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# Technical Committee Meeting

Thursday, February 2, 2017  
9:00 A.M.

**The Barbara George Conference Room**  
**1125 Tamalpais Avenue, San Rafael, CA 94901**

## Agenda Page 1 of 1

1. Board Announcements (Discussion)
2. Public Open Time (Discussion)
3. Report from Chief Executive Officer (Discussion)
4. 12.1.16 Meeting Minutes (Discussion/Action)
5. MCE Integrated Resource Plan Update (Discussion/Action)
6. Delegation of Authorities and Contracting (Discussion/Action)
  - a. Proposed Resolution 2017-02 - A Resolution of the Board of Directors of MCE Delegating Contracting Authorities
7. MCE Headquarters Solar and Electric Vehicle Installation (Discussion/Action)
8. Resource Adequacy Overview and Update (Discussion)
9. Committee Member & Staff Matters (Discussion)
10. Adjourn



Agenda material can be inspected at 1125 Tamalpais Avenue, San Rafael, CA 94901 on the Mission Avenue side of the building. The meeting facilities are in accessible locations. If you are a person with a disability and require this document in an alternate format (example: Braille, Large Print, Audiotape, CD-ROM), you may request it by using the contact information below. If you require accommodation (example: ASL Interpreter, reader, note taker) to participate in any MCE program, service or activity, you may request an accommodation by calling (415) 464-6032 (voice) or 711 for the California Relay Service or by e-mail at [djackson@mceCleanEnergy.org](mailto:djackson@mceCleanEnergy.org) not less than four work days in advance of the event.

**DRAFT**

**MCE  
TECHNICAL COMMITTEE MEETING  
December 1, 2016  
9:00 A.M.**

**The Barbara George Conference Room  
1125 Tamalpais Avenue, San Rafael, CA 94901**

**Roll Call**

**Present:** Kevin Haroff, City of Larkspur  
Greg Lyman, City of El Cerrito  
Emmett O'Donnell, Town of Tiburon  
Kate Sears, County of Marin, Chair  
Ray Withy, City of Sausalito

**Absent:** Ford Greene, Town of San Anselmo

**Staff:** Kirby Dusel, Resource Planning & Renewable Energy Programs  
David McNeil, Finance and Project Manager  
David Potovsky, Power Supply Contracts Manager  
Byron Vosburg, Power Supply Contracts Manager II  
Dawn Weisz, Chief Executive Officer

**Action taken:**

**Agenda Item #4 – Approval of Minutes from 11.3.16 Meeting (Discussion/Action)**

ACTION: It was M/S/C (O'Donnell/Haroff) to approve minutes from 11.3.16 meeting. Motion carried by unanimous 5-0 roll call vote: (Absent: Greene).

**Agenda Item #5 –Resolution T2016-03 Approving Power Purchase and Sale Agreement Between MCE and Voyager Wind III, LLC for Renewable Energy Supply (Discussion/Action)**

ACTION: It was M/S/C (Lyman/O'Donnell) to authorize, via Resolution T2016-03, execution of the Power Purchase and Sale Agreement between MCE and Voyager Wind III, LLC for renewable energy supply. Motion carried by unanimous 5-0 roll call vote: (Absent: Greene).

**DRAFT**

**Agenda Item #6 – Resolution T2016-04 Approving Power Purchase and Sale Agreement Between MCE and Los Banos Wind, LLC for Renewable Energy Supply (Discussion/Action)**

ACTION: It was M/S/C (Lyman/O'Donnell) to authorize, via Resolution T2016-04, execution of the Power Purchase and Sale Agreement between MCE and Los Banos Wind, LLC for renewable energy supply. Motion carried by unanimous 5-0 roll call vote: (Absent: Greene).

**The meeting was adjourned to the next scheduled meeting on February 2, 2017.**

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Kate Sears, Chair

**ATTEST:**

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Dawn Weisz, Chief Executive Officer



February 2, 2017

TO: MCE Technical Committee

FROM: Byron Vosburg, Power Supply Contracts Manager

RE: MCE 2017 Integrated Resource Plan Update (Agenda Item #05)

ATTACHMENT: Draft MCE 2017 Integrated Resource Plan

Dear Technical Committee:

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**BACKGROUND:**

MCE's Integrated Resource Plan ("IRP") is intended to articulate the energy procurement targets adopted by MCE's Board of Directors ("Board") and serves as a guideline to MCE staff regarding day-to-day operations and long-term portfolio planning and procurement activities. Your Board first approved MCE's ten-year resource plan in Chapter 6 ("Load Forecast and Resource Plan") of the Community Choice Aggregation Implementation Plan and Statement of Intent ("Implementation Plan"), dated January 2010. Regular updates to MCE's resource plan have been approved by your Board via subsequent revisions of the Implementation Plan and, since November 2012, annual IRP updates. In May of 2016, your Board delegated authority to approve IRP updates to the Technical Committee via approval of the "Technical Committee Overview."

The IRP has four primary purposes:

1. Quantify resource needs over the ten-year Planning Period, which, in the current draft IRP update, includes calendar years 2017 through 2026;
2. Prioritize resource preferences and articulate relevant energy procurement policies;
3. Provide guidance to the energy procurement processes undertaken by MCE staff; and
4. Communicate MCE's resource planning policies, objectives and planning framework to the public, energy marketers, and key stakeholder groups.

MCE's key resource planning policies, as set forth in the IRP, are as follows:

1. Reduce GHG emissions and other pollutants associated with the electric power sector through increased use of renewable, GHG-free, and low-GHG energy resources.
2. Maintain competitive electric rates and increase control over energy costs through management of a diversified resource portfolio.
3. Benefit the local economy through investments in infrastructure and energy programs within MCE's service territory.
4. Help customers reduce energy consumption and electric bills through investment in and administration of enhanced customer energy efficiency, cost-effective distributed generation, and other demand-side programs.
5. Enhance system reliability through investment in supply- and demand-side resources.
6. Actively monitor and manage operating and market risks to promote MCE's continued financial strength and stability.

The IRP translates these broad policy objectives into more specific planning elements focused on the use of various resource types, taking into consideration MCE's projected customer needs and MCE's existing resource commitments. The IRP identifies:

1. Projected customer demand and energy needs, specifically those for renewable, GHG-free, and conventional energy, over the Planning Period.
2. Estimated deliveries from contracted resources that will fill portions of these energy needs.
3. Subsequent "open positions" that result from the difference between future energy needs and commitments from currently contracted resources; these open positions dictate the timing and magnitude of additional energy procurement that may be required to meet specified resource goals.
4. To the extent that open positions exist, the IRP describes the procurement methods and guidelines that MCE will utilize to meet them.

MCE's IRP is updated annually, typically in fall – after summer's procurement activities have concluded and in anticipation of the next year's procurement planning. However, MCE's 2016 contracting efforts were more extensive than usual, resulting in deferral of the 2017 planning process until November 2016 through February 2017.

#### **SUMMARY OF PROPOSED CHANGES:**

MCE's 2015 IRP established significant increases in MCE's procurement targets: increasing renewable energy content for its Light Green service from 50% to 80% by 2025; limiting unbundled renewable energy certificates to no more than 3% of its retail load; and increasing GHG-free energy content from 60% to 95% by 2025.

The 2017 IRP, which is provided as an attachment to this report, reaffirms and advances progress toward these goals by increasing MCE's GHG-free targets throughout the

Planning Period, resetting the 2017 GHG-free portfolio content to 75% and working toward a 100% GHG-free goal in 2025. Procedurally, the 2017 IRP includes:

- Simplified discussion of contracting authorities, referring directly to authorities and Resolutions approved separately by the Board or its delegated committee; and
- Updated Renewable Energy Contract Guidelines to allow for increased renewable commitments beyond year 5 of the Planning Period.

The IRP summarizes the following progress toward MCE's energy and capacity obligations:

- MCE has contracted for all of its projected Renewable Portfolio Standard ("RPS") requirements through 2026; open renewable positions remain from 2018 through the Planning Period for MCE's voluntary renewable energy targets;
- MCE has addressed its conventional energy requirements per its planning guidelines via contractual commitments that are in place through 2020;
- MCE has addressed its required reserve capacity ("Resource Adequacy" or "RA") and flexible capacity obligations per its contracting guidelines via commitments extending through 2017;
- Due to favorable market conditions, MCE contracted in 2016 for significant volumes of bundled renewable energy; and
- Should market conditions remain favorable, MCE may have the opportunity to increase energy purchases from new, California-based renewable energy resources throughout the Planning Period. This opportunity would yield reduced reliance on renewable energy imports from the Pacific Northwest and other areas throughout the Western Electricity Coordinating Council ("WECC"), which generally encompasses the Western United States.

In addition, the 2017 IRP provides updates on MCE's portfolio of power suppliers and its cultivation of local renewable energy generation, most notably its Net Energy Metering ("NEM"), Feed-in Tariff ("FIT"), and Local Sol programs as well as the development of its own MCE Solar One facility in Richmond, CA:

- As of December 2016, MCE served approximately 9,600 NEM customers; the smaller-scale renewable generating projects that have been installed by such customers represent more than 77,000 kW (77 MW) of local renewable generating capacity.
- In addition to NEM generating capacity, MCE is planning to develop or purchase energy from 25 MW of locally developed solar capacity by 2021. To this end, MCE has invested staff time and financial resources in various development activities within its service territory. For example, MCE Solar One is a 10.5 MW solar photovoltaic (PV) project that is currently under construction in the City of Richmond and expected to commence power production later in 2017. MCE has also begun predevelopment due diligence for two additional development sites that could support as much as 122 MW of additional renewable generating capacity within MCE's service territory.

- MCE continues to administer one of California's most generous FIT programs for locally situated, smaller-scale renewable generating resources that supply wholesale electricity to MCE. This program utilizes a standard offer (i.e. non-negotiable) contract that is available on a first-come, first-served basis to up to 15 MW of qualifying renewable energy projects within MCE's service territory. Specific terms and conditions for the remaining 12 MW of the FIT program capacity are available on MCE's website.

**RECOMMENDATION:** Approve MCE's 2017 Integrated Resource Plan Update.



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# **2017 Integrated Resource Plan**

**DRAFT**

February 2017

Approved by MCE Technical Committee on XX/XX/2017



## MCE 2017 Integrated Resource Plan - DRAFT

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## I. Introduction

As California's first Community Choice Aggregation ("CCA") program, MCE provides retail electric generation services and complementary energy programs to customers within the political boundaries of its member communities, which include Marin County, Napa County, the cities of El Cerrito, Lafayette, Richmond, San Pablo, and Walnut Creek (all of which are located in Contra Costa County), as well as the city of Benicia (Solano County) (collectively, the "service area"). MCE provides such services to more than eighty percent of electricity customers within its service area and is the default electric generation provider for any new or relocated customers therein.

MCE strives to provide stable and competitive electric rates to its customers, utilizing the cleanest possible sources of electric energy. With these objectives in mind, MCE plans for and secures commitments from a diverse portfolio of generating resources to reliably serve the electric energy requirements of its customers over the near-, mid-, and long-term planning horizons. This Integrated Resource Plan ("IRP") documents MCE's resource planning policies and objectives over the upcoming ten-year planning period from 2017 through 2026 (the "Planning Period").

Every year, MCE staff updates the IRP and submits it for approval to MCE's Board of Directors ("Board") or Technical Committee, which includes a subset of MCE Board members. Such approval is made in consideration of applicable regulatory requirements, MCE policy objectives, energy market conditions, anticipated changes in electricity sales, planned inclusion of new MCE member communities, ongoing procurement activities, and any other considerations that may affect the manner in which MCE carries out its resource planning.

### Purpose

The IRP has four primary purposes:

- (1) quantify resource needs over the Planning Period;
- (2) prioritize resource preferences and articulate relevant energy procurement<sup>1</sup> policies;
- (3) provide guidance to the energy procurement processes undertaken by MCE staff; and
- (4) communicate MCE's resource planning policies, objectives and planning framework to the public and key stakeholder groups.

In practical terms, the IRP specifies the energy procurement policies adopted by MCE's Board and serves as a guideline to MCE staff regarding day-to-day energy planning and procurement activities.

### Executive Summary

Highlights of this IRP update include the following:

- MCE will manage a portfolio of energy generation resources to maintain a minimum renewable energy content of 53% for its Light Green service. Over the Planning Period, MCE intends to

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<sup>1</sup> Within this IRP, energy procurement means purchases of energy products, including electricity, capacity, energy efficiency, distributed generation, resources, demand response, and energy storage.

increase its renewable content, subject to product availability and rate-related considerations, toward the long-term goal of 100% renewable energy.

- MCE continues to provide its customers with service options for 100% renewable energy: Deep Green, which is wholly sourced from renewable projects located in California; and Local Sol, service under which will begin in early 2017 and be sourced entirely from a solar photovoltaic (“PV”) project within MCE’s service territory.
- In conjunction with expansion of its service area in September 2016, MCE significantly increased its energy commitments and diversified its energy portfolio during 2016. Specifically, MCE more than doubled the number of contracts in its energy supply portfolio, which now includes over fifty contracts. MCE also increased the number of energy product suppliers from twelve to twenty-nine. Through the Planning Period, MCE anticipates continued diversification of its supply portfolio.
- MCE’s existing and planned supply commitments throughout the Planning Period will enable MCE to fulfill key regulatory mandates and voluntary procurement targets related to renewable, greenhouse gas-free (“GHG-free” or “carbon-free”), and conventional (non-renewable) energy. In particular, MCE has taken important steps to ensure delivery of a reliable, environmentally responsible power supply, including:
  - MCE has contracted for all of its projected Renewable Portfolio Standard (“RPS”) requirements through 2026; open renewable positions remain from 2018 through the Planning Period for MCE’s voluntary renewable energy targets;
  - MCE has addressed its conventional energy requirements per its planning guidelines via contractual commitments that are in place through 2020;
  - MCE has addressed its required reserve capacity (“Resource Adequacy” or “RA”) and flexible capacity obligations per its contracting guidelines via commitments extending through 2017;
  - Due to favorable market conditions, MCE contracted in 2016 for significant volumes of bundled renewable energy; and
  - Should market conditions remain favorable, MCE expects to increase energy purchases from new, California-based renewable energy resources throughout the Planning Period. This transition will result in reduced reliance on renewable energy imports from the Pacific Northwest and other areas throughout the Western Electricity Coordinating Council (“WECC”), which generally encompasses the Western United States.
- MCE continues to provide direct support for the development of local renewable energy projects through the ongoing administration of its Feed-In Tariff (“FIT”) and Net Energy Metering (“NEM”) programs. Notable achievements in this area include the following:

- As of December 2016, MCE served approximately 9,600 NEM customers; the smaller-scale renewable generating projects that have been installed by such customers represent more than 77,000 kW (77 MW) of local renewable generating capacity;<sup>2</sup>
  - In addition to NEM generating capacity, MCE is planning to develop or purchase energy from 25 MW of locally developed solar capacity by 2021. To this end, MCE has invested staff time and financial resources in various development activities within its service territory. For example, Solar One is a 10.5 MW solar PV project that is currently under construction in the City of Richmond and expected to commence power production later in 2017. MCE has also begun predevelopment due diligence for two additional development sites that could support as much as 122 MW of additional renewable generating capacity within MCE's service territory.
  - MCE continues to administer one of California's most generous FIT programs for locally situated, smaller-scale renewable generating resources that supply wholesale electricity to MCE. This program utilizes a standard offer (i.e. non-negotiable) contract that is available on a first-come, first-served basis to up to 15 MW of qualifying renewable energy projects within MCE's service territory. Specific terms and conditions for the FIT program, of which approximately 12 MW remain available, are available on MCE's website.<sup>3</sup>
- MCE is working toward a long-term goal of offsetting 2% of its annual energy and capacity requirements with energy efficiency ("EE") and distributed generation programs. MCE is applying to the California Public Utilities Commission (CPUC) to significantly increase the EE budget for MCE-administered programs and may adjust its load forecast for the Planning Period based on the outcome of this application process.
  - MCE is also working to develop capacity in demand response programs, with a goal by the end of the Planning Period to offsetting MCE's annual capacity requirements by 5%.
  - During the Planning Period, MCE will procure requisite energy products through various mechanisms, including public solicitations, standard offer contracts, and bilateral engagements as procurement opportunities present themselves outside of the aforementioned processes.

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<sup>2</sup> NEM statistics include customer-sited generation as of October 2016 (includes September 2016 expansion to American Canyon, Calistoga, Napa, St. Helena, Yountville, Walnut Creek, and Lafayette).

<sup>3</sup> <https://www.mcecleanenergy.org/feed-in-tariff/>

## II. General Resource Planning Principles

MCE policy, established by MCE's founding documents and directed on an ongoing basis by MCE's Board, guides development of this IRP and related procurement activities. MCE's key resource planning policies are as follows:

- Reduce GHG emissions and other pollutants associated with the electric power sector through increased use of renewable, GHG-free, and low-GHG energy resources.
- Maintain competitive electric rates and increase control over energy costs through management of a diversified resource portfolio.
- Benefit the local economy through investments in infrastructure and energy programs within MCE's service territory.
- Help customers reduce energy consumption and electric bills through investment in and administration of enhanced customer energy efficiency, cost-effective distributed generation, and other demand-side programs.
- Enhance system reliability through investment in supply- and demand-side resources.
- Actively monitor and manage operating and market risks to promote MCE's continued financial strength and stability.

The IRP translates these broad policy objectives into a more specific energy procurement strategy, taking into consideration MCE's projected customer needs and existing resource commitments over the Planning Period.

### Regulatory Considerations

#### **SB 350**

Through 2016, the California Public Utilities Commission has been overseeing implementation of Senate Bill 350 ("SB 350"), which Governor Brown signed in October 2015. Among other GHG-reduction provisions, SB 350 calls for California's RPS targets to increase to 50% by 2030. SB 350 includes certain procedural changes that will also impact MCE. With respect to CCAs, SB 350 requires that:

- CCAs must have at least 65% of their Renewable Portfolio Standard procurement under contracts of 10 years or longer beginning in 2021;
- CCA energy efficiency programs will be eligible to count toward statewide energy efficiency targets;
- while maintaining independent governing authority, CCAs will submit Integrated Resource Plans to the CPUC for certification.

MCE will comply with the applicable planning and procurement requirements reflected in SB 350. Given its existing and planned commitments to long-term renewable energy procurement and EE program

administration, MCE does not anticipate the need for significant modifications to its planning or procurement practices to achieve SB 350 compliance.

## **MCE Procurement Targets**

### **GHG-Free by 2025**

Reducing electric utility-sector GHG emissions is one of MCE's charter objectives. With this in mind, MCE will commence the Planning Period with a 75% GHG-free supply portfolio in 2017. The GHG-free proportion of MCE's resource mix will be comprised of both RPS-eligible renewable energy and additional GHG-free electricity. In subsequent years of the Planning Period, MCE will steadily increase its use of GHG-free energy supply with the goal of achieving a 100% GHG-free supply portfolio by 2025, subject to operational practicalities and product availability.

Note that not all renewable energy is GHG-free, as certain generating technologies, particularly those using geothermal and biogas fuel sources, are known to produce carbon dioxide and other GHG during the production of electric power. However, the significant majority of RPS-eligible renewable generating technologies are understood to be carbon neutral, meaning that the net environmental impacts associated with the processes required for electricity production are no worse than the environmental impacts associated with related activities, which would otherwise occur in the absence of power production.<sup>4</sup>

MCE understands that implementation of Assembly Bill 1110, which Governor Brown signed into law on September 26, 2016, will further clarify emissions intensity reporting for all generating technologies. MCE will apply pertinent emissions calculation methodologies, once finalized, when performing future emissions calculations related to its electric supply portfolio.

### **80% Renewable Energy by 2025**

In pursuit of its goal to increase the Light Green product content to 80% renewable by 2025, MCE intends to gradually replace the conventional energy resources in its supply portfolio with renewable resources. Actual annual renewable content percentages may differ from projections, which are outlined in Table 1 below, if resource availability or market conditions preclude cost-effective procurement, but the primary goal is to achieve an 80% Light Green renewable supply no later than 2025.<sup>5</sup>

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<sup>4</sup> For example, although there are GHG emissions associated with power generated by combustion of methane at capped landfills, such energy is considered to be renewable, and its GHG impacts are less than or – at worst – equal to those of the methane flaring that would occur otherwise.

<sup>5</sup> While MCE increases its Light Green portfolio to 80% renewable, Deep Green and Local Sol customers will continue to receive 100% renewable energy.

### **Limited Use of Unbundled Renewable Energy Certificates**

MCE pursues a diversified renewable energy supply portfolio, which reflects broad use of various RPS-eligible fuel sources and products, resource locations, project configurations and other considerations. However, MCE has committed to limit the use of unbundled renewable energy certificates (otherwise known as “Product Content Category 3,” “PCC 3,” or “Bucket 3”) to no more than 3% of its total resource mix. This limitation generally aligns with specifications reflected in California’s RPS program, which impose restricted use of PCC3 products approximating 3% of annual retail sales during the third Compliance Period, which includes 2017 through 2020. To maintain progress toward its 80% renewable energy target, MCE has substantially focused on the procurement of bundled<sup>6</sup> renewable energy supply throughout the Planning Period, as reflected in Table 1, below.

**Table 1: MCE 10-Year Portfolio Mix Targets**

<b>10 Year Portfolio Mix (%)</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>
<b>Bucket 1</b>	38%	40%	43%	45%	48%	50%	53%	55%	58%	58%
<b>Bucket 2</b>	13%	14%	14%	15%	16%	17%	17%	18%	19%	19%
<b>Bucket 3</b>	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
<b>Large Hydro</b>	20%	21%	22%	21%	21%	21%	20%	20%	20%	20%
<b>Conventional Energy</b>	26%	22%	18%	15%	12%	9%	6%	3%	0%	0%

<sup>6</sup> Portfolio Content Category 1 (“PCC 1” or “Bucket 1”) and Portfolio Content Category 2 (“PCC 2” or “Bucket 2”), per California RPS compliance regulations and explained in further detail in the “RPS Requirements” subsection of “IV. Resources.”



### III. Electric Load Forecast

MCE's long term load forecast is primarily influenced by structural or "macro" variables, which inform the number of customers that MCE expects to serve. These macro variables include current customer count, classifications, energy usage, and expected customer participation rates. Primarily, macro variables drive the load forecast and tend to overshadow the effects of typical "micro" variables related to weather, economic cycles, population growth, and changes in customer consumption patterns. The long-term load forecast incorporates macro variables and the seasonal electricity consumption patterns of MCE's customer base, while most other micro variables are considered in MCE's shorter-term load forecasts.

