

# MEMORANDUM

**TO: UTILITIES ADVISORY COMMISSION**

**FROM: UTILITIES DEPARTMENT**

**DATE: December 2, 2015**

**SUBJECT: Staff Recommendation that the Utilities Advisory Commission Recommend that the City Council Adopt a Resolution to Continue the Palo Alto Clean Local Energy Accessible Now (CLEAN) Program at the Current Contract Price of \$0.165 per kilowatt-hour for Local Solar Resources and at the Avoided Cost Level (\$0.081 to \$0.082 per kilowatt-hour) for Local Non-solar Eligible Renewable Resources**

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## **REQUEST**

Staff recommends that the Utilities Advisory Commission (UAC) recommend that the City Council adopt a resolution (Attachment A):

1. To maintain the Palo Alto CLEAN program price for local solar energy resources at the current price of 0.165 dollars per kilowatt-hour (\$/kWh) for a 20-year or 25-year contract term, and continue with a program limit of 3 megawatts (MW); and
2. To reduce the Palo Alto CLEAN program price for local non-solar eligible renewable energy resources to the updated avoided cost of such energy (\$0.081/kWh for a 20-year contract term, or \$0.082/kWh for a 25-year contract term), from the prior avoided cost projection (\$0.093/kWh for a 20-year contract term, or \$0.094/kWh for a 25-year contract term), and to continue with a separate program limit of 3 MW specifically for local non-solar eligible renewable resources.

## **EXECUTIVE SUMMARY**

In March 2012 the Council adopted the Palo Alto CLEAN program (also commonly referred to as a feed-in tariff, or FIT, program). The program was designed to address the Long-term Electric Acquisition Plan (LEAP) objective to enhance supply reliability through the pursuit of local generation opportunities, and to complement the City of Palo Alto Utilities' (CPAU's) existing PV Partners solar rebate program. Palo Alto CLEAN created an additional alternative for property owners by enabling them to build a new solar system on their property and sell the energy to CPAU under a long-term, fixed-rate, standardized contract rather than use the energy on site.

Though solar developers expressed interest in Palo Alto CLEAN in 2012, the initial contract price (\$0.14 per kilowatt-hour (kWh) for a 20-year term) proved insufficient to facilitate the most

common business model used by project developers, which involves a third-party investor leasing roof space from a property owner. Council increased the Palo Alto CLEAN price to \$0.165/kWh in December 2012. In May 2015, Council added a 25-year contract term option, and expanded the program to include non-solar eligible renewable energy resources, setting their contract prices at the avoided cost level (\$0.093/kWh for a 20-year contract or \$0.094/kWh for a 25-year contract).

Although the avoided cost of local solar resources has declined since Council's May 2015 decision, staff recommends continuing the contract of \$0.165/kWh for local solar projects. Staff recommends continuing to offer non-solar eligible renewable energy resources a CLEAN price equal to the avoided cost of the energy produced by those resources—which is currently estimated at \$0.081/kWh for a 20-year term, and \$0.082/kWh for a 25-year term.

## **BACKGROUND**

CPAU has a long history of supporting solar power. It initiated the PV Partners program in 1999 to provide rebates to residential and commercial customers who install solar for their own use, and in 2007 the program was expanded to meet the requirements of the State's Million Solar Roofs Bill (Senate Bill 1 (SB1), 2006). CPAU is mandated by SB1 to offer rebates through the PV Partners until the total SB1 program budget of \$13 million has been exhausted, which is expected to occur within a year. Currently, \$585,000 in funds remain unreserved for commercial solar PV systems. All residential rebate funds were reserved as of August 2014.

In March 2012, the City expanded its support for local distributed generation by launching Palo Alto CLEAN (Clean Local Energy Accessible Now) with a price of \$0.14/kWh for a 20-year contract (Staff Report 2548, [Resolution 9236](#)). The program, which was set to expire in December 2012, expanded the options available to property owners by enabling them to sell energy directly to CPAU under a standardized long-term contract instead of using the energy on site. After receiving no response to the program, in December 2012, Council extended the CLEAN program and increased the rate to \$0.165/kWh for a 20-year contract ([Staff Report 3316](#), [Resolution 9308](#)). In February 2014, Council extended the CLEAN program again at the rate to \$0.165/kWh for a 20-year contract, and increased the program capacity limit to 3 MW ([Staff Report 4378](#), [Resolution 9393](#)).

