Summary Title: Renewable Feed-in Tariff Policies and Guidelines

Title: Finance Committee Recommendation to Approve Policies and Guidelines for a Renewable Energy Feed-in Tariff

From: City Manager

Lead Department: Utilities

**Recommendation**

Staff, the Finance Committee, and the Utilities Advisory Commission (UAC) recommend that the City Council adopt the proposed Renewable Energy Feed-in-Tariff Policies and Guidelines (Attachment A).

**Executive Summary**

A Feed-in-Tariff (FIT) is a purchasing mechanism that enables owners of small local renewable generators (primarily rooftop solar panels) to sell power to the electric utility for a fixed price. The electric utility is in turn able to include the energy in its supply portfolio and count it towards its Renewable Portfolio Standard (RPS). Earlier this year staff completed an initial evaluation of renewable FITs as a method of purchasing renewable power. The attached policies and design guidelines reflect staff’s proposed approach to FIT program development. If the policies and design guidelines are approved, staff would return to City Council for approval of the detailed program later this year with the goal of launching the program in early 2012.

**Committee Review and Recommendations**

At the June 7, 2011 meeting of the Finance Committee staff presented the attached Policies and Guidelines. The Committee asked various questions but was generally supportive of the staff proposal. After discussion, the Finance Committee unanimously recommended approval of the Policies and Guidelines with clarifications of the language in Policy 1 and Program Design Guidelines 1a and 1b.

**Attachments:**

- Attachment A: Proposed Renewable FIT Policies and Design Guidelines (PDF)
- Attachment B: Staff Report ID 1641, Renewable Feed-in Tariff Policies and Guidelines (PDF)
- Attachment C: Excerpt of Minutes of June 7, 2011 Finance Committee Meeting (PDF)
City of Palo Alto Utilities (CPAU) Proposed Renewable Energy Feed-In-Tariff (Renewable FIT) Program Policies and Guidelines

POLICIES
1. The Renewable FIT program’s objective is to fulfill the City of Palo Alto (City)’s Renewable Portfolio Standard (RPS) from local renewable sources.
2. Enrollment will be capped at the amount of energy projected to be required to fulfill the City’s RPS.
3. Eligible resources will include those that are deemed renewable by the California Energy Commission (CEC) and that can be included in meeting RPS goals including solar photovoltaic (PV) systems, wind, and biogas-fueled generators.
4. Eligible resources are to be located in the City and connected to the distribution system on CPAU’s side of customer meters.
5. The Renewable FIT rate, set as a fixed-price in cents per kilowatt-hour (kWh) for a twenty-year term, will be based on CPAU’s avoided energy and capacity cost (i.e., value-based) and may vary by load shape for each renewable resource type.
6. The agreement between CPAU and program participants will be a non-negotiable, twenty-year standard contract available to all eligible resources.
7. Program participants will be responsible for direct costs associated with the project (such as interconnection and metering).
8. Projects with a Renewable FIT will not be eligible for a net metering tariff or incentives under the PV Partners Program, the Power from Local Ultra-clean Generation Incentive (PLUG-In) Program, or any other CPAU-funded incentive program.
9. City Council must approve the Renewable FIT rates, standard contracts and updates.

PROGRAM DESIGN GUIDELINES
1. The methodology for calculating avoided cost should include all of the following that apply to the technology in question:
   a. The market price of the renewable energy;
   b. The value associated with fulfilling or reducing California Independent System Operator (CAISO) requirements that the utility provide a minimum amount of capacity within the Greater Bay Area, otherwise known as “local capacity requirements;”
   c. Avoided transmission charges, transmission losses, and other CAISO charges;
   d. Avoided distribution losses; and
   e. Any other avoided costs attributable to local renewable generation.
2. A standard contract will be established and published. The term will be 20 years.
3. A program cap will be established.
4. Maximum and minimum limits on individual project sizes may be used to limit the number of projects or the risk associated with the operation of any single project. These may be differentiated by technology type.
5. Updates to rates, contract terms, or program size should occur at regular scheduled intervals or should involve substantial advance notice to project developers.
6. Metering requirements will be designed to meet any applicable California Independent System Operator (CAISO), Northern California Power Agency (NCPA), and City operational requirements.
7. Interconnection rules will be established or modified to ensure FIT projects meet all City, NCPA, and CAISO operational requirements. Interconnection rules may be modified on a schedule independent of the FIT update schedule.
8. The FIT program will be designed similarly to FIT programs in other utility service areas where desirable, reasonable and feasible.
Summary Title: Renewable Feed-in Tariff Policies and Guidelines