#### Enrolled Customers

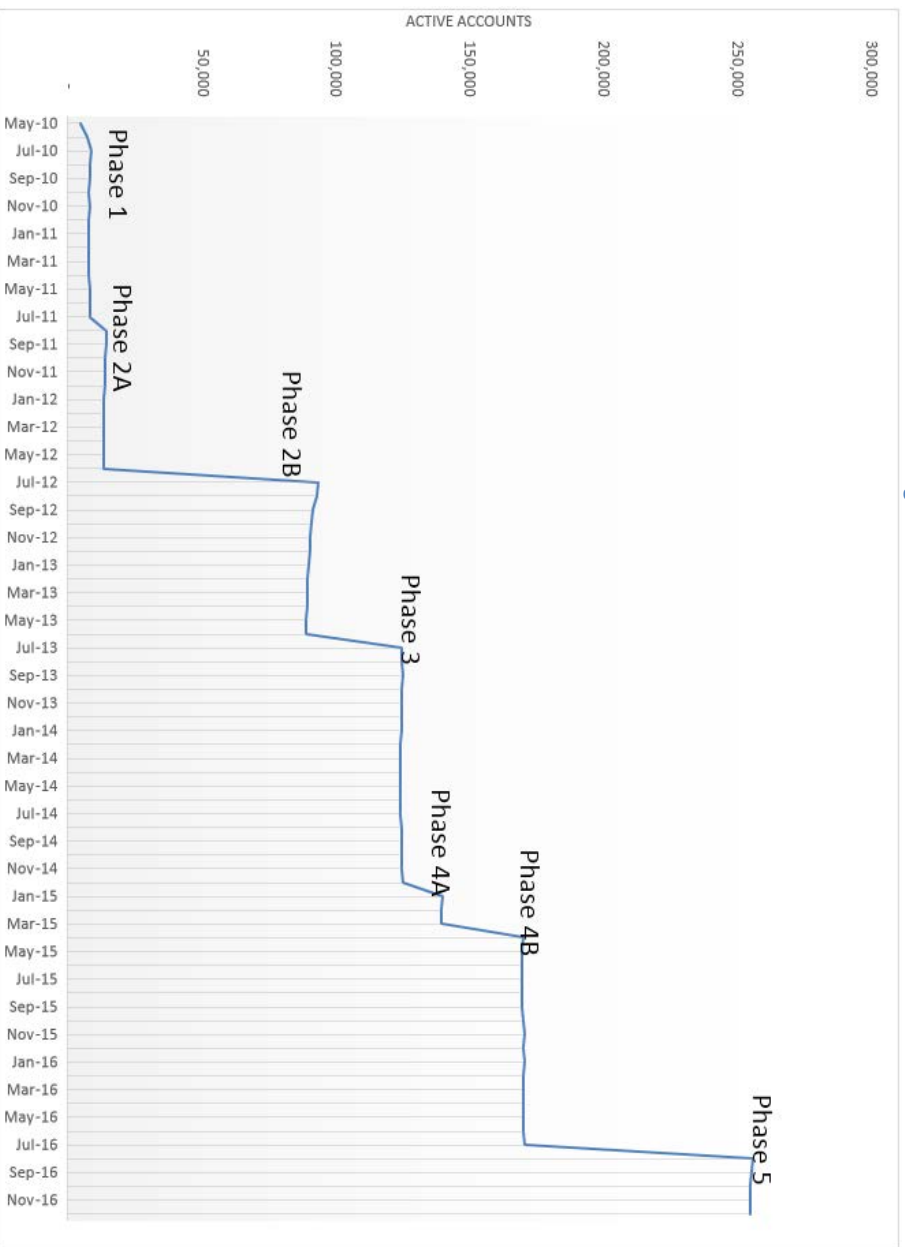
Following the September 2016 inclusion of American Canyon, Calistoga, Lafayette, Napa, St. Helena, Walnut Creek, and Yountville, the number of customer accounts served by MCE increased to approximately 255,000. Subject to related policy, MCE may include additional communities that request service during the Planning Period, however the scope of this IRP is limited only to MCE's current service area. Any specific resource planning impacts related to the inclusion of new member communities in the future would be addressed by MCE's Board prior to the completion of such processes. As part of the evaluative process associated with prospective community inclusion, MCE quantifies, on a projected basis, the expected budgetary and environmental impacts, as well as other key planning considerations (including impacts to electric load and customer counts), that would result from the inclusion of prospective new members. These projections are presented publicly to MCE's Board with opportunity for discussion and public comment.

Customer participation rates are expressed as the proportion of customers that are currently served by MCE relative to the number of customers that were originally offered service. The difference between such numbers reflects the subset of customers that have voluntarily determined to opt-out of the MCE program, retaining bundled service by Pacific Gas & Electric ("PG&E"), the incumbent utility in Northern California. The vast majority of customer opt-outs occur within a 120-day period beginning 60 days prior to each customer's scheduled service commencement and continuing for 60 days thereafter – this period of time is generally referred to as the "enrollment period". During the enrollment period, prospective and enrolled customers receive up to five mailed notices, which explain MCE's service options and the opt-out process amongst other terms and conditions of service. Following the initial enrollment period, MCE's customer base stabilizes, and the impacts of customers voluntarily returning to MCE service (also known as "opting-in") generally offset the effects of customer attrition.

The customer participation rate associated with MCE's initial membership – based on jurisdictional participation as of May 2010 – is approximately 77%. Customer participation rates have increased in subsequent MCE enrollment phases: 81% of customers who were offered service following inclusion of the City of Richmond have continued with MCE; 89% in MCE's subsequent expansion footprint of Benicia, San Pablo, El Cerrito, and unincorporated Napa County; and 91% involved in the aforementioned September 2016 inclusion effort. This trend reflects the impact of MCE's outreach programs, increased awareness of the MCE brand and service advantages, legislation limiting certain

utility marketing tactics against CCAs, and general familiarity with the CCA service model, which continues to expand throughout California.

Figure 1: Active MCE Customers



### Baseline Customer and Consumption Forecast

MCE's electricity demand forecast starts with a forecast of customers by end-use classification (residential, commercial, etc.). Class-typical monthly energy consumption estimates, derived from historical data, are applied to yield a monthly energy forecast by customer class. Hourly class-specific load profiles are then used to break down the monthly energy forecast into more granular time-of-use and peak demand values. Certain adjustments are incorporated in the base forecast to account for factors not reflected in the historical data. MCE also makes explicit adjustments to this forecast to account for the load impacts of its energy efficiency, NEM, and demand response programs.

### Energy Efficiency

As referenced in the MCE Implementation plan, studies indicate that a reasonable long-term goal for EE programs in MCE's service area is to reduce overall annual energy consumption by approximately 2%. MCE's 2017 peak demand forecast is 544 MW, and annual consumption is forecasted to be 2,743,000

MWh, 2% of which is 55,000 MWh. Achieving this level of savings will require development of specific programs, anticipated funding, and time to deploy the efficiency measures.

MCE has received CPUC funding approval for EE programs to be administered through 2025 – such funding is derived through collection of the public goods charge from all customers, including those served by both CCAs and investor-owned utilities; disposition of public goods charge funds is administered by the CPUC. The specific accomplishments of MCE-administered energy efficiency programs are reflected below in Table 2.<sup>7</sup>

**Table 2: MCE Energy Efficiency Annual Impacts**

	<b>MWh</b>	<b>MW (summer peak)</b>
<b>2013</b>	414	0.035
<b>2014</b>	723	0.108
<b>2015</b>	1,337	0.340

MCE has applied to the CPUC for a much more robust set of programs, building on the steady ramp-up in energy efficiency activities since 2013. MCE has applied to offer energy efficiency programs in each customer sector and is looking at a tenfold increase in funding and associated targets. The application is pending at this time and the targets are reflected in MCE’s procurement planning.

### **Net Energy Metering Program**

Through its NEM program, MCE offers a compelling incentive to promote customer-sited distributed generation within its service area. During periods in which surplus energy production occurs, MCE pays eligible customers for their generation at the respective retail rate plus an additional 1 cent per kWh. MCE’s NEM program currently includes more than 9,600 customers, who have collectively installed renewable generating capacity in excess of 77,000 kW (77 MW). During the Planning Period, MCE will periodically evaluate its NEM program to balance long-term distributed generation goals with the impacts of NEM incentives on MCE’s electric rates.

### **Demand Response Program**

MCE administers limited-scope, “pilot” demand response programs, and MCE customers are eligible for many of the demand response programs administered by PG&E. In addition, MCE is developing an Automated Demand Response Pilot Program for EV charging stations and Smart Grid Connected home devices and exploring platforms for aggregating and scheduling load into CAISO. MCE is also analyzing customer segments – residential, small and medium commercial, and large commercial – for DR opportunities while inventorying third party DR programs in the MCE service area to gain a better understanding of services being provided and where gaps exist. Depending on the outcome of these activities, MCE may ramp up its demand response programs or seek funding from the CPUC for more robust programs in this sector.

<sup>7</sup> Savings associated with the MCE’s single-family EE program are included here but are subject to confirmation following the *ex post* evaluation from the CPUC. EE impacts included through 2015, the most recent year for which data are available.

Because MCE customers contribute to funding of demand response programs through various PG&E charges, MCE receives capacity credits related to PG&E-administered demand response programs; these allocations marginally reduce MCE's need to procure resource adequacy capacity. Currently, demand response programs provide 2% of MCE's resource adequacy requirements. MCE's goal for the Planning Period is to meet 5% of its total capacity requirements through demand response programs that will be operated directly by MCE or through utility administered programs for which MCE customers are eligible.

## IV. Resources

### Existing Resource Commitments

MCE currently has more than fifty unique power purchase commitments to ensure requisite conventional, renewable, and GHG-free energy supply. MCE's contract portfolio includes a variety of suppliers, term lengths, product types, quantities, generation technologies and resource locations amongst other considerations. MCE's current portfolio of contracts is summarized in Table 3, below, with additional detail provided in Appendix B.

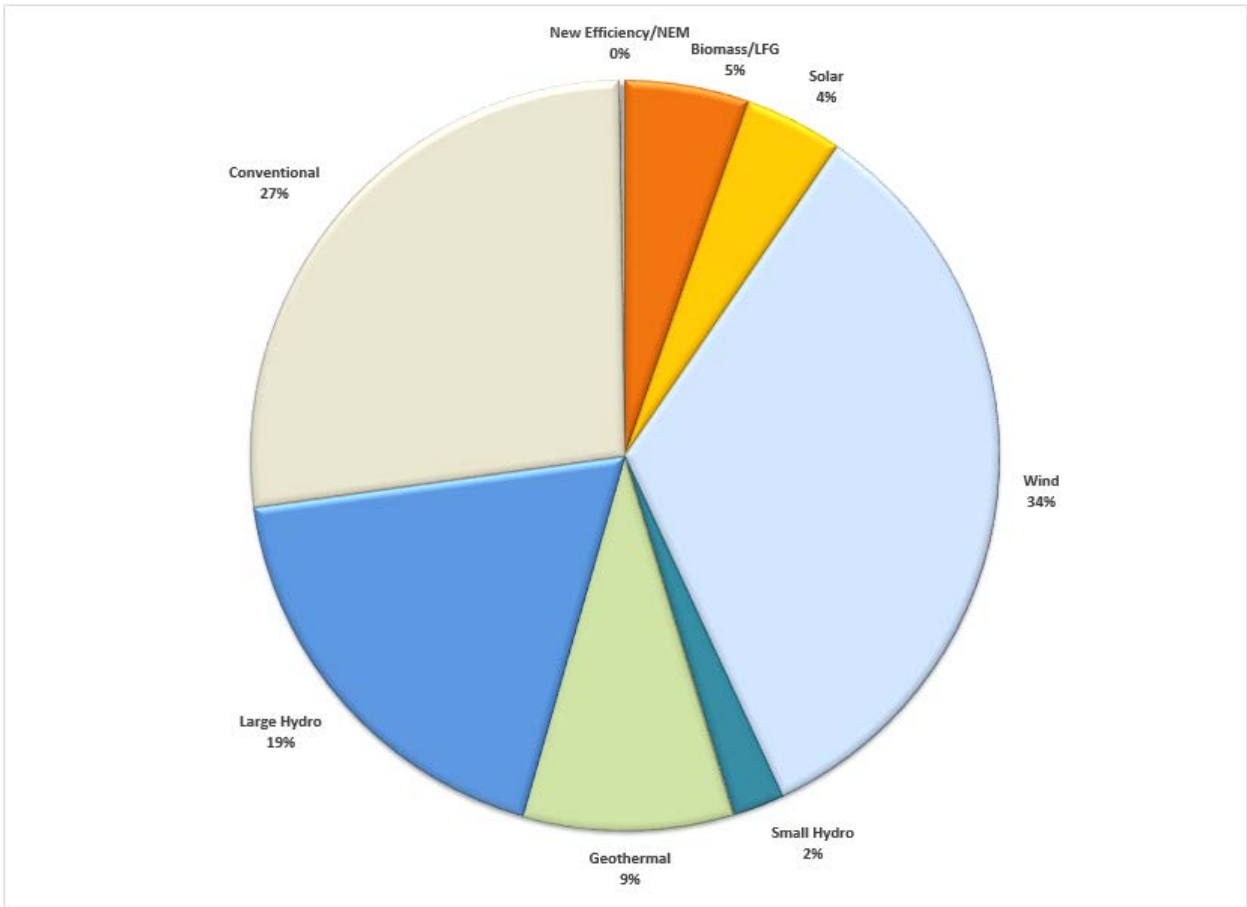
**Table 3: MCE Portfolio of Energy Contracts**

Project	Counterparty	Technology	Capacity (MW)	Execution Date	Term	Annual Deliveries (GWh)	Location
<b>BUNDLED RENEWABLE</b>							
SENA	Shell	Renewable	Variable	2/5/2010	2010 - 2016	111	WECC
G2 Hay Road	G2Energy	Landfill Gas	1.6	12/3/2010	2013 - 2024	12	Solano Co, CA
G2 Ostrom Road	G2Energy	Landfill Gas	1.6	12/3/2010	2013 - 2024	12	Yuba Co, CA
Cottonwood Solar - City of Corcoran	Dominion	Solar PV	11	7/8/2011	2015 - 2040	30	Kings Co, CA
Cottonwood Solar - Goose Lake	Dominion	Solar PV	12	7/8/2011	2015 - 2040	32	Kern Co, CA
Cottonwood Solar - Marin Carport	Dominion	Solar PV	1	7/8/2011	2015 - 2040	2	Novato, CA
San Rafael Airport (FIT)	San Rafael Airport (FIT)	Solar PV	0.972	5/8/2012	2012 - 2032	2	San Rafael, CA
Energy 2001 - Lincoln Landfill	Genpower	Landfill Gas	4.8	7/6/2012	2013 - 2024	27	Lincoln, CA
RE Kansas	Dominion	Solar PV	20	8/3/2012	2014 - 2017	51	Kings Co, CA
Geysers	Calpine	Geothermal	10	7/11/2013	2017 - 2026	88	Lake Co, Sonoma Co, CA
Rising Tree Wind Farm	EDP	Wind	99	9/4/2014	2015 - 2018	340	Kern Co, CA
RE Mustang	Recurrent	Solar PV	30	10/3/2014	2018 - 2033	86	Fresno Co, CA
Redwood Landfill	Waste Management	Landfill Gas	4	11/6/2014	2017 - 2037	30	Novato, CA
Cost Plus Plaza Larkspur (FIT)	Cost Plus Plaza Larkspur (FIT)	Solar PV	0.261	4/16/2015	2016 - 2036	0.5	Larkspur, CA
Pardee and Camanche	EBMUD	RPS-Eligible Hydro	31	6/22/2015	2016 - 2025	70	Mokelumne River, CA
Freethy Industrial Park Unit #1 (FIT)	Freethy Industrial Park Unit #1	Solar PV	0.998	9/4/2015	2015 - 2035	2	Richmond, CA
Freethy Industrial Park Unit #2 (FIT)	Freethy Industrial Park Unit #2	Solar PV	0.998	9/4/2015	2015 - 2035	2	Richmond, CA
Shiloh 1	Avangrid	Wind	25	3/1/2016	2018	75	Solano Co, CA
Portfolio	Portland General Electric	Wind	Variable	6/17/2016	2016	120	Oregon, Washington
Portfolio	3 Phases	Wind, Geothermal	Variable	6/17/2016	2016 - 2017	140 - 340	Colorado, Oregon
Henrietta Solar	SunPower	Solar PV	Variable	7/1/2016	2016	100	Kings Co, CA
Portfolio	Powerex	Wind, Biomass	Variable	8/1/2016	2017 - 2109	75 - 125	British Columbia, Washington
Silicon Valley Power	City of Santa Clara	Renewable	Variable	8/16/2016	2016	100	California
Cooley Quarry (MCE Local Sol)	Cooley Quarry (MCE Local Sol)	Solar PV	0.99	8/18/2016	2017 - 2037	2	Novato, CA
RE Tranquillity 8 Rojo	Recurrent	Solar PV	100	9/15/2016	2018 - 2033	290	Fresno Co, CA
Little Bear 1 Solar	First Solar	Solar PV	40	9/26/2016	2020 - 2041	104	Fresno Co, CA
Portfolio	NextERA	Solar PV	Variable	10/18/2016	2017	200	Blythe, CA
Antelope Expansion 2	sPower	Solar PV	105	11/15/2016	2018 - 2038	300	Mojave Desert, CA
Desert Harvest	EDF	Solar PV	80	11/18/2016	2020 - 2041	490	Riverside Co, CA
Los Banos Wind	Terra Gen	Wind	125	12/5/2016	2020 - 2033	372	Merced Co, CA
TGP Energy Management	Terra Gen	Wind	100	12/5/2016	2018 - 2020	300	Tehachapi, CA
Voyager Wind III	Terra Gen	Wind	42	12/5/2016	2018 - 2030	128	Mojave, CA
<b>UNBUNDLED RENEWABLE</b>							
Portfolio	LA County Sanitation District	Landfill Gas	Variable	5/25/2016	2016 - 2017	68 - 90	Los Angeles Co, CA
<b>CARBON FREE</b>							
Central Valley Project	WAPA	Hydro	Variable	10/1/2011	2015 - 2024	25	California
Portfolio	Shell	Hydro	Variable	11/14/2014	2015 - 2017	90 - 230	Washington
<b>CONVENTIONAL</b>							
SENA	Shell	System	Variable	2/5/2010	2010 - 2017	920-940	California
Exelon Generation Company	Exelon Generation Company	System	50	6/10/2014	2018 - 2019	438	California
Direct Energy	Energy America	System	Variable	2/4/2016	2018 - 2020	310 - 400	California
Morgan Stanley	Morgan Stanley	System	Variable	5/20/2016	2016 - 2020	200 - 500	California
<b>MCE DEVELOPMENT</b>							
Solar One	MCE	Solar PV	10.5	TBD	2017 - 2036	18	Richmond, CA

Current Resource Mix

MCE’s 2017 resource mix, displayed in Figure 2 will contain at least 53% renewable energy - one of the highest renewable energy contents in California.

Figure 2: MCE 2017 Estimated Resource Mix<sup>8</sup>

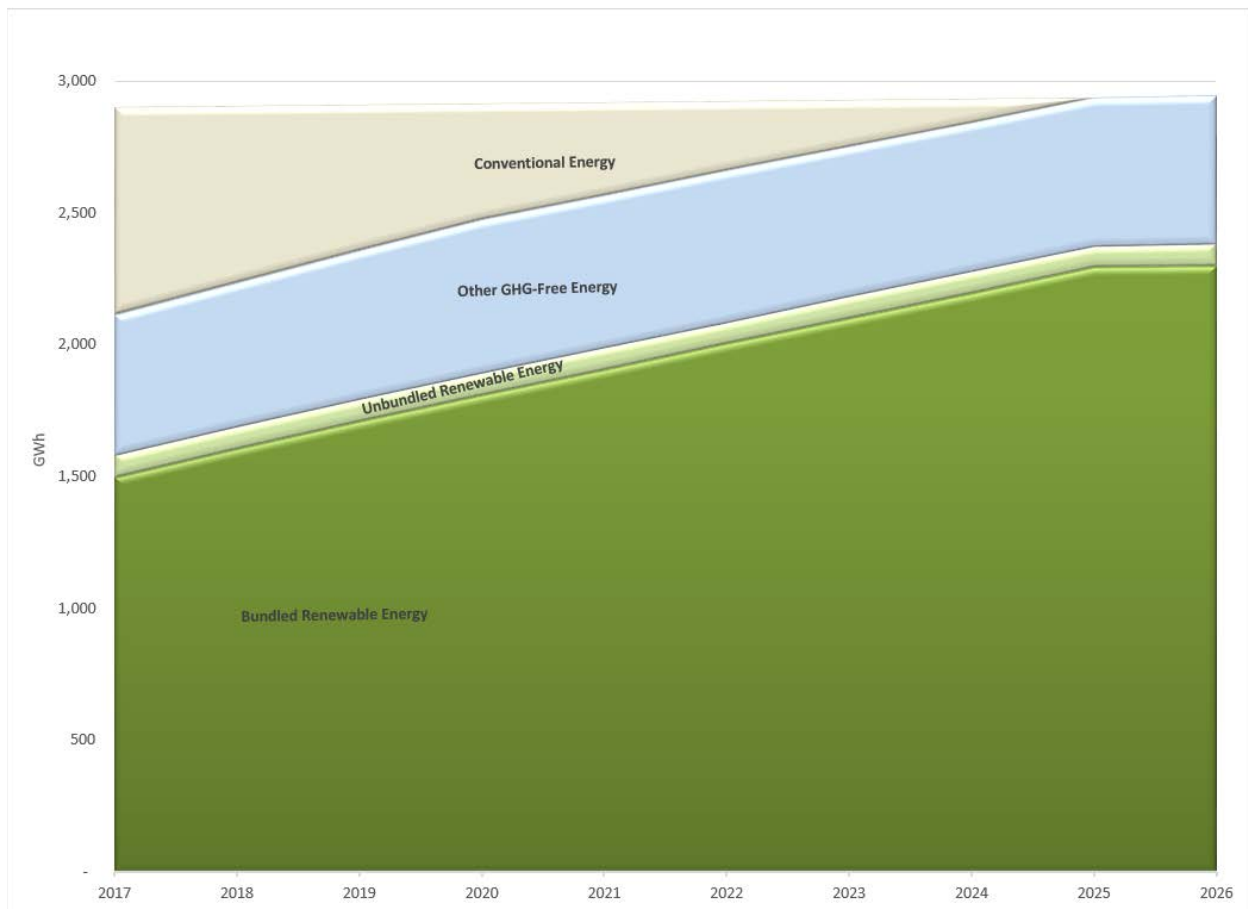


<sup>8</sup> Percentages may not sum to 100% due to rounding.

## Resource Needs

Beyond its current contractual commitments, MCE will procure additional energy products, as necessary, to ensure that the future energy needs of its customers are met in a reliable, cost-effective manner. This section sets forth MCE’s planned resource volumes and quantifies the net resource need or “open position” that remains after accounting for production from MCE’s existing resource portfolio. MCE has established proportionate procurement targets for overall carbon-free energy content, including subcategories for various renewable energy products, and has also established targets for necessary capacity reserves. To the extent that MCE’s energy needs are not fulfilled through the use of GHG-free generating resources, it should be assumed that such supply will be sourced from natural gas generating technologies or system power, which describes “generic” energy purchases from the wholesale market that are not directly associated with specific generators.

**Figure 3: MCE Renewable and Non-renewable Energy Volumes, 2017-2026**



## Renewable Resources

MCE has committed to providing all of its Light Green customers with energy that is at least 53% renewable; incremental renewable energy quantities will also be procured on behalf of Deep Green program participants to ensure that such customers receive 100% renewable energy. MCE meets its

renewable energy requirements with a combination of RPS-eligible energy products.<sup>9</sup> As Figure 3 illustrates, the proportion of MCE’s resource mix that is sourced from bundled renewable energy products is expected to significantly increase as MCE transitions toward an 80% renewable energy content.

### RPS Requirements

MCE’s renewable power content significantly exceeds the state’s minimum RPS requirements and will continue to do so throughout the Planning Period. As dictated by SB 350, the renewable energy purchase requirement that is applicable to all retail electricity sellers has increased to 50% by 2030. Transitions from the previously applicable procurement mandate (33% by 2020) will be implemented gradually with “straight line” increases during each year of the compliance regime. To satisfy applicable procurement mandates, retail sellers, including MCE, will be allowed to purchase a variety of renewable energy products, including power produced by generating resources located within California and elsewhere in WECC. MCE staff remains engaged in RPS-related proceedings to ensure a clear understanding and effective implementation of all applicable procurement requirements.

RPS compliance can be met with procurement from:

- i) renewable resources located within or delivering electricity directly to California (PCC 1), subject to minimum procurement requirements;
- ii) firmed and shaped renewable energy (PCC 2) products produced outside of California, subject to certain quantity limitations; and
- iii) unbundled renewable energy certificates from RPS-eligible resources (PCC 3), also subject to quantity limitations.

