



## Item No. 20 Town of Atherton

### **CITY COUNCIL STAFF REPORT – REGULAR AGENDA**

**TO: HONORABLE MAYOR AND CITY COUNCIL  
GEORGE RODERICKS, CITY MANAGER**

**FROM: ROBERT OVADIA, PUBLIC WORKS DIRECTOR**

**DATE: FEBRUARY 16, 2022**

**SUBJECT: ATHERTON TOWN CENTER SOLAR ENERGY POWER  
PURCHASE AGREEMENT WITH PENINSULA CLEAN ENERGY**

#### **RECOMMENDATION**

Review and provide direction regarding the location of solar panels and canopies at the Town Center and; adopt a resolution authorizing the City Manager to deploy a Solar Photovoltaic System (Solar PV System) with optional battery storage at municipal facilities in partnership with Peninsula Clean Energy Authority (Peninsula Clean Energy) should the City Manager determine there are cost effectiveness or other community benefits as determined by the Town following participation in a collaborative procurement(s) led by Peninsula Clean Energy.

#### **BACKGROUND**

The Town is currently in the process of completing its new Town Center and Library complex. When the project was initially designed, the complex included provisions for rooftop and parking canopy solar infrastructure as well as a micro-grid power back-up system as additive alternates. Construction bids received for the overall project were significantly higher than the available budget for the project. The bids received for the solar system and micro-grid systems ranged between \$3.26 million and \$4.647 million.

Per the direction of Council, the project was redesigned to reduce some of the project complexities and project costs while maintaining the intent of the project. As part of the redesign, the project scope was modified to make the buildings “solar ready,” including basic infrastructure to support the photovoltaic systems, with the final installation of the systems deferred to a later time.

The Council further directed that staff evaluate the possibility of entering into a Power Purchase Agreement (PPA) or other similar agreement that would allow for the installations by a third-party at no upfront costs to the Town, with the system being paid for over time including energy cost offsets. As a municipality, the Town is ineligible to receive certain incentives that are available to private parties. Utilizing a third-party

provider could allow for a potential cost reduction associated with incentives that the third-party may be able to obtain.

The Town contracted with Sage Energy Consultants (Sage) to assist in developing an RFP and securing a third-party Power Services Provider to install, maintain and guarantee production rates for solar facilities at the Town Center. As Sage was completing its analyses, it was apparent that the economics of the proposed solar panel locations were insufficient to support the economic investment of a third-party provider at the time and that the solar panels would need be located in areas with higher production values. Though interest remained in future installation of solar panels at the Town Center, the City Council was concerned about both the economics of the PPA outlined by Sage as well as how the layout changes could impact the overall delivery of the Town Center project. The discussion of solar panel installation and the proposed power purchase agreement was deferred to allow construction to proceed with limited impact, to be picked up at a future date. With the nearing completion of the Town Center, the Town is in a better position to consider partnering opportunities for solar installations at the Town Center.

Late last year, the Town was advised that Peninsula Clean Energy (PCE) was developing an aggregated Solar PV System procurement project that would provide for the installation of photovoltaic solutions at various municipal locations. Peninsula Clean Energy will facilitate the deployment of these Solar PV Systems and is piloting a new aggregate procurement model for public facilities to help reduce the costs and complexities for its public partners to move forward. PCE's vision for a large-scale contract has the potential for the economies of scale associated with multiple installations to reduce the overall cost of the various Solar PV Systems.

## **ANALYSIS**

Peninsula Clean Energy is collaborating with its Joint Power Authority (JPA) members, including the Town, to identify candidate facilities and develop Solar PV System designs for various municipal sites. At its expense, Peninsula Clean Energy engaged an established independent engineering firm, McCalmont Engineering, via a competitive solicitation to work with Town staff to design a Solar PV System for the Town Center.

Town staff met with PCE staff to review the Town Center site for potential inclusion in their procurement contract. Both Town and PCE staff thought that there was a good potential for a mutually beneficial partnership regarding solar installation at the Town Center. A follow up meeting the PCE staff and McCalmont Engineering was held, including a site walk through and review of installed electrical panels to support an evaluation of feasible solar options at the Town Center.