Title: Approval of Policies and Guidelines for a Renewable Energy Feed-in Tariff

From: City Manager

Lead Department: Utilities

Recommendation
Staff and the Utilities Advisory Commission (UAC) recommend that the Finance Committee recommend that the City Council adopt the proposed Renewable Energy Feed-in-Tariff Policies and Guidelines (Attachment A).

Executive Summary
A Feed-in-Tariff (FIT) is a purchasing mechanism that enables owners of small local renewable generators (primarily rooftop solar panels) to sell power to the electric utility for a fixed price. The electric utility is in turn able to include the energy in its supply portfolio and count it towards its Renewable Portfolio Standard (RPS). Staff recently completed an initial evaluation of renewable FITs as a method of purchasing renewable power and is now proceeding to design a program. The attached policies and design guidelines reflect staff’s proposed approach to FIT program development. If the policies and design guidelines are approved, staff would return to City Council for approval of the detailed program later this year with the goal of launching the program in early 2012.

Background
On March 7, 2011, Council unanimously approved the Long-term Electric Acquisition Plan (LEAP) Objectives, Strategies and Implementation Plan (Staff Report 1317). LEAP Strategy #3 (RPS) and Strategy #4 (Local Generation) require the evaluation of the use of FITs to meet the City of Palo Alto (City)’s RPS goal of supplying 33% of its power from renewable sources by 2015 and to encourage the development of local ultra-clean generation. Earlier this year staff evaluated the use of FITs in Palo Alto and held study sessions with the UAC. Based on that evaluation staff proceeded with the development of the proposed FIT Policies and Guidelines (Attachment A), which were reviewed by the UAC on April 6, 2011.

Discussion
The City has an RPS goal to supply 33% of its power from renewable sources by 2015 while not exceeding a 0.5 ¢/kWh impact on rates. Power from currently committed renewable resources is expected to meet approximately 30.8% of the City’s annual electric energy needs in 2015.
leaving a gap of approximately 23,000 MWh/year, or 2.2% of load, to meet the 33% RPS goal by 2015. Part of this gap could be filled with power procured through a renewable FIT program.

The renewable FIT program that staff is designing will be “value-based”, meaning that it is based on the value of the energy to the City. The alternative is a “cost-based” FIT, which is based on the cost to build and operate the generator and is designed to guarantee a rate of return to the developer even if it means setting the rate higher than the value of the energy to the utility. Unlike a cost-based FIT, a value-based FIT will not increase the City’s cost of renewable power over other power purchasing methods because it is based on the market value of the power.

Given current market prices, if the remainder of the City’s RPS goal were achieved using only local renewable sources purchased through the FIT program, staff believes the total cost of the City’s renewable power supply would have less than a 0.5 ¢/kWh impact on rates, the goal included in the LEAP. It is worth noting, though, that a FIT program will have higher contract and program administration costs than the City’s traditional purchasing methods because it involves many small contracts rather than fewer larger ones.

Under a FIT program, the City will offer a fixed long-term rate and standard power purchase agreement (PPA) to any developer of an eligible generator in Palo Alto. Eligible technologies will initially include solar, wind, and biogas fueled generators. If developers’ projects fit the program guidelines, they would be able to sign up for the standard contract and rate unless the program is already fully subscribed. For example, if the City offered a program with the following terms: a fixed rate of 15 cents per kilowatt-hour (¢/kWh) for 20 years, any solar developer willing to build a project in Palo Alto by the deadline, follow the program rules, and agree to the standard contract terms could apply for the program and sign a 20-year PPA to sell power at 15 ¢/kWh so long as there was still capacity remaining in the program.