On April 22, 2014, the City Council adopted the Local Solar Plan ([Staff Report 4608](#), [Resolution 9402](#)), which set the overarching goal of meeting 4% of the City's total energy needs from local solar by 2023 and unified the City's approach toward local solar and described a set of diverse strategies for meeting the 4% target in a cost-effective manner that does not create a burden on non-solar customers. Prior programs, incentives, and policies involving solar installed in the City—including specifically PV Partners, net energy metering, and Palo Alto CLEAN—are integrated into the Local Solar Plan strategies. The CLEAN program plays an integral role in achieving the Local Solar Plan goal contributing about 0.5% of the City's total energy needs once the program's 3 MW cap on local solar projects is reached.

In December 2014, staff presented a recommendation to the UAC to continue the CLEAN program for solar resources at the \$0.165/kWh for a 20-year contract, while also adding a 25-year contract term option and expanding the program to non-solar renewable energy resources, setting the price for those resources at the avoided cost level (\$0.093 /kWh for a 20-year contract, \$0.094/kWh for a 20-year contract) ([UAC report](#)). The staff recommendation also included maintaining the 3 MW cap on solar resources, and not adopting a cap on the participation of eligible non-solar resources since they would be compensated at the avoided cost and did not cause any impact on rates. The UAC unanimously supported the recommendations concerning solar resources, but did not support the recommendation to expand the program to non-solar renewable energy resources, citing insufficient justification in the staff report for the addition of these resources.

In March 2015, staff presented the same recommendation described above to the Finance Committee, with the addition of a 3 MW participation cap on eligible non-solar resources and an expanded discussion of the extension of the program to non-solar resources in the report ([Staff Report 5428](#)). The Finance Committee considered staff's and the UAC's recommendations, and committee members expressed no concerns with the proposals to add a 25-year contract term option or to expand the program to non-solar eligible renewable energy resources. However, Committee members expressed serious concern about the proposal to continue offering the contract price of \$0.165/kWh for solar resources, rather than a lower rate closer to the current avoided cost of that solar energy. Ultimately the Finance Committee voted unanimously to recommend that Council expand the CLEAN program to non-solar resources, but to set the contract prices for both solar and non-solar resources equal to those resources' avoided costs (for solar resources, \$0.103/kWh for a 20-year contract and \$0.104/kWh for a 25-year contract; for non-solar resources, \$0.093 /kWh for a 20-year contract, \$0.094/kWh for a 20-year contract).

In May 2015, Council considered the UAC and Finance Committee recommendations ([Staff Report 5849](#)) and were advised that reducing the CLEAN Program price for solar resources (from 16.5¢/kWh to 10.3¢/kWh or 10.4 ¢/kWh, depending on contract term length) also has implications for a City project (solar installations on City-owned parking garages) and a City program (the Community Solar Program) under design at the time. The Council voted to: extend the CLEAN program again at the rate of \$0.165/kWh for a 20-year contract for solar resources; add a 25-year contract term option; and expand the program to include non-solar eligible renewable energy resources—setting contract prices for such resources at the level of their avoided cost, which at the time was \$0.093/kWh for a 20-year contract or \$0.094/kWh for a 25-year contract, and setting a separate 3 MW program capacity limit on such resources. One important consideration in Council's decision to maintain the contract rate of \$0.165/kWh for solar resources, rather than reducing it to the avoided cost level as the Finance Committee advocated, was the expectation that the Public Works Department would soon be executing a lease of rooftop space at several downtown parking garages with a company that would use that space to develop a group of solar facilities (totaling about 1.5 MW of capacity) that would participate in the CLEAN program. Although negotiations with that vendor later fell through, at the time staff anticipated that the City would receive about \$155,000 per year in revenue from

that lease, and Council specified that those revenues should be directed to the Electric Fund in order to mitigate the impact on electric ratepayers of maintaining a CLEAN program rate for solar resources that was greater than their avoided cost. At that time (as shown in Table 1 below), the excess cost of a CLEAN price for local solar of \$0.165/kWh (amount above the avoided cost) was estimated to be \$310,000 per year for 3 MW of capacity and the lease payment for the garage project of \$156,000 per year for 1.5 MW of capacity would cover the excess cost almost exactly, reducing the impact on electric rates.

