



City of Palo Alto

City Council Staff Report

(ID # 10024)

Report Type: Consent Calendar

Meeting Date: 5/13/2019

Council Priority: Climate/Sustainability and Climate Action Plan

Summary Title: Renewable Energy Certificate Transaction Authority Extension

Title: Adoption of a Resolution Extending the City Manager’s Authority to Execute Transactions Under Master Renewable Energy Certificate Purchase and Sale Agreements With Pre-qualified Suppliers in an Amount Not-to-Exceed \$5,000,000 per Year During Calendar Years 2019-2024 and Repealing Resolution Number 9379

From: City Manager

Lead Department: Utilities

Recommendation

Staff requests that the Council approve the attached resolution extending the City Manager’s authority to execute transactions under the Council-approved Master Renewable Energy Certificate Purchase and Sale Agreements (“REC Master Agreements”) and repealing Resolution No. 9379, as follows:

1. Allow for the purchase (and incidental sales) of Renewable Energy Certificates (“RECs”) via the Council-approved Master Agreements with prequalified suppliers to meet the needs of the PaloAltoGreen Program, the City’s Renewable Portfolio Standard, and the City’s Carbon Neutral Plan;
2. Maintain the annual expenditure authority for the REC purchases at \$5,000,000 annually; and
3. Extend the term for REC transactions from calendar year 2019 through calendar year 2024.

Executive Summary

Facilities that produce renewable energy receive revenues both from the sale of the energy produced at the facility and from the “environmental attribute” associated with the project. The environmental attribute is sold separately as a Renewable Energy Certificate (REC). One REC represents the environmental attribute of one megawatt-hour (MWh) of electricity

generated from a renewable energy facility. Owners of renewable energy facilities often sell the environmental attributes (RECs) associated with the renewable energy separately from the energy itself, or “unbundled.” Thus, RECs provide an additional source of funding for renewable energy projects to make them more economical to develop. The PaloAltoGreen (PAG) program, Carbon Neutral Plan, and Renewable Portfolio Standard (RPS) can use RECs to cost-effectively meet each program’s goals.

In November 2013, Council authorized the City Manager, or his designee, to buy RECs from thirteen pre-qualified suppliers with whom the City has executed REC Master Agreements ([Resolution No. 9379](#), [Staff Report 4170](#)). The authority granted by that resolution applied to transactions to meet the needs of the PAG program, the City’s RPS requirements, and the Carbon Neutral Plan, and was limited to \$5,000,000 annually through 2018. The attached resolution extends this existing authority – at the same expenditure level but with an updated set of suppliers – to enable the purchase of RECs that may be required to meet the City’s PAG, RPS, and Carbon Neutral Plan objectives in a competitive, timely, and cost-effective manner. Note that none of these Council actions will necessarily result in any REC transactions at all; these actions simply enable the procurement of RECs as needed for the programs described in this report.

Background

Since 2003, RECs have been used as the primary source of renewable energy to meet the needs of the PAG program. Between 2003 and 2009, these RECs were purchased through the City’s PAG program administrator. Starting in 2009, REC Master Agreements were established competitively and efficiently procure RECs to meet the needs of PAG. In 2011, through a competitive request for proposal (RFP) process, the City executed REC Master Agreements with 13 suppliers. Table 1 shows a summary of transactions executed to date with each supplier under the current REC Master Agreement authority.

Table 1: REC Purchase Amounts per REC Master Agreement

REC Supplier	Transaction Volume (\$)
3Degrees Group, Inc.	\$1,402,463
Bonneville Environmental Foundation	\$27,475
Constellation Energy Commodities Group	\$2,510
EDF Trading North America, LLC	\$247,549
Element Markets, LLC	\$0
Idaho Wind Partners 1, LLC	\$17,850
Lakeview Green Energy, Inc.	\$56,274
Nexant, Inc.	\$931,905
NextEra Energy Power Marketing, LLC	\$12,152
Pacific Corp.	\$988,649
Powerex Corp.	\$79,960
Shell Energy North America (US), L.P.	\$0
Sterling Planet Holdings, Inc.	\$0
TOTAL	\$3,766,787

Of these 13 suppliers, two are no longer operating or no longer selling RECs (Idaho Wind Partners 1 and Nexant, Inc.). In addition, in December 2016, Council approved a standard form REC master agreement ([Resolution No. 9652](#), [Staff Report 7428](#)), which suppliers are able to execute at any time and become enabled with the City. Staff is in the process of executing new REC master agreements with several new counterparties (including ACT Commodities, RPS Advisors, and STX Group).