MCE has a sufficient supply of RPS-eligible renewable resources to meet a 53% procurement target during the 2017 calendar year, well in excess of the applicable 27% RPS procurement requirement. Thereafter, MCE will utilize renewable energy supply from existing and future transactions to ensure that its use of renewable energy tracks with the planned trajectory reflected in this IRP. Based on targeted renewable energy percentages, MCE intends to significantly outpace California’s annual RPS procurement mandates throughout the Planning Period.

### RPS Open Positions

During the third RPS Compliance Period (2017 – 2020), 75% of required RPS procurement must be sourced from PCC 1 resources. With this requirement in mind, MCE has substantially focused on long-term power purchase agreements (“PPAs”) with new, California-based generating facilities that will produce PCC 1-eligible renewable energy.

To supplement its core procurement of PCC 1 resources, MCE engages in short term contracts for PCC 2 and, to a lesser degree, PCC 3 renewable energy supplies. As shown in Table 4, MCE has secured

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<sup>9</sup> Some of MCE’s renewable energy volumes are produced by facilities that are both RPS-eligible and Green-e Energy-eligible, according to eligibility criteria described in the Green-e Energy National Standard: <http://www.green-e.org/docs/energy/Green-eEnergyNationalStandard.pdf>.



contracts for renewable energy volumes well in excess of applicable RPS procurement requirements through the Planning Period.

**Table 4: MCE RPS Compliance Energy Balance, 2017-2026**

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Retail Sales (GWh)	2,735	2,740	2,745	2,749	2,751	2,754	2,757	2,760	2,763	2,770
State RPS %	27%	29%	31%	33%	35%	36%	38%	40%	42%	42%
RPS Energy Required (GWh)	739	795	851	907	955	1,003	1,051	1,098	1,147	1,150
RPS Energy Contracted (GWh)	1,730	1,319	1,575	1,488	1,896	1,891	1,887	1,883	1,878	1,799
Net Short/(Long)	(992)	(524)	(724)	(581)	(941)	(888)	(836)	(785)	(732)	(649)
Category 1 Required (GWh)	554	596	638	680	716	752	788	824	860	862
Category 1 Contracted (GWh)	1,245	1,244	1,450	1,488	1,896	1,891	1,887	1,883	1,878	1,799
Net Short/(Long)	(692)	(648)	(812)	(808)	(1,180)	(1,139)	(1,099)	(1,059)	(1,018)	(936)

### Voluntary Renewable Open Positions

Voluntary renewable energy volumes reflect purchases that exceed applicable RPS mandates. With respect to MCE, these voluntary purchases are necessary to meet the minimum 53% renewable energy supply for Light Green customers and the 100% renewable energy supply for Deep Green customers. MCE's Power Content Label ("PCL") is a key customer communication that provides information regarding MCE's proportionate use of various fuel sources during each year of operation. The 2015 PCL, which is MCE's most recent, quantifies MCE's aggregate renewable energy use: 52% renewable for Light Green customers; and 100% renewable for Deep Green customers. In this example, all renewable energy volumes above the 23.3% compliance mandate were fulfilled through voluntary renewable energy purchases.

**Figure 4: MCE 2015 Power Content Label**

POWER CONTENT LABEL			
ENERGY RESOURCES	2015 MCE LIGHT GREEN POWER MIX	2015 MCE DEEP GREEN POWER MIX	2015 CA POWER MIX** (for comparison)
Eligible Renewable	52%	100%	22%
Biomass & biowaste	5%	0%	3%
Geothermal	2%	0%	4%
Eligible hydroelectric	4%	0%	1%
Solar	5%	25%	6%
Wind	36%	75%	8%
Coal	0%	0%	6%
Large Hydroelectric	12%	0%	5%
Natural Gas	12%	0%	44%
Nuclear	0%	0%	9%
Other	0%	0%	0%
Unspecified sources of power*	25%	0%	14%
TOTAL	100%	100%	100%

\* "Unspecified sources of power" means electricity from transactions that are not traceable to specific generation sources.

\*\* Percentages are estimated annually by the California Energy Commission based on the electricity sold to California consumers during the previous year.

### Deep Green Service Participation

MCE offers a voluntary 100% renewable energy option, known as Deep Green service, to all customers. Beginning in 2017, the Deep Green supply portfolio will rely exclusively on bundled renewable energy resources produced by California-based generators. Customer participation in Deep Green service

directly impacts the quantity of incremental renewable energy volumes that MCE must procure to ensure that its broader supply portfolio includes sufficient renewable energy volume to support Light Green and Deep Green participation.

As a percentage of MCE's total annual electricity sales, Deep Green participation currently represents approximately 2.6% of MCE sales. MCE anticipates significantly increased Deep Green sales in the 2017-2019 period as private and public sector commercial customers look to achieve 2020 carbon reduction targets. By 2025, MCE's goal is to increase Deep Green electricity sales to 135 GWh, which will constitute about 5% of MCE's projected annual electricity sales.

**Table 5: MCE Deep Green Participation, 2016<sup>10</sup>**

	<b>Total MCE</b>	<b>Residential Deep Green</b>	<b>Commercial Deep Green</b>	<b>Total Deep Green</b>
<b>Number of Customers</b>	255,238	4,034	784	4,818
		1.58%	0.31%	1.89%
<b>Total Retail Sales (kWh)</b>	1,878,344,673	14,170,890	34,177,646	48,348,536
		0.75%	1.82%	2.57%

#### **Favorable Renewable Energy Market Conditions**

During 2016, MCE filled a large portion of its future PCC1 open position in consideration of favorable renewable energy PPA pricing. In many cases, the pricing for available PCC1 products was on par with comparable prices for conventional energy. MCE understands that a variety of factors have contributed to favorable wholesale renewable energy prices, including extensions of federal and state tax incentives, expansion of manufacturing and supply-related capabilities (which have contributed to reduced hardware costs), historically low interest rates, and general market conditions in which renewable energy supply meaningfully exceeded demand. In consideration of these factors, as well as the realization that increased CCA program implementation within California may contribute to future competition for renewable energy resources (and potentially increased prices), MCE decided to capitalize on current favorable market conditions by securing various long-term supply commitments, which will facilitate its achievement of desired renewable energy procurement targets during the Planning Period.

The remaining open positions related to MCE's future voluntary renewable energy targets for Light Green and Deep Green service options are shown in Table 6.

<sup>10</sup> Total Deep Green participants as of December 2016. Sales for the 12-month period preceding October 1, 2016, the most recent for which data are available.

**Table 6: MCE Renewable Energy Balance, 2017-2026**

	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>
Light Green Renewable Content Goal (%)	53%	57%	60%	63%	67%	70%	73%	77%	80%	80%
Light Green Renewable Energy Target (GWh)	1,507	1,590	1,679	1,769	1,862	1,957	2,052	2,148	2,246	2,254
Deep Green Incremental Renewable Energy Target (GWh)	75	99	114	123	126	128	129	130	130	128
Contracted Renewable Energy (GWh)	1,730	1,319	1,575	1,488	1,896	1,891	1,887	1,883	1,878	1,799
Net Short/(Long)	(149)	371	217	404	92	194	294	395	497	583

### GHG-Free Resources

Prior to 2016, MCE policy generally specified that MCE's annual attributed portfolio emissions rate, which reflects the proportionate use of GHG-emitting power sources, would be lower than the respective annual emissions rate published by PG&E. In order to increase certainty of MCE's future GHG-free energy content, this IRP specifies a GHG-free procurement goal of 75% in 2017, with regular increases each year thereafter until MCE achieves its long-term objective of a 100% GHG-free resource mix. MCE acknowledges that achieving a 100% GHG-free resource mix will be dependent upon successful resolution of operational practicalities, applicable GHG reporting practices (such as those contemplated in AB 1110) and product availability. To achieve these GHG-free supply goals, MCE will require additional GHG-free energy throughout the Planning Period, as reflected in Table 7.

**Table 7: MCE GHG-Free Energy Balance, 2017-2026 (GWh)**

	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>
Total Energy Requirements	2,900	2,906	2,912	2,916	2,919	2,924	2,928	2,932	2,936	2,945
GHG-Free Target (%)	75%	78%	81%	84%	88%	91%	94%	97%	100%	100%
GHG-Free Targeted Volumes	2,175	2,270	2,366	2,460	2,554	2,650	2,745	2,840	2,936	2,945
GHG-Free Under Contract	2,085	1,344	1,600	1,513	1,921	1,916	1,912	1,908	1,903	1,824
Renewable Energy Open Position	-	371	217	404	92	194	294	395	497	583
GHG-Free Open Position	90	555	548	543	541	540	538	537	536	538

### System Energy

After accounting for renewable and GHG-free energy, the remaining energy supply is comprised of unspecified system energy purchases or specified purchases of conventional generation. MCE policy prohibits unit-specific purchases from coal or nuclear generation facilities; however, within California, conventional generation generally refers to power sources that rely on the combustion of natural gas. MCE utilizes fixed priced contracts for system power to hedge residual market price exposure in its supply portfolio. MCE has short- and medium-term contracts in place to supply approximately 90% of its load at fixed prices through the end of 2017. Any remaining energy balancing will be conducted through the CAISO market via purchases and sales during the operating horizon and via variable-priced supply contracts. MCE's open market volumes for the Planning Period are reflected in Table 8.

Table 8: MCE System Energy Balance, 2017-2026 (GWh)

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
<b>Total Load Requirement</b>	2,900	2,906	2,912	2,916	2,919	2,924	2,928	2,932	2,936	2,945
<b>Existing and Planned Fixed Priced Contracts</b>	(2,568)	(2,682)	(2,369)	(1,962)	(1,851)	(1,846)	(1,842)	(1,838)	(1,833)	(1,824)
<b>Open Market Volumes</b>	332	223	542	954	1,068	1,078	1,086	1,094	1,103	1,122

### Capacity Resources

MCE meets California's resource adequacy standards by procuring qualifying capacity sufficient to meet MCE's projected peak demand plus a 15% reserve margin. In addition to this general requirement, MCE must ensure that mandated proportions of such capacity resources are procured from local reliability areas defined by the California Independent System Operator (CAISO). MCE has a need for capacity purchases to meet resource adequacy obligations beginning in 2017. It is noteworthy that resource adequacy purchases are typically conducted via shorter-terms transactions without a great deal of lead time, which mirrors the obligations under California's resource adequacy program. MCE is actively engaged in procurement processes related to open positions for the balance of 2017. In addition, MCE has long-term capacity rights under several of its PPAs, which will provide a portion of MCE's local resource adequacy needs during the Planning Period.

Table 9: MCE Resource Adequacy Capacity Balance, 2017-2026 (MW)

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
<b>Load</b>										
Peak Demand	575	577	580	582	585	587	590	592	595	598
New DG and Efficiency	(21)	(28)	(36)	(44)	(51)	(59)	(67)	(74)	(82)	(87)
Net Peak Demand	555	549	544	539	533	528	523	518	513	511
<b>RA Requirements</b>										
Greater Bay Area	100	99	98	97	96	95	94	93	92	92
Other PG&E Area	123	122	121	120	119	118	117	116	115	115
System	224	222	220	218	216	214	212	210	208	207
Flexible	107	106	105	104	103	102	101	100	99	99
<b>RA Contracted</b>										
Greater Bay Area	100	11	11	11	11	11	11	11	11	11
Other PG&E Area	123	44	172	172	204	204	204	204	204	204
System	224	-	95	95	192	192	192	192	192	192
Flexible	107	-	-	-	-	-	-	-	-	-
<b>Net Short/(Long)</b>										
Greater Bay Area	-	88	87	86	85	84	83	82	81	81
Other PG&E Area	-	78	(51)	(52)	(85)	(86)	(87)	(88)	(89)	(89)
System	-	222	125	123	24	22	20	18	16	15
Flexible	-	106	105	104	103	102	101	100	99	99

### Flexible Capacity

The CAISO, in collaboration with the CPUC and other local regulatory authorities, must ensure that the energy supply has sufficient flexibility, including load-following capabilities, to address unexpected system variability. Thus, the CAISO introduced flexible capacity compliance mandates for load-serving entities ("LSEs") in 2015. Each LSE must demonstrate procurement of 90 percent of its flexible capacity

requirement on its annual RA filing and 100 percent of the specified requirement on its subsequent monthly RA filings. Flexible capacity capabilities of resources such as distributed generation, demand response, and storage should ultimately count toward an LSE's flexible capacity procurement obligation. MCE has successfully satisfied and expects to continue successfully satisfying all flexible capacity mandates.

**Table 10: MCE Flexible Capacity Targets, 2017**

<b>Results of Energy Commission Review and Adjustment to the 2017 Year-Ahead Load Forecast for MCE</b>											
<b>Monthly Flexible Capacity Targets (MW)</b>											
Jan - 17	Feb - 17	Mar - 17	Apr - 17	May - 17	Jun - 17	Jul - 17	Aug - 17	Sep - 17	Oct - 17	Nov - 17	Dec - 17
155	134	140	136	117	107	76	74	86	99	171	174

### Energy Storage

The California Energy Storage Bill, AB 2514, was signed into law in September of 2010, and, as a result, the CPUC established energy storage targets for investor owned utilities, CCAs, and LSEs in September 2013. The applicable CPUC decision established an energy storage procurement target for CCAs and electric service providers equal to 1 percent of their forecasted 2020 peak load; this procurement target must also be satisfied by 2020. Based upon current load forecasts, the decision will require MCE to install 6 MW of energy storage no later than 2024. Beginning on January 1, 2016, and every two years thereafter, MCE must file an advice letter demonstrating compliance with this requirement, progress toward meeting this target, and a description of the methodologies for insuring projects are cost-effective.

MCE intends to fulfill its energy storage procurement target by facilitating customer-sited energy storage projects in which customers are able to offset the cost of energy storage projects through transmission and distribution savings stemming from the storage installation and California government incentives that cover site preparation costs and installation. To date, MCE has secured 2.4 MWs (1.6 MWhs) of its target through an installation at the College of Marin in partnership with Tesla Motors, Inc. The installation, which includes five 480 kW batteries, is estimated to provide the College with cost savings of \$100,000-\$150,000 annually.



## V. Procurement

MCE will fill its future open positions via a combination of contracted energy resources, demand-side programs, and potentially MCE-owned generation projects. This section describes the types of resources MCE may procure and discusses various considerations that may influence MCE's procurement efforts.

MCE has successfully administered a transition away from its initial full requirements supply contract, under which all conventional energy products, reserve capacity, and renewable energy were provided through a single agreement with a single counterparty. Such a structure was instrumental in minimizing administrative and operational complexities at the time of MCE's launch in May 2010. Since that time, MCE has gained experience in the areas of resource planning and procurement, adding staff to support these critical functions. MCE has also developed robust procurement processes to address the majority of its energy, capacity, and renewable energy requirements through relationships with numerous suppliers.

### MCE Generation Development

MCE does not currently own generation assets and has historically utilized long-term PPAs to secure renewable energy supplies at stable costs for its customers. MCE considers asset ownership to offer similar benefits to contracting via long-term PPAs and, therefore, does not have an explicit bias toward either PPAs or asset ownership. MCE examines opportunities for asset ownership – as it does for its contracted resources – on a case-by-case basis, considering such factors as risk allocation, asset location, technology, and, most critically, impact on MCE's customers' rates.

Current federal tax policy generally favors private versus public ownership of renewable assets due to the tax credits that are uniquely available to the private sector. For this reason, MCE's experience has been that PPAs with privately owned renewable generation facilities are typically more cost-effective than development or ownership by MCE. However, MCE has secured optional buyout provisions in some of its renewable PPAs, which provide a path to MCE asset ownership after the tax benefits have been exhausted by the private developer. These options will be independently addressed at the time that they become effective; such evaluations will consider contracting options available otherwise, operational risks, capital commitments, and issues associated with project ownership.

Assessing a generation project's operational risk becomes more important for assets owned by MCE because MCE could be at risk for production shortfalls and for cost over-runs, which are risks typically absorbed by the developer under a PPA structure. With this in mind, MCE is most likely to own small, local solar PV projects as these projects are technologically proven, have relatively low operational and maintenance risks, and provide benefits to the local economy. MCE is targeting development of 25 MW of new solar PV within its service territory during the next ten years<sup>11</sup> and may invest directly in these projects as necessary to ensure development of certain projects that will promote MCE's local development objectives. Direct generation investment will likely become an increasingly viable option

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<sup>11</sup> The 10 MW local solar PV target is in addition to the 14 MW of distributed generation installed under the NEM program



during the Planning Period as MCE expects to gain additional operational experience and more robust access to credit markets. As part of this approach, MCE may also consider joint ventures and turnkey development approaches to ensure appropriate allocation of project risks.

### **MCE Solar One – Local Solar Development**

In September of 2014, MCE entered into an option agreement to lease 60 acres from Chevron Products Company (CPC) at the Richmond oil refinery for the development of 2 to 12 MW of solar PV generation. MCE's status as a California Joint Powers Authority and the public benefit to be derived from this project were key factors in CPC's decision to lease the property to MCE. MCE staff's initial evaluation of this brownfield development site yielded no significant development, permitting, or interconnection concerns. As a result, MCE has completed pre-development activities and engaged a developer with whom it expects to enter into a PPA in early 2017. The Solar One project is expected to begin commercial operations in October 2017, delivering renewable energy to MCE customers from a local renewable resource that would otherwise not have been developed. Once the project is online, MCE expects to evaluate the possibility of purchasing the facility, which MCE views as a test case for future solar development on brownfield sites in its service area.

### **Renewable Energy Purchases**

MCE uses a portfolio risk management approach in its power purchasing program, seeking low cost supply as well as diversity among technologies, production profiles, project sizes and locations, counterparties, length of contract, and timing of market purchases. These factors are taken into consideration when MCE engages the market.

MCE continually manages its forward load obligations and supply commitments with the objective of balancing cost stability and cost minimization, while leaving some flexibility to take advantage of market opportunities or technological improvements that may arise. MCE monitors its open position separately for each renewable resource category, GHG-free resources, conventional resources, and on a total portfolio basis. MCE maintains portfolio coverage targets of up to 100% in the near-term (0 to 5 years) and leaves a greater portion open in the mid to long term, consistent with generally accepted industry practice.

Typically, MCE fulfills the renewable portion of the portfolio with longer-term contracts, which provide cost stability for the supply portfolio. MCE's guidelines for long term, bundled renewable energy purchases are shown in Table 11.

**Table 11: MCE Renewable Energy Contracting Guidelines**

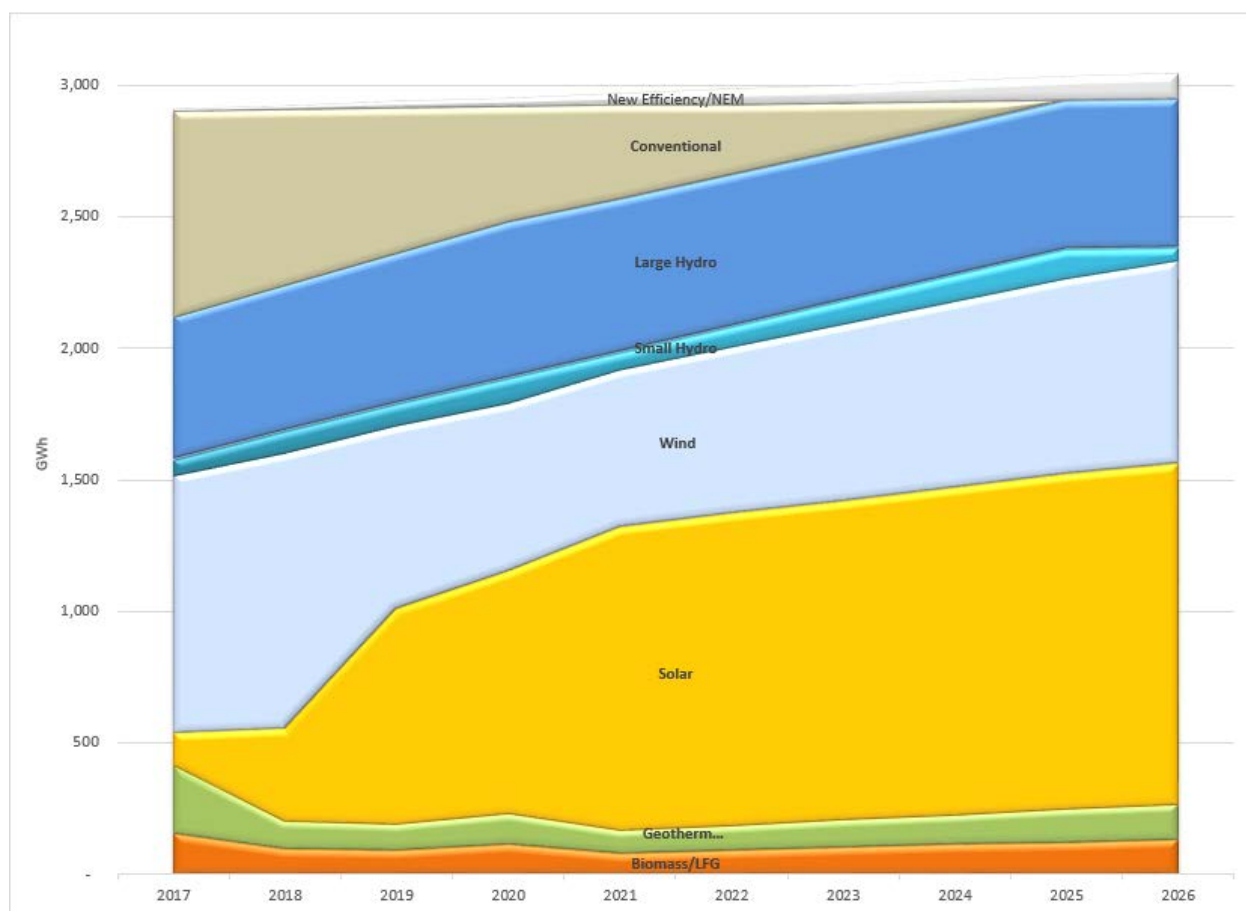
<b>Time Horizon</b>	<b>Contracting Guidelines (Contracts/Total RE Need)</b>
Current Year	90% to 100%
Years 2 – 3	80% to 100%
Years 4 – 5	60% to 100%
Beyond Year 5	50% to 100%

MCE has no explicit preference for specific renewable energy technologies. MCE's supply preference is for a mix of renewable energy technologies that will deliver energy in a profile that is generally consistent with its load shape. MCE aims to purchase volumes from baseload (e.g., biomass, landfill gas, renewable fuel cells) and mid-day peaking renewable generation technologies (e.g., solar PV or CSP) in rough proportion to its customers' load profile (75% baseload/25% mid-day peaking), subject to adjustments for market conditions and technology price differentials that exist at the time of purchase. Recent market data suggest that mid-day peak resources are likely to comprise a larger proportion of California's renewable supply portfolio due to the rapid decline in prices for solar PV generation projects and the abundance of such projects in development. Additions to the renewable portfolio during the Planning Period will likely be more heavily weighted toward dispatchable energy production in order to balance the prevalence of competitively priced solar projects. MCE may also engage in purchases from as-available renewable generation (e.g., wind) to the extent that they are competitively priced or otherwise provide portfolio balance.

In regards to generation project location, MCE places the greatest value on locally sited renewable energy projects, particularly those located within 100 miles of MCE's service area. Of next highest preference are projects sited in the North Path 15 region (generally, Northern California) followed by projects in the South Path 15 region (generally, Southern California) and then, finally, out-of-state resources.

The projected resource mix during the Planning Period is illustrated in Figure 5.



Figure 5: MCE Resource Mix, 2017-2026<sup>12</sup>

### Feed-In Tariff

MCE's current FIT program was established as a 2 MW pilot program. The program has since been expanded to 15 MW in aggregate capacity, with 3.2 MW currently under contract. MCE anticipates conducting a review and exploring expansion or refinement of the FIT program once the cap is reached. Table 12 shows all existing and proposed MCE FIT projects and the associated capacity, annual output, and commercial operation date.