Staff regularly receives new inquiries about the Palo Alto CLEAN program from solar developers and property owners; however, no applications have been received as of the end of October 2015. The property owners who have investigated the program to date either chose not to participate or chose to evaluate projects under the PV Partners program instead.

Despite the lack of participation, there have been positive outcomes from the program offering. The program prompted developers to take a serious look at the cost of developing solar projects in Palo Alto, and some of them shared that information with CPAU staff. At the same time, the solar project permitting processes at the development center have been improved based on input gathered from solar developers. In addition, in response to frequent requests from developers for detailed information about the City's electrical distribution system, staff is in the process of developing a map showing the locations of likely low-cost interconnection points. In addition, several public utilities across the country have called CPAU to discuss how to follow Palo Alto's lead and develop a CLEAN program in their own service areas.

Finally, under current legislation, developers of solar projects are eligible to receive the federal Investment Tax Credit (ITC), worth 30% of the total installed cost of the solar facility; however, unless Congress passes an extension, the ITC benefit is scheduled to fall to 10% at the end of 2016. Given the looming drop-down in this valuable benefit, if any solar developers are to successfully complete a project under the CLEAN program they will likely need to do so by the end of next year – or else wait for solar costs to fall enough to make a project cost-effective.

## **DISCUSSION**

### **Value of Local Solar Resources**

When establishing the CLEAN price of \$0.165/kWh in December 2012, Council reviewed the market value of local solar energy and determined that, beyond the value of the energy itself, there were additional financial and environmental benefits to increasing local solar generation. In May 2015, when Council re-affirmed the \$0.165/kWh price, staff estimated the cost of buying remote solar energy outside of Palo Alto and transmitting it to Palo Alto was \$0.103/kWh (including renewable energy value, transmission and capacity) for a 20-year contract. Therefore, purchasing the energy generated from 3 MW of local solar projects at \$0.165/kWh was expected to cost about \$310,000 per year more than buying the same energy outside of Palo Alto (and having it transported to Palo Alto). This extra cost is equivalent to a 0.26% increase in the electric utility's costs.

However, at the time Council re-affirmed the \$0.165/kWh price, Public Works staff was nearing the end of negotiations on a lease agreement of parking garage rooftop space to a solar developer—who intended to install solar systems on these rooftops totaling about 1.5 MW, and have those resources participate in the CLEAN program—that was expected to provide approximately \$150,000 per year in lease payments to the City. In May 2015, when it re-affirmed the \$0.165/kWh price for solar resources, Council also directed that the roughly \$150,000 per year in lease payments under this arrangement be allocated to the Electric Fund to offset the additional cost to ratepayers of providing a contract price exceeding the avoided cost of the energy generated through the program. Council determined that this additional cost (after being offset by the \$150,000 per year in lease payments) was acceptable as a means to encourage local solar installations and in light of additional benefits of encouraging local solar generation.

Unfortunately, lease negotiations between the City and the solar developer foundered and the City ceased negotiations with the developer<sup>1</sup>. The City then decided to begin lease negotiations with another respondent to the RFP, and Public Works staff anticipates bringing this agreement to Council for consideration in the near future<sup>2</sup>. This second developer is also expected to use the rooftop space to install solar systems that will then participate in the Palo Alto CLEAN program. The proposed lease agreement with this developer is also expected to yield lease payments of \$20,000 per year to the City, which is significantly lower than the \$150,000 per year that was being discussed with the first developer. Although the lease terms that are being discussed include significantly lower rent, the lease is expected to require installation of 18 new Level 2 electric vehicle chargers and electrical infrastructure to support an additional 80 future new Level 2 chargers. The electrical vehicle chargers and infrastructure have a significant value that is in addition to the rent. Additionally, the Council Policy and Services Committee is expected in the near future to discuss options for changing the City's current policy of free use of electric vehicle chargers. Changes to the policy may result in the generation of revenue from the new electric vehicle chargers that could be used to offset the additional cost to ratepayers of the \$0.165/kWh CLEAN program price, in addition to the \$20,000 per year in rent payments.

