliance should be a temporary one. Within 24 months of this decision, the Commission will review the usage limitation, and may modify, extend, or eliminate the limit. If there is a new legally binding RPS goal, the usage limitation may be reviewed in light of the new goal.

As the TREC market matures, it may also be desirable to move away from an approach that focuses on particularized limits, and toward a portfolio approach to the use of various types of RPS-eligible contracts in the RPS program. Parameters such as long-term and short-term, new facilities and

existing facilities, TRECs and bundled procurement could be used to develop a more holistic approach to RPS procurement. At this time, however, there is no experience with TRECs that could inform the development of such an approach. We focus now on getting the TREC market off to a good start.

4.6. Cost Recovery

The various topics encompassed in the general rubric of cost recovery apply only to the IOUs—large, small, and multi-jurisdictional. The Commission has authority over their rates, and has responsibility to maintain just and reasonable rates for their ratepayers, while ensuring safe and reliable service and implementing the RPS program goals. This Commission does not have authority over the rates of ESPs or CCAs. Thus, this aspect of REC market and compliance design will not be the same, or even similar, for all RPS-obligated LSEs. This is not a repudiation of the Commission's commitment to equitable treatment of all RPS-obligated LSEs, but simply a reflection of the regulatory reality of the California hybrid energy market.

4.6.1. Contract Approval

The large utilities all support the Straw Proposal that contracts for TRECs be reviewed in the same way as analogous contracts for RPS-eligible bundled energy. No party opposes this fundamental principle. UCS supports eventually aligning the review of TREC contracts with short-term bundled contracts. Horizon, PG&E, and Shell all support aligning TREC contract approval with short-term fossil generation contract approval.

The review processes for RPS bundled contracts and TREC contracts should be similar, so far as possible. This promotes the values of administrative simplicity, transparency, and fairness. The review process for TREC contracts starts, as does the process for bundled contracts, with the Commission's review

of the large utilities' RPS procurement plans (see § 399.14(a)) or the multi-jurisdictional utilities' supplements to their integrated resource plans. (See 399.17(d), D.08-05-029.) Going forward, the large utilities and the multi-jurisdictional utilities should include in their procurement plans or supplements the extent to which they intend to use TRECs to meet their RPS obligations.

After the Commission has evaluated the RPS procurement plans and determined that they are consistent with the requirements set out in the RPS statute and Commission decisions, utilities may conduct solicitations to procure RPS-eligible resources in accordance with their plans. (See § 399.14(b).) When utilities submit RPS procurement contracts for approval, the Commission evaluates them with respect to, among other things, consistency with their approved RPS procurement plans and the reasonableness of the contract relative to other bids received by the IOU in the same time frame. For the 2010 RPS procurement plans that have been submitted in R.08-08-009, all utilities that have submitted plans should amend those plans to include their planning for the use of TRECs to meet RPS procurement obligations in 2010.

Although some parties have proposed a new pre-approval process for short-term TREC contracts, we are not changing current contract approval procedures in this decision. The fast-track process for approval of short-term contracts set out in D.09-06-050 would not now be applicable to TREC contracts. Because the price benchmark necessary for fast-track treatment pursuant to D.09-06-050 is calculated on an entirely different basis from the price cap on TRECs set out in § 4.6.3, below, the fast-track process cannot now be used for

TREC contracts.[72] With this one exception, Energy Division staff may use all current methods of analyzing advice letters for bundled contracts and make any adaptations necessary for reviewing REC-only contracts.

For multi-jurisdictional utilities, the situation is somewhat more nuanced. This Commission does not generally approve their RPS procurement contracts for bundled energy. If, however, a multi-jurisdictional utility wishes to recover costs of a California-specific RPS contract, it must file an advice letter for approval of the costs of the contract. (See D.08-05-029, at 32.) TREC contracts should be treated similarly. If a multi-jurisdictional utility wishes to recover costs for any quantity of TRECS from a specific contract committed to its California RPS obligations, it must submit an advice letter demonstrating that the levelized price of the RECs does not exceed any price cap applicable to TREC transactions of IOUs, and conforms to any other requirements for TREC cost recovery by multi-jurisdictional utilities.

4.6.2. Bid Evaluation

The Straw Proposal suggests that utilities revise their processes for RPS procurement to include requests for offers for REC-only contracts, as well as to revise their least-cost best-fit (LCBF) methodology to allow evaluation of REC-only bids. IEP, PG&E, and TURN generally support this proposal, arguing that it would facilitate the integration of REC-only bids into the RPS procurement process. It would also allow direct comparison of bids for bundled energy and bids for REC-only transactions, giving utilities a better way to evaluate the REC-only option. This change in methodology would not require

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[72] The possible development of an analogous process for short-term TREC contracts

Footnote continued on next page

utilities to shortlist any REC-only contracts; rather, it would provide a more complete LCBF evaluation.

Consideration of improvements to the RPS bid evaluation LCBF methodology has been identified as one of the tasks in R.08-08-009.[73] REC-only contracts should be part of that consideration. Prior to full consideration of this issue in R.08-08-009, utilities should explain their method for evaluating REC-only contracts in their advice letters seeking approval of such contracts.

4.6.3. TREC Prices

How much is too much for ratepayers to pay for a REC for RPS compliance? Is it possible to control the costs of RECs to utility ratepayers without stunting or distorting the TREC market? These are among the most contentious issues on which parties commented.

The RPS statute allows a utility "to recover the reasonable costs of purchasing renewable energy credits in rates." (§ 399.16(b).) The Straw Proposal suggests that "reasonable costs" should be capped at $35.00 per REC for the cost of RECs used for RPS compliance by RPS-obligated utilities. The cap would be an absolute limit on the price paid for a REC that an IOU uses for RPS compliance; it would not merely be a limit on the amount of the TREC price that could be included in rates.[74]

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will be taken up in R.08-08-009.

[73] See Scoping Memo and Ruling of Assigned Commissioner (September 26, 2008), at 4.

[74] This aspect of the Straw Proposal seeks to remove the incentive for a utility to pay any price, however high, that it believes this Commission would allow it to recover in rates; or alternatively, to pay the Commission-allowed amount plus $49.99 (one cent less than the current penalty amount of $50/MWh) for a TREC, a scenario identified by SCE in its post-workshop comments. Even if shareholders paid the extra amount, the market price of TRECs could be driven beyond the reach of most RPS-obligated LSEs.

Some evidence from states with current TREC markets, presented at the TRECs workshop and discussed in comments, suggests that TREC prices will fall to close to zero (the marginal cost for renewable generation) when demand is low. When demand is high (for example, a compliance deadline looms) TREC prices will rise to the highest allowable cost.[75] TURN and UCS support the applicability of this "boom/bust" analysis to California. AReM, PG&E, SCE, and SDG&E assert that this "boom/bust" cycle is unlikely to occur in California, because RPS flexible compliance rules eliminate the prospect of a single fixed compliance deadline for all RPS-obligated LSEs. Calpine claims that, although banking of RECs and flexible compliance can help, a highly constrained supply of TRECs will have the same effect on prices as an inflexible deadline: prices will rise sharply.

All parties agree that, at least in the next three or four years, the demand for TRECs for California RPS compliance is likely to exceed the limited foreseeable supply. Many parties—whether in favor of TRECs or skeptical about them—also share the belief that, at least for the next few years, the TREC market will be largely a market for short-term RECs from existing facilities.[76]

TURN asserts that a price cap is necessary in order to keep REC prices in line with the price of bundled RPS contracts. Ratepayers, TURN argues, should not have to pay more for the combination of a TREC and conventional energy than they would have paid for a long-term bundled contract for RPS-eligible

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[75] Information on recent TREC prices in markets in other states, provided by Aglet in its supplemental comments, shows that prices vary from a low range (less than $5/REC) through a few in the range of $25/REC, to, in one instance, a high of $48/REC.

[76] Aglet, Calpine, DRA, IEP, PG&E, TURN, and UCS all make this point.

energy. From this point of view, a TREC price cap should set be below the current $50/MWh penalty price because the penalty price plus conventional energy price is currently higher than the long-term bundled RPS contract price. TURN therefore supports the $35/REC price cap proposal.[77]

Several parties urge that any price cap, if one is adopted at all, be set at the amount of the penalty for noncompliance with RPS procurement obligations.[78] This is currently $50.00/MWh. (See D.03-06-071.) If the price of a TREC bought by an IOU were allowed to exceed the penalty cost, this argument suggests, a utility would have an incentive to pay almost any price for a TREC (even above the penalty amount) in order to transfer the costs of noncompliance from the shareholders (via a penalty payment) to the ratepayers (via an inflated price for TRECs that would be reflected in rates).

Many parties oppose any cost cap, arguing that price limits almost by definition put artificial restraints on markets.[79] With a new market such as the California TREC market, the argument continues, such early restraints could delay the development of a robust TREC market and stifle the price signals needed to encourage new renewable development.

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[77] BVES and Central California Power also support it. Aglet suggests a more complex calculation that would impose a significantly lower cap, but only on IOU cost recovery for TRECs purchased from unregulated LSEs. Aglet's suggestion is not consistent with an integrated, liquid TREC market, and does not account for the participation of other, non-LSE entities in the TREC market.