After review, PCE and McCalmont Engineering are recommending that solar panels be installed on the Civic Center roof, on the PD Ancillary building and on canopies over the parking along the rail corridor. The locations of the proposed solar arrays are shown on Attachment 1. The estimated size of the various arrays are shown on the attachment and are summarized as follows:

- Array 1 – City Hall roof mount – 14.8 kWDC
- Array 2 – City Hall roof mount – 44.3 kWDC
- Array 3 – City Hall roof mount – 22.1 kWDC
- Array 4 – PD Ancillary roof mount – 27.9 kWDC
- Array 5 – Parking Canopy 1 – 44.3 kWDC
- Array 6 – Parking Canopy 2 – 44.3 kWDC

It has been noted, and PCE is aware, that the Civic Center roof consists of clay tile and care is to be taken in the installation. Some tiles will need to be removed to accommodate the installation. An appropriate warranty on the installation as it impacts the roof may be needed by the installer through any potential agreement with PCE.

The proposed arrays in the parking area along the rail corridor are located with the Maintenance and Use area associated with the Atherton Station. Per the Maintenance and Use agreement, the Town must obtain JPB/Caltrain approval for installations within the area. In staff's initial consultation with Caltrain, Caltrain advised that they did not have any objection to such an installation provided that the installation did not impact rail operations. It is important to note that the Maintenance and Use agreement has a term of 20 years, is automatically extended for additional 5-year terms unless notified the JPB in advance of expiration, and that JPB can revoke all or portions of the agreement areas Transit Activities at any time. Though such revocation is not anticipated, PCE will require that the Town guarantee the installation for 20 years and either relocate to another area on site or pay an amortized portion of the installation costs if the system must be removed prior to the end of the term.

The Solar PV Systems would be financed through a Power Purchase Agreement (PPA) with Peninsula Clean Energy. With a PPA model, Peninsula Clean Energy will arrange for the installation, operations and maintenance of the Solar PV System, and the Town would pay an agreed upon price per kilowatt-hour (kWh) for power generated throughout the system's life (further details below). There are no upfront costs to the Town – the costs of the equipment are paid for with a portion of the overall electric bill savings generated by the system. The PPA will be provided "at cost" by Peninsula Clean Energy to cover equipment and installation. In addition, Peninsula Clean Energy will also retain a small \$/kWh fee to cover its expenses and will be fully transparent with the Town about all salient aspects of the project's financials.

PCE and its consultant have been estimating the construction costs and production values and believes that the proposed installations are economically feasible and intends to provide a significant discount to current PG&E energy and transmission rates for the energy produced and used at the Town Center. The actual discount will be based on bid prices received by PCE through their procurement contract. PCE will be responsible for the maintenance of the solar arrays and associated production.

PCE is asking all municipal participants to pass a resolution authorizing the City Manager

to enter into a PPA agreement with PCE if, after going out to bid for equipment and installation, it can offer net financial and/or community benefits via the project. To date, the following have passed such a resolution for their respective sites: Belmont, Brisbane, Colma, Hillsborough, Millbrae, Pacifica, Redwood City, San Carlos, San Mateo, and San Mateo County. If Peninsula Clean Energy is unable to offer a PPA rate for the Solar PV System that will provide the Town with net savings or other community benefits as determined by the Town, then there would be no obligation to move forward.

This process is intended to be a repeated process with subsequent procurement rounds. The Town may add additional facilities in subsequent rounds.

Staff is seeking Council direction regarding the proposed solar array locations to ensure that there is alignment and agreement to move forward with the project as designed, with solar on the City Hall building roof and in Maintenance and Use areas owned by the JPB, noting the clay tile and JPB-related specifics discussed above. PCE is seeking approval of concept and guarantee that the Town would enter into an energy agreement with PCE should the economics of the bid provide a minimum guaranteed discount to PG&E's current rates.

Unfortunately, the California Public Utilities Commission is considering tariff changes related to solar installations and net energy metering (NEM tariff) that may adversely impact the economics of new solar installations. PCE is keeping apprised of any associated impacts and may adjust their overall project accordingly.

### **POLICY FOCUS**

Council policy discussion should center around the desire to implement photovoltaics at the Town Center and the financial benefits of entering into an energy agreement with PCE.

### **FISCAL IMPACT**

As noted above, there would be no upfront cost to the Town. Peninsula Clean Energy will manage the procurement process, financing, installation, operations, and maintenance and offer a long-term PPA to Town for a specified \$/kWh price that is lower than the current and future \$/kWh price the Town would pay for that same energy from the utility.