#### Updated Value of Renewable Energy

In April 2015, the City released an RFP for renewable energy projects that could deliver energy to the City starting in 2021. Although the City has not yet approved a Power Purchase Agreement (PPA) resulting from this RFP, the responses that the City received to this solicitation can be used to estimate the current value of renewable energy in California. Of the 41 project proposals received in this RFP, staff placed the 10 highest-ranking proposals on a "shortlist"; the average proposed price of these shortlisted proposals was \$0.055/kWh. On a levelized basis over a 20-year term, the cost to deliver that energy to Palo Alto, combined with

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<sup>1</sup> See this staff report for an explanation of staff's June 29, 2015 recommendation to reject the developer's proposal: <http://www.cityofpaloalto.org/civicax/filebank/documents/48009>.

<sup>2</sup> Note that the proposal from the second respondent involves developing solar installations on only four of the five parking garage rooftops offered up in the RFP. As a result, the aggregate solar capacity of these installations is expected to be about 1.38 MW.

the capacity related benefits that local solar would provide, is projected to be an additional \$0.034/kWh for a total value of local solar energy of \$0.089/kWh. Over a 25-year term, the leveled delivery- and capacity-related cost is \$0.035/kWh for a total value of local solar energy of \$0.09/kWh.

When Council re-affirmed the \$0.165/kWh price in May 2015, the avoided cost for solar energy was estimated to be \$0.103/kWh for a 20-year term, and \$0.104/kWh for a 25-year term. The \$0.014/kWh reduction in the estimated avoided cost of local solar energy from then to now is entirely due to a reduction in the estimated value of the renewable energy itself. Previously, the energy value was based on the last long-term renewable PPA that the City executed; this agreement, signed in June 2014, was to buy energy from a 25 MW solar energy project in central California at a cost of about \$0.069/kWh (Staff Report 4791, [Resolution 9416](#)).

The energy generated by 3 MW of local solar projects would supply about 0.5% of the City’s total electricity needs. Table 1 below shows the history of the Palo Alto CLEAN price since the program started as well as the proposed CLEAN price for solar resources for a 20-year contract term.

**Table 1 – Palo Alto CLEAN Program Prices for Local Solar**

<b>Council Approval</b>	<b>Avoided Cost of Local Solar Generation * (\$/kWh)</b>	<b>CLEAN Price (\$/kWh)</b>	<b>Annual Excess Cost (Rate Impact)</b>	<b>Total Excess Cost over 20-year Term</b>
March 2012	0.136	0.140	\$15,000 (0.01%) for 2 MW cap	\$300,000
December 2012	0.116	0.165	\$160,000 (0.10%) for 2 MW cap	\$3.2 million
February 2014	0.099	0.165	\$332,500 (0.27%) for 3 MW cap	\$6.45 million
May 2015	0.103	0.165	\$310,000 (0.26%) for 3 MW cap	\$6.2 million
Current Proposal	0.089	0.165	\$380,000 (0.32%) for 3 MW cap	\$7.6 million

*\* The cost of buying remote solar energy outside of Palo Alto and transmitting it to Palo Alto.*

As shown in Table 1, based on the current total avoided cost estimates, the cost of continuing the \$0.165/kWh CLEAN price for 3 MW of solar PV projects is about \$380,000 per year more than buying the same energy outside of Palo Alto (and transporting it to Palo Alto). This is equivalent to a 0.32% increase in the electric utility’s costs.

For non-solar local eligible renewable energy resources, the estimated avoided cost experienced a similar reduction based on the results of the City’s recent renewable energy RFP. The energy generated by 3 MW of local non-solar renewable energy projects would supply about 2.2% of the City’s total electricity needs (assuming that the projects are “baseload” resources that operate at a high capacity around-the-clock). For these resources, the current

estimated avoided costs are \$0.081/kWh for a 20-year term, and \$0.082/kWh for a 25-year term – which are down from \$0.093/kWh and \$0.094/kWh, respectively, in May 2015. Table 2 compares the current proposal to the price offered since May 2015 when non-solar resources were first eligible for the Palo Alto CLEAN program. Note that the excess cost is zero since the price is set equal to the avoided cost.