[78] GPI and UCS take this position. UCS also expresses a concern that the $35 price cap in the Straw Proposal might be too low in current market conditions to provide incentives for new renewable construction, though the basis for that concern is not clear.

[79] Calpine, CEERT, Horizon, IEP, PG&E, and Solar Alliance take this position.

CEERT urges that, instead of a price cap, the Commission should adopt a price benchmark for TRECs. CEERT argues that a price cap will constrain the TREC market instead of letting market supply and demand determine prices. A reasonableness benchmark, however, would protect ratepayers from unreasonable TREC prices without depressing TREC prices. CEERT suggests that the price benchmark should be set at the penalty amount, rather than at a lower figure, such as the Straw Proposal's $35/REC. CEERT asserts that this would avoid creating a situation in which an IOU could not buy TRECs to fulfill its RPS obligations if they were above the price cap, but below the penalty amount, yet would be subject to the penalty for a procurement shortfall. CEERT does not, however, suggest a methodology for implementing a benchmark to evaluate prices.

A price benchmark for evaluating TREC purchases may be a reasonable proposal for the medium and longer term. In the immediate future (i.e., the next three years), however, it could be difficult to develop a reliable benchmark. TREC prices could not reliably be approximated by, for example, estimating the cost of RPS-eligible energy and subtracting the cost of conventional power, which parties sometimes call the "green premium." Such an RPS energy cost would be extremely difficult to estimate in itself, since RPS power purchase agreements present a wide range of technologies and prices. More importantly, however, TREC prices will largely be the result of forces in the TREC market, not the energy market. Pressure to comply with the 20% goal combined with a limited supply of TRECs would dominate TREC market pricing, making it difficult to develop and implement a benchmark using sources other than the TREC market prices.

SDG&E, supported by PG&E, proposes neither a cap nor a benchmark, but a price reasonableness review similar to what is done for all-source procurement. The review would be based on broker quotes, results of solicitations, or a price valuation model. This proposal, however, assumes that there is a fully developed market in which there is a wide range of information. Since, in its early years, the TREC market is unlikely to conform to this model, SDG&E's suggestion, like CEERT's benchmarking suggestion, is premature.

Paradoxically, a published, firm price cap could operate as a relatively reliable price signal for investors in new RPS-eligible generation. At the workshop and in post-workshop comments, staff and parties discussed methods to ensure some measure of price transparency in the early stages of the TREC market. No party proposed any method that would produce public TREC prices. Suggestions were made that some kind of anonymous average of transaction prices could be compiled from data in WREGIS, though how to do this under WREGIS' current functionalities was not clear.

A price cap, by contrast, does not implicate the confidential data of any participant. Market participants may make deals at prices lower than the price cap, and RPS-obligated ESPs and CCAs, as well as POUs, could make deals at higher prices. But the price cap itself could give a reasonable indication of the value of TRECs to ratepayers. As compared to no public indication of price, this would provide important information that could ground new investment in RPS-eligible generation, not simply TREC trades.

Price volatility and high prices are not a necessary outcome of the predicted situation of short TREC supply, but they are a significant risk. We conclude that this is a risk that ratepayers should not be required to bear in the short term. We believe that it is possible to create temporary protections for

ratepayers through imposition of a price cap without damaging the basic structure of the TREC market or undermining the financial incentives for new renewable construction that are among the longer-term benefits of a TREC market. We therefore adopt a temporary, reviewable TREC price cap.

The Straw Proposal's suggestion of price cap of $35/REC, while potentially reasonable, would not be effective at this time. First, as CEERT notes, a utility could have to leave a TREC priced at $36 on the table, while paying $50 in penalties for having failed to procure it. Second, as SCE points out, a price cap lower than the penalty amount creates an uneven playing field between utilities and other LSEs. LSEs not subject to the price cap could pay the highest price for a REC they thought they could afford, up to the penalty amount, thus potentially driving up the price out of reach of utilities.

On the other hand, a price cap of $50/REC is connected to the noncompliance penalty amount. It is the highest economically rational price for a TREC that would not shift the costs of noncompliance from utility shareholders to ratepayers. The penalty structure is, however, intended to put the burden of IOUs' noncompliance with RPS requirements on shareholders, not ratepayers. It would be undermined by allowing utilities to pay more than the penalty amount for TRECs.

Therefore, we adopt a temporary price cap of $50/REC (the penalty amount translated from MWh to RECs). This means that an IOU may not use for RPS compliance a TREC for which it paid more than $50.00, on a levelized basis.[80]

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[80] This does not mean that purchasing TRECs for the amount of the price cap is per se reasonable. We will evaluate the reasonableness of TREC purchases by utilities in the

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The temporary price cap, like other aspects of RPS procurement, works somewhat differently for MJUs. The price cap, like the TREC usage limit, applies only to those TRECs procured by MJUs exclusively for use in complying with their California RPS procurement obligations. It does not extend to system-wide purchases of TRECs that are proportionally allocated to California compliance, in accordance with § 399.17.

Both in order to use a REC-only transaction for RPS compliance and in order to obtain cost recovery for it, an IOU must demonstrate that the RECs are priced at or below $50.00.[81] In a REC-only contract in which an IOU buys only RECs, the price of the REC and its relation to the price cap will generally be clear. An IOU may also enter into a transaction for both the RECs and power from a generation facility that is not directly interconnected to the California grid. If the prices for the RECs and energy are separately identified in the contract, the REC price will also generally be clear. If they are not, the price for the RECs must be inferred in some manner in order for Energy Division to determine whether the contract complies with the price cap. In this situation, the IOU will have to provide an estimate of the REC price, by separately indentifying the energy price. The most transparent and consistent source of such an estimate is likely to be an estimate of the market value of the energy through the life of the contract. The net REC price could then be determined by subtraction. If an IOU signs another type of RPS-eligible transaction in which the REC price must be inferred

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contract approval process. IOUs must provide sufficient information to the Commission to demonstrate that a TREC contract price is reasonable.

[81] In prior comments, Evolution Markets suggested that more detail on the price calculation would be valuable.

but forward price curves are inappropriate or unavailable, the IOU would need to provide sufficient information for Energy Division to make a determination of whether the inferred REC price is at or below the REC cap. The Director of Energy Division is authorized to develop a methodology for making this determination and make any changes to the processing of advice letters that are necessary in order to implement the price cap on TRECs.

Like the limit on TRECs usage, this cap on the prices of TRECs used for RPS compliance should be a temporary one. Within 24 months of this decision, the Commission will review the price cap. The Commission could modify, extend, or eliminate this price cap. If there is a new legally binding RPS goal, the price cap may be reviewed in light of the new goal.

4.6.4. Cost Limitation Provisions

Section 399.15(d) provides for a limitation on the total above-market costs expended for RPS procurement by IOUs and makes available a limited amount of money to cover above-market costs. It states that "[n]o purchases of renewable energy credits may be eligible for consideration as an above-market cost." (§ 399.15(d)(2)(D).) Thus, TREC purchases are not eligible for any above-market funds set aside pursuant to § 399.15(d)(1). No IOU is required to purchase TRECs to meet RPS obligations if it has otherwise exceeded its cost limitation for bundled contracts (§ 399.16(a)(8)).[82] However, IOUs should also have the ability to enter into voluntary TREC transactions even if the cost

[82] This is analogous to the provision, with respect to bundled contracts, that no IOU is required to purchase bundled electricity at a price above the market price referent if its cost limitation has been exceeded. ((§ 399.15(d)(3).)

limitation has been reached, as they do with bundled contracts. (See § 399.15(d)(4).)

4.6.5. TREC Revenues for the Benefit of Ratepayers

Section 399.16(a)(4) provides that "[a]ll revenues received by an electrical corporation for the sale of a renewable energy credit shall be credited to the benefit of ratepayers." The respondent utilities should promptly take steps to include all TREC transactions in their energy resource recovery accounts (ERRA) or energy cost adjustment (ECAC) accounts, or equivalents, such as power purchase adjustment accounts, as appropriate. Those utilities that believe they do not currently have an appropriate accounting vehicle for TREC transactions should submit advice letters within 90 days of the date of this decision, proposing their accounting treatment of TREC transactions.

4.7. Transactions subject to §§ 399.16(a)(5) and (6)

The RPS statute provides that "no renewable energy credits shall be created" associated with electricity from two types of transactions.[83] The first is a

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[83] The relevant parts of § 399.16 are:

(5) No renewable energy credits shall be created for electricity generated pursuant to any electricity purchase contract with a retail seller or a local publicly owned electric utility executed before January 1, 2005, unless the contract contains explicit terms and conditions specifying the ownership or disposition of those credits. Deliveries under those contracts shall be tracked through the accounting system described in subdivision (b) of Section 399.13 and included in the baseline quantity of eligible renewable energy resources of the purchasing retail seller pursuant to Section 399.15.

(6) No renewable energy credits shall be created for electricity generated under any electricity purchase contract executed after January 1, 2005, pursuant to the federal Public Utility Regulatory Policies Act of 1978 (16 U.S.C. Sec. 2601 et seq.). Deliveries under the electricity purchase contracts shall be tracked through the accounting

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contract executed with a California RPS-obligated LSE or POU prior to 2005 that does not specify the ownership or disposition of the RECs. The second is a contract pursuant to PURPA executed after January 1, 2005 with a QF.