If Peninsula Clean Energy is unable to offer a PPA rate for the Solar PV System that will provide the Town with net savings or other community benefits as determined by the Town, then there would be no obligation to move forward.

### **GOAL ALIGNMENT**

This Report and its contents are in alignment with the following Council Policy Goals:

- Goal A – Maintain Fiscal Responsibility
- Goal B – Preserve Small Town Character and Quality of Life

### **PUBLIC NOTICE**

Public notification was achieved by posting the agenda, with this agenda item being listed, at least 72 hours prior to the meeting in print and electronically. Information about the project is also disseminated via the Town's electronic News Flash and Atherton Online. There are approximately 1,200 subscribers to the Town's electronic News Flash publications. Subscribers include residents as well as stakeholders – to include, but be not limited to, media outlets, school districts, Menlo Park Fire District, service providers (water, power, and sewer), and regional elected officials.

### **ATTACHMENTS**

Attachment 1 - Proposed Solar Arrays at the Atherton Town Center  
Attachment 2 – Draft Resolution....



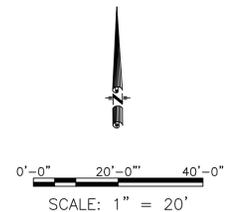


01 SITE PLAN

MODULE COUNTS AND RATINGS PER ARRAY												
ARRAY	TYPE	MODULE TYPE	MODULE DIMENSIONS	MODULE RATING	AZIMUTH	TILT	MODULES	PV SOURCE CIRCUITS	SPARE MODULES	TOTAL MODULES	KWDC	KWAC
ARRAY 1	ROOF MOUNT	JA SOLAR JAM72S10-410/MR	79.3" X 39.2" X 1.6"	410W	217°	10°	36	2	0	36	14.8KWDC	60.0KWAC
ARRAY 2	ROOF MOUNT	JA SOLAR JAM72S10-410/MR	79.3" X 39.2" X 1.6"	410W	127°	10°	108	6	0	108	44.3KWDC	
ARRAY 3	ROOF MOUNT	JA SOLAR JAM72S10-410/MR	79.3" X 39.2" X 1.6"	410W	217°	10°	54	3	0	54	22.1KWDC	25.0KWAC
ARRAY 4	ROOF MOUNT	JA SOLAR JAM72S10-410/MR	79.3" X 39.2" X 1.6"	410W	217°	0°	68	4	0	68	27.9KWDC	
ARRAY 5	CANOPY	JA SOLAR JAM72S10-410/MR	79.3" X 39.2" X 1.6"	410W	217°	7°	108	6	0	108	44.3KWDC	36.0KWAC
ARRAY 6	CANOPY	JA SOLAR JAM72S10-410/MR	79.3" X 39.2" X 1.6"	410W	217°	7°	108	6	0	108	44.3KWDC	36.0KWAC
MODULES PER PV SOURCE CIRCUIT				18	TOTALS		482	27	0	482	197.6KWDC	157.0KWAC

GENERAL NOTES

- (482) JA SOLAR JAM72S10-410/MR 410W MODULES.
- (1) CPS SCA25KTL-DO-R/US-480 INVERTERS.  
(2) CPS SCA36KTL-DO/US-480 INVERTERS.  
(1) CPS SCA60KTL-DO/US-480 INVERTERS.
- MODULE RACKING TBD.
- CONTRACTOR TO ENSURE THAT THE PHOTOVOLTAIC ARRAY AND ASSOCIATED EQUIPMENT MEET FIRE CODE.
- INVERTERS ON ROOF COMPLY WITH RAPID SHUTDOWN PER NEC ART. 690.12.