The proposed Renewable FIT Policies and Guidelines (Attachment A) will be the basis for the program. Below are some of the key features of the Policies and Guidelines:

1. The FIT will be value based.
2. A standard non-negotiable contract will be used.
3. Fixed rates will be available for solar, wind, and biogas-fueled generators.
4. Rates will take into account the value of the project to the utility, including the renewable attributes, avoided transmission and distribution costs, local capacity value, and the time of day the technology typically generates electricity.
5. The contracts will require the transfer of all energy, green attributes, and capacity attributes (if applicable) to the utility.

The FIT program differs from the Request for Proposal (RFP) process, the method the City has used to-date to purchase renewable power. In an RFP process several developers offer projects, then the utility chooses the developers with the lowest priced feasible projects, and negotiates PPAs with each one. An RFP process has worked well for obtaining contracts from larger projects, but the costs and uncertainty associated with preparing a bid are too high for
small local developers. A FIT program will reduce costs and provide local renewable project developers certainty because of the fixed long-term rate, the standard contract, and the fact that it is open to any developer rather than only those who are selected through an RFP process.

In addition to enabling smaller developers to supply power to the City, a FIT program can deliver benefits to other stakeholders as well, including:

- Benefits to the utility, such as the fact that renewable energy is generated locally, meaning lower transmission costs than for remote renewable resources. Also, local generation can help maintain regional (Bay Area) electric grid stability, which can result in financial benefits to the utility.
- Benefits to the site owner, including additional revenue from power sales or roof rental. A FIT can also provide a way for owners of multi-unit commercial rental properties to take advantage of distributed generation. Under traditional incentive programs like the City’s Photovoltaic (PV) Partners program, the solar projects are typically built behind the customer meter, offsetting their consumption. This benefits the utility customer rather than the building owner, meaning there is less incentive for the building owner to install solar panels.
- Benefits to the community, such as the potential for money spent on renewable power to return to the community. The community can also take pride in generating renewable power locally.

Timeline
Upon Council approval of the renewable FIT Policies and Guidelines, staff will proceed with program design and bring a proposal to Council in December 2011. The program will include fixed rates, the standard contract, program rules (such as minimum system size and deadlines for project progress), the amount of capacity to be procured, and any other necessary changes to the City of Palo Alto Utilities (CPAU) rules and regulations, such as interconnection agreements or metering requirements. Staff’s objective is to obtain Council approval in time to launch the program in early 2012.

Commission Review and Recommendation
Staff held two study sessions related to FITs with the UAC, one on February 2, 2011 and the second on March 2, 2011. At these meetings the UAC supported the adoption of a FIT for local renewable generators as long as it was based on the value of the energy to the utility and not on the cost of generation. The proposed Renewable FIT Policies and Guidelines are aligned with the UAC’s preference.

On April 6, 2011 the UAC reviewed the proposed policies and design guidelines for a value-based FIT and unanimously recommended that the Council approve them. The minutes of that meeting are provided as Attachment B.

Resource Impact
Aside from the staff time associated with designing and launching the program, there will be
some additional ongoing cost associated with program administration and interconnection and permitting of new solar projects. The costs will depend significantly on the number of projects that participate in the program, and may range from a negligible staff impact to 2/3 of an Full-Time Equivalent or more. Most of these costs are related to permitting and interconnection, meaning the costs would be recovered by the City's existing permit fees. At this time staff does not anticipate a need for additional permanent staffing, but will return with a more in-depth projection of costs and staff time associated with the program when returning with the detailed program design this fall. Any necessary additional resources would be requested via a Budget Amendment Ordinance or through the Budget Process.

Policy Implications
The proposed Renewable FIT Policies and Guidelines help meet the Council-approved objectives under LEAP Strategy #3 (Renewable Portfolio Standard, or RPS) and LEAP Strategy #4 (Local Generation) and support the Council-approved Energy Risk Management Policies, and Comprehensive Plan Goal N-9 (a clean, efficient, competitively-priced energy supply that makes use of cost-effective renewable resources).