Because WREGIS tracks renewable generation by issuing RECs (in the form of WREGIS Certificates), it is not possible literally to prevent the creation of RECs from these transactions. It is possible, however, to implement the Legislature's intent by ensuring that the bundled renewable energy from such transactions is tracked through WREGIS and counted toward the RPS obligations of only the purchasing retail seller. LSEs that purchase renewable energy from such transactions can prevent the WREGIS Certificates from being transferred out of their WREGIS accounts (and thus being available for transfer or trading) by setting up appropriate mechanisms within WREGIS to make direct or automatic transfers of the relevant WREGIS Certificates into their WREGIS accounts and retire them for RPS compliance at the earliest feasible time after the WREGIS Certificates are generated.[84] Currently, only the three large utilities have such contracts. They should take the steps necessary to ensure that the WREGIS Certificates generated by such transactions are moved as promptly as possible, as determined by the CEC, into the IOUs' retirement accounts in WREGIS for purposes of RPS compliance.

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system described in subdivision (b) of Section 399.12 and count toward the renewables portfolio standard obligations of the purchasing retail seller.

[84] The rules for transfers between accounts in WREGIS are set out in section 15 of the WREGIS Operating Rules.

Energy Division staff should review with CEC staff and the affected utilities whether any changes to the RPS compliance spreadsheet, or other RPS reporting tools, are needed to ensure compliance with §§ 399.16(a)(5) and (6).

4.8. Compliance and Reporting

As a general principle, the use of TRECs will be consistent with the existing RPS flexible compliance rules.[85] There are a few situations, however, requiring more detailed examination and, in some cases, initial adjustments. As we develop experience with the use of TRECs for RPS compliance, we may review the impact of TRECs on the existing flexible compliance regime. The rules set out in this decision provide for the integration of TRECs into the existing RPS program; if experience reveals the need for improvements, we will consider them.

4.8.1. Banking

In the context of bundled energy contracts, RPS-eligible deliveries may be "banked" for an indefinite period for RPS compliance, as allowed by § 399.14(a)(2)(C)(i).[86] That is, an LSE with deliveries in excess of its APT in one year may bank the surplus for use in any later compliance year.

To maintain consistency between the use of TRECs and the use of bundled energy contracts, RECs in excess of an LSE's APT in one year may be banked for

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[85] See, e.g., D.06-05-037, D.06-10-050, D.07-02-011, D.08-02-008.

[86] Section 399.14(a)(2)(C)(i) provides in relevant part that

> The commission shall adopt. . . [f]lexible rules for compliance, including rules permitting retail sellers to apply excess procurement in one year to subsequent years or inadequate procurement in one year to no more than the following three years.

use in future years.[87] Because of the nature of RECs and how they are tracked and traded, however, banking of RECs for RPS compliance must be a two-step process: holding RECs in active sub-accounts in WREGIS, and banking within the RPS flexible compliance system. These two steps are the same for RECs associated with bundled contracts and RECs from REC-only contracts.

The first step is holding the REC in WREGIS. Under the WREGIS operating rules, RECs may be maintained indefinitely in a WREGIS participant's active sub-account.[88] When RECs are committed to California RPS compliance (or any other compliance purpose), they are transferred to the participant's WREGIS retirement sub-account. WREGIS still tracks the RECs in the retirement sub-account, but those RECs may not be traded or used for any other purpose.

Maintaining RECs within a WREGIS active sub-account keeps the RECs available for any purpose. The Straw Proposal would allow maintenance in active sub-accounts for up to three compliance years (inclusive of the year of generation) from the date the electricity associated with the REC is generated. That is, an RPS-obligated LSE that wanted to use a REC associated with electricity generated in June 2008 for RPS compliance would need to commit the REC to RPS compliance by putting it in its WREGIS retirement sub-account not later than December 31, 2010 (the end of the third compliance year since the generation). This is in the mid-range of the banking practices of other states, which typically allow between 18 months and five years for REC banking.[89]

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[87] The RECs may be procured through TREC contracts or bundled contracts.

[88] WREGIS Certificates do not have an expiration date. (Operating Rules, at 34.)

[89] The staff presentation on "Compliance Rules: Consensus and Unresolved Issues" provided this information at the TREC workshop.

TURN argues that this is too long a period to allow RECs to be held without commitment to RPS compliance, and urges that 18 months is a more appropriate time. UCS supports some limits on the time RECs can be maintained in WREGIS, in order to ensure that LSEs continue to procure RPS-eligible energy, rather than relying on generation from several years in the past. GPI and Pilot Power Group (PPG) argue that the period of holding RECs in WREGIS should be unlimited, essentially because the RPS banking process for bundled energy is unlimited.

The argument advanced by GPI and PPG conflates the two processes. It is possible to allow indefinite banking of RECs for RPS compliance once they have been committed to that purpose, without allowing indefinite retention of RECs in active WREGIS sub-accounts. TURN argues that allowing RECs to sit in active WREGIS sub-accounts for an indefinite period of time without being committed to any compliance purpose could encourage hoarding of TRECs and gaming of the TREC market by market participants who could buy TRECs and hold them until a major compliance deadline (such as attainment of the 20% target) looms, then sell them at inflated prices. On the other hand, in order to have a liquid TREC market, it is necessary to keep TRECs available for a long enough period of time that trading within that market will be efficient, while not providing incentives to keep TRECs out of the market.

In evaluating the banking proposals, it is important to remember that the primary purpose of authorizing the use of TRECs is to improve the RPS program. Allowing market participants to hold RECs indefinitely without committing them to RPS compliance would undermine both liquidity in the market and compliance planning by RPS-obligated LSEs.

The Straw Proposal strikes an appropriate balance between maintaining market liquidity and discouraging hoarding of TRECs. We therefore adopt the Straw Proposal on banking of RECs and clarify that it is applicable to all RECs, including those procured bundled with energy, tracked in WREGIS. The time to retirement for RPS compliance of not more three compliance years inclusive of the year of generation of the electricity associated with the REC will allow an LSE holding TRECs to make a good estimate of its future compliance needs, and either commit or sell its TRECs. Other TREC market participants will be able to assess their market situations over a reasonable period of time, but without incentives to hold TRECs for extremely long periods of time and potentially distort the TREC market.[90]

Once RECs are retired for RPS compliance within WREGIS, they will be accounted for in the RPS compliance and reporting system. They then will be subject to the RPS flexible compliance rules.

4.8.2. Unbundling of RECs from Future Years of Bundled Contracts

Once a system of tradable RECs is established, any RECs recorded in WREGIS are subject to being traded, with the important exception (discussed in § 4.7 above) of RECs associated with the types of contracts described in §§ 399.16(a)(5) and (6). This raises the question of the appropriate treatment of RECs that are associated with the energy conveyed in bundled RPS contracts.

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[90] This timing rule applies to the REC, not to the LSE or other market participant. A TREC may be traded several times within the three-year period; it may count for RPS compliance as long as it is retired in WREGIS within the period. The LSE retiring the REC for RPS compliance may have retained that REC in its active WREGIS sub-account for months, or acquired it only the day before it is retired.

An LSE with a contract for bundled energy should be able to "unbundle" and sell RECs from that contract on both a spot and a forward basis. In the case of a contract that is delivering energy, RECs from past deliveries would be tracked in WREGIS and could be sold if they were not yet retired for RPS compliance. RECs from later deliveries could be sold on a forward basis. In the case of a contract with a facility that is not yet on-line, RECs could be sold on a forward basis for some or all of the entire term of the contract (with the partial exception that RECs could not be unbundled from the first three years of bundled contracts that have been earmarked).[91] Once the RECs are transferred, however, the LSE with the original bundled contract may not use *either* the REC *or* the underlying energy for RPS compliance; the RPS compliance value has been transferred to the purchaser along with the REC.[92]

The potential unbundling and sale of RECs from bundled contracts that have been earmarked to make up shortfalls from prior years presents a special case.[93] The Straw Proposal suggests that RPS-obligated LSEs should not be allowed to unbundle the RECs from the first year of such contracts, since that year's deliveries have already been committed to make up a prior year's shortfall

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[91] Energy Division staff should review the RPS compliance spreadsheet and reporting rules to determine whether additional reporting requirements should be imposed to track these transactions.

[92] In principle, the original LSE could buy some or all of the RECs back at a later point. As the owner of the RECs, it could then retire them for RPS compliance.

[93] "Earmarking" is a flexible compliance mechanism by which deliveries from a future RPS procurement contract may be designated to make up, within three years, shortfalls in RPS procurement in the same year in which the earmarked contract was signed. As part of the earmarking process, Energy Division staff reviews the contract proposed for earmarking to ascertain whether the contract is likely to deliver as proposed, since it is covering an already-incurred shortfall.

under the flexible compliance rules. This raises the risk of double-counting the unbundled RECs, as earmarked by one LSE and retired for RPS compliance by another. On the other hand, if an earmarked contract turns out not to be needed to make up the shortfall for which it has been earmarked, the RECs should be able to be unbundled. We adopt an approach that would encourage liquidity in the TREC market without undermining the flexible compliance rules. An LSE may unbundle and trade RECs from the later years of a bundled contract that has been earmarked, but should be prohibited from unbundling any RECs generated in the first three years of deliveries under an earmarked contract.