Table 12: MCE Feed-In Tariff Projects

Project Name	Project Status	Capacity (kW)	Annual Output (kWh)	Commercial Operation Date
San Rafael Airport	Operational	972	1,800	October 2012
Freethy Industrial Park Unit #1	Operational	998	1,800	October 2016
Freethy Industrial Park Unit #2	Operational	998	1,800	October 2016
Cost Plus Plaza	Operational	261	500	September 2016
<b>TOTAL</b>		<b>3,229</b>	<b>5,900</b>	

<sup>12</sup> Actual resource utilization will depend upon market conditions and resource availability.

### Local Sol

In 2014, MCE established its Local Sol service option. An alternative to MCE's Light Green or Deep Green service options, Local Sol's community-based service enables customers to sign up for 100% local solar generation from projects located within MCE's service area. Local Sol service is expected to commence in early 2017, following commercial operation of the supporting local generator.

**Table 13: MCE Local Sol**

<b>Project Name</b>	<b>Project Status</b>	<b>Capacity (kW)</b>	<b>Annual Output (kWh)</b>	<b>Commercial Operation Date</b>
<b>Cooley Quarry</b>	Under Construction	990	2,000	February 2017

### GHG-Free Power Purchases

MCE anticipates that its GHG-free energy supplies will be substantially met through short-, medium-, and long-term purchases of GHG-free energy sources, particularly renewable energy and regionally produced hydroelectricity. As previously noted, MCE will not engage in unit-specific purchases from nuclear generators to meet its GHG-free power supply objectives.

### System Resources and Specified Power Purchases

MCE may engage in purchases of unspecified system energy or unit specific purchases from natural gas-fueled generation. Energy products may include peak, off-peak, baseload, and shaped energy. MCE may purchase energy or capacity at fixed prices, indexed prices, or through tolling agreements. Purchases of system energy will typically be for short- and medium-term lengths (< 5 years). Unit-specific and tolling agreements may address MCE's short-, medium- and long-term needs. Natural gas purchases associated with tolling agreements will typically be for short to medium terms.

### Total Supply Obligations

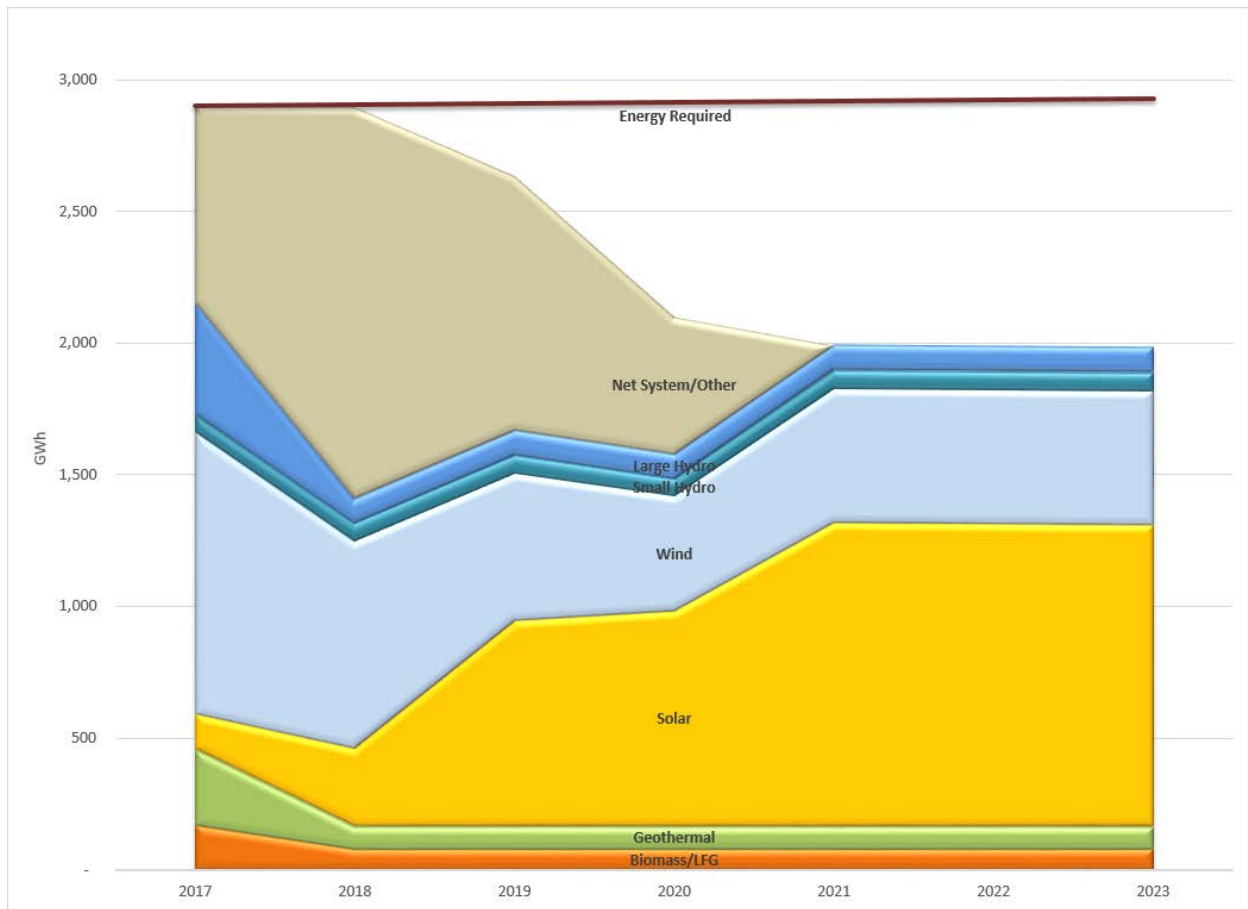
With respect to MCE's total supply and load obligations, MCE will manage exposure to market price risk by executing forward electric supply commitments for its projected energy sales obligations. MCE considers a variety of factors including cost stability and competitiveness. MCE's budgeting and rate-setting processes benefit from increased cost certainty within a given fiscal year and reduction of year-to-year volatility. However, it is appropriate to maintain modest flexibility for incorporation of new supply- or demand-side resources and limited exposure to market pricing, which enables relative cost parity with other retail energy providers. In light of these considerations, the following market price contracting guidelines for all sources of power supply shall be maintained during the Planning Period.

Table 14: MCE Power Supply Contracting Guidelines

Time Horizon	Contracting Guidelines (Contract Energy/Total Energy Need)
Current Year	80% to 105%
Year 2	70% to 100%
Year 3	60% to 95%
Year 4 and Beyond	Up to 70%

As MCE contracts for system energy and capacity, these contracting guidelines not only mitigate forward price risk but also serve as a hedging strategy. Execution of master power purchase and sale agreements with multiple, credit-worthy counterparties has enabled and will continue to enable energy purchases through transaction-specific confirmations whenever appropriate.

Figure 6: MCE Contracted Energy Portfolio (2017-2023)



### Reserve Capacity Purchases

MCE may engage in purchases or sales of resource adequacy capacity from generation resources that qualify to meet resource adequacy requirements in accordance with CPUC and CAISO regulations. Terms may range from one month to ten years. Capacity is also often bundled with energy and renewable attributes under MCE's renewable energy PPAs.

## VI. Procurement Methods and Authorities

In order to effectively plan and manage its portfolio, MCE differentiates contracts by their term length as follows:

- Short-term: up to twelve months;
- Medium-term: longer than twelve months, up to five years;
- Intermediate-term: longer than five years, up to ten years;
- Long-term: longer than ten years.

Based upon the expected contract tenor, MCE may use a variety of methods – including competitive solicitations, standard contract offerings, and bilaterally negotiated agreements – throughout the Planning Period.

### Procurement Methods

For long-, intermediate-, and medium-term purchase commitments, MCE typically uses competitive solicitations, like its annual Open Season solicitation, or standard offer contracts, like its Feed-in Tariff. Through a competitive solicitation, MCE issues a request for offers and concurrently evaluates multiple proposals in the context of market conditions before entering negotiations with those respondents that provide the most compelling offers. Occasionally, MCE will issue ad hoc competitive solicitations or engage in independent bilateral negotiations to meet specific resource needs for which inclusion in an annual solicitation is not appropriate.

With regard to short-term power purchases, MCE may negotiate bilateral agreements directly, especially for unique or urgent transactions that do not lend themselves to inclusion in a competitive solicitation. Alternatively, particularly in markets with sufficient transparency to ensure competitive outcomes, MCE may negotiate short-term transactions via its scheduling coordinator or independent energy brokers or marketers. Such markets may include:

- i. system energy at defined CAISO trading hubs for defined (e.g. peak, off-peak, baseload, shaped, or custom) products;
- ii. unbundled renewable energy certificates;
- iii. short-term RA capacity.

### Procurement Authorities

MCE's energy procurement throughout the Planning Period will be consistent with the delegation of authorities of the Board, including as described in the 2015 Integrated Resources Plan (Procurement Authorities) approved by the Board, Resolution 2013-04, Resolution 2016-05, and/or any subsequent delegation of authorities or relevant Resolution of the Board.

## Appendix A: Load and Resource Table

	MCE Resource Balance									
	Jan-17									
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
<b>I. Energy Requirements (GWh)</b>										
Retail Load	2,743	2,757	2,770	2,784	2,798	2,812	2,826	2,840	2,855	2,869
New Energy Efficiency	(2)	(5)	(10)	(16)	(24)	(30)	(37)	(44)	(50)	(53)
New Distributed Generation	(6)	(12)	(16)	(20)	(24)	(28)	(32)	(36)	(41)	(46)
Retail Load (Net of New EE/DG)	2,735	2,740	2,745	2,749	2,751	2,754	2,757	2,760	2,763	2,770
Distribution Line Losses and Unaccounted For Energy	165	166	167	167	168	169	170	172	173	175
<b>Total Energy Requirements</b>	<b>2,900</b>	<b>2,906</b>	<b>2,912</b>	<b>2,916</b>	<b>2,919</b>	<b>2,924</b>	<b>2,928</b>	<b>2,932</b>	<b>2,936</b>	<b>2,945</b>
<b>Portfolio Parameters</b>										
Light Green Renewable Energy Content (%)	53.3%	56.7%	60%	63%	67%	70%	73%	77%	80%	80%
Light Green Portfolio Content Category Targets (% of Renewable Energy)										
PCC 1 Target	70%	71%	71%	71%	72%	72%	72%	72%	73%	73%
PCC 2 Target	24%	24%	24%	24%	24%	24%	24%	24%	24%	24%
PCC 3 Target	6%	5%	5%	5%	5%	4%	4%	4%	4%	4%
Light Green Portfolio Carbon Free Content (% of Energy)	75%	78%	81%	84%	88%	91%	94%	97%	100%	100%
Deep Green Participation %	3%	3%	4%	4%	4%	4%	4%	4%	4%	4%
Overall MCE Renewable Energy Content (Light Green and Deep Green)	55%	58%	62%	65%	68%	71%	75%	78%	81%	81%
<b>II. Volume Targets</b>										
<b>Light Green Renewable Energy Volume Targets (GWh)</b>										
Portfolio Content Category 1	1,061	1,126	1,194	1,263	1,335	1,407	1,480	1,553	1,628	1,634
Portfolio Content Category 2	361	380	401	422	444	466	488	510	533	535
Portfolio Content Category 3	85	84	84	84	84	84	84	84	84	85
<b>Subtotal, Light Green Renewable Energy Volume Targets</b>	<b>1,507</b>	<b>1,590</b>	<b>1,679</b>	<b>1,769</b>	<b>1,862</b>	<b>1,957</b>	<b>2,052</b>	<b>2,148</b>	<b>2,246</b>	<b>2,254</b>
<b>Deep Green Incremental RE Volume Targets (GWh)</b>										
Portfolio Content Category 1	75	99	114	123	126	128	129	130	130	128
<b>Subtotal, Deep Green Incremental RE Volume Targets</b>	<b>75</b>	<b>99</b>	<b>114</b>	<b>123</b>	<b>126</b>	<b>128</b>	<b>129</b>	<b>130</b>	<b>130</b>	<b>128</b>
<b>Large Hydro/Carbon Free Energy Volume Targets (GWh)</b>	<b>612</b>	<b>602</b>	<b>595</b>	<b>588</b>	<b>582</b>	<b>577</b>	<b>571</b>	<b>566</b>	<b>561</b>	<b>563</b>
<b>III. Contracted Resources</b>										
<b>Renewable Resources Under Contract (GWh)</b>										
Portfolio Content Category 1	1,245	1,244	1,450	1,488	1,896	1,891	1,887	1,883	1,878	1,799
Portfolio Content Category 2	395	75	125	-	-	-	-	-	-	-
Portfolio Content Category 3	90	-	-	-	-	-	-	-	-	-
<b>Subtotal, Renewable Resources Under Contract</b>	<b>1,730</b>	<b>1,319</b>	<b>1,575</b>	<b>1,488</b>	<b>1,896</b>	<b>1,891</b>	<b>1,887</b>	<b>1,883</b>	<b>1,878</b>	<b>1,799</b>
<b>Carbon Free Resources Under Contract (GWh)</b>	<b>355</b>	<b>25</b>	<b>25</b>	<b>25</b>	<b>25</b>	<b>25</b>	<b>25</b>	<b>25</b>	<b>25</b>	<b>25</b>
<b>Conventional Energy Resources Under Contract (GWh)</b>	<b>1,682</b>	<b>1,484</b>	<b>964</b>	<b>519</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Total Contracted Energy (GWh)</b>	<b>3,677</b>	<b>2,827</b>	<b>2,564</b>	<b>2,032</b>	<b>1,921</b>	<b>1,916</b>	<b>1,912</b>	<b>1,908</b>	<b>1,903</b>	<b>1,824</b>
Less Variable Price Contracted Energy (GWh)	1,109	145	195	70	70	70	70	70	70	-
<b>Total Fixed Price Contracted Energy (GWh)</b>	<b>2,568</b>	<b>2,682</b>	<b>2,369</b>	<b>1,962</b>	<b>1,851</b>	<b>1,846</b>	<b>1,842</b>	<b>1,838</b>	<b>1,833</b>	<b>1,824</b>
<b>IV. Open Positions</b>										
<b>Renewables Open Position (GWh)</b>										
Portfolio Content Category 1	(110)	(19)	(143)	(102)	(436)	(356)	(278)	(200)	(121)	(36)
Portfolio Content Category 2	(34)	305	276	422	444	466	488	510	533	535
Portfolio Content Category 3	(5)	84	84	84	84	84	84	84	84	85
<b>Total Renewables Open Position (GWh)</b>	<b>(149)</b>	<b>371</b>	<b>217</b>	<b>404</b>	<b>92</b>	<b>194</b>	<b>294</b>	<b>395</b>	<b>497</b>	<b>583</b>
<b>Large Hydro/Carbon Free Open Position (GWh)</b>	<b>257</b>	<b>577</b>	<b>570</b>	<b>563</b>	<b>557</b>	<b>552</b>	<b>546</b>	<b>541</b>	<b>536</b>	<b>538</b>
<b>Total Open Energy Volumes (GWh)</b>	<b>332</b>	<b>223</b>	<b>542</b>	<b>954</b>	<b>1,068</b>	<b>1,078</b>	<b>1,086</b>	<b>1,094</b>	<b>1,103</b>	<b>1,122</b>
<b>Total Market Price Contract Coverage (%)</b>	<b>89%</b>	<b>92%</b>	<b>81%</b>	<b>67%</b>	<b>63%</b>	<b>63%</b>	<b>63%</b>	<b>63%</b>	<b>62%</b>	<b>62%</b>

## Appendix B: Description of Resources

### Bundled Renewable Energy Resources

#### *Shell Energy North America (SENA): energy, bundled renewable energy, GHG-free energy, capacity and scheduling services*

The SENA agreement and associated confirmations require SENA to provide scheduling coordinator services for MCE as well as energy, capacity, and renewable energy; there are three unique transactions under the master agreement that includes specific quantities of the aforementioned energy products). Under the three confirmations, SENA will provide to MCE through 2017: load scheduling services; conventional energy; bundled renewable energy; carbon-free hydroelectric energy, and reserve capacity. Following MCE's launch in May 2010, the SENA agreement provided for all of MCE's resource requirements, but the proportion of energy deliveries from this SENA has diminished as MCE incrementally augments its resource portfolio with a diverse mix of other power suppliers.

#### *G2 Energy LLC (Landfill Gas): bundled renewable energy and capacity*

MCE has two agreements with G2 Energy LLC, each relating to a unique renewable generating project in California's Central Valley. The first, G2 Hay Road, extends for twenty years from the July 2013 commercial operation date and supported construction of a new, 1.6 MW landfill gas project located in Solano County, CA. The second, G2 Ostrom Road, facilitated a 1.6-MW expansion of an existing landfill gas facility in Yuba County, CA and extends for an eighteen-year term from the commercial operation date in September 2013. Both facilities provide MCE with an estimated 23,000 MWh of renewable energy and associated capacity attributes annually.

#### *Cottonwood Solar LLC (Solar PV): bundled renewable energy and capacity*

Cottonwood Solar began delivering renewable energy to MCE in May 2015 and will do so for a twenty-five-year term. This agreement incorporates generation from three solar facilities, the first two of which provide MCE annually with approximately 64,000 MW of renewable energy and associated capacity:

- i. City of Corcoran Solar, located in Kings County, is a 11 MW solar project that commenced commercial operation in May 2015;
- ii. Goose Lake Solar, located in Kern County, is a 12 MW generation facility that has also been delivering to MCE since May 2015; and
- iii. the Marin Carport solar project, located in Novato, CA is a 1 MW carport-mounted solar project that achieved commercial operation in July 2016. This project is especially unique in that it provides energy directly to one of MCE's large commercial customers while reducing its cost of energy and providing shaded parking for its employees.

#### *San Rafael Airport Feed-In Tariff Project (Solar PV): bundled renewable energy*

The San Rafael Airport FIT agreement extends for a twenty-year term, which commenced on the facility's commercial operation date of October 23, 2012. The 972 kW solar PV project is located in San Rafael, California and is projected to generate 1,800 MWh per year during the contract term.

***Genpower LLC (Landfill Gas): bundled renewable energy and capacity***

Deliveries under the Genpower agreement began in February 2013 and extend for a twenty-year term. Located in Lincoln, CA, these resources include an existing 2.4 MW landfill gas project, which was expanded to 4.8 MW of renewable generating capacity. MCE is currently receiving renewable energy and capacity attributes from both engines at a combined average capacity of 3.55 MW. Annual Energy deliveries are estimated to be 27,000 MWh.

***RE Kansas, LLC (Solar PV): bundled renewable energy and capacity***

The Kansas agreement, originally a two-year PPA, achieved commercial operation in November 2014 and was subsequently extended for a third year. Kansas Solar is a 20 MW facility in Kings County, CA that delivers an estimated 51,000 MWh of renewable energy and associated capacity to MCE each year. The original PPA with Recurrent Energy was transferred to Dominion Solar Holdings, LLC upon commercial operation.

***Calpine Energy Services (Geothermal): bundled renewable energy, conventional energy, and capacity***

Under a master agreement and associated confirmation with Calpine, MCE receives geothermal energy produced by the Geysers Project in Lake and Sonoma Counties, CA. Deliveries are expected to begin in January 2017 and total 88,000 MWh of renewable energy and associated capacity throughout the ten-year term. In addition, MCE has contracted with Calpine for conventional energy deliveries from 2015 through 2017.

***EDP Renewables LLC (Wind): bundled renewable energy***

The EDP agreement is a four-year PPA with Rising Tree Wind Farm, a 99 MW generating project that is located in Kern County, CA and achieved commercial operation in June 2015. MCE will receive approximately 340,000 MWh of renewable energy and associated capacity per year through contract expiration in 2018.

***RE Mustang LLC (Solar PV): bundled renewable energy and capacity***

RE Mustang is a new, 30 MW solar facility in Fresno County, CA, construction of which was enabled by its fifteen-year PPA with MCE. MCE expects to receive 86,000 MWh of renewable energy and associated capacity from Mustang once the delivery term starts in January 2018.

***Waste Management – Redwood Landfill (Landfill Gas): bundled renewable energy and capacity***

The Redwood Landfill power generation facility under construction in Novato, CA is expected to achieve commercial operation in February 2017. MCE expects to receive approximately 30,000 MWh of renewable energy and associated capacity annually once the state-of-the-art 4 MW project is online.

***Cost Plus Plaza Larkspur Feed-In Tariff Project (Solar PV): renewable energy***

This 261 kW roof-mounted FIT project is located in Larkspur, CA and declared commercial operation in September 2016. Energy deliveries are expected to average 500 MWh per year during the twenty-year contract term.



***East Bay Municipal Utility District – Pardee and Camanche Reservoirs (RPS-Eligible Hydroelectric): bundled renewable energy***

MCE entered into a ten-year PPA with East Bay Municipal Utility District (EBMUD) for renewable energy deliveries from two existing RPS-eligible hydroelectric facilities near the Amador-Calaveras county line on the Mokelumne River. Both hydro power plants, which are owned and managed by EBMUD, are expected to provide 20,000 to 180,000 MWh of RPS-eligible generation per year, depending on annual precipitation; for planning purposes, MCE forecasts 70,000 MWh of annual production.

***Freethy Industrial Park Feed-In Tariff Projects #1 and #2 (Solar PV): bundled renewable energy***

Two proposed FIT projects are under development in Richmond, CA. Both 998 kW agreements would extend for a twenty-year term with an expected commercial operation date of June 30, 2015. Aggregate energy deliveries from the projects are expected to offset MCE load and are projected to average 3,600 MWh per year during the contract term.

***Avangrid Renewables, LLC (Wind): bundled renewable energy***

MCE has secured a short-term supply of bundled renewable energy from Avangrid’s Shiloh 1 wind facility located in Solano County, CA. From June 2018 through December 2018, 25 MW of this project will deliver to MCE approximately 75,000 MWh.

***Portland General Electric (Wind): bundled renewable energy***

Per a one-year confirmation, Portland General Electric delivered to MCE during 2016 120,000 MWh of bundled renewable energy from its portfolio of existing wind resources in Oregon and Washington.

***3 Phases Renewables, LLC (Wind, Geothermal): bundled renewable energy***

MCE has contracted with 3 Phases to fill renewable resource short-term needs via four confirmation transactions. In all, 3 Phases will deliver to MCE 140,000 MWh and 340,000 MWh of bundled renewable energy in 2016 and 2017, respectively, from wind resources in Colorado and Oregon as well as a geothermal facility in Oregon.

***SunPower (Solar PV): renewable energy***

SunPower’s Henrietta Solar Project is located in Kings County, CA and, per a short-term Renewable Energy Purchase and Sale Agreement, delivered 100,000 MWh to MCE during 2016.

***Powerex (Wind, Biomass): bundled renewable***

Via a trio of confirmation agreements with Powerex, MCE has contracted for bundled renewable energy supply from a resource portfolio comprised largely of wind facilities in British Columbia as well as a smaller biomass generation facility in Washington. In total, Powerex will deliver approximately 115,000 MWh, 75,000 MWh, and 125,000 MWh to MCE during 2017, 2018, and 2019, respectively.

***Silicon Valley Power (Wind, RPS-Eligible Hydro, Landfill Gas, Geothermal, Solar): bundled renewable energy***

MCE secured a large supply of renewable energy from Silicon Valley Power (SVP) via a one-year confirmation. Per the agreement, SVP will deliver 200,000 MWh during 2017 from its diverse portfolio of wind, small hydro, landfill gas, geothermal, and solar resources located in California.



***Cooley Quarry Project – MCE Local Sol (Solar PV): renewable energy***

The Cooley Quarry project is expected to achieve commercial operation in February 2017 and to deliver under a twenty-year PPA local solar energy for MCE customers who have opted into the Local Sol program. The 990 kW project is located in Novato, CA and is expected to deliver 2,000 MWh per year.