Environmental Review
Approval of the proposed Renewable FIT Policies and Guidelines does not meet the definition of a project pursuant to Public Resources Code Section 21065, thus no California Environmental Quality Act review is required.

Attachments:
• Attachment A: Proposed Renewable FIT Policies and Design Guidelines (PDF)
• Attachment B: Excerpted Draft UAC Minutes of April 6, 2011 (PDF)

Prepared By: Jon Abendschein, Resource Planner
Department Head: Valerie Fong, Director
City Manager Approval: James Keene, City Manager
City of Palo Alto Utilities (CPAU)
Proposed Renewable Energy Feed-In-Tariff (Renewable FIT) Program Policies and Guidelines

POLICIES
1. The Renewable FIT program’s objective is to maximize fulfillment of the City of Palo Alto (City)’s Renewable Portfolio Standard (RPS) from local renewable sources.
2. Enrollment will be capped at the amount of energy projected to be required to fulfill the City’s RPS.
3. Eligible resources will include those that are deemed renewable by the California Energy Commission (CEC) and that can be included in meeting RPS goals including solar photovoltaic (PV) systems, wind, and biogas-fueled generators.
4. Eligible resources are to be located in the City and connected to the distribution system on CPAU’s side of customer meters.
5. The Renewable FIT rate, set as a fixed-price in cents per kilowatt-hour (kWh) for a twenty-year term, will be based on CPAU’s avoided energy and capacity cost (i.e., value-based) and may vary by load shape for each renewable resource type.
6. The agreement between CPAU and program participants will be a non-negotiable, twenty-year standard contract available to all eligible resources.
7. Program participants will be responsible for direct costs associated with the project (such as interconnection and metering).
8. Projects with a Renewable FIT will not be eligible for a net metering tariff or incentives under the PV Partners Program, the Power from Local Ultra-clean Generation Incentive (PLUG-In) Program, or any other CPAU-funded incentive program.
9. City Council must approve the Renewable FIT rates, standard contracts and updates.

PROGRAM DESIGN GUIDELINES
1. The methodology for calculating avoided cost should include all of the following that apply to the technology in question:
   a. The value of renewable energy (including the value of avoided carbon);
   b. Local capacity value related to the applicable characteristics of the technology;
   c. Avoided transmission charges, transmission losses, and ISO charges;
   d. Avoided distribution losses; and
   e. Any other avoided costs attributable to local renewable generation
2. A standard contract will be established and published. The term will be 20 years.
3. A program cap will be established.
4. Maximum and minimum limits on individual project sizes may be used to limit the number of projects or the risk associated with the operation of any single project. These may be differentiated by technology type.
5. Updates to rates, contract terms, or program size should occur at regular scheduled intervals or should involve substantial advance notice to project developers.
6. Metering requirements will be designed to meet any applicable California Independent System Operator (CAISO), Northern California Power Agency (NCPA), and City operational requirements.
7. Interconnection rules will be established or modified to ensure FIT projects meet all City, NCPA, and CAISO operational requirements. Interconnection rules may be modified on a schedule independent of the FIT update schedule.
8. The FIT program will be designed similarly to FIT programs in other utility service areas where desirable, reasonable and feasible.
EXCERPTED MINUTES OF UTILITIES ADVISORY COMMISSION
MEETING – APRIL 6, 2011

ITEM 1: ACTION: Proposed Policies and Guidelines for Renewable Energy Feed-In-Tariffs
Utilities Resource Planner Jon Abendschein provided a presentation summarizing the key points in the development and approval process of a Renewable Feed-in-Tariff (FIT) program in Palo Alto to meet the Long-term Electric Acquisition Plan (LEAP) Objectives for Renewable Portfolio Standard (RPS) and Local Generation and requested that the UAC recommend Council approve the Proposed Policies and Guidelines for Renewable Energy Feed-In-Tariffs.