4.8.3. Earmarking of TREC Contracts

In the Straw Proposal, staff suggests that earmarking of TREC contracts not be allowed because the viability of forward TREC contracts would be significantly more difficult to assess than the viability of bundled contracts. CEERT, GPI, IEP, PG&E, and UCS agree with this position. AReM, Pilot Power, SCE, and SDG&E argue against it. The opponents assert that all RPS contracts should be treated equally. They assert that administrative difficulty in making a viability determination should not prevent earmarking of TREC contracts. SCE asserts that purchases of TRECs from new facilities would be discouraged if earmarking of TRECs were not allowed.

Although in almost all respects TRECs can and should fit into the flexible compliance rules, it is appropriate to limit the circumstances in which earmarking of REC-only contracts is allowed. TREC deals present earmarking challenges different from bundled energy contracts. For TREC purchases that are associated with energy from multiple generators, possibly located in several different jurisdictions, staff would have difficulty undertaking an adequate review of potential future performance under the contracts. Confidential

information about the viability of a number of different generation projects may be difficult and very time-consuming to track down. This could at the least significantly delay approval of TREC deals proposed for earmarking, and might increase the risk that the shortfall for which the TRECs are earmarked would not in fact be made up within the required three-year period.

On the other hand, as PG&E pointed out in its earlier comments, TREC contracts between an LSE and one RPS-eligible generator providing the RECs share most of the characteristics of bundled transactions. It should not be significantly more difficult for staff to evaluate the likelihood of future performance of such contracts than it is to evaluate the future performance of bundled contracts that are eligible for earmarking.

We therefore allow earmarking of TREC contracts between an RPS-obligated LSE and one RPS-eligible generator providing the RECs, subject to review by staff in accordance with RPS flexible compliance procedures. A REC-only contract that is earmarked should count in the overall TREC usage cap for the year in which the TRECs are used for RPS compliance. Such earmarking is also subject to the restriction that no RECs in the first three years of deliveries from an earmarked TREC contract may be sold or traded. This is analogous to the restriction for RECs from bundled contracts set out in § 4.8.2, above.

4.8.4. Use of TRECs to make up prior shortfalls

The flexible compliance rules allow an LSE to carry forward a deficit in RPS procurement under certain circumstances. In brief, a deficit of up to .25% of the prior year's retail sales may be carried for up to three years without need for

Commission approval.[94] A larger deficit may be carried forward if the LSE demonstrates one of the allowable excuses for failure to meet annual procurement obligations.[95] A deficit of up to .25% of prior year's sales may be satisfied by applying procurement in any of the following three years that is in excess of APT for that year.[96]

Because REC-only procurement and bundled procurement should be as similar as possible for RPS compliance purposes, REC-only transactions may be used to make up shortfalls to the same extent as bundled transactions, so long as the contribution of REC-only transactions does not exceed any limitation on the use of TRECs for that compliance year.

4.8.5. Reporting

The RPS reporting structure has been set forth in D.06-10-050.[97] Energy Division staff has developed a collaborative process with parties in which any changes needed in the reporting formats are developed and reviewed.[98] Staff should use this process to make revisions to current reporting formats that may be needed to accommodate the use of TRECs. The assigned Commissioner or assigned ALJ in R.08-08-009 or its successor may issue any rulings necessary to

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[94] D.03-06-071; D.08-02-002.

[95] See D.03-06-071; D.03-12-065.

[96] D.05-07-039.

[97] A standardized RPS reporting format and a process for considering changes to the reporting format were adopted in R.06-05-027 by an ALJ's Ruling Adopting Standardized Reporting Format, Setting Schedule For Filing Updated Reports, and Addressing Subsequent Process (ALJ's Reporting Ruling) (March 12, 2007).

[98] Reporting formats include the semiannual compliance spreadsheets and any other documentation needed to report on RPS compliance.

provide staff and the parties with the opportunity to develop revisions to the reporting formats.

Following a suggestion made by CEERT, all RPS-obligated LSEs should be required to file with Energy Division reports on TREC purchases, sales, and prices, with appropriate confidentiality protections. Those utilities that utilize a procurement review group (PRG) should also provide this information to the PRG. This is not for purposes of contract approval, but for TREC market monitoring. This will enable staff to learn about developments in the TREC market, propose improvements, and identify potential problems that should be addressed by this Commission. Energy Division has discretion to develop, in consultation with the parties, the format and timing of such reports; they may be included as part of the RPS compliance spreadsheet.

4.9. Standard Terms and Conditions

Parties commenting on this issue favor minimal new STCs for TREC contracts, and little or no change to the STCs for bundled RPS contracts.[99] Parties unanimously believe that an STC defining RECs is the core, and perhaps only, STC needed. SDG&E adds that the STC must provide that the RECs are tracked in WREGIS; PG&E and AReM include a "CPUC approval" term.

We agree with the parties that few changes to STCs are required. It is clear that all TREC contracts will need an STC that ensures that the RECs being transferred conform to the definition and attributes of RECs set forth in D.08-08-028, or any later modifications made by decision of this Commission or new legislation. Because RECs cannot be recognized for RPS compliance unless

[99] AReM, CEERT, PG&E, SCE, SDG&E, and UCS made suggestions for STCs.

they are tracked in WREGIS, TREC contracts must contain assurances that the seller has taken all steps necessary to ensure that the generation is properly registered and the RECs will be tracked in WREGIS.

In addition, as PG&E points out, TREC contracts of both large and small IOUs must include the same requirement as bundled contracts that the contract takes effect upon approval by this Commission.[100]

Defining and tracking RECs and requiring this Commission's approval of contracts where that approval is necessary cover the minimum requirements for STCs related to the use of TRECs for RPS compliance. Therefore, only three STCs will be required for REC-only contracts: REC definition, WREGIS tracking, and Commission approval for utility contracts (other than multi-jurisdictional utilities).[101]

Bundled contracts transfer RECs as well as energy. In order for bundled contracts to be consistent with REC-only contracts and to allow the unbundling and trading of RECs from bundled contracts as authorized by this decision, the "RECs definition" and "WREGIS tracking" STCs should be added to the STCs for bundled contracts.

The two new REC STCs address the fundamental issues of what is being conveyed by the contract. They should be non-modifiable in both REC-only and bundled contracts. The STC requiring Commission approval for REC-only

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[100] This Commission does not approve RPS contracts of multi-jurisdictional utilities. See § 4.4.4.1, above.

[101] If and when the Commission changes or augments the RPS procurement approval process, appropriate changes can be made in the STCs.

contracts should likewise by non-modifiable in REC-only contracts, as it is in bundled contracts. The new STCs are set out in Appendix C.

4.10. Timing Issues

Beginning on the effective date of this decision, TRECs tracked in WREGIS for which the RPS-eligible electricity associated with the TREC was generated on or after January 1, 2008 may be procured, traded, and used for RPS compliance. Any RECs associated with RPS-eligible bundled energy deliveries may be used for RPS compliance in accordance with existing flexible compliance rules and may, beginning on the effective date of this decision, be unbundled and sold in accordance with the rules set forth in this decision, subject to the restrictions in §§ 399.16(a)(5) and (6). No earlier than March 1, 2010, utilities may file advice letters for approval of TREC contracts that conform to the requirements of this decision.[102]

4.11. Comparison to March 2009 PD

There are three significant differences between this revised proposed decision (RPD) and the March PD it revises, as well as a number of minor changes. Editorial changes for clarity and consistency have also been made. The major differences are:

1. In the March PD, the definition of a REC-only transaction was based on analyzing the details of individual contractual arrangements. In the RPD, the definition of a REC-only transaction has been clarified and based on physical facts of interconnection between RPS-eligible generators and the WECC transmission system. In the RPD, this definition has been moved closer to the beginning of the discussion,

[102] D.08-05-029 requires BVES to submit an application for approval of bundled energy purchases as long as there is a cap on its electricity charges. This requirement does not apply to TREC purchases.

to aid understanding of the following sections that set out various rules and requirements.

2. In the March PD, the temporary limit on the use of TRECs for RPS compliance by the three large IOUs was set at 5% of APT; TRECs in excess of that amount could not be banked for RPS compliance in future years. In the RPD, a limit of 40% of APT is imposed, again only on the three large IOUs. TRECs in excess of the limit may be banked for use in future years, though the 40% limit continues to apply in each year.
3. In the March PD, the process for reviewing the temporary limit on use of TRECs for RPS compliance and the temporary limit on the price an IOU may pay for a TREC was complex and uncertain. The RPD sets a time limit within which the Commission will review these limits.

4.12. Next Steps

Follow-up tasks to integrate TREC procurement into RPS procurement processes are most appropriately undertaken in R.08-08-009, where all aspects of the RPS procurement process are addressed. One possible task is refining the LCBF bid evaluation process to allow TREC contract bids to be evaluated side by side with bids for bundled contracts in utility RPS procurement processes. This could encourage integration of REC-only and bundled procurement decision-making. Revisions to the LCBF process could include consideration of how LCBF might better take into account various benefits of RPS-eligible generation identified by the RPS statute, such as diversity and reliability of the energy supply, public health and environmental benefits, as well as economic development benefits. (See § 399.11.) Developing processes for the Commission's approval of RPS contracts that can be applied to both bundled and REC-only procurement will aid in integration of TRECs into RPS procurement. Finally, consideration of a fast-track process for approval of short-term REC-only transactions, analogous to that set out in D.09-06-050 for short-term bundled

contracts, could be undertaken in R.08-08-009. The Assigned Commissioner may evaluate the utility of undertaking these tasks and revise the scoping memo for R.08-08-009 as appropriate.