***RE Tranquillity 8 Rojo, LLC (Solar PV): bundled renewable energy and capacity***

The Tranquillity PPA entitles MCE to approximately 290,000 MWh of renewable energy and capacity annually from the 100 MW solar project in Fresno County, CA. Tranquillity is expected to be online in September 2018 and deliver to MCE for fifteen years. Moreover, MCE has the option to increase the facility capacity by an additional 60 MW should future resource needs warrant.

***Little Bear Solar (Solar PV): bundled renewable energy and capacity***

Little Bear Solar is a 40 MW solar project in Fresno County, CA that is expected to be online in September 2020 and annually deliver 104,000 MWh of renewable energy and capacity to MCE over the term of a twenty-year PPA. Should MCE customer base expand significantly before or during 2018, MCE will have the option to expand the Little Bear project by up to an additional 120 MW, which would increase projected renewable energy volumes to more than 400,000 MWh per year.

***NextERA (Solar PV): bundled renewable energy***

MCE has contracted with NextERA via a master agreement and one-year confirmation for 200,000 MWh of bundled renewable energy to be delivered during 2017 from NextERA's Blythe Solar 110 solar facility near Blythe, CA.

***Antelope Expansion 2, LLC (Solar PV): bundled renewable energy and capacity***

The Antelope Expansion 2 project will comprise 105 MW of solar capacity in the western Mojave Desert in Southern California. Once online in September of 2018, the Antelope Expansion 2 facility is annually expected to deliver 300,000 MWh of renewable energy and associated capacity over the term of its twenty-year PPA.

***Desert Harvest, LLC (Solar PV): bundled renewable energy and capacity***

Pursuant to its twenty-year PPA with MCE, Desert Harvest is developing an 80 MW solar facility in Riverside County, CA that is expected to be online in December 2020. Once operational, the project will deliver an estimated 490,000 MWh of renewable energy and associated capacity annually to MCE. In addition, MCE holds an option to expand the PPA and the facility to 150 MW if it determines that market conditions or potential expansion of MCE service territory warrant doing so.

***Los Banos Wind, LLC (Wind): bundled renewable energy and capacity***

Los Banos Wind project is a 125 MW wind facility currently under development in Merced County, CA. MCE expects Los Banos to achieve commercial operation in December 2020 and deliver annually 372,000 MWh of renewable energy and capacity over the twelve-year term of the PPA. In order to incorporate into its portfolio similar in-state wind deliveries prior to 2020, MCE has contracted with TGP Energy Management, LLC, an affiliate of Los Banos Wind, to deliver approximately 300,000 MWh per year of renewable energy from existing wind resources near Tehachapi, CA beginning in January 2018 and until Los Banos Wind comes online.

***Voyager Wind III, LLC (Wind): bundled renewable energy and capacity***

The Voyager Wind III project, located near Mojave, CA, will be 42 MW once operational in December 2018. MCE has contracted with Voyager to deliver an estimated 138,000 MWh of renewable energy and associated capacity each year of its twelve-year term.

**Unbundled Renewable Energy Resources**

Effective in January 2016, MCE committed to procure no more than 3% of its retail load from unbundled renewable energy resources.

***Los Angeles County Sanitation District (Landfill Gas): renewable energy certificates***

MCE has contracted via a two-year Purchase and Sale Agreement with Los Angeles County Sanitation District for delivery of 68,000 and 90,000 unbundled renewable energy certificates during 2016 and 2017, respectively. These renewable energy certificates correspond to renewable energy that was generated by the Sanitation District's landfill gas projects.

**Carbon-free Resources**

***U.S. Western Area Power Administration ("WAPA", Large Hydroelectric): GHG-free energy***

Under the WAPA agreement, MCE receives a specified allocation of hydroelectric energy produced by the federally owned Central Valley Project. These carbon-free energy deliveries, which are projected to average 25,000 MWh under typical hydrological conditions, began in January 2015 and will continue for the PPA's ten-year term.

**Conventional Energy Resources**

***Direct Energy/Energy America, LLC: system energy***

The Direct Energy agreement is a three-year energy supply confirmation that will compliment MCE's renewable and intermittent resources from 2018 to 2020 with consistent and competitively priced energy that will offset 310,000 MWh to 484,000 MWh annually that have been previously delivered by other suppliers.

***Exelon Generation Company: system energy***

Under the agreement with Exelon, MCE will receive 50 MW of system energy during the 2018 and 2019. These deliveries will compliment MCE's intermittent resources and offset approximately 438,000 MWh of the system energy each year that has been previously provided by other suppliers.

***Morgan Stanley: system energy***

Per two multi-year confirmations, Morgan Stanley will deliver system energy to MCE from 2016 through 2020. These deliveries vary by year but will offset between 200,000 MWh to 500,000 MWh of the system energy that has been provided annually by SENA.

## **MCE Renewable Resource Development**

### ***MCE Solar One (Solar PV): bundled renewable energy***

MCE has leased 60 acres from Chevron Products Company (CPC) at the Richmond oil refinery for the development of 2 to 12 MW of photovoltaic solar generation and has completed all pre-development activities. In early 2017, MCE will turn development over to a general contractor and financier, which are expected to achieve commercial operation in the second half of 2017. Once the project is online, MCE expects it to generate approximately 18,000 MWh per year.



February 2, 2017

TO: MCE Technical Committee

FROM: Elizabeth Kelly, General Counsel

RE: Delegation of Authorities and Contracting  
Draft Resolution 2017-02 Delegating Contracting Authorities (Agenda  
Item #06)

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ATTACHMENTS:

- A. Proposed Resolution No. 2017-02 Delegating Contracting Authorities
- B. MCE Technical Committee Overview and Scope (Redline)

Dear Technical Committee Members:

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**SUMMARY:** MCE's Joint Powers Agreement authorizes the Board to delegate contracting authority to its Committees and to the CEO. MCE frequently receives requests from vendors, suppliers, lenders and other parties for documentation of the Board's delegated contracting authorities. Delegated contracting authorities were previously set forth in multiple documents, including Resolutions 2013-04 and 2016-05, and the Integrated Resource Plan (IRP). The Scope and Overview documents for Board Committees, as approved by your Board in May 2016, also describe delegated contracting authorities.

The purpose of the Proposed Resolution Delegating Contracting Authorities is to consolidate the full scope of delegated contracting authorities into one clear, comprehensive document that will allow staff to respond efficiently to other parties' requests for this information. The delegated contracting authorities described in the Proposed Resolution are summarized below:

1. Executive Committee is authorized to approve and direct the CEO to execute all contracts, amendments and addenda; provided that any contracts, amendments or addenda with total consideration greater than \$25,000 must also be executed by the Executive Committee Chair.
2. Technical Committee is authorized to approve and direct the CEO and Technical Committee Chair to execute contracts for:
  - Energy Procurement (as defined in the Resolution), and related functions
  - Technical matters and demand-side or customer-side offerings
  - Development or purchase of MCE-owned energy generation projects

3. CEO and Technical Committee Chair, jointly, are authorized to approve and execute contracts for Energy Procurement for terms of five years or less after consultation with a Committee of the Board. The CEO must report all such executed contracts to the Board.

4. CEO is authorized to approve and execute:

- Energy Procurement contracts for terms of 12 months or less
- Contracts for a not-to-exceed maximum dollar amount of \$25,000 per vendor for a given scope of work, per fiscal year
- Contract amendments or addenda which improve the terms of an existing contract to MCE's benefit, without increasing the not-to-exceed maximum dollar amount
- Emergency contracts required due to a situation posing imminent threat of damage to property, and/or harm to MCE employees or public health and safety; with not-to-exceed aggregated dollar amounts of \$150,000, or \$500,000 with prior written consent of three Executive Committee members

The Proposed Resolution rescinds and replaces Resolutions 2013-04 and 2016-05 and fully consolidates the Board's delegated contracting authorities into one document, enabling staff to more efficiently communicate this information as needed during MCE's normal course of business.

Additionally, the Technical Committee Overview and Scope document, attached with proposed revisions in redline, provides updates for consistency with the Proposed Resolution,

**Fiscal Impact:** None

**Recommendations:** Accept Proposed Resolution 2017-02 Delegating Contracting Authorities; accept updated Technical Committee Overview and Scope document.

**PROPOSED RESOLUTION 2017-02**

**A RESOLUTION OF THE BOARD OF DIRECTORS OF  
MARIN CLEAN ENERGY DELEGATING  
CONTRACTING AUTHORITIES**

**WHEREAS**, Marin Clean Energy (MCE) is a Joint Powers Authority (JPA) established on December 19, 2008, and organized under the Joint Exercise of Powers Act (Government Code Section 6500 et seq.); and

**WHEREAS**, MCE members include the following communities: the County of Marin, the County of Napa, the City of American Canyon, the City of Belvedere, the City of Benicia, the City of Calistoga, the Town of Corte Madera, the City of El Cerrito, the Town of Fairfax, the City of Lafayette, the City of Larkspur, the City of Mill Valley, the City of Napa, the City of Novato, the City of Richmond, the Town of Ross, the Town of San Anselmo, the City of San Pablo, the City of San Rafael, the City of Sausalito, the City of St. Helena, the Town of Tiburon, the City of Walnut Creek, and the Town of Yountville; and

**WHEREAS**, pursuant to its authority under Sections 4.6 and 4.7 of the Joint Powers Agreement the Board of Directors wishes to delegate authority to its committees and the Chief Executive Officer ("CEO"), for purposes of responding efficiently to requests from contractors, suppliers, lenders or other parties for documentation of such authority for MCE during the normal course of business; and

**WHEREAS**, Resolutions 2013-04 and 2016-05 set forth contracting authorities delegated by the Board of Directors; and

**WHEREAS**, the Board intends that this Resolution 2017-02 shall supersede and replace Resolutions 2013-04 and 2016-05.

**NOW, THEREFORE, BE IT RESOLVED**, by the Board of Directors of MCE:

A. Resolutions 2013-04 and 2016-05 are hereby rescinded and replaced by this Resolution 2017-02.

B. The Board of Directors, by this delegation of contracting authority as described herein, shall not be divested of any such authority, but shall retain and may exercise such authority at such times as it may deem necessary and proper, at its sole discretion.

C. The Board of Directors shall retain authority over all legally required authorities, including, for the avoidance of doubt, authority over contracting for borrowing as described in Government Code Section 536.35.7 or its successor.

D. For purposes of this Resolution, "Energy Procurement" shall mean all contracting for energy and energy-related products for MCE, including but not limited to products related to electricity, capacity, energy efficiency, distributed energy resources, demand response, and storage.

E. The Board of Directors hereby delegates the following contracting authorities consistent with an approved resource plan and/or budget, as applicable, including contracts that are consistent with the current fiscal year's budget but extend beyond the current fiscal year:

### **1. Delegation to the Executive Committee**

The Executive Committee has all necessary and proper authority to approve and direct the CEO to execute all contracts, amendments and addenda; provided that any contract, amendment or addenda with total consideration greater than \$25,000 shall also be executed by the Executive Committee Chair.

### **2. Delegation to the Technical Committee**

The Technical Committee has all necessary and proper authority to approve and direct the CEO and Technical Committee Chair to execute:

- a. contracts for Energy Procurement as herein defined;
- b. contracts for functions, programs or services related to Energy Procurement, technical matters, and demand-side and customer-side offerings;
- c. contracts related to MCE ownership or development of energy generation projects and assets.

### **3. Delegation to the Chief Executive Officer and Technical Committee Chair, Jointly**

The CEO and Technical Committee Chair, jointly, shall have all necessary and proper authority, after consultation with a Committee of the Board, to approve and execute contracts for Energy Procurement for terms of less than or equal to five years. The CEO shall timely report to the Board all such executed contracts.

### **4. Delegation to the Chief Executive Officer**

The CEO shall have all necessary and proper authority to approve and execute:

- a. contracts for Energy Procurement for terms of less than or equal to 12 months, which the CEO shall timely report to the Board;
- b. contracts with a not-to-exceed maximum dollar amount of less than or equal to \$25,000 per vendor for a given scope of work, per fiscal year;
- c. amendments or addenda to existing contracts, regardless of the existing contract's price or total amount, which improves the terms of the contract to MCE's benefit without increasing the contract's not-to-exceed maximum dollar amount; and
- d. in the event of an emergency situation contracts with a not-to-exceed maximum dollar amount of:
  - i. \$150,000 in the aggregate; or
  - ii. \$500,000 in the aggregate with the prior written consent of three (3) Executive Committee members.

in order to avert or alleviate damage to property, to protect the health, safety and welfare of the community and MCE's employees, or to repair or restore damaged or destroyed property of MCE.

An “emergency situation” for purposes hereof is a situation creating an imminent danger to life or property or other material financial loss that calls for immediate action with inadequate time for prior Board approval. The Chief Executive Officer shall within thirty (30) days of the emergency, deliver a report to the Board of Directors explaining the necessity for the action, a listing of expenditures made under these emergency powers and any recommended future actions.

**PASSED AND ADOPTED** at a regular meeting of the Board of Directors on this 16<sup>th</sup> day of February 2017, by the following vote:



	<b>AYES</b>	<b>NOES</b>	<b>ABSTAIN</b>	<b>ABSENT</b>
City of American Canyon				
City of Belvedere				
City of Benicia				
City of Calistoga				
Town of Corte Madera				
City of El Cerrito				
Town of Fairfax				
City of Lafayette				
City of Larkspur				
County of Marin				
City of Mill Valley				
City of Napa				
County of Napa				
City of Novato				
City of Richmond				
Town of Ross				
Town of San Anselmo				
City of San Pablo				
City of San Rafael				
City of Sausalito				
City of St. Helena				
Town of Tiburon				
City of Walnut Creek				
Town of Yountville				

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CHAIR, MCE BOARD

ATTEST:

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SECRETARY, MCE BOARD



## **MCE Technical Committee Overview and Scope**

### **Redline of Proposed Changes**

Maximum Membership: 9

Current Members: Kate Sears, County of Marin (Chair)  
Ford Greene, Town of San Anselmo  
Kevin Haroff, City of Larkspur  
Greg Lyman, City of El Cerrito  
Emmett O'Donnell, City of Tiburon  
Ray Withy, City of Sausalito  
Vacant Seat

New Members: MCE strives to assemble a Technical Committee comprised of at least one county representative and one city/town representative from each county in the MCE service area. Available seats on the Technical Committee are therefore first offered to any interested and applicable Board member whose county is not yet represented by one county and one city member.

Current meeting date: First Thursday of each month at 9:00 am

### **Scope**

The scope of the MCE Technical Committee is to explore, discuss and provide direction or approval on issues related to electricity supply, distributed generation, greenhouse gas emissions, energy efficiency, and other topics of a technical nature.

Frequent topics include electricity generation technology and procurement, greenhouse gas accounting and reporting, energy efficiency programs and technology, energy storage technology, net energy metering tariff, local solar rebates, electric vehicle programs and technology, Feed-in Tariff activity and other local development, Light Green, Deep Green and Local Sol power content planning, long term integrated resource planning, regulatory compliance, and other activity related to the energy sector.

### **Authority of Technical Committee**

- Review and discuss new technologies and potential application within MCE
- Approval of and changes to MCE's Net Energy Metering Tariff
- Approval of and changes to MCE's Feed in Tariff

- Approval of annual GHG emissions level and related reporting
- ~~Approval of contracts with vendors for technical programs or services, energy efficiency program or services and procurement functions or services within the Board approved budget~~
- Approval of power purchase agreements ~~within Board approved budget~~
- Approval of adjustments to power supply product offerings
- Approval of ~~updates to~~ the Integrated Resource Plan
- ~~Recommendation to Board for approval of contracts with technical vendors outside of Board approved budget.~~
- ~~Recommendation to Board for approval of power purchase agreements outside of Board approved budget~~



February 2, 2017

TO: MCE Technical Committee

FROM: David Potovsky, Power Supply Contracts Manager

RE: Proposed MCE Headquarters Solar and Electric Vehicle Installation  
(Agenda Item #07)

ATTACHMENTS: A. Draft Power Purchase Agreement with Energy Finance Associates, LLC (MCE HQ – EFA 20 Year Partial Prepaid PPA)  
B. First Agreement with American Solar for EV Charging Station Purchase and Installation  
C. Preliminary Site Plan & Photo Simulations of Carport PV Structures

Dear Technical Committee:

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**Overview:**

As a result of MCE's ongoing interest in the installation of local solar and electric vehicle charging stations, the Power Resources staff was instructed to determine feasibility and cost implications for a proposed solar and electric vehicle (EV) project to be located in the parking lot of MCE Headquarters at 1125 Tamalpais Avenue. Proposals were requested from five qualified contractors to finance, build and maintain an 80kW carport mounted solar photovoltaic (PV) system and 10 electric vehicle (EV) charging stations.

Sausalito based American Solar and their wholly owned affiliate Energy Finance Associates, LLC have been selected based upon:

- Best qualified price
- Best equipment including highest percentage of U.S. manufactured content
- Ability to build and finance the project using a Power Purchase Agreement (PPA)
- Favorable PPA prepayment and buyout option pricing
- Developer experience
- Local company

MCE staff negotiated the proposed power purchase agreement with American Solar Corporation for the purchase of energy. A separate agreement has been negotiated for the purchase, installation and maintenance of the EV charging stations. The proposed solar project would have a capacity of 80 kW DC, which is the maximum that can fit in the available space. Renewable energy volumes produced by the facility will provide 100% of the annual expected load of the EV charging stations. The additional electricity produced by the system will be fed into the grid and credited against the load of the MCE office building.

The EV Stations will operate on a "pay as you go" and subscription basis. The estimated revenue from the charging stations and the excess solar generation is expected to be \$1.2 million over the life of the project. The stations will be open to the public and have 24/7 access. In addition, the EV Stations will have the capability to participate in MCE's "SmartCharge EV

Program”. This pilot program allows customers to set charging times and monitor their status through a cloud-based software platform. The platform periodically makes adjustments to the time of day and speed that each car is charging to reduce the need to operate polluting power plants when energy is in high demand. Additionally, each charging station will be automatically turned off when the car is fully charged to ensure the vehicle is not drawing electricity even when it’s still plugged in.

Expenses associated with the project include the cost of energy generated by the solar PV, the cost of owning and operating the system when MCE exercises the purchase option for the PV and the cost of purchasing and operating the EV charging stations. Expenses over the 25-year life of the project are expected to total \$880,000 or an average of \$35,200 annually.

#### **Financial Overview:**

Projected revenue over 25 years	\$1,197,685
Total expenses over 25 years	\$879,053
Cumulative net cash-flow over life of system (25 years)	\$318,632
Projected break-even point	Year 14
Current blended cost of grid power	\$0.2344
25 year levelized cost of energy under PPA	\$0.2111
EV rate (\$0.340) vs. EV expense (\$0.285)	

The solar PV installation would be financed via the power purchase agreement (PPA) referenced above which includes the following terms:

- 50% pre- payment for electricity
- 20-year term
- Fair market value purchase option at the end of the 6<sup>th</sup> year

These PPA terms would result in a 25-year levelized cost of energy that is less than the current retail cost of power from the grid. The financier, Energy Finance Associates, would own the system for the first six years, which will allow for the monetization of the tax benefits. During that time, Energy Finance Associates would operate and maintain the system. MCE intends to exercise the buyout option and take ownership of the project after the sixth year.

The EV charging stations would be installed by the same vendor (American Solar), but under a separate contract. Staff expects to recoup an amount equal to the purchase price of the EV charging stations through grants already awarded to MCE from The Bay Area Air Quality Management District (BAAQMD) and The Transportation Authority of Marin (TAM). The ongoing operations, maintenance, subscription fees and energy costs would be offset by the revenue coming from the use of the chargers.

#### **Location & Project Viability:**

The proposed solar installation would cover all parking spaces in the existing lot. It is anticipated that no parking spaces will be lost due to the shade structures or chargers. The EV stations will be set apart appropriately to service as many parking spaces as possible including the area reserved for ADA. The contractor will submit the plans to the City of San Rafael for a building permit. At this time, we do not know if the project will need to go through the City’s design

review process. In the unlikely event that a CEQA review is required, staff anticipates receiving a categorical exemption.

**Contractor and Financier:**

Sausalito based American Solar Corporation has been building and financing projects for 10 years. They have installed 900 residential and commercial systems totaling 12 MW. American Solar will provide the PPA financing for this project via their wholly owned subsidiary Energy Finance Associates, LLC.

**Parking Lot Lease:**

Staff is currently negotiating an extension to MCE's lease for the parking lot at 1125 Tamalpais. This would allow MCE to control and operate the carport and electric vehicle charging stations over the expected 25-year life of the system. This proposed lease option would remain in place whether MCE continues to occupy the building or not.

The proposed lease agreement includes a clause that allows the owner to request removal of the system if MCE no longer occupies the building. Staff has contemplated the cost to remove the system and remediate the site at various points in time after year 10. The resulting financial risk is outlined in the table below.

Financial ramifications of early removal:

<b>Year removed</b>	<b>Projected Cash-flow</b>	<b>Cost to remove &amp; remediate</b>	<b>Total</b>
<b>10</b>	<b>(\$116,058)</b>	<b>(\$39,250)</b>	<b>(\$155,308)</b>
<b>11</b>	<b>(\$84,144)</b>	<b>(\$39,250)</b>	<b>(\$123,394)</b>
<b>12</b>	<b>(\$51,840)</b>	<b>(\$39,250)</b>	<b>(\$91,090)</b>
<b>13</b>	<b>(\$19,143)</b>	<b>(\$39,250)</b>	<b>(\$58,393)</b>
<b>14</b>	<b>\$13,949</b>	<b>(\$39,250)</b>	<b>(\$25,301)</b>
<b>15</b>	<b>\$23,527</b>	<b>(\$39,250)</b>	<b>(\$15,723)</b>
<b>16</b>	<b>\$57,414</b>	<b>(\$39,250)</b>	<b>\$18,164</b>
<b>17</b>	<b>\$91,702</b>	<b>(\$39,250)</b>	<b>\$52,452</b>
<b>18</b>	<b>\$126,392</b>	<b>(\$39,250)</b>	<b>\$87,142</b>
<b>19</b>	<b>\$161,487</b>	<b>(\$39,250)</b>	<b>\$122,237</b>
<b>20</b>	<b>\$133,988</b>	<b>(\$39,250)</b>	<b>\$94,738</b>
<b>21</b>	<b>\$169,896</b>	<b>(\$39,250)</b>	<b>\$130,646</b>
<b>22</b>	<b>\$206,214</b>	<b>(\$39,250)</b>	<b>\$166,964</b>
<b>23</b>	<b>\$242,942</b>	<b>(\$39,250)</b>	<b>\$203,692</b>
<b>24</b>	<b>\$280,081</b>	<b>(\$39,250)</b>	<b>\$240,831</b>
<b>25</b>	<b>\$318,632</b>	<b>(\$39,250)</b>	<b>\$279,382</b>

**Solar PV System PPA:**

- Size: 80 kW carport mounted solar system - Will produce enough energy to power approximately 20 MCE residential customers on an annual basis
- Location: MCE Headquarters building in San Rafael
- Project will utilize proven technology
- Expected commercial operation date: October, 2017
- Contract type: Power Purchase Agreement (PPA)
- Contract term: 20 years / Expect to exercise buyout option in year 6
- Expected life of system: 25 years
- Expected year-1 energy production: 120,000 kWh
- Energy price: 10% savings over current cost of power
- Operations, maintenance and equipment replacement included for 6-year term
- No credit/collateral obligations for MCE

**Electric Vehicle Charging Stations Agreement:**

- Project: (10) Level 2 EV charging stations
- 100% of costs expected to be covered by grants from BAAQMD and TAM
- Contract type: Cash purchase
- Expected life of equipment: 10 years

**Summary:**

Staff recommends the proposed solar PV and EV project for the following reasons:

- It demonstrates to the community and our customers that MCE is committed to renewable energy and sustainability
- The project is expected to have a positive return on investment
- The EV charging stations promote electric vehicle use by providing MCE staff and the community with an added location to charge their cars
- The PV system provides 100% of the energy required for the EV chargers
- The Project is being designed and constructed by an experienced local team
- The EV charging stations will be available for use in the pilot smart charge EV program

**Fiscal Impact:**

Expenditures associated with the project will be incurred over the project life. Project expenditures that are expected to be incurred in FY 2016/17 are included in the FY 2016/17 Budget. Revenues and expenditures expected to occur in subsequent years will be budgeted in those years. Project revenues are expected to exceed project expenses over the life of the project.