Transactions allowed under the REC Master Agreements are limited to the purchase and sale of unbundled RECs. Note that these REC Master Agreements do not include individual transaction limits; the only authority limit applicable to these agreements is the annual aggregate limit of \$5 million. This is due to the fact that the RECs the City purchases under these agreements are always transferred to the City within the year in which they're purchased, and often within days of the date of purchase. Therefore, the City has no long-term exposure to counterparties under these agreements.

Discussion

RECs for PAG

Currently, the requirements of the City's PAG program are met via RECs procured through local solar projects owned by the City and through the REC Master Agreements. The PAG program is "Green-E" certified, which is a certification administered by an independent non-profit organization, the Center for Resource Solutions, which has established national and regional standards for verifying green power programs and codes of conduct regarding the use of RECs.

The RECs purchased under these Master Agreements for the PAG program are all Green-E certified, and the current market price for such RECs is about \$1 per REC.

When the City's electricity supply became 100% carbon neutral, in 2013, the PAG program was closed to residential customers. It is currently open to commercial customers, and there is a relatively low demand for it – driven by customers who need to procure additional RECs to satisfy their own corporate sustainability objectives. In 2012, total PAG program demand was 75,539 RECs; in 2017, demand had fallen to 28,201 RECs, or about 3% of electric utility load.

RECs for RPS

The City, like all electric utilities in the state, is required to achieve an RPS level of 60% (of the City's retail electric sales) by 2030.¹ Under California's RPS regulations, unbundled RECs are an approved resource to meet this requirement, with certain restrictions and limitations on the amount of RECs which may be used.² The City has not historically used unbundled RECs to meet its RPS; however, the City may need to use them in the future for compliance purposes in the event that any of its committed renewable resources do not come on-line as planned or perform as expected. Or the City may opt to use unbundled RECs (which are significantly less expensive than RECs sold together with the associated energy from a renewable resource) in order to reduce its cost of complying with the RPS mandate. Staff expects renewable resources procured through long-term power purchase agreements (PPAs) to be sufficient to meet compliance requirements and therefore does not anticipate using RECs to meet RPS at this time. Staff therefore requests authority to procure RECs for RPS needs through the REC Master Agreements in the event that such purchases become necessary or desired.

RECs for Carbon Neutrality

In March 2013, Council approved the Carbon Neutral Plan ([Resolution No. 9322](#), [Staff Report 3550](#)), directing staff to procure resources to achieve carbon neutrality starting in 2013 within a rate impact limit of 0.15 cents per kilowatt-hour. Currently, the City is able to achieve carbon neutrality solely through the use of the City's existing hydroelectric resources and long-term renewable PPAs, with unbundled RECs only needed in the event of a dry hydro year, or in the event that one or more of the City's long-term resources do not perform as expected.

The amount of renewable energy needed to meet carbon neutrality for the electric supply portfolio is highly dependent on hydrological conditions. In dry years, the amount of renewable energy needed will increase, and, conversely, in wet years the City will need less renewable energy to achieve carbon neutrality or it may have a surplus. For example, CY 2017 was such a wet year that the City ended up with about 369,000 MWh of carbon neutral energy in excess of

¹ Per Senate Bill 100, approved in September 2018:

https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201720180SB100.