**Table 2 – Palo Alto CLEAN Program Prices for Local Non-Solar Eligible Renewables**

<b>Council Approval</b>	<b>Avoided Cost of Local Non-Solar Renewable Generation * (\$/kWh)</b>	<b>CLEAN Price (\$/kWh)</b>	<b>Annual Excess Cost (Rate Impact)</b>	<b>Total Excess Cost over 20-year Term</b>
May 2015	0.093	0.093	\$0 (0%) for 3 MW cap	\$0
Current Proposal	0.081	0.081	\$0 (0%) for 3 MW cap	\$0
* The cost of buying remote baseload renewable energy and transmitting it to Palo Alto.				

Implications of CLEAN Price on City Programs and Projects

The CLEAN Program price for solar resources has implications for a City project (Solar Installations on City-Owned Parking Garages), a City program (the Community Solar Program), and the Palo Alto CLEAN Program in general. Reducing the contract price under the CLEAN Program for solar resources may negatively impact these initiatives.

*Solar Installations on City-Owned Parking Garages Project*

In March 2014, the City released a Request for Proposals (RFP) for the installation and operation of a solar PV system at one or more of the five City-owned parking structures (Staff Report 4540). The RFP was structured to solicit projects that could be eligible to participate in the Palo Alto CLEAN Program providing an estimated 1.5 MW of local solar capacity. After negotiations ceased with one contractor, Public Works staff is completing negotiations for a site lease for the project with another contractor. The contractor is expecting that the rooftop solar installations will receive a CLEAN contract at a price of 16.5 ¢/kWh for a 25-year contract term. The project may not be viable or significant changes to the lease may be required if the CLEAN Program price is reduced.

*CLEAN Program Participation*

The Palo Alto CLEAN Program has yet to receive an application from a solar PV project, even after three years of offering a contract price of 16.5 ¢/kWh. The lack of participation may be attributed to the comparatively high rates that property owners in Palo Alto charge for leasing their rooftop space, as well as the lack of space available to install ground-mounted or parking structure-based projects. Another factor for lack of interest in the CLEAN program has been the availability of Net Energy Metering (NEM) and rebates from the PV Partners program. Staff anticipates that the CLEAN Program will eventually attract participants especially after the PV Partners rebates are used up, the Net Energy Metering (NEM) cap is reached, and as the cost of solar panels and other balance of system costs continue to decline.

### *Community Solar Program*

As part of the Local Solar Plan, staff is developing a voluntary community solar share program, which would be available to all electric ratepayers and would primarily benefit community members who do not have good solar access but want to participate in a local solar project. This program anticipates finding a host site (possibly a City facility) that would have a Power Purchase Agreement (PPA) with the City similar to the CLEAN PPA and at the CLEAN price. If the CLEAN contract price is reduced and a community solar PPA price is reduced to the same level, it may impact the feasibility of the community solar program. The City could decide to set a different contract price for the output from the community solar project, but may have difficulty explaining how it could offer a different contract price to the community solar project than to other local solar projects through the CLEAN Program.

### Recommendation

Staff recommends that the current CLEAN price of \$0.165/kWh for solar projects continue. As solar system costs have continued to decrease, and as the deadline for the steep reduction in the federal ITC approaches, it is anticipated that at the current contract price the CLEAN program may attract its first participants in 2016. In addition, staff recommends continuing to offer non-solar eligible renewable energy resources a CLEAN price equal to the avoided cost of the energy produced by those resources, which is currently estimated at \$0.081/kWh for a 20-year term, and \$0.082/kWh for a 25-year term. Additionally, staff recommends continuing with program caps of 3 MW each for the local solar and the non-solar local renewable resources.