**Recommendations:**

1. Authorize CEO and Board Chair to finalize and approve Power Purchase Agreement with Energy Finance Associates, LLC and American Solar Corporation.
  2. Authorize CEO and Board Chair to finalize and approve EV Charger Installation and Purchase Agreement with Energy Finance Associates, LLC and American Solar Corporation.
-

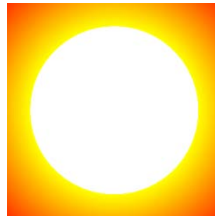
## **POWER PURCHASE AGREEMENT**

between

**Marin Clean Energy, a California joint powers authority,**

and

**Energy Finance Associates LLC**



Energy Finance Associates is a  
Wholly Owned Affiliate of American Solar Corporation





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GLOSSARY OF TERMS

<u>EXHIBIT A</u>	–	ENERGY PURCHASE RATES
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<u>EXHIBIT E</u>	–	DESCRIPTION OF PROJECT
<u>EXHIBIT F</u>	–	INSURANCE REQUIREMENTS
<u>EXHIBIT G</u>	–	PRELIMINARY PROJECT SCHEDULE
<u>EXHIBIT H</u>	–	ANNUAL SYSTEM OUTPUT

## POWER PURCHASE AGREEMENT

This Power Purchase Agreement ("Agreement") is entered into as of February \_\_, 2017 (the "Effective Date") by and between the following parties (the "Parties"):

- A. Energy Finance Associates LLC, a California limited liability company (hereinafter referred to as "Energy Finance Associates" or "Provider") and
- B. Marin Clean Energy, a California Joint Powers Authority hereinafter referred to as "Host"),

WHEREAS, Host is the lessee of the Site located at 1125 Tamalpais Ave, San Rafael, CA 94901, which includes the Premises, and desires to make a portion of the Premises available to Energy Finance Associates for the construction, operation and maintenance of a solar powered electric generating Project, and to purchase from Provider the electric energy produced by the Project.

WHEREAS, Energy Finance Associates, desires to develop, design, construct, own and operate the Project located on the Premises, and sell to Host the electric energy produced by the Project.

NOW, THEREFORE, the Parties agree as follows.

**1. DEFINITIONS.** Certain capitalized terms used in this Agreement have the meanings set forth in the attached GLOSSARY OF TERMS.

**2. TERM.**

(a) Term. This Agreement shall consist of an Initial Period and an Operations Period. As used herein, "Term" shall mean all of the Initial Period and the Operations Period, unless the Provider or Host terminates the Agreement prior to the end of the Initial Period pursuant to the terms of this Agreement.

(b) Initial Period. The Initial Period will begin on the Effective Date and will terminate on the earlier of (i) the Commercial Operation Date or (ii) the date the Agreement is terminated pursuant to the provisions of Section 4(b) or 4(d).

(c) Operations Period. If applicable, the Operations Period will commence on the Commercial Operation Date and will terminate at 11:59 p.m. on the last day of the month in which the twentieth (20<sup>th</sup>) anniversary of the Commercial Operation Date occurs.

(d) Extensions. Twenty-four months prior to the end of the Operations Period, the Parties will discuss in good faith the extension of this Agreement on terms and conditions reflecting the then current market for solar generated electricity and with such other amendments and additional terms and conditions as the Parties may agree. Neither Party shall be obligated to agree to an extension of this Agreement.

**3. ACCESS RIGHTS.**

(a) Access Specifications. Host hereby grants Provider and its designees (including, without limitation, Installer, persons responsible for implementing the Applicable Solar Program, and Financing Party) a non-exclusive access easement across and over any existing driveways, sidewalks, and other "common areas" on the Site as such common areas may exist from time to time, and upon such exterior portions of any improvements located on the Premises (including, without limitation roofs) as Provider deems necessary, for the Term, at reasonable times and upon reasonable notice, for the purposes of designing, installing, inspecting, operating, maintaining, repairing and removing the Project, and any other purpose set forth in this Agreement, and otherwise in accordance with the provisions of this Agreement. Provider shall provide Host with at least forty-eight hours written notice prior to accessing the Premises except in the event of an emergency, in which event Provider shall provide Host with reasonable notice. Access Rights with respect to the Site include without limitation:

(i) Vehicular & Pedestrian Access. Reasonable vehicular and pedestrian access across and upon the driveways as they may exist on the Site from time to time to the Premises as designated on Exhibit D for purposes of designing, installing, operating, maintaining, repairing and removing the Project. In

exercising such access, Provider shall use best efforts to minimize any disruption to activities occurring on the Site.

(ii) Transmission Lines & Communication Cables. The right to locate transmission lines and communications cables across the Site as designated on Exhibit D. The location of any such transmission lines and communications cables outside the areas designated on Exhibit D shall be subject to Host's approval, in its sole discretion, and shall be at locations that minimize any disruption to Host's activities.

(iii) Storage. Adequate storage space on the Site convenient to the Premises for materials and tools used during construction, installation, and maintenance of the Project, the location and size of such storage space to be mutually agreed upon by Host and Provider. Provider shall be responsible for providing shelter and security for stored items during construction and installation. Host shall have no liability for any loss resulting from the storage of materials on the Site.

(iv) Utilities. Water, drainage, electrical, and internet connections on the Premises for use by Provider in installing, operating and maintaining the Project.

#### **4. PLANNING, INSTALLATION AND OPERATION OF PROJECT.**

(a) Site Assessment and Planning. During the Initial Period, Provider shall have the right, at its own expense, to assess the suitability of the Premises for the Project and shall act diligently in conducting such assessment. The assessment shall include the right to inspect the physical condition of the structures on which the Project will be located; to apply for any building permits or other governmental authorizations necessary for the construction of the Project; to arrange interconnections with the Local Electric Utility; to make any applications to the appropriate Public Utilities Commission or other agencies for receipt of payments for the Project under the Applicable Solar Program; to apply to any other governmental agencies or other persons for grants or other determinations necessary for the construction of or receipt of revenues from the Project; to assess and advise Host as to whether or not structures or plantings on adjoining property will interfere with the solar access for the Project; or to make any other investigation or determination necessary for the financing, installation, construction, operation, maintenance or removal of the Project.

(b) Termination of Development Activities. At any time during the first ninety (90) days following the Effective Date, Provider shall have the right to cease development of the Project for any reason, in its sole discretion. If Provider gives Host notice of such determination, upon return to Host of 100% of any deposits or other payments made to or on behalf of Provider, this Agreement shall terminate effective as of the delivery of such notice without any further liability of the Parties to each other, provided that (i) Provider shall remove any equipment or materials which Provider has placed on the Site and shall restore any portions of the Site disturbed by Provider to its pre-existing condition in accordance with the Project Removal requirements of Section 9(e); (ii) the Parties shall not be released from any payment or other obligations arising under this Agreement prior to the delivery of the notice; and (iii) the confidentiality provisions (Section 14 hereof), the indemnification provisions (Section 15 hereof), and the dispute resolution provisions (Section 23 hereof) shall continue to apply notwithstanding the termination of this Agreement.

(c) Commencement of Construction. Provider shall not commence construction of the Project except upon prior written notice to proceed (NTP) from Host.

(i) As of the date hereof, Provider anticipates that the Project shall consist of the components and shall have the designs set forth in Exhibit E attached hereto.

(ii) Provider may not modify the design of the Project, including the selection of the components in the Project, without the prior written consent of Host. Provider shall give Host notice of any requested changes prior to the commencement of construction.

(d) Construction Commencement and Completion Deadlines. If Provider has not satisfied all of the following (i) delivery of a permit ready plan set to Host within ninety (90) days following the Effective Date (not including any days in which a Force Majeure Event existed), (ii) commencement of the installation of the Project on the Premises within two hundred seventy (270) days following the Effective Date, (not including any days in which a Force Majeure Event existed), or (iii) the Commercial Operation Date has not occurred, within one hundred eighty (180) days after Provider has commenced the installation of the Project on the Premises (not including any days in which a Force Majeure Event existed or due to conditions beyond Provider's control), Host may terminate this Agreement by delivering notice to Provider of its intention to terminate this Agreement, and the Agreement shall terminate twenty-one (21) days after Provider's receipt of such notice; provided, that if Provider commences

installation of the Project or causes the Commercial Operation Date to occur, as applicable, within such twenty-one (21) day period, this Agreement shall not terminate. Upon any termination in accordance with this Section 4(d) neither Party shall have any further liability to the other with respect to the Premises and/or the Project, provided that (i) Provider shall remove any equipment or materials that Provider has placed on the Site and shall restore any portions of the Site disturbed by Provider to their condition prior to the commencement of construction in accordance with the Project Removal requirements of Section 9(e); (ii) the Parties shall not be released from any payment or other obligations arising under this Agreement prior to the delivery of the notice, except that Provider shall promptly refund to Host all deposits paid to Provider pursuant to Exhibit A within ten (10) days of such termination; and (iii) the confidentiality provisions (Section 14 hereof), the indemnification provisions (Section 15 hereof), and the dispute resolution provisions (Section 23 hereof) shall continue to apply notwithstanding the termination of this Agreement.

(e) Schedule and Liquidated Damages. Provider will use commercially reasonable efforts to achieve Commercial Operation on or before the Guaranteed Commercial Operation Date. For each Day for which the Commercial Operation Date is delayed beyond the Guaranteed Commercial Operation Date, and such delay is not due to Force Majeure or the fault of Host, Provider shall pay Host three hundred dollars (\$300), as liquidated damages and not as a penalty ("Delay Liquidated Damages"). All Delay Liquidated Damages will be paid by Provider on the 10th day of the month following the month in which such amount accrued. Each Party agrees and acknowledges that actual damages for delayed Commercial Operations would be difficult or impossible to predict with certainty and that the Delay Liquidated Damages set forth above are reasonable and appropriate approximations of such damages.

(f) Contractors. Provider shall use licensed contractors to perform the work of installing, operating, and maintaining the Project. Provider intends to use Installer to perform such work, but may use other contractors, for all or a portion of such work, subject to the approval of Host, which shall not be unreasonably withheld. Provider shall advise Host of the Installer prior to commencement of the work on the Site. Provider shall be responsible for the conduct of Installer and its subcontractors, and Host shall have no contractual relationship with Installer or its subcontractors in connection with the work on the Project. Provider shall ensure that Installer maintains insurance applicable to the Installer's activities that satisfy the requirements in Exhibit F. In all cases, on-site labor shall be paid at the prevailing rate.

(g) Occupancy of Property. While the Contractor is installing the Project, the Provider shall take all necessary precautions to ensure that the work is performed in such a manner so as not to endanger, threaten, or impair the safety of guests and invitees to the Premises or to materially interfere with access to the Premises, and shall construct and maintain reasonable safeguards as required by the condition and progress of the work. Provider shall take all reasonably available efforts to eliminate unnecessary noise, dust, or obstructions during the performance of the Work. Provider shall ensure that all subcontractors are aware that the Site may be occupied during the performance of the work and shall require in all subcontracts that subcontractors take necessary safety precautions when performing work on the Premises including proper handling, treating and disposing of any potentially hazardous materials found on the Site.

(h) Protection of Work Area. The Provider shall take care to protect the Site and improvements surrounding the Work areas including but not limited to existing utilities, equipment, vegetation, interior flooring and walls to the extent impacted by the performance of the Work and shall utilize protective coverings as appropriate. Provider shall be responsible for repairing any damage to vegetation, structures, equipment, utilities, or improvements, including those that are the property of a third party, resulting from failure to comply with the requirements of this Agreement or failure to exercise reasonable care in performing the work. If the Provider refuses to repair the damage or fails to make such repairs within ten (10) days of receiving Host's written request to perform such repairs, Host may have such repairs performed at a reasonable cost by a third party and Provider will reimburse Host for such repairs.

(i) Cutting and Patching. The Provider shall be responsible for any cutting, fitting or patching required to complete the work, or to make its parts fit together properly. New work which connects to existing work shall correspond in all respects with that to which it connects; provided, however, such new work shall be in compliance with all current code requirements and shall comply with the design. The Provider shall not damage or endanger a portion of the work or fully or partially completed construction of the Host or separate contractors, or void any of Host's existing warranties, by cutting, patching or otherwise altering such construction, or by excavation.

(j) Site Clean-Up. The Provider shall keep the Premises and surrounding area free from accumulation of waste materials or rubbish caused by operations under the Agreement. The Provider shall perform daily clean-up of the Site of all construction materials, dust and debris. Special consideration shall be given to any materials posing a hazard to the residents of the Site. At completion of the work, the Provider shall remove from and about the Site waste materials, rubbish, the Provider's tools, construction equipment, machinery and surplus material. If applicable,

the Provider shall clean all glass, replace all broken glass, remove stains, spots, and dust from finished surfaces; clean all hardware; remove extraneous paint and smears from surfaces; clean all fixtures and wash all concrete but, with respect to all of the foregoing, only to the extent the need for such work was caused by Provider.

(k) Safety. The Provider shall be solely responsible for providing safe conditions for the performance of the Work.

(i) The Provider shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the performance of the work.

(ii) The Provider shall take reasonable precautions for safety of, and shall provide reasonable protection to prevent damage, injury or loss to:

(A) employees and residents at the Site and other persons who may be affected thereby;

(B) the materials and equipment to be used in connection with the performance of the work, whether in storage on or off the site, under care, custody or control of the Provider; and

(C) other property at the site or adjacent thereto, such as trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of the work.

(iii) The Provider shall give notices and comply with applicable laws, ordinances, rules, regulations and lawful orders of public authorities bearing on safety of persons or property or their protection from damage, injury or loss.

(iv) The Provider shall erect and maintain, as required by existing conditions, reasonable safeguards for safety and protection, including posting danger signs and other warnings against hazards, promulgating safety regulations and notifying the residents of the Site and owners and users of adjacent sites and utilities.

(v) When use or storage of explosives or other Hazardous Materials (as defined below) or equipment or unusual methods are necessary for execution of the Work, the Provider shall exercise utmost care and carry on such activities under supervision of properly qualified personnel. "Hazardous Material" shall mean hazardous material or substance as defined by the Federal Comprehensive Response Compensation, and Liability Act of 1980, as amended from time to time, including but not limited to asbestos.

(vi) The Provider shall promptly remedy damage and loss to property to the extent caused in whole or in part by the Provider, or by anyone for whose acts it may be liable, except damage or loss attributable to acts or omissions of Host or anyone directly or indirectly employed by it, by Host's agents, lessees, tenants or invitees, or by anyone for whose acts Host may be liable, and not attributable to the fault or negligence of the Provider.

(vii) The Provider shall not load or permit any part of the work or site to be loaded so as to endanger its safety.

(viii) When all or a portion of the work is suspended for any reason, the Provider shall securely fasten down all coverings and protect the Improvements, as necessary, from injury by any cause.

(ix) The Provider shall promptly report in writing to the Host all accidents arising out of or in connection with the Work that caused death, serious personal injury, or serious property damage (other than the demolition of the Improvements on the Premises), giving full details and statements of any witnesses. In addition, if death, serious personal injuries or serious damages are caused, the accident shall be reported immediately by telephone or messenger to Host.

(l) Status Reports. Provider shall give Host regular updates, on a reasonable schedule requested by Host, on the progress of installation of the Project and shall notify Host of when Provider will commence testing of the Project. Host shall have the right to have its representatives present during the testing process, but subject to reasonable written rules and procedures as may be established by Provider and Installer. After Provider has determined, in its reasonable judgment, that the Project meets the requirements of the Local Electric Utility, has been

installed in accordance with all Applicable Laws, and is capable of producing electricity on a continuous basis, Provider shall notify Host that installation of the Project is complete and shall specify the Commercial Operation Date for the Project, which may be immediately upon delivery of such notice to Host. All electricity produced by the Project prior to the Commercial Operation Date shall be delivered to Host and Host shall pay for such electricity at the rate applicable to the first Operations Year but in no event greater than the rate otherwise payable by Host to the Electric Service Provider.

(m) Standard of Operation. Provider shall design, obtain permits, install, operate, and maintain the Project so as to keep it in good condition and repair, in compliance with all Applicable Laws and in accordance with the generally accepted practices of the electric industry, in general, and the solar generation industry, in particular. Such work shall be at Provider's sole expense. Except for emergency situations or unplanned outages, Provider shall cause the work to be performed between the hours of 7:00 am and 7:00 pm, Monday through Saturday, in a manner that minimizes interference with Host and Host's employees, visitors, tenants and licensees and their customers to the extent commercially practical. Provider shall, and shall cause its contractors to, keep the Site reasonably clear of debris, waste material and rubbish, and to comply with reasonable safety procedures established by Host for conduct of business on the Site.

(n) Hazardous Materials. Provider and Installer are not responsible for any Hazardous Materials encountered at the Site except to the extent introduced by Provider or Installer. Upon encountering any Hazardous Materials, Provider and Installer will stop work in the affected area and duly notify Host. Upon receiving notice of the presence of suspected Hazardous Materials at the Site, Host shall take all measures required by Applicable Law to address the Hazardous Materials discovered at the Site. Host may opt to remediate the Site so that the Project may be installed on the Site, or determine, in its reasonable discretion, that it is not economically justifiable or is otherwise impractical to remediate the Site, in which case Host and Provider may attempt to reach an agreement upon a different location for the Project whereupon such replacement location shall be the Site for purposes of this Agreement. Provider and Installer shall be obligated to resume work at the affected area(s) of the Site only after Host notifies Provider and Installer that Host has complied with all Applicable Laws, and a qualified independent expert provides written certification that (i) remediation has been accomplished as required by Applicable Law and (ii) all necessary approvals have been obtained from any Governmental Authority having jurisdiction over the Project or the Site. Host shall reimburse Provider for all additional costs incurred by Provider or Installer in the installation of the Project resulting from the presence of and/or the remediation of Hazardous Materials, including demobilization and remobilization expenses. Notwithstanding the preceding provisions, Host is not responsible for any Hazardous Materials introduced to the Site by Provider or Installer, nor is Host required to remediate an affected area if such remediation is deemed to be economically unjustifiable or otherwise impractical.

(o) Site Security. Host will advise Provider immediately upon observing any damage or vandalism to the Project. Upon request by Provider, such as Provider receiving data indicating irregularities or interruptions in the operation of the Project, Host shall, as quickly as reasonably practicable, send a person to observe the condition of the Project and report back to Provider on such observations.

(p) System Shut Down. Provider may shut down the Project at any time in order to perform required emergency repairs to the Project, as Provider may determine in its sole discretion. At other times, Provider shall give Host written notice of the shutdown as may be reasonable in the circumstances. Provider shall not have any obligation to reimburse Host for costs of purchasing electricity that would have been produced by the Project but for such shutdown. Except in the case of emergency repairs, as determined by Provider in its sole discretion, Provider shall not schedule shutdowns during peak periods of electric generation and periods when peak energy and demand prices are charged by the Electric Service Provider, except as may be required in accordance with prudent electric industry safety practices in the event of equipment malfunction.

## **5. SALE OF ELECTRIC ENERGY.**

(a) Sale of Electricity. Throughout the Operations Period, subject to the terms and conditions of this Agreement, Provider shall sell to Host and Host shall buy from Provider all electric energy produced by the Project, whether or not Host is able to use all such electric energy at the rates set forth in Exhibit A attached hereto. The Point of Delivery of the electric energy shall be as indicated in Exhibit E. Title to and risk of loss with respect to the energy shall transfer from Provider to Host at the Point of Delivery.

(b) Delivery of Electricity. The electric energy from the Project shall be delivered from Provider to Host at the specifications set forth in Exhibit E and otherwise in compliance with all requirements of the Local Electric Utility.

(c) Output Guarantee.

(i) Throughout the Operations Period, with respect to each Performance Measurement Period, the amount of the aggregate Adjusted Annual Product shall be at least ninety percent (90%) of the aggregate Annual Product for such Performance Measurement Period (the "Output Guarantee").

(ii) Promptly, and in no case later than thirty (30) Days following the completion of each Operations Year, Provider shall provide Host with a calculation of the Adjusted Annual Product for such Operations Year. Starting after the end of the initial Performance Measurement Period, and after each Operations Year thereafter, Provider shall calculate the aggregate Adjusted Annual Product for the immediately preceding Performance Measurement Period. The calculation of the Adjusted Annual Product provided to Host pursuant to this Section shall include an explanation in reasonable detail of the manner in which such Adjusted Annual Product was calculated, using historical Project data, meteorological data, shading adjustments, output projections and other relevant data reasonably necessary to verify the accuracy of the calculations. If the aggregate Adjusted Annual Product is less than the Output Guarantee in a given Performance Measurement Period (such shortfall, a "GP Shortfall"), Provider shall pay GP Shortfall Liquidated Damages.

(iii) During each Performance Measurement Period in which a GP Shortfall occurs, Provider shall pay Host, as liquidated damages (and not as a penalty), an amount equal to (i) the GP Shortfall (in kWh) for such Performance Measurement Period, multiplied by (ii) the greater of (x) the positive difference obtained by subtracting the Energy Purchase Rate from the Replacement Price, on an average weighted basis, per kWh, ("GP Shortfall Liquidated Damages"). For each Performance Measurement Period, Host shall invoice Provider and Provider shall make payment within ten (10) Business Days of receipt of such invoice.

(d) Meter Testing. Provider shall install one or more meter(s) at the Project, as Provider deems appropriate, to measure the output of the Project at the Point of Delivery. Provider shall install an Interval Data Recorder (IDR) with industry standard telemetry at the Project. Provider shall conduct tests of the meters at such times as it deems appropriate in accordance with industry standards, but not less than once in any two-year period. Host shall pay for any independent testing of the meter(s) in excess of such minimum testing schedule that Host deems necessary, except if, after such testing, the meter is shown to be in error in Provider's favor by more than 2%, Provider shall pay for the cost of such test and shall make corresponding adjustments to the records of the amount of electrical energy provided by the Project delivered based on the period that is half-way in between the date of this testing and the last testing date of the meter. If there is an error of less than or equal to 2% no billing adjustments will be made. In the event there is an error of greater than 2%, Provider shall adjust the next invoice to be provided to Host under Section 6(b) hereof, to either charge the Host additional amounts for energy produced over the stated meter amount during the applicable period at the applicable rate or provide Host a credit against future billing for energy produced under the stated meter amount during the applicable period, provided, however, that any deficiencies or credits not theretofore applied or satisfied at the expiration or earlier termination of the Operations Period shall be settled in cash.

(e) Baseline Production Calculation. Provider shall take SunEye or other mutually agreeable measurements of solar exposure and horizons for each array within thirty (30) days of the Commercial Operation Date to determine initial shading at the site. Host shall ensure that trees and adjacent structures are kept below the initial shading measurements. Any changes from the baseline measurements to on-site shading shall be reflected in the calculation of the Adjusted Annual Product.

## **6. PAYMENT AND BILLING.**

(a) Rates and Prepayment. Host shall pay Provider for electricity produced by the Project at the Energy Purchase Rates set forth in Exhibit A attached hereto. In addition to Host paying Provider for electricity produced by the Project at the rates specified on Exhibit A, Host shall pay the Prepayment Amount and deposits in support thereof in the amounts and on the dates specified in Exhibit A.