The rules and procedures for procuring and trading TRECs and using them for RPS compliance that are set forth in this decision are summarized for informational purposes only in Appendix D. The TREC market and the use of TRECs for RPS compliance will, however, be affected by many other sources. These include D.08-08-028, the CEC's *Eligibility Guidebook*, and the WREGIS Operating Rules. Energy Division staff is authorized to compile a TRECs reference guide to aid RPS-obligated LSEs and other market participants in understanding how to participate in the TREC market. We also encourage Energy Division staff to consider AReM's suggestion to convene a workshop on integrating TRECs into RPS reporting and verification processes.

We intend to work with the CEC as it reviews a variety of RPS requirements in developing revisions to the CEC's *RPS Eligibility Guidebook*.

Because the landscape within which our RPS program functions is always changing, we also must consider the possibility that we could need to revisit some aspects of this decision in the future. Executive Order S-21-09 (September 15, 2009) directed the Air Resources Board to implement a renewable energy standard under AB 32 to lead to 33% renewable energy in California by 2020. The full implementation of AB 32 may lead to additional changes. Legislative changes to the RPS program may also occur. Review of how the TREC market is functioning may reveal unexpected challenges or opportunities not fully encompassed in this decision.

Because this decision resolves all remaining issues in this proceeding identified in the Second Amended Scoping Memo and Ruling of Assigned

Commissioner (February 25, 2008) [103], R.06-02-012 is resolved for the purpose of compliance with § 1701.5. However, the proceeding remains open to address the Petition for Modification of Decision 06-10-019 filed on October 29, 2009.

5. Comments on Proposed Decision

The revised proposed decision of ALJ Simon in this matter was mailed to the parties in accordance with Section 311 of the Public Utilities Code and comments were allowed under Rule 14.3 of the Commission's Rules of Practice and Procedure.

6. Assignment of Proceeding

Michael R. Peevey is the assigned Commissioner and Anne E. Simon and Burton W. Mattson are the assigned ALJs for this proceeding.

Findings of Fact

1. Allowing the use of TRECs for RPS compliance will give RPS-obligated LSEs increased options for RPS compliance, and may reduce complexity in RPS procurement contracting.

2. The use of TRECs for RPS compliance will be substantially compatible with existing RPS flexible compliance rules.

3. As the California TREC market develops, it is likely to provide support for the development of new RPS-eligible generation.

4. In view of the benefits of the use of TRECs for RPS compliance and the development of a viable TREC market, it is reasonable to allow the use of TRECs for RPS compliance, subject to reasonable conditions.

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[103] Three issues were transferred to R.08-08-009 in April 2009.

5. This Commission adopted the report on the tracking system required by § 399.16(a)(1) by Res. E-4178 (November 21, 2008).

6. The CEC adopted the report on the tracking system required by § 399.16(a)(1) at its business meeting on December 3, 2008.

7. Because the RPS-eligible energy is delivered directly to California's system, California customers receive the maximum benefit of RPS procurement transactions when the generator of the energy associated with a REC has its first point of interconnection with the WECC transmission system physically located within California or with a facility for which the first point of interconnection with the WECC lies in the CAISO or another California balancing authority area.

8. In the early years of a California TREC market, prior to LSEs' attaining the goal of 20% of retail sales from RPS-eligible generation resources, demand for TRECs is likely to exceed supply.

9. In order to maximize the benefits of reducing California's fossil fuel use and gain the attendant benefits of reduction in air pollution, improvement in public health, and reduction in energy price volatility, without damaging the basic structure of the TREC market, it is reasonable to impose on the three large IOUs a temporary reviewable limitation of 40% of APT annually on their use of TRECs.

10. In order to provide temporary protections for ratepayers from the potential for volatility and spikes in TREC prices without damaging the basic structure of the TREC market or undermining the financial incentives for new renewable construction that are among the longer-term benefits of a TREC market, it is reasonable to impose a temporary reviewable price cap of $50/REC for TREC purchases by IOUs.

11. Solely for purposes of determining whether the contract price is reasonable and the price of TRECs is at or below the reviewable price cap, it is reasonable to develop a method to infer the price for a TREC based on a forecast of the market price for the associated energy if the contract does not specifically identify the REC price.

12. In order to promote liquidity in the TREC market, it is reasonable to impose a limit on the period of time that TRECs and RECs associated with energy in bundled contracts used for RPS compliance may be held in an active WREGIS sub-account before being retired for RPS compliance.

13. Allowing LSEs to unbundle and sell RECs from bundled contracts for RPS-eligible energy, on both a spot and forward basis, will promote liquidity in the TREC market and provide RPS compliance flexibility.

14. Because it is not always possible for the viability of REC-only contracts to be assessed in the same way as bundled contracts, it is reasonable to limit the earmarking of REC-only contracts to those contracts between an RPS-obligated LSE and one RPS-eligible generator providing the TRECs.

15. It is reasonable to allow REC-only transactions as well as bundled transactions to be used to make up shortfalls in RPS procurement in prior years in accordance with the flexible compliance rules and the limits on TREC usage set forth in this decision.

16. In order to preserve the Commission's ability to determine compliance with RPS obligations and to eliminate the potential for double-counting of some RECs, it is reasonable to prohibit the unbundling and trading of RECs from the first three years of deliveries of any RPS procurement contract, whether bundled or REC-only, that has been earmarked.

17. In view of the uncertainties involved in the early years of a new TREC market, it is reasonable to provide for regular assessments of market performance by Energy Division staff and, as needed, review by the Commission of the market rules set forth in this order.

Conclusions of Law

1. The use of TRECs for RPS compliance should be authorized.
2. All statutory preconditions to this authorization have been met.
3. Trading of RECs that meet the requirements of D.08-08-028 and any subsequent Commission decision or any applicable legislation characterizing RECs should begin not earlier than the effective date of this decision.
4. Only RECs tracked in WREGIS should be allowed to be used for RPS compliance.
5. LSEs should be allowed to unbundle and sell RECs from bundled contracts for RPS-eligible energy, on both a spot and forward basis, subject to conditions that promote RPS compliance and prevent double-counting.
6. Existing RPS flexible compliance rules should be applied to the use of TRECs for RPS compliance, with the following adjustments:
    a. REC-only contracts between an LSE and one RPS-eligible generator supplying the TRECs may be earmarked;
    b. RECs may not be unbundled or traded in the first three years of contracts (whether bundled or REC-only) that have been earmarked.
    c. REC-only contracts that are used for earmarking will count against any TREC usage limitation in the year the TRECs are used for RPS compliance.
7. RECs associated with RPS-eligible generation under contracts with California RPS-obligated LSEs or POUs signed prior to 2005 that do not allocate ownership or disposition of RECs and contracts pursuant to PURPA with QFs

signed after January 1, 2005 may not be unbundled or used for RPS compliance separate from the associated energy.

8. A reasonable limit on the period of time that TRECs and RECs associated with energy delivered in bundled contracts used for RPS compliance may be held in an active WREGIS sub-account before being retired for RPS compliance should be imposed.

9. In order to allow flexibility in RPS procurement and compliance, IOUs should be able to enter into voluntary TREC transactions even if their cost limitation, as set out in § 399.15(d), has been reached.

10. In order to maximize the benefit California consumers receive from the procurement of RPS-eligible energy and of TRECs, all procurement from generators of RPS-eligible energy for which the first point of interconnection with the WECC interconnected transmission system is not physically located within California and is also not a facility for which the first point of interconnection with the WECC interconnected transmission system lies in the CAISO or another California balancing authority area, should be considered REC-only procurement for RPS compliance purposes.

11. Transactions of the form described in paragraph 10, above, that were approved by the Commission prior to the effective date of this decision should be counted as REC-only transactions as of the effective date of this decision. All deliveries from such transactions prior to the effective date of this decision should count as bundled transactions.

12. A temporary reviewable limit on the proportion of annual RPS procurement obligations that can be met by using TRECs should be imposed on the three large IOUs.

13. A reviewable cap on the price a utility may pay for a TREC should be imposed.

14. The temporary price cap for IOU purchases of TRECs should not be treated as a per se reasonable price for a TREC.

15. IOUs should include proceeds of the sale of TRECs in their ERRA or ECAC accounts, or equivalents (such as power purchase accounts) for the benefit of ratepayers. Any IOU not currently having an appropriate accounting method should file an advice letter within 90 days of the date of this decision proposing an accounting method.

16. In order to allow multi-jurisdictional utilities to recover the reasonable costs of REC-only contracts procured solely for California RPS compliance, such contracts should be submitted for Commission approval via advice letter.

17. In order to facilitate the integration of REC-only transactions into the RPS flexible compliance rules, the Director of Energy Division should be authorized, consistent with the ALJ's Reporting Ruling, to make revisions to the RPS compliance spreadsheet and other RPS reporting formats to implement the requirements and conditions set forth in this order. Such revisions should include but not be limited to reports on TREC purchases, sales, and prices.