² Under California's RPS regulations, RECs that are sold independently of the associated energy (i.e., "unbundled RECs") are categorized as a Portfolio Content Category 3 ("Bucket 3") resource. Utilities are permitted to use Bucket 3 resources to meet a portion of their total RPS procurement requirements. The volume of Bucket 3 resources that a utility may use toward its RPS procurement requirements is limited to 10% of the total RPS resources it has procured on or after June 1, 2010.

its load. CY 2018 was much drier, and the City had to purchase a small volume of market power for the year as a result. In a scenario such as this, the City could have to procure some unbundled RECs to achieve carbon neutrality; however, because of the accounting protocols adopted in the Carbon Neutral Plan, the City was able to “bank” some of the excess renewable energy from CY 2017 and apply it to the City’s needs for CY 2018.

Total Estimated REC Purchases

The annual demand for RECs in the coming years will depend heavily on hydrological conditions as well as the City’s desired approach to complying with its RPS requirements (which will be the subject of another staff report in the coming months). Overall annual REC demand could range from 20,000 to 450,000, with a total purchase cost ranging from \$10,000 to \$2.25 million. Table 4 presents a summary of the range of staff’s estimate of the most likely REC purchase volumes (for each of the three programs described in this report) and costs. However, there is large uncertainty regarding the volumes of RECs needed and the REC market price. If REC prices are higher than expected, hydro conditions are extremely dry, and/or the resources that the City has under long-term PPA do not come online on time, the annual REC purchase cost could exceed the Table’s estimate and reach \$4 million. Hence, authorizing the City Manager to transact up to \$5 million per year should provide enough flexibility to competitively procure REC supplies for the next five years. (This authority limit is also within the combined rate impact limit for the City’s RPS program and Carbon Neutral Plan.) Table 2 provides a summary of the high and low “bookend” estimates of annual REC purchases.

Table 2: Range of Total REC Purchase Volumes and Costs

	PAG	RPS	Carbon Neutral	TOTAL
Low Case Quantity	20,000	0	0	20,000
Low Price Scenario (\$/REC)	\$0.50	\$0.50	\$0.50	\$0.50
Annual Cost - Low (\$ million)	\$0.01	\$0.00	\$0.00	\$0.01
High Case Quantity	50,000	100,000	250,000	400,000
High Price Scenario (\$/REC)	\$5	\$5	\$5	\$5
Annual Cost - High (\$ million)	\$0.25	\$0.50	\$1.25	\$2.00

REC Selection Process

The REC Master Agreements are enabling agreements which prequalify counterparties and establish general terms and conditions under which the City and the supplier will transact and settle transactions. The REC Master Agreement does not commit the City to any transactions.

RECs will be procured through a competitive solicitation process through the suppliers with REC Master Agreements. Staff will award REC purchase contracts to the supplier with the lowest offer price and will award REC sale contracts to the supplier with the highest bid price. All

purchases are under the controls established by the City's Energy Risk Management Policies, Guidelines and Procedures and must adhere to the City's Purchasing requirements.

All REC suppliers are required to satisfy the Western Renewable Energy Generation Information System (WREGIS) protocols and transfer RECs to the City through WREGIS. These protocols ensure the validity of the RECs – verifying that RECs are only counted once and not resold to other buyers.

Resource Impact

Funds to procure RECs to meet PAG, Carbon Neutral Plan, and RPS needs have been budgeted for fiscal year 2019.

Policy Implications

Approval of the expansion of authority is consistent with the Council-approved Electric Integrated Resource Plan; supports the Council-approved 2018 Utilities Strategic Plan's strategy to achieve a sustainable and resilient energy supply; and supports the City's Sustainability and Climate Action Plan (S/CAP).

Environmental Impact

The proposed contract authority request does not meet the definition of a project under the California Environmental Quality Act, pursuant to California Public Resources Code Section 21065, and, therefore, no environmental assessment is required.

Attachments:

- Attachment A: Resolution Approving REC Purchase Authority Extension

* NOT YET APPROVED *

Resolution No. _____

Resolution of the Council of the City of Palo Alto Extending the City Manager's Authority to Execute Transactions under Master Renewable Energy Certificate Purchase and Sale Agreements with Pre-qualified Suppliers at an Annual Expenditure Not Exceeding \$5,000,000 During Calendar Years 2019-2024, and Repealing Resolution No. 9379

R E C I T A L S

A. The City of Palo Alto (the "City") provides electricity to residential and commercial customers located within its jurisdictional boundary.