Notwithstanding the foregoing, to the maximum extent permitted by applicable law, in the event the Project (i) stops producing electricity and (ii) Provider either (A) fails to begin repair of the Project within thirty (30) days of written notice from Host or (B) is unable to complete such repairs within ninety (90) days of such notice, Host shall have the immediate right, but not the obligation, to enter upon the Premises and perform such work as is needed to resume the production of electricity by the Project (the "Self-Help Production Work"). Provider shall cooperate fully with Host to ensure compliance with any Applicable Laws in connection with the Self-Help Production Work. Nothing herein shall in any way be construed as requiring Host to undertake the Self-Help Production Work. In the event that Host



undertakes the Self-Help Production Work to the maximum extent permitted by applicable law, all costs (including without limitation, engineering fees and other soft costs) incurred by Host in connection with the Self-Help Production Work together with an administrative and mobilization expense not to exceed fifteen percent (15%) of all such costs shall automatically be deducted from the amounts owed to Provider by Host pursuant to this Section 6. Host does not waive, and expressly reserves, its right to pursue any claims at law or equity available to recover the costs of such Self-Help Production Work. In the event that Host performs the Self-Help Production Work, Provider hereby waives approval of the costs of the Self-Help Production Work.

(b) Billing. Host shall pay for the electricity produced by the Project monthly in arrears. Promptly after the end of each calendar month, Provider shall provide Host with an invoice setting forth the quantity of electricity produced by the Project in such month, the applicable rates for such, and the total amount due, which shall be the product of the quantities and the applicable rates.

(c) Invoice Delivery. Invoices shall be in writing and shall be either (i) delivered by hand; (ii) mailed by first-class, registered or certified mail, return receipt requested, postage prepaid; (iii) delivered by a recognized overnight or personal delivery service; or (v) transmitted by email if receipt of such transmission by email is specifically acknowledged by the recipient (automatic responses not being sufficient for acknowledgement), addressed as follows:

MCE  
1125 Tamalpais Ave  
San Rafael, CA 94901  
Attention: MCE Invoices  
Email: invoices@meccleanenergy.org  
Phone: 888-632-3674

(d) Invoiced Payments. Host shall pay each undisputed invoice within sixty (60) days of receipt of the invoice. Payments shall be made by electronic funds transfer to an account designated by Provider in the invoice or in a written notice delivered to Host, or, alternatively, by any payment method authorized by Provider in writing. Any amounts not paid when due, including any amounts properly disputed and later determined to be owing, shall be subject to: (i) a 5% late penalty, (ii) all costs of collection, including without limitation reasonable attorney fees and, (iii) accrued interest on the unpaid amount at the rate equal to the lesser of 2% per month, compounded monthly or the highest rate allowed by applicable law.

(e) Disputed Invoices. If Host objects to all or a portion of an invoice, Host shall, on or before the date payment of the invoice is due, (i) pay the undisputed portion of the invoice, and (ii) provide an itemized statement of its objections setting forth in reasonable detail the basis for its objections. If Host does not object prior to the date payment of any invoice is due, Host shall be obligated to pay the full amount of such invoices but Host may subsequently object to such invoice and, if such objection proves to be correct, receive a refund of the disputed amount; provided, however, that Host may not object to any invoice more than six (6) months after the date on which such invoice is rendered. The right to dispute or object to an invoice, shall, subject to the time limitation provided in this Section 6(e), survive the expiration or termination of this Agreement.

## **7. SUPPLEMENTAL POWER, NET METERING, RECS.**

(a) Back-up and Supplemental Electricity. Except as otherwise provided herein, throughout the Term, Host shall be responsible for obtaining all of its requirements for electric energy in excess of the amounts produced by the Project and paying for such service pursuant to contracts with or applicable tariffs of the Local Electric Utility or other Electric Service Provider. Provider shall have no obligation to obtain or pay for such supplemental or back-up electricity.

(b) Net Metering & Utility Credits. At any time that electric production from the Project is greater than Host's requirements at such time, Host shall nevertheless pay Provider for all electricity produced by the Project (other than as provided in Section 6(e) of this Agreement) at the rates and in the manner provided in this Agreement. Host may make arrangements with the Local Electric Utility so that power in excess of Host's requirements may be delivered to the Local Electric Utility through the Point of Delivery and Host shall receive any credits or payments from the Local Electric Utility may be available under net metering or similar programs. If Applicable Law or the practice of the Local Electric Utility restricts the ability of the Host to deliver electricity produced by the Project to the Local Electric Utility, then the Parties shall agree on alternate arrangements to enable Host, insofar as possible, to receive benefits from the Local Electric Utility comparable to those available under net metering programs, provided that the economic benefits to Provider remain as provided in this Section 7(b).

(c) Interconnection. Provider shall be responsible for arranging the interconnection of the Project with Host's Local Electric Utility in a manner which includes bi-directional or "net metering".

(d) Applicable Solar Program Incentives. Except as provided in Section 7(b), Provider shall receive all payments available under any Applicable Solar Program. Host shall provide reasonable assistance to Provider in preparing all applications and other documents necessary for Provider to receive such payments, including designating Provider as the customer for purposes of the Applicable Solar Program or assigning payments from the Applicable Solar Program to Provider, provided, Host shall not be required to incur any costs relating to providing such assistance. If Host receives any payments under the Applicable Solar Program or other programs in respect of the Project, it shall promptly pay them over to Provider. Host's obligation to make any payments to Provider under this paragraph (d) is limited to any payments actually received by Host.

(e) Ownership of Tax Attributes. Provider (and/or Financing Party) shall be the owner of any Tax Attributes that may arise as a result of the operation of the Project and shall be entitled to transfer such Tax Attributes to any person. Host shall provide reasonable assistance to Provider in preparing all documents necessary for Provider to receive such Tax Attributes (provided, Host shall not be required to incur any costs relating to providing such assistance), and if Host is deemed to be the owner of any such Tax Attributes, Host shall assign the same (or the proceeds thereof) to Provider. If Host receives any payments in respect of such Tax Attributes, it shall promptly pay them over to Provider.

(f) Environmental Attributes. Host shall be the owner of any Environmental Attributes which may arise as a result of the operation of the Project. Provider shall provide reasonable assistance to Host in preparing all documents necessary for Host to receive such Environmental Attributes (provided, Provider shall not be required to incur any costs relating to providing such assistance).

(g) Capacity & Ancillary Services. Host shall be entitled to receive any payments for electric capacity or ancillary services that may become available as a result of the construction or operation of the Project. Provider shall provide reasonable assistance to Host in preparing all documents necessary for Host to receive such payments (provided, Provider shall not be required to incur any costs relating to providing such assistance).

(h) Provider Is Not A Utility. Neither Party shall assert that Provider is an electric utility or public service company or similar entity that has a duty to provide service, is subject to rate regulation, or is otherwise subject to regulation by any governmental authority as a result of Provider's obligations or performance under this Agreement.

## **8. PERMITS, OWNERSHIP OF PROJECT, LIENS, MORTGAGES.**

(a) Permits. Provider shall pay for and obtain all approvals from governmental entities necessary for the construction and operation of the Project, including land use permits, building permits, demolition and waste disposal permits and approval.

(b) System Ownership. Except as provided in Section 9, Provider or Financing Party shall be the legal and beneficial owner of the Project at all times. The Project is the personal property of Provider and shall not attach to or be deemed a part of, or fixture to, the Site. The Project shall at all times retain the legal status of personal property as defined under Article 9 of the Uniform Commercial Code. Host covenants that it will place all persons having an interest in or lien upon the real property comprising the Premises, on notice of the ownership of the Project and the legal status or classification of the Project as personal property belonging to Provider. Host and/or Provider shall make any necessary filings to disclaim the Project as a fixture of its respective Premises and Site in the appropriate Land Registry to place all interested parties on notice of the ownership of the Project by Provider.

(c) Liens. From the Date of this Agreement and thereafter, Host shall not directly or indirectly cause, create, incur, assume or allow to exist any mortgage, pledge, lien, charge, security interest, encumbrance or other claim of any nature on or with respect to the Project or any interest therein.

(d) Non Disturbance Agreements. Host shall pay for and obtain all consents required for it to enter into and perform its obligations under this Agreement from its lenders, landlord, tenants, and any other persons with interests in the Site. Host covenants that it will use commercially reasonable efforts to place all parties having an interest in or a mortgage, pledge, lien, charge, security interest, encumbrance or other claim of any nature on the Site or on the Premises on notice of the ownership of the Project and the legal status or classification of the Project as personal property.

## 9. PURCHASE OPTIONS; REMOVAL AT END OF TERM.

(a) Early Purchase Options. On the sixth (6th), tenth (10th), and fifteenth (15th) anniversary of the Commercial Operation Date, provided no Host Event of Default has occurred and is continuing, the Host shall have the option to purchase the Project from Provider at a price which will be the greater of (i) the Fair Market Value of the Project at such anniversary date or (ii) the applicable Interim Purchase Option Price set forth in Exhibit B-1, plus, in either case, if applicable, repayment or recapture of Applicable Solar Program or other governmental payments occasioned by the exercise of this option. If Host desires to exercise this option, it shall no later than ninety (90) days prior to the applicable anniversary date notify Provider of its election to exercise the option, and on or before ninety (90) days after such anniversary date shall pay the purchase price to Provider by electronic transfer in immediately available funds to an account designated by Provider. At any time following receipt of the notice from Host, but no later than thirty (30) days after the date Host gives notice of its election to exercise the option, Provider may notify Host if it believes the Fair Market Value of the Project exceeds the applicable Interim Purchase Option Price, and, in the same notice, Provider shall provide Host an appraisal of the Fair Market Value. If Host agrees with the appraisal of the Fair Market Value it shall pay such sum to Provider. If Host disagrees with the appraisal's estimate of the Fair Market Value of the Project, Host may request that the Parties meet to discuss the appraisal. If the Parties cannot agree within ten (10) days of the Host's receipt of the appraisal of the Fair Market Value, the Parties will be deemed to enter into a Dispute for purposes of Section 23(a) and shall follow the procedures in Section 23 for resolution of the Dispute. If Host notifies Provider that Host elects to exercise an Early Purchase Option, Host may withdraw its election to exercise the Early Purchase Option, if the Parties are unable to reach an agreement to the Fair Market Value, in accordance with this Paragraph, and Host shall be under no further obligation to exercise the Early Purchase Option.

(b) End of Term Purchase Option. Host shall have the right to purchase the Project from Provider at the expiration of the Operations Period at the greater of (i) the then Fair Market Value of the Project, or (ii) the applicable Interim Purchase Option Price. No earlier than twelve months prior to the expiration of such Operations Period and no later than nine (9) months prior to the expiration of the Operations Period, Host shall notify Provider of its intent to exercise the option. Within ninety-one (91) days of its receipt of such notice, Provider shall give Host its appraisal of the Fair Market Value of the Project at the end of the Term. Host may, but is not obligated to, accept such appraisal. If Host does not accept such appraisal within ten (10) days of receiving the appraisal from Provider, the Parties shall meet to discuss the appraisal. If they are unable to reach agreement within twenty (20) days of the Host's receipt of the appraisal from Provider, the Parties will be deemed to enter into a dispute for purposes of Section 23(a) and shall follow the procedures in Section 23 for resolution of the dispute. If Host notifies Provider that Host elects to exercise the End of Term Purchase Option, Host may withdraw its election to exercise the End of Term Purchase Option, if the Parties are unable to reach an agreement to the Fair Market Value, in accordance with this Paragraph, and Host shall be under no further obligation to exercise the End of Term Purchase Option.

(c) Transfer of Ownership. Upon Host's notice that it elects to exercise the option set forth in either Section 9(a) or 9(b) above, Provider shall prepare and deliver to Host a set of records on the operation and maintenance history of the Project, including a summary of any known defects. Upon payment of the purchase price, Provider shall deliver, or cause to be delivered, to Host a bill of sale conveying the Project to Host. Such bill of sale shall not contain any warranties other than a warranty against any defects in title arising through Provider. Provider shall use all reasonable efforts to transfer any remaining manufacturer's warranties on the Project, or portions thereof, to Host.

(d) Operation & Maintenance After Sale. Prior to the effective date of Host's purchase of the Project under Section 9(a) or 9(b), Host and Provider shall discuss entering into an operation and maintenance agreement under which Provider shall perform all or a portion of the operation and maintenance requirements of the Project following Host's purchase of the Project. However, neither Party shall be under an obligation to enter into such an agreement.

(e) Decommissioning. If Host does not exercise the option set forth in Section 9(b) above, then Provider, at its expense, shall decommission the Project and perform Project Removal within no more than one hundred and eighty (180) days following the expiration of the Operations Period or the termination of this Agreement, whichever is earlier. "Project Removal" shall mean to restore the site to status quo prior to installation of the Project above ground (e.g., removal of solar modules, support structures (and support structure foundations to grade with patching to restore surface asphalt), solar related above-ground equipment). Project Removal shall not include removal of subsurface components and structure including below ground conduit, structural supports, etc. Host grants Provider and its representatives reasonable vehicular and pedestrian access across the Site to the Premises for purposes of decommissioning the Project. In exercising such access and performing the decommissioning, Provider shall reasonably attempt to minimize any disruption to activities occurring on the Site. Host will provide Provider adequate storage space on the Site convenient to the Premises for materials and tools used during

decommissioning. Provider shall be responsible for providing shelter and security for stored items during de-commissioning and removal. Host further agrees that its normal security measures, practices, and policies which apply to its own Premises shall also apply to the Project. During decommissioning, Provider will comply with all Applicable Laws. Decommissioning work shall be subject to the requirements for Section 4(g) above and Provider shall be responsible for obtaining any and all permits and approvals necessary for decommissioning. If Provider fails to decommission the Project within the applicable time period, and Host notifies Provider in writing of Host's waiver of its right to require Provider to decommission the Project, then the Project shall be considered to have been abandoned by Provider and shall automatically become the sole and exclusive property of Host.

No later than two (2) years prior to the expiration of the Operations Period, Provider shall provide a letter of credit from an Acceptable Financial Institution in an amount equal to \$39,250.00 in form and content acceptable to Host (the "Letter of Credit") which is callable by Host in the event Provider fails to complete the Project Removal as required pursuant to this Agreement.

Notwithstanding the foregoing, to the maximum extent permitted by applicable law, in the event Provider fails to complete the Project Removal as required pursuant to this Agreement, Host shall have the immediate right to enter upon the Premises and perform such work as is needed to complete the Project Removal (the "Self-Help Removal Work"). Provider shall cooperate fully with Host to ensure compliance with any Applicable Laws in connection with the Self-Help Removal Work. Nothing herein shall in any way be construed as requiring Host to undertake the Self-Help Removal Work. In the event that Host undertakes the Self-Help Removal Work, to the maximum extent permitted by applicable law, all costs (including without limitation, engineering fees and other soft costs) incurred by Host in connection with the Self-Help Removal Work together with an administrative and mobilization expense not to exceed fifteen percent (15%) of all such costs shall automatically be callable from the Letter of Credit as reimbursement for such expenses. In the event that Host performs the Self-Help Removal Work, Provider hereby waives approval of the costs of the Self-Help Removal Work.

(f) No Survival of Purchase Option. The options for Host to purchase the Project under Sections 9(a) and 9(b) shall not survive the termination of this Agreement.

## 10. SHUTDOWNS, RELOCATION; CLOSURE OR SALE OF SITE.

(a) Host Requested Shutdown. Host from time to time may request Provider to temporarily stop operation of the Project for a period no longer than thirty (30) days, such request to be reasonably related to Host's activities in maintaining and improving the Site. During any such shutdown period (but not including periods of Force Majeure), Host will pay Provider an amount equal to the sum of (i) payments that Host would have made to Provider hereunder for electric energy that would have been produced by the Project during the period of the shutdown and (ii) revenues that Provider would have received with respect to the Project under the Applicable Solar Program and any other assistance program with respect to electric energy that would have been produced during the period of the shutdown. Determination of the amount of energy that would have been produced during the period of the shutdown shall be based, during the first Operations Year, on estimated levels of production and, after the first Operations Year, based on actual operation of the Project during the same period in the previous Operations Year, unless Provider and Host mutually agree to an alternative methodology.

(b) Provider Safety Shutdown. In addition to the right of Provider to shut down the Project for maintenance as provided in Section 4(j), Provider may shut down the Project, or any part thereof, if Provider, in its sole discretion, believes Site conditions or activities of persons on a Site, which are not under the control of Provider, whether or not under the control of Host, may interfere with the safe operation of the Project. Provider shall give Host notice of a shutdown immediately upon becoming aware of the potential for such conditions or activities. Provider and Host shall cooperate and coordinate their respective efforts to restore Site conditions so as to not interfere with the safe operation of the Project and to reduce, to the greatest extent practicable, the duration of the shutdown. In the event and to the extent such a shutdown is caused by the action or inaction of Host in breach of its obligations under this Agreement, Host shall be deemed to have acted under Section 10(a) to shut down the Project, and shall pay Provider the amounts described in Section 10(a) with respect to the period of the shutdown, except that Host shall not be required to pay such amounts relative to any time period prior to Provider's notice of the shutdown, during any Force Majeure Event, or to the extent due to the unexcused action or inaction of Provider. If a shutdown pursuant to this Section 10(b) continues for one hundred and eighty (180) days or longer, Provider may terminate this Agreement and, if such shutdown was caused by the action or inaction of Host in breach of its obligations under this Agreement, require Host to pay the Early Termination Amount.

(c) Project Relocation. Host may request to move the Project to another location on the Site or to another site owned by Host, but any such relocation shall be subject to the approval of Provider and Financing Party

in each of their sole discretion. In connection with such relocation, Host shall execute an amendment to this Agreement reflecting the new location of the Project but otherwise continuing all the terms and conditions of this Agreement for the remaining term of this Agreement. Host shall also provide any consents or releases required by Provider in connection with the new location. Host shall pay all costs associated with the removal and relocation of the Project, including, without limitation, installation and testing costs and interconnection costs. In addition, during the Relocation Event, Host will pay Provider an amount equal to the sum of (i) payments that Host would have made to Provider hereunder for electric energy that would have been produced by the Project following the Relocation Event and (ii) revenues that Provider would have received with respect to the Project under the Applicable Solar Program and any other assistance program with respect to electric energy that would have been produced following the Relocation Event. Determination of the amount of energy that would have been produced following the Relocation Event shall be based, during the first Operations Year, on the estimated levels of production and, after the first Operations Year, based on actual operation of the Project in the same period in the previous Operations Year, unless Provider and Host mutually agree to an alternative methodology.

(d) Project Shutdown: Interconnection Deactivated. If the Project is shut down due to the unexcused action or inaction of Host, including without limitation, a deactivation of the interconnection with the Local Electric Utility that is caused by an unexcused action or inaction of Host (a "Host-Caused Shutdown"), Host will pay Provider an amount equal to the sum of (A) payments that Host would have made to Provider hereunder for electric energy that would have been produced by the Project following such Host-Caused Shutdown and (B) revenues that Provider would have received with respect to the Project under the Applicable Solar Program and any other assistance program with respect to electric energy that would have been produced following such Host-Caused Shutdown. Determination of the amount of energy that would have been produced following such Host-Caused Shutdown shall be based, during the first Operations Year, on the estimated levels of production and, after the first Operations Year, based on actual operation of the Project in the same period in the previous Operations Year, unless Provider and Host mutually agree to an alternative methodology. If a Host-Caused Shutdown continues for one hundred and eighty (180) days or longer, Provider may terminate this Agreement and require Host to pay the Early Termination Amount.

(e) Sale of Site or Premises. In the event Host transfers (by sale, lease or otherwise) all or a portion of its interest in the Site or Premises, Host shall remain primarily liable to Provider for the performance of the obligations of Host hereunder notwithstanding such transfer. However, if (A) no Host Event of Default has occurred and is continuing, and (B) the transferee executes agreements assuming this Agreement in form and substance satisfactory to Provider and Financing Party in their sole discretion, then Host may be released from further obligations under this Agreement.

## 11. TAXES.

(a) Income Taxes. Provider shall be responsible for any and all income taxes associated with payments from Host to Provider for electric energy from the Project. Provider (and/or Financing Party), as owner of the Project, shall be entitled to all Tax Attributes with respect to the Project.

(b) Sales Taxes. Host shall be responsible for all taxes, fees, and charges, including sales, use, and gross receipts taxes, imposed or authorized by any Governmental Authority on the sale of electric energy by Provider to Host. Host shall timely report, make filings for, and pay any and all such taxes assessed directly against it and shall reimburse Provider for any and all such taxes assessed against and paid by Provider.

(c) Property Taxes. As between Host and Provider, Host shall be responsible for all ad valorem personal property or real property taxes levied against the Site, improvements thereto and personal property located thereon, except that Provider shall be responsible for ad valorem personal property or real property taxes levied against the Project. If Host is assessed any taxes related to the existence of the Project on the Premises, Host shall immediately notify Provider. Host and Provider shall cooperate in contesting any such assessment; provided, however, that Host shall pay such taxes to avoid any penalties or interest on such Taxes, subject to reimbursement by Provider. If after resolution of the matter, such tax is imposed upon Host related to the improvement of real property by the existence of the Project on the Site, Provider shall reimburse Host for such tax.

(d) Tax Contests. Each Party has the right to contest taxes in accordance with Applicable Law and the terms of encumbrances against the Site. Each Party shall use all reasonable efforts to cooperate with the other in any such contests of tax assessments or payments. In no event shall either Party postpone during the pendency of an appeal of a tax assessment the payment of taxes otherwise due except to the extent such postponement in payment has been bonded or otherwise secured in accordance with Applicable Law.

(e) Payment of Delinquent Taxes. In the event either Party fails to pay any taxes that may become a lien upon the other Party's property, such Party may pay such amounts and in such event shall be entitled to recover such paid amount from the other Party, together with interest thereon at the rate of either (i) one percent (1%) per month, compounded monthly, or (ii) the highest rate allowed by applicable law, whichever is lesser.

(f) Reimbursement Deadline. Any reimbursement of taxes owing pursuant to this Section 11 shall be paid within twenty (20) Business Days of receiving an invoice therefore from the Party who paid the taxes.

## **12. INSURANCE.**

(a) Coverage. Host and Provider shall each maintain the insurance coverage set forth in Exhibit F in full force and effect throughout the Term. Notwithstanding the previous sentence, Host shall obtain and maintain throughout the Term, a property insurance policy on the System for its full replacement value with a deductible of not more than ten thousand dollars (\$10,000) on Provider's behalf ("System Property Insurance"). Host shall invoice Provider annually for the actual annual cost of the System Property Insurance not to exceed the amount of one thousand four hundred twenty-five dollars (\$1,425), subject to an annual increase of two percent (2%).

(b) Applicable Solar Program Requirements. Host and Provider will also maintain the additional insurance requirements (if any) specified in Exhibit F to satisfy the requirements of the Applicable Solar Program, or as otherwise required with respect to the Applicable Solar Program.

(c) Insurance Certificates. Each Party shall furnish current certificates indicating that the insurance required under this Section 12 is being maintained. Each insurance policy required hereunder for any Party shall contain a provision whereby the insurer agrees to give the other Party at least thirty (30) days written notice before the insurance is cancelled or materially altered.

(d) Certain Insurance Provisions. Each Party's insurance policies shall be written on an occurrence basis and shall include the other Party as an additional insured as its interest may appear. Each Party's insurer shall waive all rights of subrogation against the other Party.

(e) Insurance Providers. All insurance maintained hereunder shall be maintained with companies rated no less than A- as to Policy Holder's Rating in the current edition of Best's Insurance Guide (or with an association of companies each of the members of which are so rated).

(f) Insurance Prior to Commercial Operation Date. Prior to the Commercial Operation Date, Provider shall be responsible for providing all insurance requirements set forth in Exhibit E.

(g) Insurance After Commercial Operation Date. From and after the Commercial Operation Date, Host shall add insurance on the Project to its existing policy on the Premises. Provider shall reimburse Host for the cost of such additional insurance for the Project. Such reimbursement from Provider to Host shall be made within thirty (30) days of receipt by Provider of Host's incremental insurance costs for the Project. However, upon sixty (60) days notice to the other party, this paragraph shall no longer apply in the event that either Host or Provider no longer agrees that the Host will include on its existing policy the insurance coverage described in this paragraph.