18. In order to facilitate the integration of REC-only transactions into the RPS procurement process, the Director of Energy Division should be authorized to apply current procedures and methods of review of bundled contracts to REC-only contracts, with the exception that the fast-track procedure authorized by D.09-06-050 should not now be applied to REC-only contracts.

19. In order to facilitate the integration of REC-only transactions into the RPS procurement process, the Director of Energy Division should be authorized to determine the price of the TRECs in transactions for both RECs and energy in

which no separate price for RECs is indicated and where the TRECs are associated with energy from generators of RPS-eligible energy for which the first point of interconnection with the WECC interconnected transmission system is not physically located within California and is also not a facility for which the first point of interconnection with the WECC interconnected transmission system lies in the CAISO or another California balancing authority area.

20. In order to allow the use of TRECs for RPS compliance as soon as practicable, this order should be effective immediately.

O R D E R

IT IS ORDERED that:

1. Renewable energy credits that are procured and traded separately from the associated energy generated by a facility that is eligible for the California renewables portfolio standard may be used for compliance with the California renewables portfolio standard in accordance with the rules set forth in this decision.

2. Procurement and trading of renewable energy credits for compliance with the California renewables portfolio standard in accordance with the rules set forth in this decision may commence on the effective date of this decision.

3. Only renewable energy credits tracked and retired in the Western Renewable Energy Generation Information System shall be used for compliance with the California renewables portfolio standard.

4. Any renewable energy credits tracked in the Western Renewable Energy Generation Information System that conform to the requirements of Decision 08-08-028 and any subsequent Commission decision or any applicable California legislation characterizing renewable energy credits may be used for

compliance with the California renewables portfolio standard, subject to the restrictions in Ordering Paragraphs 8 and 9, below.

5. Any renewable energy credits tracked in the Western Renewable Energy Generation Information System associated with electricity that is eligible for the California renewables portfolio standard that was generated on or after January 1, 2008 may be procured and traded separately from the associated energy, subject to the restrictions set forth in Ordering Paragraphs 8, 9, and 14 below.

6. As of the effective date of this decision, all procurement from generators of energy eligible under the California renewables portfolio standard that expressly transfers only renewable energy credits and not energy will be considered procurement of renewable energy credits only for purposes of compliance with the California renewables portfolio standard.

7. As of the effective date of this decision, all procurement from generators of energy eligible under the California renewables portfolio standard for which the first point of interconnection with the Western Electricity Coordinating Council interconnected transmission system is not physically located within California and is also not a facility for which the first point of interconnection with the Western Electricity Coordinating Council interconnected transmission system lies in the California Independent System Operator or another California balancing authority area will be considered procurement of renewable energy credits only for purposes of compliance with the California renewables portfolio standard. All deliveries from such transactions prior to the effective date of this decision will be counted as bundled transactions procuring both renewable energy credits and energy for purposes of compliance with the California renewables portfolio standard.

8. Renewable energy credits associated with electricity generation that is eligible for the California renewables portfolio standard delivered under procurement contracts signed prior to 2005 with load-serving entities obligated under the California renewables portfolio standard or with California publicly owned utilities that do not allocate ownership or disposition of the renewable energy credits shall be used for compliance with the California renewables portfolio standard only if they are not transferred to an entity other than the original buyer in the Western Renewable Energy Generation Information System prior to being retired for compliance with the California renewables portfolio standard.

9. Renewable energy credits associated with electricity generation that is eligible for the California renewables portfolio standard delivered under procurement contracts for both energy and renewable energy credits pursuant to the federal Public Utility Regulatory Policies Act of 1978 with qualifying facilities signed after January 1, 2005 shall be used for compliance with the California renewables portfolio standard only if they are not transferred to an entity other the original buyer in the Western Renewable Energy Generation Information System prior to being retired for compliance with the California renewables portfolio standard.

10. In order to be used for compliance with the California renewables portfolio standard, renewable energy credits may be retained in active sub-accounts in the Western Renewable Energy Generation Information System for no more than three calendar years (inclusive of the year in which the electricity associated with the renewable energy credits was generated) after the electricity associated with the renewable energy credits was generated before being transferred to the Western Renewable Energy Generation Information System retirement sub-

account of a load-serving entity obligated under the California renewables portfolio standard.

11. Once renewable energy credits are retired in the Western Renewable Energy Generation Information System for use for compliance with the California renewables portfolio standard, they may be banked for compliance with the California renewables portfolio standard in future years in accordance with the flexible compliance rules for the California renewables portfolio standard.

12. Subject to the restrictions in Ordering Paragraphs 8, 9, and 14, the renewable energy credits from bundled contracts currently delivering energy eligible under the California renewables portfolio standard may be unbundled and traded separately from the associated energy in accordance with the rules set forth in this decision, so long as, once the renewable energy credits have been sold, the associated energy is not used for compliance with the California renewables portfolio standard.

13. Subject to the restrictions in Ordering Paragraphs 8, 9, and 14, the renewable energy credits from bundled contracts scheduled to deliver energy eligible for the California renewables portfolio standard in the future may be unbundled and traded on a forward basis separately from the associated energy, so long as, once the renewable energy credits are generated, they are tracked in the Western Renewable Energy Generation Information System and, once the renewable energy credits have been sold, the associated energy is not used for compliance with the California renewables portfolio standard.

14. Renewable energy credits may not be unbundled and traded from the first three years of deliveries under any bundled procurement contract for compliance with the California renewables portfolio standard that has been

earmarked to apply to a shortfall in meeting the annual procurement target of a load-serving entity obligated under the California renewables portfolio standard in the year the bundled contract was signed, subject to the restrictions in Ordering Paragraphs 8 and 9.

15. Contracts for delivery of renewable energy credits only between a load-serving entity and one generator of energy eligible under the California renewables portfolio standard that supplies all the renewable energy credits in the contract may be earmarked for purposes of compliance with the California renewables portfolio standard, but no other types of contracts for delivery of renewable energy credits only may be earmarked.

16. Renewable energy credits may not be sold or traded from the first three years of deliveries from a procurement contract for renewable energy credits only standard that has been earmarked to apply to a shortfall in meeting the annual procurement target of a load-serving entity obligated under the California renewables portfolio standard in the year the contract for the delivery of renewable energy credits was signed.

17. Pacific Gas and Electric Company, San Diego Gas and Electric Company, and Southern California Edison Company may each use renewable energy credits procured from contracts for renewable energy credits only to meet no more than 40 per cent of their annual procurement targets for the California renewables portfolio standard, beginning with the 2010 compliance year. Within 24 months of the effective date of this decision, the Commission will review this limit on the use of renewable energy credits procured from contracts for renewable energy credits only, and may modify, extend, or eliminate the limit.

18. No renewable energy credits for which the levelized amount paid is greater than $50.00 per renewable energy credit may be used by any investor-

owned utility for compliance with the California renewables portfolio standard. This limit applies only to those renewable energy credits procured by multi-jurisdictional utilities exclusively for use in complying with their California renewables portfolio standard procurement obligations. Within 24 months of the effective date of this decision, the Commission will review this price cap, and may modify, extend, or eliminate the price cap.

19. Investor owned utilities that have reached the procurement cost limitation for compliance with the California renewables portfolio standard set forth in Public Utilities Code section 399.15(d) may enter into voluntary transactions for renewable energy credits.

20. Investor-owned utilities shall promptly set up an appropriate accounting method to apply proceeds of the sale of renewable energy credits for the benefit of ratepayers. Any investor-owned utility not currently having an appropriate accounting method shall file an advice letter within 90 days of the effective date of this decision proposing an accounting method.

21. Any contracts for renewable energy credits only that are procured solely for compliance with the California renewables portfolio standard for which a multi-jurisdictional utility seeks recovery of costs must be submitted via advice letter.

22. The Director of Energy Division is authorized to review existing reporting formats and tools for the California renewables portfolio standard and undertake appropriate revisions to allow complete reporting and monitoring of the provisions in this order.

23. The Director of Energy Division is authorized to apply current procedures and methods of review of bundled contracts for procurement under the California renewables portfolio standard by investor-owned utilities to contracts

for renewable energy credits only, with the exception that the fast-track procedure authorized by Decision 09-06-050 may not now be applied to procurement of renewable energy credits only.

24. The Director of Energy Division is authorized to develop and apply a method for inferring the price of renewable energy credits in transactions for both renewable energy credits and energy in which no separate price for the renewable energy credits is indicated and where the renewable energy credits are associated with energy from generators of energy eligible under the California renewables portfolio standard for which the first point of interconnection with the Western Electricity Coordinating Council interconnected transmission system is not physically located within California and is also not a facility for which the first point of interconnection with the Western Electricity Coordinating Council interconnected transmission system lies in the California Independent System Operator or another California balancing authority area.

25. The Director of Energy Division may require the submission of appropriate documentation to verify compliance with any of the requirements set forth above, including but not limited to purchases, sales, and prices of renewable energy credits.