During his presentation, Abendschein identified key policy and guidelines which would be used to guide the development of the Renewable FIT program, including:

- Objective of the Renewable FIT program is to meet the City’s RPS of 33% by 2015.
- Initial eligible technologies would be solar photovoltaic (PV), wind, and biogas-fueled generators.
- A FIT rate based on the City’s avoided (value-based) cost and fixed for 20-years.
- A standard, non-negotiable, Power Purchase Agreement (PPA).

Abendschein also touched on several program design elements and details that staff is currently working on with other City departments and Utilities divisions related to program size and limits, development of power purchase agreements, fees and FIT rates, and program administration. Abendschein laid out the next steps including seeking Finance Committee and Council approval of the proposed policies and guidelines in June 2011 and July 2011, respectively. Upon Council approval of the policies and guidelines and development of the program details, staff will return to the UAC, Finance Committee and Council in the fall of 2011 for approval of the Renewable FIT Program including the PPA and FIT rate along with a request for delegation of authority to the City Manager to execute FIT contracts.

Commissioner Melton asked why staff was pursuing a FIT for biogas-fuel generation and what opportunities exist. Abendschein explained that biogas-fueled generation is a CEC approved RPS technology and that it is essentially a fuel-cell that burns natural gas that has been injected into the gas system at a different location and nominated to the specific fuel-cell generator. Abendschein mentioned that there has been some interest in this technology in Palo Alto, but that it was not clear whether it would be economic in the near term.

Commissioner Foster asked staff not to limit the program to the RPS of 33% by 2015, but rather use the ½ cent premium as the cap. He asked for clarification on the list of avoided costs in the proposed FIT policies. Abendschein clarified that the items listed were the ones staff expected to use in developing the feed-in tariff, but that future policy changes could result in additional items being added to the list. Additionally, Commissioner Foster asked if staff believed 4 MW of FITs could be achieved per year and why staff was limiting the FIT technologies to PV, biogas-fueled generators and wind. Abendschein explained that 4 MW is an optimistic projection for Palo Alto. With regards to technology to include within the program, Abendschein explained that staff is trying to keep the program simple in the first year of the program.
Commissioner Keller asked why staff was recommending that program be limited to a 20-year PPA. Abendschein responded that staff will look at what other utilities are doing during the design phase and may recommend alternative durations when staff returns for approval of the program. Utilities Director Fong emphasized that staff is trying to keep the program simple in the beginning and can expand features as we gain experience.

Commissioner Cook clarified that he works in the solar industry for a manufacturer of larger-scale PV systems with the smallest size being 20 MW and therefore did not feel that there was any conflict of interest. He also asked why staff was considering a 25% phase-in per year of the program cap and why staff would develop different FIT rates by technology. Abendschein explained that staff has not developed a recommendation yet for the total program cap or the amount of capacity released each year, but merely cited 25% as an example. Abendschein mentioned that different technologies might have different FIT rates because of the different value each technology provides as a result of varying generation profiles. For example, PV generation generally coincides with higher market price conditions, whereas biogas-fueled generation is a base-load resource generating in all market price conditions. Commissioner Cook asked whether staff was talking to other municipalities about their FITs. Abendschein said that they were.

Chair Waldfogel suggested staff work closely with the Building Department to ensure they understand the Renewable FIT program including how it differs from the City’s current PV Partners program. Abendschein mentioned that staff has reached out to key staff within the Building Department to develop a program design team. Commissioner Waldfogel asked whether system upgrades would be necessary and who would bear the cost. Abendschein said staff would be working with the Utilities Engineering Division to assess the need for upgrades and define who would bear the costs.

**ACTION:**
Commissioner Melton motioned to recommend Council approve the proposed Renewable FIT policies and guidelines. Commissioner Cook seconded the motion. The motion carried unanimously (6-0) with Commissioner Eglash absent.
Approval of Policies and Guidelines for a Renewable Energy Feed-in Tariff

