

**BEFORE THE
PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking to Continue Implementation and Administration of California Renewables Portfolio Standard Program	R. 11-05-005
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**THE REGENTS OF THE UNIVERSITY OF CALIFORNIA
2014 RENEWABLES PORTFOLIO STANDARD
PROCUREMENT PLAN**

PUBLIC VERSION

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July 2, 2014

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In accordance with the Assigned Commissioner’s Ruling (“ACR”), the Regents of the University of California submit its 2014 Renewables Portfolio Standard (“RPS”) Procurement Plan. In fulfilling its reporting obligations, the Regents of the University of California respond to paragraphs 6.1 through 6.4, 6.6, 6.12, and 6.14 of the ACR as required of Electric Service Providers.

6.1. Assessment of RPS Portfolio Supplies and Demand - § 399.13(a)(5)(A)

Provide a written description assessing annual and multi-year portfolio supplies and demand in relation to RPS requirements, the RPS program, and the RPS program's overall goals to determine the retail seller's optimal mix of eligible renewable energy resources. The assessment should consider, at a minimum, a 20-year time frame with a detailed 10-year planning horizon that takes into account both portfolio supplies and demand. This written description must include the retail seller's need for RPS resources with specific deliverability characteristics, such as, peaking, dispatchable, baseload, firm, and as-available capacity as well as any additional factors, such as ability and/or willingness to be curtailed, operational flexibility, etc. This written description must also explain how the proposed renewable energy portfolio will align with expected load curves and durations, as well as how it optimizes cost, value and risk for the ratepayer. Where applicable, assessment should also identify and incorporate impacts of overall energy portfolio requirements (not just RPS portfolio requirements), recent legislation, other Commission proceedings (e.g., R.13-12-010, the long-term procurement plans proceeding), other agencies requirements, and other policies or issues that would impact RPS demand and procurement. Additionally, the assessment should describe and incorporate RPS lessons learned over the past year, including RPS trends and potential future trends. Lastly, it must also explain how the quantitative analysis provided in response to section 6.5 supports the assessment.

The Regents of the University of California ("University") will assume responsibility for over 500 Direct Access accounts associated with its facilities beginning in January, 2015. These accounts are currently served by Noble Americas Energy Solutions and have historically represented around 300,000 MWh/year of load. With the addition of some new behind the meter generation at University of California Santa Cruz, the retail forecast for 2015 has reduced to approximately 262k MWh/year.

Through service with Noble Americas Energy Solutions, the University has primarily depended on CAISO market purchases for energy. By becoming its own Electric Service Provider (ESP), the University will be taking control of its own energy future. With respect to procurement of renewable supplies, the University plans to separate short-term and long-term procurement. The long-term would be for 2017 and beyond while the short-term would be through the end of Compliance Period 2.

For the long-term, the University are seeking Power Purchase Agreements with term of 20-25 years that begin in (just prior to) 2017. UC staff has met with numerous developers in seeking utility scale solar renewable projects that are directly connected to the CAISO and can meet the requirements for a Category 1 Renewable Energy. The procurement quantity will be at minimum be 33% of the University forecasted load of

262k MWh, with the potential to be higher than that level depending on the appetite of the Governing Board that has representatives from various UC campuses to increase the cost of its electric generation service to obtain a cleaner portfolio.

The load profile for the University of California is relatively flat throughout the year. Based on preliminary indications, solar projects are the most cost-effective renewable supply to add to the portfolio, driven largely by the ITC that will expire at the end of 2016. The University intends to procure its first major piece of a renewable portfolio with a solar purchase and may consider wind, geothermal or biomass in subsequent procurement activities to provide more energy during the off-peak periods when solar facilities have limited output.

As for short-term, the University plans to issue a solicitation(s) after procurement of a long-term renewable contract is closer to completion. Some developers have indicated that they prefer to begin delivering RPS eligible energy in 2016; as such the University will pursue shorter-term RPS purchases to meet the requirements for Compliance Period 2 while cognizant of potentially overlapping long term purchases.