### **RESOURCE IMPACT**

Staff estimates that the current cost of buying energy from solar resources outside of Palo Alto is \$0.089/kWh (including transmission and capacity) for a 20-year contract, or \$0.09/kWh for a 25-year contract. Purchasing the energy generated from 3 MW of local solar projects at \$0.165/kWh is expected to cost about \$380,000 per year more than buying the same energy outside of Palo Alto (and transporting it to the City). This is equivalent to a 0.32% increase in the electric utility's costs. If the program increased costs by \$380,000 per year, staff has determined that the system average electric rate would have to increase by \$0.0004/kWh. This is equivalent to a bill impact of \$1.95 per year for the median residential customer using 410 kWh/month, or \$3.10 per year for a residential customer using 650 kWh/month.

Purchasing the energy generated from 3 MW of local, non-solar renewable energy projects is not expected to impact the cost to the Utility, since the recommended price for those projects is equal to the value of acquiring such energy outside the City (and transporting it to the City).

Aside from the energy costs described above, staff time is associated with marketing the CLEAN program and project review. The project review can be absorbed with existing staff over the life of the program, and costs will be recovered through project review fees. The marketing effort requires less than 0.1 FTE of staff time.



**POLICY IMPLICATIONS**

The recommendation to continue the Palo Alto CLEAN program supports the City's carbon neutral electric supply portfolio policy, the Local Solar Plan, and the LEAP Objective to enhance supply reliability through the pursuit of local generation opportunities.

**ENVIRONMENTAL REVIEW**

Adoption of the attached resolution is not subject to California Environmental Quality Act (CEQA) review under California Public Resources Code section 21080(b)(8), because the price adopted reflects the reasonable cost of the CLEAN Program's operating expenses, including the cost of purchasing renewable energy from local renewable energy generating systems and the value of local benefits to CPAU and its ratepayers. Approval of the amended CLEAN Program Eligibility Rules and Requirements attached to the Resolution as Exhibit 1 is not a project under CEQA, and therefore, no environmental review is required.


**ATTACHMENTS**

Attachment A: Resolution Continuing the Palo Alto CLEAN Program  
Exhibit 1 to Attachment A: Updated Palo Alto CLEAN Program Eligibility Rules and Requirements

**PREPARED BY:**

**JIM STACK**, Senior Resource Planner

**REVIEWED BY:**

 **JANE RATCHYE**, Assistant Director, Resource Management

**APPROVED BY:**

  
\_\_\_\_\_  
**VALERIE O'FONG**  
Director of Utilities

\*NOT YET APPROVED\*

Resolution No. \_\_\_\_\_

Resolution of the Council of the City of Palo Alto Continuing the Palo Alto Clean Local Accessible Now Program at the Same Contract Rate of 16.5¢/kWh for Solar Resources and Decreasing the Contract Rate for Non-Solar Renewable Energy Resources to 8.1¢/kWh to 8.2¢/kWh Based on the Reduced Avoided Cost of Local Renewable Energy

## RECITALS

- A. On March 5, 2012, the City approved the Palo Alto Clean Local Energy Accessible Now (CLEAN) Program (or feed-in tariff). Under the Palo Alto CLEAN Program, participants who build a new solar generating system in Palo Alto may obtain a long-term, fixed-price contract with the City to sell the energy from the system to the City's electric utility.
- B. Council extended the program beyond its original termination date of December 31, 2012 and has periodically reviewed the contract price and program cap.
- C. On May 27, 2015, Council approved Resolution 9512, which continued Palo Alto CLEAN at the contract price of \$0.165 per kilowatt-hour (kWh) for local solar resources, added a 25-year contract term option, and expanded the program's eligibility to local non-solar eligible renewable energy resources, establishing contract prices of \$0.093 per kWh for a 20-year term or \$0.094 per kWh for a 25-year term for such resources. These contract rates were set to be equal to the then current estimated avoided cost of the energy generated by these resources. The resolution further established separate program caps of 3 megawatts (MW) of generating capacity for both the solar and non-solar resources.
- D. As solar system costs have continued to decrease, and as the deadline for the steep reduction in the federal ITC approaches, it is anticipated that at the current contract price the CLEAN program may attract its first participants in 2016.
- E. In April 2015, the City released a Request for Proposals for projects that could deliver renewable energy to the City, and results indicate that the avoided cost of energy generated by renewable resources has dropped since Council adopted a CLEAN Program price for local non-solar resources in May 2015.
- F. The City therefore wants to continue the CLEAN program for solar resources at the same contract price and program parameters (including the separate 3 megawatt (MW) caps applicable to the solar and non-solar portions of the program), while reducing the contract prices available to local non-solar eligible renewable resources to \$0.081 per kWh for a 20-year term or \$0.082 per kWh for a 25-year term for such resources, which is equal to the current estimated avoided cost of energy generated by these resources.