26. The following non-modifiable standard terms and conditions shall be included in all contracts for procurement for compliance with the California renewables portfolio standard, whether bundled contracts or purchases of renewable energy credits only:

a. STC REC-1. Transfer of renewable energy credits

Seller and, if applicable, its successors, represents and warrants that throughout the Delivery Term of this Agreement the renewable energy credits transferred to Buyer conform to the definition and attributes required for compliance with the California Renewables Portfolio Standard, as set forth in California Public Utilities Commission Decision 08-08-028, and as may be modified by subsequent decision of the California Public Utilities Commission or by subsequent legislation. To the extent a change in law occurs after execution of this Agreement that causes this representation and warranty to be materially false or misleading, it shall not be an Event of Default if Seller has used commercially reasonable efforts to comply with such change in law.

b. STC REC-2 . Tracking of RECs in WREGIS

Seller warrants that all necessary steps have been taken to allow the renewable energy credits transferred to Buyer to be tracked in the Western Renewable Energy Generation Information System.

27. The following non-modifiable standard terms and conditions shall be included in all contracts for purchase of renewable energy credits only of regulated utilities other than multi-jurisdictional utilities:

STC REC-3. CPUC Approval

"CPUC Approval" means a final and non-appealable order of the CPUC, without conditions or modifications unacceptable to the Parties, or either of them, which contains the following terms:

(a) approves this Agreement in its entirety, including payments to be made by the Buyer, subject to CPUC review of the Buyer's administration of the Agreement; and

(b) finds that any procurement pursuant to this Agreement is procurement of renewable energy credits that conform to the definition and attributes required for compliance with the California Renewables Portfolio Standard, as set forth in California Public Utilities Commission Decision 08-08-028, and as may be modified by subsequent decision of the California Public Utilities Commission or by subsequent legislation, for purposes

> of determining Buyer's compliance with any obligation that it may have to procure eligible renewable energy resources pursuant to the California Renewables Portfolio Standard (Public Utilities Code Section 399.11 *et seq.*), Decision 03-06-071, or other applicable law.
>
> CPUC Approval will be deemed to have occurred on the date that a CPUC decision containing such findings becomes final and non-appealable.

28. The assigned Commissioner or assigned Administrative Law Judge (ALJ) in Rulemaking 08-08-009 or its successor is authorized to issue any rulings necessary to facilitate revision of the RPS reporting methods to accommodate the use of tradable RECs for RPS compliance.

29. All utilities that have submitted procurement plans for compliance with the California renewables portfolio standard for 2010 in Rulemaking 08-08-009 shall, if necessary, amend those plans to include their planning for the use of renewable energy credits to meet procurement obligations under the California renewables portfolio standard in 2010, on a schedule to be set by the assigned Commissioner or assigned ALJ.

30. Not earlier than March 1, 2010, utilities may file advice letters for approval of contracts for renewable energy credits only that conform to the requirements of this order.

31. The issues in the Second Amended Scoping Memo and Ruling of Assigned Commissioner (February 25, 2008) have either been transferred to Rulemaking (R.) 08-08-009 by the Assigned Commissioner's Ruling Transferring Consideration of Certain Issues from R.06-02-012 to R.08-08-009 (April 3, 2009) or resolved in this proceeding. This proceeding is therefore resolved for the purpose of compliance with Public Utilities Code section 1701.5. However, the

proceeding remains open to address the Petition for Modification of Decision 06-10-019, filed October 29, 2009.

This order is effective today.

Dated _____, at San Francisco, California.

APPENDIX A

Public Utilities Code Section 399.16

§ 399.16. Use of renewable energy credits to satisfy the requirements of the renewables portfolio standard

(a) The commission, by rule, may authorize the use of renewable energy credits to satisfy the requirements of the renewables portfolio standard established pursuant to this article, subject to the following conditions:

(1) Prior to authorizing any renewable energy credit to be used toward satisfying annual procurement targets, the commission and the Energy Commission shall conclude that the tracking system established pursuant to subdivision (c) of Section 399.13, is operational, is capable of independently verifying the electricity generated by an eligible renewable energy resource and delivered to the retail seller, and can ensure that renewable energy credits shall not be double counted by any seller of electricity within the service territory of the Western Electricity Coordinating Council (WECC).

(2) A renewable energy credit shall be counted only once for compliance with the renewables portfolio standard of this state or any other state, or for verifying retail product claims in this state or any other state.

(3) The electricity is delivered to a retail seller, the Independent System Operator, or a local publicly owned electric utility.

(4) All revenues received by an electrical corporation for the sale of a renewable energy credit shall be credited to the benefit of ratepayers.

(5) No renewable energy credits shall be created for electricity generated pursuant to any electricity purchase contract with a retail seller or a local publicly owned electric utility executed before January 1, 2005, unless the contract contains explicit terms and conditions specifying the ownership or disposition of those credits. Deliveries under those contracts shall be tracked through the accounting system described in subdivision (b) of Section 399.13 and included in the baseline quantity of eligible renewable energy resources of the purchasing retail seller pursuant to Section 399.15.

(6) No renewable energy credits shall be created for electricity generated under

any electricity purchase contract executed after January 1, 2005, pursuant to the federal Public Utility Regulatory Policies Act of 1978 (16 U.S.C. Sec. 2601 et seq.). Deliveries under the electricity purchase contracts shall be tracked through the accounting system described in subdivision (b) of Section 399.12 and count toward the renewables portfolio standard obligations of the purchasing retail seller.

(7) The commission may limit the quantity of renewable energy credits that may be procured unbundled from electricity generation by any retail seller, to meet the requirements of this article.

(8) No electrical corporation shall be obligated to procure renewable energy credits to satisfy the requirements of this article in the event that the total costs expended above the applicable market prices for the procurement of eligible renewable energy resources exceeds the cost limitation established pursuant to subdivision (d) of Section 399.15.

(9) Any additional condition that the commission determines is reasonable.

(b) The commission shall allow an electrical corporation to recover the reasonable costs of purchasing renewable energy credits in rates.

(END OF APPENDIX A)

APPENDIX B

STAFF STRAW PROPOSAL

COMPLIANCE QUESTIONS	STRAW PROPOSAL
Market Participants	
• Who can participate in the California compliance REC market?	There are no limits on market participation.
• Should the REC trading rules differ for third parties (any non RPS-obligated entity)?	To the greatest extent possible, rules should be consistent for all participants.
TREC Usage Limits	
• Pursuant to Pub. Util. Code § 399.16(a)(7), the Commission may limit the quantity of tradable RECs (TRECs) procured for RPS compliance.	To address usage limits, a minimum quota mechanism, similar to the one set forth in D.07-05-028 for short term contracts, will be applied to TRECs.
• Should there be a limit on the quantity of tradable RECs that can be used by LSEs for RPS compliance? Should the limit be different for different classes of LSEs?	The minimum quota will allow, in any calendar year, LSEs to count short-term REC contracts for RPS compliance only if, in the same calendar year, the LSE signs long-term bundled contracts or bundled contracts with new facilities whose aggregated annual expected deliveries[1] total at least 0.25% of its prior year's retail sales.

[1] This is different from the minimum quota framework set forth in D.07-05-028, which requires that the *total* deliveries expected from the long-term contracts and contracts with new facilities are greater than 0.25% of prior year's retail sales before short-term contracts can be signed.

Flexible Compliance: Banking

• Should tradable RECs have an "expiration date"?

• Should RPS-obligated LSEs be able to "bank" tradable RECs without limitation as to quantity?

• Should RPS-obligated LSEs be able to "bank" tradable RECs without temporal limitations?

Note: Currently, there are no temporal or quantity restrictions for banking bundled RPS contracts. Flexible compliance is tracked for each LSE in its Reporting and Compliance Spreadsheet submitted in biannual performance reports required by D.06-10-050.

Banking within WREGIS

In order for tradable RECs to be used for RPS compliance, they must be retired[2] in WREGIS within three compliance years (including compliance year in which it was generated).[3]

Banking after WREGIS

After RECs are retired in WREGIS, they can be banked indefinitely for RPS compliance purposes.

The flexible compliance for RECs and RPS bundled procurement will be tracked by the Compliance Spreadsheets submitted as part of the biannual Compliance Reports (D.06-10-050).

[2] "A Retirement Subaccount is used as a repository for WREGIS Certificates that the Account Holder wants to designate as Retired and remove from circulation (e.g., to demonstrate compliance with a state's RPS). Once a Certificate has been transferred into a WREGIS Retirement Subaccount, it cannot be transferred again to any other Account." (WREGIS Operating Rules, p. 6.)

[3] The LSEs should create a banking Active sub-account within WREGIS to 'hold' RECs until they are retired for compliance purposes.

Flexible Compliance: Earmarking	
• Should earmarking[4] be allowed for TRECs?	No tradable RECs can be used for earmarking. No forward REC contracts can be used for earmarking.
Treatment of Bundled[5] Contracts	
• What types of existing and future bundled RPS contracts can be unbundled for REC trading (excluding contracts pursuant to Pub. Util. Code § 399.16(a) for which no RECs will be created)?	Beginning on January 1, 2009, LSEs can unbundle and sell the RECs (that are tracked in WREGIS) from currently operational RPS projects. (Once the RECs are sold, they cannot be used for RPS compliance by the selling LSE. The null power also cannot be used for RPS compliance by any LSE.) Beginning on January 1, 2009, LSEs can unbundle and sell RECs (that are tracked in WREGIS), on a forward basis, from Commission-approved RPS projects that are not yet online. (Once the RECs are sold, they cannot be used for RPS compliance by the selling LSE. The null power also cannot be used for RPS compliance.)

[4] Earmarking is a flexible compliance tool that LSEs can conditionally use to defer deficits. See D.06-10-050, Attachment A, pages 9-10.