Jon Abendschein, Resource Planner, gave a presentation that included an overview of Feed-in Tariffs (FITs), the objective of the proposed program, and the next steps in getting the program implemented. He said that such programs typically involve energy being “fed in” to the grid and sold to the utility rather than used on site, and that they had been implemented in various countries, U.S. states, and municipalities. Several utilities in California had adopted FIT programs. Evaluating and potentially implementing a renewable FIT program was a work item in the Long-term Electric Acquisition Plan (LEAP) approved earlier in 2011. The objective of the program was to fulfill part of the City’s Renewable Portfolio Standard (RPS) from local renewable sources. Some of the benefits of this strategy included avoiding transmission costs and the cost of complying with other state grid operator requirements, as well as keeping money spent on power within the community. The proposed program was a value-based FIT program, in contrast to a cost-based program. This meant that the program was based on the value of the power rather than the cost to build the generator. The Utilities Advisory Commission (UAC) had reviewed the FIT and recommended the City Council approve the program. If the Finance Committee and City Council approved the proposed Policies and Guidelines, Staff would return with a detailed program for review and approval in the fall.

Vice Mayor Yeh stated this program would provide more options for the City to achieve its RPS goals. He asked whether the program size was governed by the RPS limit.

Mr. Abendschein stated that the goal of the program was to fulfill the City’s RPS program, but that the specific RPS limit was not specified in the policy.
Vice Mayor Yeh asked whether the City’s market exposure would increase if the program were fulfilled entirely with solar.

Mr. Abendschein said the amount of solar being discussed was small and unlikely to create significant risks to the City’s portfolio, but Staff would examine that over the following months.

Vice Mayor Yeh asked whether the rate would be fixed over the term of the contract or if there were escalators planned.

Mr. Abendschein stated the goal was to have a fixed rate for the full term.

Vice Mayor Yeh asked whether the program would be reviewed annually.

Mr. Abendschein stated that the goal was to have an annual review with the Council.

Vice Mayor Yeh asked whether the value-based FIT rate was based on the Market Price Referent (MPR).

Valerie Fong, Director of Utilities stated that the rate was based on the market price.

Mr. Abendschein stated it was based on previously signed renewable contracts that were very close to the MPR.

Council Member Schmid asked whether the most recent contracts were included in the graph of the renewable portfolio included in the presentation.

Mr. Abendschein stated that all of the geothermal contracts and landfill gas contracts were included.

Council Member Schmid stated that he was concerned that the method of valuation would include older contracts that no longer reflected the market price.

Vice Mayor Yeh clarified that if the City based the price on previously signed contracts it could lock the rate into older contracts that involved escalators.
Jane Ratchye, Assistant Director of Resource Management, clarified that the price would be based on an assessment of renewable market prices, and that the most recently signed renewables contracts were an indicator of current market prices.

Ms. Fong stated that the rates were also reviewed annually as market prices changed. Signed contracts maintained the same rate for the entire term of the contract. Future contracts could have a different rate, but existing contract rates would not change.

Vice Mayor Yeh asked whether the MPR was updated annually.

Ms. Ratchye stated the MPR used to be a good benchmark for renewable prices but that changing regulations meant it would no longer be updated.

Vice Mayor Yeh asked whether the City would generate its own renewable market price estimates.

Ms. Ratchye stated it would. The Northern California Power Agency (NCPA) looked at the renewables market frequently and was a good source of information.

Vice Mayor Yeh asked how the time-of-day benefits were calculated.

Mr. Abendschein stated the time-of-day benefits were based on the hourly market price for power.

Chair Scharff asked for a clarification on Guideline 1. He asked how the avoided cost related to the calculation of the value-based FIT rate.

Ms. Ratchye stated the avoided cost was the entire basis for the FIT rate calculation.

Chair Scharff stated the language in Guideline 1a regarding the value of renewable energy should be clarified. He asked whether the renewable energy value included a separate carbon price.

Mr. Abendschein stated it was included in the renewable market price.

Council Member Schmid asked whether the market price was technology-specific or based on the market for all renewables.

Ms. Ratchye stated it was based on the market for all renewables.
Chair Scharff recommended using the words “market price of renewable power” in Guideline 1a.

Ms. Ratchye agreed, stating if the language was not clear it could be changed.

Vice Mayor Yeh asked whether the local benefits associated with the FIT rate were calculated based on Staff’s estimates.