\*NOT YET APPROVED\*

The Council of the City of Palo Alto (“City”) RESOLVES:

SECTION 1. The Council adopts revised Palo Alto CLEAN Program Eligibility Rules Requirements, set forth in Exhibit 1 attached to this Resolution.

SECTION 2. The Council authorizes the City Manager or his designee to sign contracts for the output of one or more solar, or other non-solar eligible renewable energy resource meeting the CLEAN Program Eligibility Rules and Requirements described in Section 1. The total CLEAN Program cost commitment made by the City during the life of the program shall not exceed \$25,000,000, which is sufficient for a program cap of 3 MW of local solar generating capacity and 3 MW of local, non-solar generating capacity over a 25-year contract term.

SECTION 3. The Council finds that the City of Palo Alto Utilities’ (CPAU’s) purchase of energy from local renewable sources provides additional local benefits to CPAU when compared to energy purchased outside Palo Alto, which in turn become benefits to CPAU ratepayers and the local community. These benefits include a reduction in CPAU’s costs and energy losses associated with energy transmission and distribution, and a reduction in CPAU’s capacity requirements. When the City purchases energy from local sources, a portion of the City’s electric expenditures remain within the community, which provides revenue for local economic development. Locating generation near load centers can also reduce the need for new transmission lines, thus reducing the environmental impacts of the electric system and improving reliability in transmission-constrained regions like the Greater Bay Area. When solar systems are installed on rooftops and parking facilities, the shade created reduces the energy required for cooling and creates value for vehicle owners. In addition, as new technology and energy storage systems are developed, the local renewable energy generation, in combination with storage systems, has the potential to provide resiliency to the City’s electric distribution system. Further, local renewable energy generation that participates in the CLEAN Program provides long-term certainty and value to the entire community—benefits that are not provided when such energy is sold to the City on a short-term basis or used on-site. The Council therefore finds that offering the Palo Alto CLEAN Program to participants is a reasonable cost of providing electric service to CPAU’s electric customers.

SECTION 4. The Council finds that the adoption of this resolution is not subject to California Environmental Quality Act review under California Public Resources Code section 21080(b)(8), because the rate adopted reflects the reasonable cost of the CLEAN Program’s operating expenses, including the cost of purchasing renewable energy from local solar generating systems, and the value of local benefits to CPAU and its ratepayers as described in SECTION 3 of this resolution. Approval of the amended CLEAN Program Eligibility Rules and

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\*NOT YET APPROVED\*

Requirements attached to the Resolution as Exhibit 1 is not a project under CEQA, and therefore, no environmental review is required.

INTRODUCED AND PASSED:

AYES:

NOES:

ABSENT:

ABSTENTIONS:

ATTEST:

\_\_\_\_\_  
City Clerk

\_\_\_\_\_  
Mayor

APPROVED AS TO FORM:

APPROVED:

\_\_\_\_\_  
Senior Deputy City Attorney

\_\_\_\_\_  
City Manager

\_\_\_\_\_  
Director of Utilities

\_\_\_\_\_  
Director of Administrative Services

**PALO ALTO CLEAN (CLEAN LOCAL ENERGY ACCESSIBLE NOW)  
PROGRAM ELIGIBILITY RULES AND REQUIREMENTS**

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**A. PARTICIPATION ELIGIBILITY:**

The Palo Alto Clean Local Energy Accessible Now Program (the “CLEAN Program”) is open to participation by any Eligible Renewable Energy Resource, as defined in Section D.4, that satisfies these Program Eligibility Rules and Requirements.

**B. TERRITORIALITY REQUIREMENT:**

In order to be eligible to participate in the CLEAN Program, an Eligible Renewable Energy Resource must be located in and generating electricity from within the utility service area of the City of Palo Alto.