**Mccalmont Engineering**  
 info@mccalmont.net  
 (408) 871-9600  
 1400 ELLIOTT AVENUE  
 CAMPBELL, CA 95008  
 www.mccalmont.net

REV.	DATE	DESCRIPTION
-	01/19/21	PRELIMINARY LAYOUT

**PENINSULA CLEAN ENERGY**  
 PENINSULA CLEAN ENERGY  
 2075 WOODSIDE RD  
 REDWOOD CITY, CA 94061  
 P: (866) 966-0110  
 INFO@PENINSULACLEANENERGY.COM

SITE PLAN  
 80 FNR OAKS LN  
 ATHERTON, CA 94027

PROJECT NAME: ATHERTON TOWN HALL  
 DESIGNER: MCCALMONT ENGINEERING  
 DATE: 01/18/2022  
 DRAWN BY: M. GALLAGHER  
 FILENAME: E-100.500  
 CHECKED BY: C. DEARIE  
 SCALE: AS NOTED  
 SIGNATURE: A. MCCALMONT  
 PLOT DATE: 01/19/2022  
 PROJECT NUMBER: 253-01687  
 SHEET SIZE: 24" X 36"

NOT FOR CONSTRUCTION  
 E-101

**RESOLUTION NO. 2022-XX**

**A RESOLUTION OF THE CITY COUNCIL OF THE TOWN OF ATHERTON AUTHORIZING PARTICIPATION IN MUNICIPAL FACILITY PROCUREMENT FOR SOLAR AND BATTERY ENERGY STORAGE SYSTEMS WITH PENINSULA CLEAN ENERGY**

**WHEREAS**, the Town of Atherton City Council has demonstrated its commitment to a sustainable and resilient future through its policy goals and actions, including energy conservation, clean energy programs, and the expansion of local renewable power supply; and

**WHEREAS**, on October 16, 2016, the Town of Atherton City Council adopted the Climate Action Plan to reduce greenhouse gas emissions by 40% of Atherton's 1990 emissions level by 2030; and

**WHEREAS**, Atherton's Climate Action Plan sets the goals of providing state-of-the-art, well-maintained infrastructure, amenities, and facilities, creating a resilient, safe, connected, and prepared city and being a global leader in addressing climate change, advancing environmental justice, and protecting the environment, and

**WHEREAS**, Atherton's Climate Action Plan relies heavily on measure EC6 (Community Choice Aggregation) to achieve 81 percent of the Town's 2030 emissions target through a switch to greener energy sources, and

**WHEREAS**, a Community Choice Aggregation program is a mechanism by which local governments assume responsibility for providing electrical power for residential and commercial customers in their jurisdiction in partnership with local commercial energy purveyors and owners of transmission and distribution facilities, which in the case of San Mateo County is Pacific Gas & Electric Co.; and

**WHEREAS**, on January 12, 2016, the City Council authorized Atherton's participation in the Peninsula Clean Energy joint powers agency, development of the Peninsula Clean Energy Community Choice Aggregation program, and authorized implementation of Peninsula Clean Energy as City's Load Serving Entity; and

**WHEREAS**, on September 21, 2016, the City Council voted to have Peninsula Clean Energy's ECO100 Plan (100% carbon free and renewable) electric service plan for all its municipal accounts; and

**NOW THEREFORE, BE IT RESOLVED** by the Town of Atherton City Council that the City Manager is authorized to deploy Solar Photovoltaic Systems at municipal facilities in partnership with the Town's public power provider, Peninsula Clean Energy through a standard Power Purchase Agreement with Peninsula Clean Energy, should the project result in financial and/or community benefits. The Council further authorizes the City Manager to explore an optional Battery for these sites.

**ATTACHMENT 2**

*I hereby certify that the foregoing Resolution was duly and regularly passed and adopted by the City Council of the Town of Atherton at a regular meeting thereof held on the 16<sup>th</sup> day of February, 2022, by the following vote.*

AYES: COUNCIL MEMBERS:  
NOES: COUNCIL MEMBERS:  
ABSENT: COUNCIL MEMBERS:  
ABSTAIN: COUNCIL MEMBERS:

\_\_\_\_\_  
Rick DeGolia, Mayor  
Town of Atherton

ATTEST:

\_\_\_\_\_  
Anthony Suber, City Clerk

APPROVED AS TO FORM:

\_\_\_\_\_  
Mona Ebrahimi, City Attorney

**Attachment 2:**  
[FACILITY AND SOLAR PV SYSTEM SPECIFICS]

CONSENT CALENDAR  
Date XX, 2021

To: Honorable Mayor and Members of the City Council  
From: **XXXX, City Manager**  
Subject: Recommendation to Participate in Peninsula Clean Energy's Public Facility Solar and Storage Procurement Process

RECOMMENDATION

Adopt a Resolution authorizing the City Manager to deploy a Solar Photovoltaic System (Solar PV System) with optional battery storage at municipal facilities in partnership with Peninsula Clean Energy Authority (Peninsula Clean Energy) should the City Manager determine there are cost effectiveness or other community benefits as determined by the City following participation in a collaborative procurement(s) led by Peninsula Clean Energy.