In considering operational flexibility, the University intends to obtain full curtailment rights, both for reliability and economic reasons in its contracts to address long-term concerns about system over-generation conditions. In addition, the University will be required to meet the new Flexible Resource Adequacy requirements by contracting with generators that have an Effective Flexible Capacity (EFC) in support of reliable grid operations.

6.2. Project Development Status Update - § 399.13(a)(5)(D)

Provide a written status update on the development schedule of all eligible renewable energy resources currently under contract but not yet delivering generation. This written status update may rely upon the most recently filed Project Development Status Reports and should differentiate status updates based on whether projects are pre-construction, in construction, or post-construction. Providing a copy of the Project Development Status Report will not be a sufficient response. The status updates provided in the written description must be reflected in the quantitative analysis provided in response to section 6.5, below. Given this analysis, discuss how the status updates will impact the retail seller's net short and its procurement decisions for a 10-year planning horizon.

The University is in the process of seeking Power Purchase Agreement(s) for Renewable Energy and anticipates completing this process by the end of 2014 for delivery beginning in late 2016. The procurement quantity will at minimum be 33% of forecasted retail sales and potentially higher. In selecting a project, the University have emphasized to developers that project viability is a key consideration as it relates to interconnection, site control, and permitting.

6.3. Potential Compliance Delays - § 399.13(a)(5)(B)

Describe in writing any potential issues that could delay RPS compliance, including, but not limited to inadequate transmission capacity, delayed substation construction, financing, permitting, and the relationship, if any, to deliveries and project development delays. Describe the steps taken to account for and minimize these potential compliance delays. The potential compliance delays included in the written description must be reflected in the quantitative analysis provided in response to section 6.5. Given this analysis, discuss how the potential compliance delays will impact the retail seller's RPS net short and its procurement decisions.

For compliance in the long-term, the risks depend on the project selected through the procurement process. The University intends to complete negotiations this year for a viable project that has a high likelihood of completion by the end of 2016 to provide delivery for 2017 and beyond. Included in the contracts will be delay damages that will provide incentive for developers to meet agreed to the timelines. Developers have an added incentive to become operational by the end of 2016 to receive the federal Investment Tax Credit (ITC).

For compliance in the short-term, the primary risk would be if there was insufficient liquidity to procure Category 1 RPS for delivery in 2015 and 2016. Based on preliminary surveys of the market, there seems to be adequate market supply.

6.4. Risk Assessment - § 399.13(a)(5)(F)

Provide a written assessment of the risk in the RPS portfolio in relation to RPS compliance requirements. Risk assessment should describe risk factors such as those described above regarding compliance delays, as well as, but not limited to, the following: lower than expected generation, variable generation, regulatory risk, resource availability (e.g., biofuel supply, water, etc.) and impacts to eligible renewable energy resource projects currently under contract. The risk assessment provided in the written description must be reflected in the quantitative analysis provided in response to section 6.5. Given this analysis, discuss how the risk assessment will impact the retail seller's net short and its procurement decisions. The written assessment must explain how quantitative analysis provided in response to section 6.5 supports this response.

As mentioned above, the University faces risks associated with delays in a project coming online at the planned for time. Beyond project delay risks, the variability of output from a generator under contract is a significant risk. Given the small load, the University may meet their entire RPS requirement with a single project. Having no risk pooling benefits as entities with larger requirements (and more projects in their portfolio) the University is particularly vulnerable if output from the facility contracted with is not generating at the levels forecasted.

Also due to the small load, the University is vulnerable to changes in the RPS requirement. For example, if the University were to execute a contract with a 35 MW solar facility that would generate ~100,000 MWh/year, that would place the University at ~37% RPS. If the requirement were to shift to 40%, the University would have to regularly go to the market for small short-term purchases or sign a contract with another utility scale project that would result in a significant margin above the regulatory requirements.