B. The Council established the PaloAlto**Green** voluntary renewable energy program (the "PAG Program") in March 2003.

C. Implementing the PAG Program involves the City's purchase and sale of renewable energy certificates ("RECs") to meet the PAG Program's retail customer demands in a competitive manner.

D. California's Senate Bill 100 (2018) requires all load serving entities to have a Renewable Portfolio Standard (RPS) of at least 60 percent by 2030. RPS enforcement procedures adopted by the California Energy Commission (CEC) allow for limited use of RECs to meet RPS requirements, and the City of Palo Alto adheres to the CEC's renewable resource eligibility requirements set forth in its enforcement procedures.

E. Through Resolution No. 9322, the Council approved a Carbon Neutral Plan for the electric supply portfolio to achieve carbon neutrality in calendar year 2013 with a rate impact not to exceed 0.15 cents per kilowatt hour. The Carbon Neutral Plan allows for the use of RECs to achieve carbon neutrality.

F. In 2013, through Resolution No. 9379, the Council delegated authority to the City Manager, or his designee, to execute purchases and sales of RECs to meet the needs of City's PAG Program, RPS and Carbon Neutral Plan by negotiating and executing Master Agreements with the following thirteen pre-qualified suppliers, in an aggregate amount not to exceed five million dollars (\$5,000,000) annually during calendar years 2013 through 2018, inclusive.

1. 3Degrees Group, Inc.
2. Bonneville Environmental Foundation
3. Constellation Energy Commodities Group
4. EDF Trading North America, LLC
5. Element Markets, LLC
6. Idaho Wind Power Partners 1, LLC
7. Lakeview Green Energy, Inc.
8. Nexant, Inc.
9. NextEra Energy Power Marketing, LLC
10. Pacific Corp.

* NOT YET APPROVED *

- 11. Powerex Corp.
- 12. Shell Energy North America (US), L.P.
- 13. Sterling Planet Holdings, Inc.

G. Master Agreements were negotiated and executed with the thirteen suppliers listed above and expenditures for calendar year 2013 through 2018 were within the delegated annual expenditure amount.

H. Extension of the authority delegated to the City Manager under Resolution No. 9379 is needed to implement the City’s PAG program, RPS and Caron Neutral Plan.

I. In 2016, through Resolution 9652, the City Council approved a Standard Form Master REC Agreement that incorporates the contract terms and conditions required in City of Palo Alto Municipal Code Section 2.30.340(c). As a result, new REC suppliers are able to execute the Standard Form Master REC Agreement with the City after staff determines that they are qualified.

The Council of the City of Palo Alto does hereby RESOLVE, as follows:

SECTION 1. Resolution No. 9379 is hereby repealed in its entirety.

SECTION 2. The Council hereby authorizes the City Manager, or his designee, to execute purchases and sales of RECs in furtherance of the City’s PAG Program, RPS and Carbon Neutral Plan with pre-qualified suppliers via Master Agreements. The aggregate REC transactions shall not exceed the annual expenditure amount of five million dollars (\$5,000,000) during calendar years 2019 through 2024, inclusive.

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* NOT YET APPROVED *

SECTION 3. The Council finds that the adoption of this resolution extending the City Manager's authority to execute purchases (and incidental sales) of RECs is not a project subject to California Environmental Quality Act (CEQA) review because adoption of this resolution is an administrative government activity that will not result in any direct or indirect physical change to the environment as a result (CEQA Guidelines section 15378(b)(5)).

INTRODUCED AND PASSED:

AYES:

NOES:

ABSENT:

ABSTENTIONS:

ATTEST:

City Clerk

Mayor

APPROVED AS TO FORM:

APPROVED:

Assistant City Attorney

City Manager

Director of Utilities

Director of Administrative Services