Mr. Abendschein stated yes, the local benefits were based on forecasts done for the City.

Vice Mayor Yeh asked whether these represented transmission costs passed through to us by the California Independent System Operator (CAISO)

Mr. Abendschein stated they did.

Vice Mayor Yeh asked how roof rental would work for residential installations.

Ms. Ratchye stated the program would not apply to residences. If the building owner chose to rent out their roof to a developer the City would not be a part of the contract.

Vice Mayor Yeh asked whether the Building Division would need to be involved in potential projects to issue permits.

Ms. Fong stated that all projects would need permits.

Vice Mayor Yeh asked whether the Building Division would be involved in the design process.

Mr. Abendschein stated the Building Division was already involved in the process.

Vice Mayor Yeh asked whether the program would involve any partnerships with public facilities.

Ms. Fong stated that was a program implementation issue and that the Utilities Department was not at the stage of considering that yet.
Vice Mayor Yeh recommended that there be discussions with schools to make sure they are aware of the program.

Ms. Fong stated a strong school advocate was on the UAC.

Ms. Ratchye stated there was discussion at the UAC regarding what role the City should play in marketing the program. The UAC recommended making the program streamlined, ensuring customer awareness, but not actively connecting developers with available roof space.

Council Member Shepherd stated she was conflicted between the cost-based and the value-based FIT. She stated there seemed to be a large difference between the two. She asked who the developer would be in these projects.

Mr. Abendschein stated there could be a 3rd party renting a roof and owning the solar panels or the facility owner could install the project themselves.

Ms. Ratchye stated that if the value-based rate were $0.15 per kWh but the cost to the developer was $0.16 per kWh, the developer would not do the project. As costs came down over time, though, the project would become economic. There had been discussion at the UAC about paying more in order to get projects built earlier, but if the City overpaid the cost would be borne by the electric ratepayers. Staff and the UAC recommended the value-based approach.

Council Member Shepherd asked whether the rate would be firm.

Ms. Ratchye stated if the price was too low in the beginning no projects would be completed, but the solar industry was stating that costs were coming down.

Council Member Shepherd asked whether it cost more to build in Palo Alto and whether there was any allowance for that in the rate.

Ms. Fong stated there was not because the rate was based on the value of the energy rather than the cost to build.

Vice Mayor Yeh asked whether Staff would help potential participants make the decision about how much value the program would provide.
Ms. Fong stated Staff provided the program but let the customers determine whether it was economically valuable to them.

Ms. Ratchye stated a key benefit of the FIT was that it involved a standard contract with a fixed price, which reduced uncertainty for the developer because they did not have to wait for a Request for Proposals (RFP).

Vice Mayor Yeh whether information would be provided to the building owners as well as solar developers in case a building owner wanted to develop a project and be paid for the energy.

Ms. Fong stated that the choice of whether to develop or rent the roof needed to be made by the market.

Vice Mayor Yeh asked how the City would notify developers of the program.

Ms. Ratchye stated that solar developers were aware of the program.

Ms. Fong stated that information on the program would be made available to the public.

Council Member Schmid asked about Guideline 1b related to local capacity value.

Mr. Abendschein stated that local capacity value was related to grid stability. It had to do with standards set by the CAISO.

Ms. Fong stated that different technologies had different grid stability values. The CAISO set requirements for how much capacity was needed in each region.

Ms. Ratchye stated that solar and wind might count differently toward those capacity requirements.

Council Member Schmid asked what the value of local capacity was.

Mr. Abendschein said the value was a few dollars per megawatt-hour.

Council Member Schmid asked whether the resident had to pay for these charges. He asked whether the charge was in addition to the 14-16 cents / kWh rate discussed in the report.
Mr. Abendschein stated no, it was part of that price.

Council Member Schmid asked whether the calculation would be transparent in the final rate calculation.

Mr. Abendschein stated it would be.

Council Member Schmid asked whether some of the other renewable resources the City owned were able to provide local capacity value.

Ms. Fong stated that some were, and others were not.

Shepherd recommended clarifying the language in Guideline 1b.