FISCAL IMPACTS OF RECOMMENDATION

**There is no expected upfront cost to the City** for the projects. For projects with solar power but no battery the Solar PV Systems are expected to provide cost savings. The savings are expected to grow over time due to avoided increases in utility costs which are expected to rise as much as 5% or more per year according to proposals by Pacific Gas & Electric at the California Public Utilities Commission.

A Battery Energy Storage Systems (Battery) may be included as an option in the procurement to provide added resilience benefits such as the ability to maintain an operational facility during an outage or emergency event. If a Battery is included, it may require city funding or result in a monthly cost above current energy bills. Peninsula Clean Energy, via a competitive solicitation, will be seeking best pricing for applicable Battery systems and explore financial options with the City Manager. There is no requirement to include the Battery but if no Battery is installed, the Solar PV Systems will be designed as "battery ready" to allow for a streamlined future addition of a Battery.

The Solar PV Systems would be financed through a Power Purchase Agreement (PPA) with Peninsula Clean Energy. With a PPA model, Peninsula Clean Energy will arrange for the installation, operations and maintenance of the Solar PV System, and the City would pay an agreed upon price per kilowatt-hour (kWh) for power generated throughout the system's life (further details below). The PPA will be provided "at cost" by Peninsula Clean Energy to cover equipment and installation. In addition, Peninsula Clean Energy will also retain a small \$/kWh fee to cover its expenses and will be fully transparent with the City about all salient aspects of the project's financials.

If Peninsula Clean Energy is unable to offer a PPA rate for the Solar PV System that will provide the City with net savings or other community benefits as determined by the City, then there would be no obligation to move forward.

### BENEFITS OF SOLAR PV SYSTEMS

Solar PV Systems provide carbon-free renewable electricity to buildings and can meaningfully reduce electric bills. If included, the optional Battery can provide resilience benefits allowing critical facilities to continue to operate on a limited basis during a power outage using electricity stored and generated onsite.

### BENEFITS TO THE CITY:

The benefits of this project include:

- Peninsula Clean Energy has evaluated facilities with its engineering services partner and determined a feasible design for a Solar PV System
- Peninsula Clean Energy will, if necessary, undertake an independent engineering assessment of facility roof to confirm structural ability to support Solar PV equipment once the City has committed to this Resolution
- Peninsula Clean Energy will execute all aspects of the procurement process
- Peninsula Clean Energy will administer the construction and maintenance of the Solar PV System
- The City will obtain financial and environmental benefits of a Solar PV System with no upfront costs and without incurring the staff time, cost, and complexity of running its own solicitation
- The City will create local, renewable energy to advance its sustainability objectives at its facilities
- The City will receive enhanced energy resilience for facilities if a Battery is deployed
- The City will hedge against rising utility rates, which over the course of a 20+ year system life will be significant

### PILOT PROCUREMENT PROCESS AND MODEL

Peninsula Clean Energy has collaborated with its Joint Power Authority (JPA) members, including the City, to identify candidate facilities and develop Solar PV System designs for these sites. At its expense, Peninsula Clean Energy engaged an established independent engineering firm via a competitive solicitation and working with City staff, designed a Solar PV System for the City's facility as described in the attached proposal.

Peninsula Clean Energy will facilitate the deployment of these Solar PV Systems and is piloting a new aggregate procurement model for public facilities to help reduce the costs and complexities for its public partners to move forward.

Peninsula Clean Energy will manage the procurement process, financing, installation, operations, and maintenance and offer a long-term PPA to City for a specified \$/kWh price that is lower than the current and future \$/kWh price the City would pay for that same energy from the utility. **There would be no upfront cost to the City.**

This process is intended to be a repeated process with subsequent procurement rounds. The City may add additional facilities in subsequent rounds.

#### COMMITMENT TO PARTICIPATE IF NET SAVINGS PROVIDED

Peninsula Clean Energy cannot provide a specific PPA price until it knows equipment costs, which will be determined via competitive solicitation. However, to make the RFP as competitive as possible, Bidders need to know that there is a firm commitment by participating facility owners to move forward if they can provide pricing that results in net savings. Peninsula Clean Energy is requesting the City to approve a resolution that demonstrates strong intent to participate per the attached Resolution.