**C. PRICES AND TERM FOR ELIGIBLE RENEWABLE RESOURCES:**

The following purchase price shall apply to the electricity produced by an Eligible Renewable Energy Resource participating in the Program, except as provided in Section D.5.

Solar Energy Resources:

<u>Contract Term</u>	<u>Contract Price</u>
20 years	\$0.165 / kWh
25 years	\$0.165 / kWh

Other, Non-Solar Eligible Renewable Energy Resources:

<u>Contract Term</u>	<u>Contract Price</u>
20 years	\$0.081 / kWh
25 years	\$0.082 / kWh

**D. ADDITIONAL RULES AND REQUIREMENTS:**

1. The owner of the Eligible Renewable Energy Resource shall enter into an Eligible Renewable Energy Resource Power Purchase Agreement (“PPA”) with the City of Palo Alto prior to delivering energy to the City.
2. The maximum, aggregate generation capacity from all solar facilities participating in the CLEAN Program is three (3) Megawatts (“MW”) (the “Program Capacity”, based on the generating facility’s California Energy Commission rating, CEC-AC). Generating capacity from non-solar, eligible renewable energy resources will not be counted towards this 3 MW cap for the solar program. Instead non-solar, local eligible renewable energy resources will be subject to a 3 MW cap of their own.
3. An application for participation in the CLEAN Program to sell output to the City (the “Application”) may be submitted at any time. Applications will be considered in the

**PALO ALTO CLEAN (CLEAN LOCAL ENERGY ACCESSIBLE NOW)  
PROGRAM ELIGIBILITY RULES AND REQUIREMENTS**

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order received.

4. Eligible Renewable Energy Resource means an electric generating facility that: (a) is defined and qualifies as an “eligible renewable energy resource” under California Public Utilities Code Section 399.12(e) and California Public Resources Code Section 25471, respectively, as amended; and (b) meets the territoriality requirement set forth in Section B.
5. The California Energy Commission’s (“CEC”) certification of the Eligible Renewable Energy Resource shall be required within six (6) months of the commercial operation date of the generating facility; the facility’s owner shall provide written notice of the CEC’s certification to the City within ten (10) business days of receipt of said certification. If the City agrees, in its sole discretion, to take delivery of the generating facility’s electricity prior to the CEC’s certification, then, as the facility’s electricity cannot be considered in fulfillment of the City’s RPS requirements, the price that the City will pay for the generating facility’s electricity (the “Pre-Certification Price”) will be set to \$0.076 per kWh (for a 20-year contract term) or \$0.08 per kWh (for a 25-year contract term), based on the estimated levelized cost of brown power over a 20-year or 25-year period, respectively. Upon the CEC’s certification of the generating facility and the provision of notice of such certification to the City in accordance with this section, the City will pay the Price set forth in Section C of these CLEAN Program Rules and Requirements and the PPA (collectively referred to as the “Contract Price”) for the generating facility’s electricity delivered on and after the date of the CEC’s certification. The City will, in its sole discretion, “true-up”, as appropriate, the difference between the Contract Price and the Pre-Certification Price for any electricity received and paid for by the City, effective as of the date of certification of the Eligible Renewable Energy Resource.
6. If an Eligible Renewable Energy Resource is authorized to participate in the CLEAN Program, then that Resource shall not be entitled to receive any rebate or other incentive from the City’s Photovoltaic (PV) Partners Program or any other similar incentive program funded by the City’s ratepayers. To the extent any rebate or incentive is paid to the owner of the Resource, that rebate or incentive shall be disgorged and refunded to the City upon 30 days’ notice, if the Eligible Renewable Energy Resource continues to participate in the CLEAN Program. If a rebate or an incentive has been paid to the Eligible Renewable Energy Resource, then that Resource shall be ineligible to participate in the CLEAN Program.
7. All electricity generated by the Eligible Renewable Energy Resource shall be delivered only to the City. No portion of the electricity may be used to offset any load of the generating facility (other than incidental loads associated with operating the generating facility).
8. A metering and administration fee will be charged to each Eligible Renewable Energy

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Resource that participates in the CLEAN Program. See Utilities Rate Schedule E-15 (Electric Service Connection Fees).

Effective \_\_\_\_\_