[5] A bundled RPS contract is a power purchase agreement that conveys all energy, capacity and environmental attributes to a load-serving entity.

	However, LSEs cannot unbundle the first year of a bundled contract if it has been set aside for RPS earmarking. - LSEs can unbundle subsequent years of an earmarked bundled contract
Cost Recovery	
• What is the review and approval process for IOU REC contracts? *(Currently, all IOU bundled RPS contracts must be filed by advice letter. The contract review process for short-term bundled contracts is being separately developed in R.06-02-012.)* • What price evaluation mechanism should the Commission use to evaluate whether a REC contract price is reasonable? • Should the Commission establish standard terms and conditions (modifiable and/or non-modifiable) to be contained in REC contracts?	<u>Review process:</u> Long-term REC contracts (either from a solicitation or bilateral) must be filed with the Commission by advice letter. All short-term REC contracts should follow the same approval process that is established in R.06-02-012 for short-term bundled contracts. <u>Price evaluation criteria:</u> IOUs should solicit REC contracts in their annual renewable RFOs. As part of this process, the IOUs must modify their least cost, best fit (LCBF) evaluation methodologies to shortlist the most competitive REC contracts. The LCBF methodology should compare the benefits and costs of bundled contracts with REC transactions and evaluate them relative to the LSE's entire RPS portfolio. A price cap will also be used to protect ratepayers from unreasonable costs. The price cap for any REC contract (short term,

long term, bid into a solicitation, bilateral) is $35/REC levelized using the IOU's approved discount rate.

Bilateral REC contracts are allowed also and are subject to the $35/REC levelized price cap.

Standard terms and conditions:

Each REC contract must contain a Commission-approved term identifying the RECs and their attributes transferred to the buyer. This term is not modifiable.

(END OF APPENDIX B)

APPENDIX C

NEW AND REVISED STANDARD TERMS AND CONDITIONS

STC REC-1 Transfer of renewable energy credits (Applies to all REC-only and bundled contracts)

Non-modifiable

Seller and, if applicable, its successors, represents and warrants that throughout the Delivery Term of this Agreement the renewable energy credits transferred to Buyer conform to the definition and attributes required for compliance with the California Renewables Portfolio Standard, as set forth in California Public Utilities Commission Decision 08-08-028, and as may be modified by subsequent decision of the California Public Utilities Commission or by subsequent legislation. To the extent a change in law occurs after execution of this Agreement that causes this representation and warranty to be materially false or misleading, it shall not be an Event of Default if Seller has used commercially reasonable efforts to comply with such change in law.

STC REC-2 Tracking of RECs in WREGIS (Applies to all REC-only and bundled contracts) Non-modifiable

Seller warrants that all necessary steps have been taken to allow the renewable energy credits transferred to Buyer to be tracked in the Western Renewable Energy Generation Information System.

STC REC-3 CPUC Approval (Applies to REC-only contracts of regulated utilities other than multi-jurisdictional utilities)

Non-Modifiable

"CPUC Approval" means a final and non-appealable order of the CPUC, without conditions or modifications unacceptable to the Parties, or either of them, which contains the following terms:

(a) approves this Agreement in its entirety, including payments to be made by the Buyer, subject to CPUC review of the Buyer's administration of the Agreement; and

(b) finds that any procurement pursuant to this Agreement is procurement of renewable energy credits that conform to the definition and attributes required for compliance with the California Renewables Portfolio Standard, as set forth in California Public Utilities Commission Decision 08-08-028, and as may be modified by subsequent decision of the California Public Utilities Commission or by subsequent legislation, for purposes of determining Buyer's compliance with any obligation that it may have to procure eligible renewable energy resources pursuant to the California Renewables Portfolio Standard (Public Utilities Code Section 399.11 *et seq.*), Decision 03-06-071, or other applicable law.

CPUC Approval will be deemed to have occurred on the date that a CPUC decision containing such findings becomes final and non-appealable.

(END OF APPENDIX C)

APPENDIX D

Summary of TREC Rules Announced in This Decision

This decision sets rules for the use of TRECs for RPS compliance and for the TREC market. The orders and guidance (while not limited by this summary) are summarized below. Other sources relevant to TRECs include D.08-08-028, the CEC's *RPS Eligibility Guidebook*, and the WREGIS Operating Rules.

What is a tradable renewable energy credit (TREC) transaction?

1) A transaction in which an entity procures only a REC (and not the underlying energy) from another entity, or
2) All procurement from generators of RPS-eligible energy for which the first point of interconnection with the WECC interconnected transmission system is not physically located within California and is also not a facility for which the first point of interconnection with the WECC interconnected transmission system lies in the CAISO or another California balancing authority area.

Effective date of REC trading

- RPS-obligated load-serving entities[1] may begin procuring and trading RECs on the effective date of this decision.

Eligibility of TRECs

- All TRECs must be associated with RPS-eligible energy generated on or after January 1, 2008.
- All TRECs must be tracked in WREGIS to be used for RPS compliance.
- The RECs from bundled contracts currently delivering RPS-eligible energy may be unbundled and traded separately from the associated energy, subject to the exceptions below.

[1] Load-serving entities (LSEs) include: investor-owned utilities (IOUs), energy service providers (ESPs), and community choice aggregators (CCAs).

- The RECs from bundled contracts scheduled to deliver RPS-eligible energy in the future may be unbundled and traded on a forward basis separately from the associated energy, subject to the exceptions below.
- Exceptions:
  1. RECs associated with RPS-eligible energy delivered under procurement contracts signed prior to 2005 with California RPS-obligated LSEs or publicly owned utilities cannot be traded unless the contract explicitly assigns ownership or disposition of the RECs.
  2. RECs associated with RPS-eligible energy delivered under procurement contracts pursuant to the Federal Public Utility Regulatory Policies Act of 1978 with qualifying facilities signed after January 1, 2005 can not be traded.

Flexible compliance rules for TRECs

Banking

- In order to be used for RPS compliance, TRECs may be retained in active sub-accounts in WREGIS for no more than three calendar years (inclusive of the year in which the electricity associated with the RECs was generated) after the electricity associated with the RECs was generated.
- Once RECs are retired in WREGIS for RPS compliance, they may be banked for RPS compliance in future years in accordance with the RPS flexible compliance rules.

Earmarking

- TREC contracts between an LSE and one RPS-eligible generator may be earmarked for RPS compliance purposes, but no other types of TREC contracts may be earmarked.
- An LSE may not unbundle and trade RECs associated with energy generated in the first three years of an RPS contract (whether bundled or REC-only) that is being used for earmarking.

Filling compliance shortfalls

REC-only contracts may be used to make up shortfalls in APT, so long as the total use of TRECs for the year of the shortfall does not exceed the applicable limit on TRECs usage.

Temporary limit on use of TRECs for RPS compliance

- PG&E, SCE, and SDG&E may meet no more than 40% of their APT with TRECs. This limitation will be reviewed by the Commission within two years of this decision.

Contract review and approval of TREC transactions

- IOUs may submit TREC contracts for CPUC review and approval by advice letter starting March 1, 2010.
- Energy Division staff may use present methods of analyzing advice letters for bundled contracts, and make any adaptations necessary, for reviewing REC-only contracts, except that the fast-track process set out in D.09-06-050 does not apply to TRECs. These methods may be reviewed in R.08-08-009.
- TRECs for which an IOU pays more than $50/TREC may not be used for RPS compliance. This price will be reviewed by the Commission within two years of this decision.
- The temporary $50/TREC price cap does not make a TREC priced at or below $50 reasonable. A utility will still have to provide sufficient information in its advice letter filing to demonstrate that the TREC contract is reasonable.
- All REC-only contracts must contain the following two non-modifiable standard terms and conditions: (1) Transfer of renewable energy credits and (2) Tracking of RECs in WREGIS.
- REC-only contracts of California IOUs other than MTUs must contain a third STC: Commission Approval.
- IOUs may enter into voluntary TREC transactions even if their cost limitation pursuant to § 399.15(d) has been reached.
- TREC purchases are not eligible for any above-market funds set aside pursuant to § 399.15(d)(1). No IOU is required to purchase TRECs to meet RPS obligations if it has otherwise exceeded its cost limitation for bundled contracts, but may do so voluntarily.

Delivery rules for TREC transactions

- The decision on whether a TREC contract satisfies RPS delivery rules remains with the CEC. For bundled contracts, the Energy Division may

request written confirmation from the CEC about whether the contract complies with RPS delivery rules.

(END OF APPENDIX D)

APPENDIX E

SERVICE LIST IN R.06-02-012

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(END OF APPENDIX E)

INFORMATION REGARDING SERVICE

I have provided notification of filing to the electronic mail addresses on the attached service list (Appendix E).

Upon confirmation of this document's acceptance for filing, I will cause a Notice of Availability of the filed document to be served upon the service list to this proceeding by U.S. mail. The service list I will use to serve the Notice of Availability of the filed document is current as of today's date.

Dated December 23, 2009, at San Francisco, California.

/s/ JOYCE TOM
Joyce Tom

N O T I C E

Parties should notify the Process Office, Public Utilities Commission, 505 Van Ness Avenue, Room 2000, San Francisco, CA 94102, of any change of address to ensure that they continue to receive documents. You must indicate the proceeding number on the service list on which your name appears.

* *

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