Ms. Ratchye stated that Staff would clarify the language.

Council Member Schmid asked whether it made sense to offer a twenty-year term when technology was changing so quickly.

Ms. Fong stated that FITs were a mechanism being used throughout Europe. Staff was aligning this program with the way FIT programs were done elsewhere.

Council Member Schmid asked what would happen if the rooftop system broke down.

Ms. Ratchye stated the City only paid if the energy was delivered.

Council Member Shepherd asked whether the developer could get a new contract if the system broke down after fifteen years.

Mr. Abendschein stated those types of contingencies would be dealt with in the standard contract and included in the detailed plan.

Ms. Fong stated that with a flat rate the City paid more for power earlier in the contract term and less later on. There was some obligation by the developer to deliver in the later years.

Council Member Schmid asked if the program would be more attractive if the City could offer shorter terms.

Mr. Abendschein stated that the UAC had recommended that Staff give themselves the flexibility to examine shorter terms.
Chair Scharff stated that the twenty year benefited the developer. If there were a shorter term there may be less interest.

Council Member Schmid stated it was the opposite of a business investment encouraging people to replace the system.

Chair Scharff stated the systems that went in today would receive higher payments, so if the system was repaired in fifteen years they would continue to receive that payment.

Ms. Fong stated that the level of interest would not be clear until the program was launched.

Vice Mayor Yeh said that the point was to protect the citizens’ interests. The price the City would have to pay would increase if the solar system did not deliver in the last five years.

Ms. Ratchye stated the City paid a fixed price for the entire term of the contract.

Ms. Fong stated this could be taken into account in liquidated damages clauses. Staff did not have the answer ready that night.

Council Member Schmid stated that solar systems degenerated over time.

Ms. Fong stated there would be performance requirements in the standard agreement.

Council Member Shepherd stated it appeared similar to a ground lease, so if the developer walked away the building owner could sign a contract with the City.

Council Member Schmid stated he did not want to see abandoned solar systems degrading on businesses’ rooftops. He asked if the program provided an incentive to cut down trees to allow the solar system to function, which would then increase the cooling costs of the building.

Mr. Abendschein stated a side benefit to the program was that the solar panels on the building provide a cooling effect.

Council Member Schmid asked if Canopy had been consulted.
Pamela Antil, Assistant City Manager, stated the City would continue to follow the tree ordinance when implementing the program.

Council Member Shepherd asked what was meant in the guidelines by biogas-fueled generators.

Mr. Abendschein stated the type of biogas being discussed would come from a dairy farm. Methane generated by digestion of the waste would be injected into a gas pipeline and directed to the generator.

Council Member Shepherd asked if that was specified in the policies and guidelines.

Mr. Abendschein stated that the City was able to take advantage of rules already set by the California Energy Commission (CEC) on this topic.

Council Member Schmid asked what the rate impact of the program would be.

Ms. Ratchye stated that this program would not cause the City to exceed the half-cent per kilowatt-hour rate impact guideline set forth in the LEAP for fulfilling the RPS.

Council Member Schmid asked what percent of the system average rate that was.

Ms. Fong stated it was roughly $5 million out of an $80 million supply portfolio.

Chair Scharff asked whether the half-cent limit would be exceeded if the entire remaining RPS were fulfilled with through this program.

Ms. Ratchye confirmed that it would not unless the value of renewable power goes up.

Chair Scharff stated there was no policy to that effect.

Ms. Fong stated that it was a requirement of the LEAP, meaning the limit could not be exceeded.

Chair Scharff stated the Staff proposal was well thought out. He recommended changing the language in Policy 1 to remove the word “maximize.”
Ms. Fong said Staff would take out that word.

**MOTION:** Council Member Schmid moved, seconded by Vice Mayor Yeh to recommend that the City Council accept the Staff recommendation to approve the proposed policies and guidelines for a Renewable Energy FIT program with the following modifications:

- In Guideline 1a use the term “market price of renewable energy.”
- Clarify the wording in Guideline 1b.
- In Policy 1 remove the work “maximize.”

**MOTION PASSED 4-0**