#### TIME IS OF THE ESSENCE

The California Public Utilities Commission is currently engaged in rulemaking for changes to the Net Energy Metering (NEM) tariffs governing solar PV resources. It is expected that the next iteration of NEM (NEM 3) will be less advantageous for solar and may negatively affect project economics. In the past, projects that had reached a defined stage were grandfathered in under the existing tariff at the time, and it is expected this might apply to the latest NEM revision as well. As such, it is important to get projects deployed as soon as possible. If NEM 3 is enacted prior to the deployment of Solar PV Systems from this procurement and would prevent Peninsula Clean Energy from offering a PPA at net benefits to the City, Peninsula Clean Energy would have the right to terminate this pilot program at no cost or obligation to the City.

#### RATIONALE FOR RECOMMENDATION

[CITY TO EDIT; CURRENT TEXT AS EXAMPLE ONLY] This project is consistent with the City's Climate Action Plan, advancing the City's goals to: 1. Provide state-of-the-art, well-maintained infrastructure, amenities, and facilities; 2. Create a resilient, safe, connected, and prepared community; and 3. Be a global leader in addressing climate change, advancing environmental justice, and protecting human health and the environment.

Peninsula Clean Energy is offering this first-of-its-kind group procurement model to local government partners across San Mateo County in support of its organizational objectives to increase local renewable generation, help reduce energy costs, and help its customers achieve sustainability goals. Peninsula Clean Energy has reduced risks to all parties by hiring an independent engineer to complete an analysis for buildings currently in the pilot portfolio and acting as the counterparty to the PPA which will bring down costs, streamline procurement, and reduce the amount of time required by City staff while obtaining the environmental, economic, and other community benefits.

Attachments:

- 1: Resolution
- 2: Solar PV System Proposal for the City's facility(-ies)

[TEMPLATE RESOLUTION, TO BE UPDATED BY CITY STAFF]

RESOLUTION NO #####

Municipal Facility Procurement for Solar and Battery Energy Storage Systems with Peninsula Clean Energy

WHEREAS, the [CITY] City Council has demonstrated its commitment to a sustainable and resilient future through its policy goals and actions, including energy reduction, clean energy programs, and the expansion of local renewable power supply, and

WHEREAS, on DATE, the [CITY] City Council adopted the [CITY] Climate Action Plan to reduce greenhouse gas emissions by 80% of [CITY]'s 2000 emissions level by 2050, and

WHEREAS, on DATE, the City released its [CITY] Strategy with the goal of "XYZ", and

WHEREAS, on DATE, the [CITY] City Council declared a Climate Emergency, and

WHEREAS [CITY's] City Plan sets the goals of providing state-of-the-art, well-maintained infrastructure, amenities, and facilities, creating a resilient, safe, connected, and prepared city and being a global leader in addressing climate change, advancing environmental justice, and protecting the environment, and

WHEREAS, a Community Choice Aggregation program is a mechanism by which local governments assume responsibility for providing electrical power for residential and commercial customers in their jurisdiction in partnership with local commercial energy purveyors and owners of transmission and distribution facilities, which in the case of San Mateo County is Pacific Gas & Electric Co.; and

WHEREAS, on [DATE], the City Council adopted Resolution [NUMBER] authorizing CITY's participation in the Peninsula Clean Energy Authority, development of the Peninsula Clean Energy Community Choice Aggregation program, and authorized implementation of Peninsula Clean Energy as City's Load Serving Entity; and

WHEREAS, on DATE, the City Council adopted Resolution [NUMBER] selecting the [Peninsula Clean Energy ECO100 Plan] (100% renewable) electric service plan from Peninsula Clean Energy for all municipal accounts; and

NOW THEREFORE, BE IT RESOLVED by the [CITY] City Council that the City Manager is authorized to deploy Solar Photovoltaic Systems at municipal facilities in partnership with the City's public power provider, Peninsula Clean Energy through a standard Power Purchase Agreement with Peninsula Clean Energy, should the project result in financial and/or community benefits. The Council further authorizes the City Manager to explore an optional Battery for these sites.

**Attachment 2:**  
[FACILITY AND SOLAR PV SYSTEM SPECIFICS]

DRAFT