Another risk for the University is the performance of behind the meter generation assets such as cogeneration facilities and (renewable) distributed generation. To the extent these generation facilities are not operating at expected output levels, there will be a greater volume of wholesale energy required to meet the load and accordingly a greater amount of renewable energy required. Conversely, to the extent these generation facilities operate at higher than expected output levels, the University will have procured in excess of the RPS standard.

The University is considering procuring beyond the minimum requirements as part of policies to become carbon neutral over time that would reduce and practically eliminate compliance risk. However, the trajectory towards this goal is not yet decided.

**6.6. “Minimum Margin” of Procurement -
§ 399.13(a)(4)(D)**

Section 399.13(a)(4)(D) provides, in part, that the Commission shall adopt, by rulemaking, “[a]n appropriate minimum margin of procurement above the minimum procurement level necessary to comply with the renewable portfolio standard to mitigate the risk that renewable projects planned or under contract are delayed or canceled.” This ruling directs PG&E, SCE, and SDG&E to identify in their proposed 2014 RPS Procurement Plans the assumed minimum margin of procurement above the minimum procurement level necessary to comply with the RPS program to mitigate the risk that renewable projects under contract are delayed or terminated. Each proposed 2014 RPS Procurement Plan shall include a methodology and inputs regarding the utility’s proposed minimum margin of over-procurement metric. The methodology should be representative of and consistent with the utility’s inputs and assumptions in section 6.5. Also, the metric should be used to calculate the utility’s procurement needs pursuant to section 6.5. Additionally, use of any sensitivities or scenarios should be described. If the utility’s assumed minimum margin of over-procurement is not used to calculate a utility’s net short provided in response to section 6.5, then the utility should clearly describe the reasons and any assumptions or other additional methodologies used to calculate the utility’s proposed over-procurement. Reasons and assumptions should be supported with quantitative information to the extent possible.

The University is considering procuring at least the minimum requirements with a long-term PPA with the over-procurement margin depending on the size of projects considered. Due to the lumpiness of projects, the University may contract with a generator that is forecasted to produce a 40% RPS outcome. To the extent market conditions are favorable, the University may procure significantly beyond its compliance obligations as part of its Carbon Neutrality goals.

6.12. Important Changes to Plans Noted

A statement identifying and summarizing the important changes between the 2013 and 2014 RPS Procurement Plans must be included. This summary could be in a table or bullet point format, but it should not be a reprint of the two plans with strike-out and underlined inserts. In addition to identifying and summarizing the important changes, the plan should also include an explanation and justification of reasonableness for each important change from 2013 to 2014.

This is the first RPS Procurement Plan submitted by the University. As such, there are no changes to identify or summarize from the previous submission.

6.14. Safety Considerations

As stated in D.13-11-024, all entities filing RPS Procurement Plans must incorporate a section on safety considerations.

In selecting a (post 2017) renewable resource to contract with, the University expects to contract with generators who have Exempt Wholesale Generators (EWG) status. That status places the generator, in part, under FERC auspices. As such, reliability and safety considerations are included via WECC standards and state safety regulations via the Division of Occupational Safety and Health (DOSH), better known as Cal/OSHA.

DATED: July 2, 2014

Respectfully submitted,

/s/

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VERIFICATION

I am an employee of The Regents of the University of California and I am authorized to make this verification on its behalf. The statements in the paper styled "THE REGENTS OF THE UNIVERSITY OF CALIFORNIA 2014 RENEWABLES PORTFOLIO STANDARD PROCUREMENT PLAN," (PUBLIC VERSION) dated July 2, 2014, are true and correct of my own knowledge, except as to matters therein stated on information and belief, and as to those matters, I believe them to be true. I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct. Executed this 2nd day of July, 2014 at Oakland, California.



Debora Obley
Associate Vice President
The Regents of the University of California