## **13. COOPERATION; SOLAR ACCESS; FUTURE IMPROVEMENTS.**

(a) Cooperation. The Parties acknowledge that the performance of each Party's obligations under this Agreement will frequently require the assistance and cooperation of the other Party. Each Party therefore agrees, in addition to those provisions in this Agreement specifically providing for assistance from one Party to the other, that it will at all times during the Term cooperate with the other Party and provide all reasonable assistance to the other Party to help the other Party perform its obligations hereunder, provided, however, neither Party shall be required to incur costs or expenses with regards to providing any such assistance, except as is agreed to be reimbursed by the other Party.

(b) Host to Not Restrict Solar Access. Host, or any tenant, lessee, grantee, licensee, agent or invitee of Host, shall not erect any structures on, or make other modifications to, or plantings on, the Site which will interfere with the construction, operation or maintenance of, or solar access of, the Project.

#### 14. PRESS RELEASES AND CONFIDENTIALITY.

(a) Press Releases. The Parties acknowledge that they each desire to publicize information about this Agreement and the Project. The Parties therefore agree that each may make independent press releases about entering into this Agreement, the size and location of the Project, and the identity of the other Party, without the prior written consent of the other Party, so long as only Provider has the exclusive right to claim that electric energy provided to Host was generated by the Project. However, the terms of this Agreement and information about the Project other than that described above constitutes Confidential Information, as defined below, and is subject to the remaining provisions of this Section 14.

(b) Limits on Disclosure of Confidential Information. Subject to the exceptions set forth below in Section 14(c), each Party agrees that, (i) without the consent of the other Party, it shall not disclose any Confidential Information received from the other Party to any other person and (ii) it shall use any Confidential Information received from the other Party only for the purpose of fulfilling its obligations under this Agreement. Notwithstanding the foregoing, the Parties may, and shall, disclose any information required to be disclosed under rules, regulations and contracts implementing the Applicable Solar Program or Tax Attributes required to be disclosed by any Governmental Authority under Applicable Law or pursuant to a validly issued subpoena or required filing.

(c) Permissible Disclosures. Provider may provide this Agreement, and any correspondence, notices and other information related to this Agreement to any person who has provided or who is interested in providing construction or permanent financing, or any refinancing thereof, to Provider in connection with the Project. In addition, if a receiving Party is required by Applicable Law, validly issued subpoena, required filing, or the rules of any stock exchange, to disclose any Confidential Information provided by the disclosing Party, the receiving Party may make disclosure as required by law, but the receiving Party shall prior to making any disclosure notify the disclosing Party of the requested disclosure and shall use its reasonable efforts to cooperate with the disclosing Party, but at the expense of the disclosing Party, in any efforts by the disclosing Party to minimize the extent of the Confidential Information disclosed and the persons to whom disclosed. Host may provide this Agreement and any correspondence, notices and other information related to this Agreement to its lenders, investors and any other entity providing financing or financial assistance to Host or the Premises. The Parties acknowledge and agree that this Agreement is subject to the California Public Records Act (Government Code Section 6250 et seq.). Nothing herein shall be deemed or construed to affect the rights or obligations of either Party to withhold or disclose any such Confidential Information in accordance with the California Public Records Act. The Parties will notify each other in writing promptly upon receipt of any request for information regarding this Agreement pursuant to the California Public Records Act.

(d) Enforcement of Confidentiality Provisions. Each Party acknowledges that it may be impossible to measure the damages which may result from a breach of this Section 14 and agrees that the provisions of this Section 14 may be required to be specifically performed and each Party shall have the right to obtain preliminary and permanent injunctive relief to secure specific performance of the terms of this Section 14. The provisions of this Section 14 shall survive until three years after the effective date of any termination of this Agreement.

#### 15. INDEMNIFICATION.

(a) Provider Indemnification. Provider shall indemnify, defend and hold Host and its contractors, subcontractors, shareholders, directors, officers, employees, agents, lessees, invitees and tenants (collectively, "Host Indemnified Parties"), harmless from and against all Losses incurred by the Host Indemnified Parties to the extent arising from or out of the following: (i) any loss or damage to property to the extent arising out of Provider's (or its contractor's) negligence or willful misconduct; (ii) Provider's violation of Applicable Law; (iii) any failure to properly interconnect or comply with the procedures of the Local Electric Utility; or (iv) any failure to properly handle or dispose of any Hazardous Materials brought onto the Site by Provider or by any of Provider's employees, agents, volunteers, and invitees. Such duty to indemnify with respect to any bodily injury or property damage arising from the generation of electricity from the Project shall not extend to incidents occurring on Host's side of the Point of Delivery except to the extent caused by incidents on Provider's side of the Point of Delivery. Such duty to indemnify shall not apply to any action or claim, whether in tort (including negligence and strict liability), contract or otherwise for any loss, injury, or costs resulting from interruptions in service not caused by or resulting from Provider's actions. Provider shall not be obligated to indemnify Host or any Host Indemnified Party for any Loss to the extent such Loss is due to the negligence or willful misconduct of any Host Indemnified Party. In addition to the foregoing, Provider shall indemnify, defend and hold Host's Indemnified Parties harmless from and against all Losses incurred by the Host's Indemnified Parties arising out of any injury to or death of any Person due to any act or omission of any of Provider's Indemnified Parties, except as to claims arising from the negligence or willful misconduct of any of Host's Indemnified Parties.

(b) Host Indemnification. Host shall indemnify, defend and hold Provider and its contractors, subcontractors, shareholders, directors, officers, employees, agents, invitees and Financing Party (collectively, "Provider's Indemnified Parties"), harmless from and against all Losses incurred by the Provider's Indemnified Parties to the extent arising from or out of (i) any claim for or arising out of any loss or damage to property to the extent arising out of the negligence or willful misconduct of any of Host's Indemnified Parties or of any of Host's agents, tenants, lessees or invitees; (ii) Host's violation of Applicable Law; (iii) the presence, removal or remediation of any Hazardous Materials on the Site (other than any Hazardous Materials brought on to the Site by Provider's Indemnified Parties), or (iv) any assertion by any security holder (including without limitation any lender or mortgagor) of any security interest in the Project, including without limitation any claim that the Project, or any portion thereof, is subject to the lien of the security holder. With respect to the foregoing (i) through (iv), Host shall not be obligated to indemnify Provider or any Provider Indemnified Party for any Loss to the extent such Loss is due to the negligence or willful misconduct of Provider or any Provider Indemnified Party. In addition to the foregoing, Host shall indemnify, defend and hold Provider's Indemnified Parties harmless from and against all Losses incurred by the Provider's Indemnified Parties to the extent arising from or out of any claim for or arising out of any injury to or death of any Person arising out of any act or omission of any of Host's Indemnified Parties, except as to claims arising from the negligence or willful misconduct of any of Provider's Indemnified Parties.

(c) Notice of Claims. Whenever any claim arises for defense or indemnification under this Agreement, the Indemnified Person shall notify the Indemnifying Party in writing as soon as possible (but in any event prior to the time by which the interest of the Indemnifying Party will be materially prejudiced as a result of its failure to have received such notice) after the Indemnified Person has knowledge of the facts constituting the basis for such claim (the "Notice of Claim"). Such Notice of Claim shall specify all facts known to the Indemnified Person giving rise to the indemnification right and the amount or an assessment of the amount of the liability arising therefrom.

(d) Defense of Claims. The Indemnifying Party has the right, but not the obligation to assume the defense or the matter for which indemnification is sought hereunder. If the Indemnifying Party does not assume the defense, it shall timely pay all costs of counsel and case expenses incurred by Indemnified Person in connection with the defense, when and as incurred. If the Indemnifying Party assumes the defense, the Indemnified Person has the right to hire its own counsel to defend it, but the Indemnified Person shall be responsible for the reasonable costs of such counsel. The Indemnifying Party shall not consent to the entry of any judgment or enter into any settlement with respect to the matter for which indemnification is sought without the prior written consent of the Indemnified Person (which consent shall not be unreasonably withheld) unless the judgment or settlement involves the payment of money damages only and does not require the acknowledgement of the validity of any claim.

(e) Payments. At the time that the Indemnifying Party makes any indemnity payments under this Agreement, the indemnification payment shall be adjusted such that the payment will result in the Indemnified Person receiving an indemnity payment equal to the Loss after taking into account (i) all federal, state, and local income taxes that are actually payable to the Indemnified Person with respect to the receipt of such payment and (ii) all national, state, and local tax deductions allowable to the Indemnified Person for any items of loss and deduction for which the Indemnified Party is being indemnified.

(f) Survival of Indemnification. The obligations of indemnification hereunder shall survive termination of this Agreement.

## **16. REPRESENTATIONS AND WARRANTIES.**

(a) Mutual Representations. Each Party hereby represents and warrants to the other, as of date hereof, that:

(i) Organization. It is duly organized, validly existing and in good standing under the laws of its state of incorporation or formation and of the state in which the Premises are located, respectively, and has the power and authority to enter into this Agreement and to perform its obligations hereunder.

(ii) No Conflict. The execution and delivery of this Agreement and the performance of and compliance with the provisions of this Agreement will not conflict with or constitute a breach of or a default under (1) its organizational documents; (2) any agreement or other obligation by which it is bound; (3) any law or regulation.

(iii) Enforceability. (1) All actions required to be taken by or on the part of such Party necessary to make this Agreement effective have been duly and validly taken; (2) this Agreement has been duly and validly authorized, executed and delivered on behalf of such Party; and (3) this Agreement



constitutes a legal, valid and binding obligation of such Party, enforceable in accordance with its terms, subject to laws of bankruptcy, insolvency, reorganization, moratorium or other similar laws.

(iv) No Material Litigation. There are no court orders, actions, suits or proceedings at law or in equity by or before any governmental authority, arbitral tribunal or other body, or threatened against or affecting it or brought or asserted by it in any court or before any arbitrator of any kind or before or by any governmental authority that could reasonably be expected to have a material adverse effect on it or its ability to perform its obligations under this Agreement, or the validity or enforceability of this Agreement.

(b) Host Representations. In addition to the representations and warranties in Section 16(a), Host hereby represents and warrants to Provider, as of date hereof, that:

(i) Electric Usage. Host has provided to Provider complete and correct records of its electric usage at the Site.

(ii) Condition of Premises. Host has provided to Provider Host's complete and correct records of the known physical condition of the Premises. If it is discovered that the actual site conditions on part of, or on the entire Premises upon which all or part of the Project is to be installed, are materially different from the information presented by Host, and such differences could not reasonably have been discovered by Provider in connection with its assessment of the Premises pursuant to Section 4(a), then the rates payable by Host hereunder shall be adjusted to compensate Provider for the cost of design and construction changes and delays incurred to adapt the Project to the unknown conditions.

(iii) Financial Information. The financial statements Host has provided to Provider present fairly in all material respects the financial condition and results of operations of Host.

## 17. **FORCE MAJEURE.**

(a) Excuse for Force Majeure Event. Except as provided in Section 17(b) or otherwise specifically provided in this Agreement, neither Party shall be considered in breach of this Agreement or liable for any delay or failure to comply with this Agreement, if and to the extent that such delay or failure is attributable to the occurrence of a Force Majeure Event; provided that the Party claiming relief as a result of the Force Majeure Event shall promptly (i) notify the other Party in writing of the existence and details of the Force Majeure Event; (ii) exercise all reasonable efforts to minimize delay or non-compliance caused by such Force Majeure Event; (iii) notify the other Party in writing of the cessation of such Force Majeure Event; and (iv) resume performance of its obligations hereunder as soon as practicable thereafter.

(b) No Excuse for Payment for Prior Services, Or For Electricity Actually Produced. Obligations to make payments for services already provided shall not be excused by a Force Majeure Event. In addition, to the extent the Project produces electricity notwithstanding a Force Majeure Event (e.g., intermittently, or at a reduced output), Host shall not be excused from its obligation to make payments to Provider with respect to such electricity.

(c) Restoration. In the event of a casualty event, to the extent that such casualty event is attributable to the occurrence of a Force Majeure Event, which destroys all or a substantial portion of both the Project and the Premises, Host shall elect, within ninety (90) days of such event, whether it will restore the Premises, which restoration will be at the sole expense of Host. If Host does not elect to restore the Premises, then Provider shall not restore the Project and may terminate this Agreement upon notice to Host and collect damages in accordance with Section 20(b) hereof; provided, however, that such damages shall be reduced by any insurance proceeds payable to Provider as a result of such casualty event. If Host does elect to restore the Premises, Host shall provide notice of such election to Provider and Provider shall then elect, within ninety (90) days of receipt of such notice, whether or not to restore the Project, subject to the Parties agreeing on a reasonable schedule for the restoration of the Premises and an equitable extension to the Term of this Agreement. If Provider does not elect to restore the Project, Provider shall promptly remove any portions of the Project remaining on the Premises, and this Agreement shall terminate, and, subject to Provider's obligation to repay Host for the unamortized portion of the Prepayment Amount in Exhibit A, if any, and the last sentence of this Section 17(c), without further liability to either Party. If Provider does elect to restore the Project, it shall do so at its sole expense and shall coordinate such restoration work with Host's restoration work on the Premises. In the event of termination of this Agreement pursuant to this Section 17(c), (i) the Parties shall not be released from any payment or other obligations arising under this Agreement prior to the casualty event and (ii) the confidentiality provisions (Section 14), the indemnification provisions (Section 15 hereof), and the dispute resolution provisions (Section 23 hereof) shall continue to apply notwithstanding the termination of this Agreement.

(d) Termination for Force Majeure Event. Notwithstanding anything to the contrary in this Section 17, if nonperformance on account of a Force Majeure Event continues beyond a continuous period of three hundred and sixty-five (365) days, then either Party shall have the right to terminate this Agreement upon thirty (30) days notice to the other. Upon such termination, Provider shall be required to decommission and remove the Project from the applicable Site in accordance with the provisions of Section 9(e) (unless there has been a casualty event, in which case the provisions of clause (c) above shall apply to the removal of the Project). In the event of such a termination of this Agreement with respect to the Project, (i) the Parties shall not be released from any payment or other obligation arising under this Agreement which accrued prior to the shutdown of the Project or the Premises, and (iii) the confidentiality provisions (Section 14), the indemnification provisions (Section 15), and the dispute resolution provisions (Section 23) shall continue to apply notwithstanding the termination of this Agreement.

## 18. CHANGE IN LAW.

In the event there is a Change in Law that is applicable to the ongoing operation and/or maintenance of the solar photovoltaic modules installed as part of the Project, the sale of electric energy produced by the Project including any governmental or utility-generated fees, and compliance with the Change in Law results in a material increase in Provider's costs to operate and/or maintain the Project, Provider will promptly submit to Host a written notice setting forth (i) the applicable Change in Law; (ii) the manner in which such Change in Law increases Provider's costs; and (iii) Provider's proposed adjustment to the then applicable and future rates for electric energy in this Agreement to reflect such increases in costs. Within ten (10) days of receipt of such notice, Host shall either accept such proposed adjustment in the applicable and future rates for electric energy or provide Provider with notice of Host's disapproval of such increase along with a written statement of the reason(s) for Host's disapproval. In the event that Host disapproves the increase in the rates, within ten (10) days of the date of such notice from Host, Host and Provider shall meet to discuss the proposed increase in an effort to reach agreement. If the parties are not able to reach agreement with ten (10) days, then the Parties will be deemed to enter into a dispute for purposes of Section 23(a) and shall follow the procedures in Section 23 for resolution of the dispute.

## 19. PROVIDER DEFAULT AND HOST REMEDIES.

(a) Provider Events of Default. Provider shall be in default of this Agreement if any of the following ("Provider Events of Default") shall occur:

(i) Misrepresentation. Any representation or warranty by Provider under Section 16 hereof, is incorrect or incomplete in any material way, or omits to include any information necessary to make such representation or warranty not materially misleading, and such defect is not cured within fifteen (15) days after receipt of notice from Host identifying the defect to Provider in writing.

(ii) Abandonment During Installation. After commencement of installation of the Project, Provider abandons installation of the Project for thirty (30) days and fails to resume installation within thirty (30) days after receipt of notice from Host stating that, in Host's reasonable determination, Provider has abandoned installation of the Project.

(iii) Failure to Operate. After the Commercial Operation Date, Provider fails to operate the Project for a period of 90 days which failure is not due to equipment failure, or damage to the Project, act of governmental authority, or exercise of Provider's rights under this Agreement, or otherwise excused by the provisions of Section 17 (relating to Force Majeure Events); and Provider fails to resume operation within thirty (30) days after receipt of notice from Host stating that, in Host's reasonable determination, Provider has ceased operation of the Project, provided, however, that the cure period shall be extended by the number of calendar days during which Provider is prevented from taking curative action if Provider had begun curative action and was proceeding diligently, using commercially reasonable efforts, to complete such curative action.

(iv) Obligation Failure. Provider fails to perform any obligation hereunder, such failure is material, such failure is not excused by the provisions of Section 17 (relating to Force Majeure Events), and such failure is not cured within: (A) ten (10) days if the failure involves a failure to make payment when due or maintain required insurance; or (B) sixty (60) days if the failure involves an obligation other than payment or the maintenance of insurance, after receipt of notice from Host identifying the failure.

(v) Insolvency. Provider (A) applies for or consents to the appointment, or the taking of possession by, a receiver, custodian, trustee or liquidator of itself or a substantial portion of its property; (B) admits in writing its inability, or is generally unable, to pay its debts as such debts become due; (C) makes a general assignment for the benefit of its creditors; (D) commences a voluntary case under any bankruptcy law; (E) files a petition seeking to take advantage of any other law relating to bankruptcy, insolvency, reorganization, winding up, or composition or readjustment of debts; (F) acquiesces in, or fails to contest in a timely manner, any petition filed against Provider in an involuntary case under bankruptcy law or seeking to dissolve Provider under other Applicable Law; or (G) takes any action authorizing its dissolution.

(b) Host Remedies for Provider Default. In the event of any Provider Events of Default, Host shall be entitled to terminate this Agreement by written notice to Provider and to recover, without limitation, cover damages associated with the cost of replacement energy, costs in disconnecting the Project, removal costs and any unamortized Prepayment Amount, and pursue all remedies available to Host at law or in equity.

## **20. HOST DEFAULT AND PROVIDER REMEDIES.**

(a) Host Events of Default. Host shall be in default of this Agreement if any of the following ("Host Events of Default") shall occur:

(i) Misrepresentation. Any representation or warranty by Host under Section 16 hereof, is incorrect or incomplete in any material way, or omits to include any information necessary to make such representation or warranty not materially misleading, and such defect is not cured within fifteen (15) days after receipt of notice from Provider identifying the defect.

(ii) Obstruction. Host obstructs commencement of installation of the Project or fails to take any actions necessary for the interconnection of the Project, or fails to take electric energy produced by the Project, and fails to correct such action within ten (10) days of when such payment was due.

(iii) Payment Failure. Host fails to make any payment due under the terms of this Agreement, and fails to make such payment within ten (10) days after receipt of notice thereof from Provider (a "Failed Payment"). In the event of a Failed Payment, Host agrees to pay a penalty of 5% of any such Failed Payment, plus interest at rate of 2% per month, plus collection costs, including reasonable attorney fees incurred by Provider in connection with any such Failed Payment. In no event shall the Failed Payment interest, penalties and costs exceed any statutory limits.

(iv) Obligation Failure. Host fails to perform any obligation hereunder, such failure is material, such failure is not excused by the provisions of Section 17 (relating to Force Majeure Events), and such failure is not cured within: (A) ten (10) days if the failure involves a failure to maintain required insurance; or (B) sixty (60) days if the failure involves an obligation other than payment or the maintenance of insurance, after receipt of notice from Provider identifying the failure.

(v) Insolvency. Host (A) applies for or consents to the appointment, or the taking of possession by, a receiver, custodian, trustee or liquidator of itself or a substantial portion of its property; (B) admits in writing its inability, or be generally unable, to pay its debts as such debts become due; (C) makes a general assignment for the benefit of its creditors; (D) commences a voluntary case under any bankruptcy law; (E) files a petition seeking to take advantage of any other law relating to bankruptcy, insolvency, reorganization, winding up, or composition or readjustment of debts; (F) acquiesces in, or fails to contest in a timely manner, any petition filed against Host in an involuntary case under bankruptcy law or seeking to dissolve Host under other Applicable Law; or (G) takes any action authorizing its dissolution.

(vi) Loss of Right to Occupy. Host loses its rights to occupy and enjoy the Premises.

(b) Default Damages. Upon an Event of Default by Host, Provider shall be entitled to terminate this Agreement by written notice to Host and to recover from Host the Early Termination Amount. In addition, Host shall pay and compensate Provider for any and all costs or expenses incurred by Provider, or losses to Provider, with respect to any loss of or required payback of any Applicable Solar Program Incentives, loss of or required payback of any Tax Attributes. Provider shall also be entitled to pursue other remedies available at law or in equity.

**21. COLLATERAL ASSIGNMENT, SALE AND FINANCING PROVISIONS.**

(a) Financing Arrangements. Provider may sell, mortgage, pledge, grant security interests, assign, or otherwise encumber its interests in this Agreement to any Financing Party. Host acknowledges that Provider may obtain construction financing for the Project from third party and that Provider may either obtain term financing secured by the Project or sell or assign the Project to a Financing Party or may arrange other financing accommodations from one or more financial institutions and may from time to time refinance, or exercise purchase options under, such transactions. Host acknowledges that in connection with such transactions Provider may secure Provider's obligations by, among other collateral, an assignment of this Agreement and a first security interest in the Project. In order to facilitate such necessary sale, conveyance, or financing, and with respect to any lender or lessor, as applicable, Host agrees as follows:

(i) Consent to Collateral Assignment. Host hereby consents to both of the sale of the Project to a Financing Party and the collateral assignment to the Financing of the Provider's right, title and interest in and to this Agreement.

(ii) Rights of Financing Party. Notwithstanding any contrary term of this Agreement and provided Provider has given Host written notice of the sale or collateral assignment of the Project to a Financing Party including providing accurate and up to date notice information for such Financing Party:

(A) Step-In Rights. The Financing Party, as owner of the Project, or as collateral assignee of this Agreement, shall be entitled to exercise, in the place and stead of Provider, any and all rights and remedies of Provider under this Agreement in accordance with the terms of this Agreement. The Financing Party shall also be entitled to exercise all rights and remedies of owners or secured parties, respectively, generally with respect to this Agreement and the Project;

(B) Opportunity to Cure Default. The Financing Party shall have the right, but not the obligation, to pay all sums due under this Agreement and to perform any other act, duty or obligation required of Provider hereunder or cause to be cured any default of Provider thereunder in the time and manner provided by the terms of this Agreement. Nothing herein requires the Financing Party to cure any default of Provider under this Agreement or (unless the Financing Party has succeeded to Provider's interests under this Agreement) to perform any act, duty or obligation of Provider under this Agreement, but Host hereby gives it the option to do so;

(C) Exercise of Remedies. Upon the exercise of remedies, including any sale of the Project by the Financing Party, whether by judicial proceeding or under any power of sale contained therein, or any conveyance from Provider to the Financing Party (or any assignee of the Financing Party as defined below) in lieu thereof, the Financing Party shall give notice to Host of the transferee or assignee of this Agreement. Any such exercise of remedies shall not constitute a default under this Agreement;

(D) Cure of Bankruptcy Rejection. Upon any rejection or other termination of this Agreement pursuant to any process undertaken with respect to Provider under the United States Bankruptcy Code, at the request of Financing Party made within ninety (90) days of such termination or rejection, Host shall enter into a new agreement with Financing Party or its assignee having substantially the same terms and conditions as this Agreement.

(iii) Right to Cure.

(A) Cure Period. Host will not exercise any right to terminate or suspend this Agreement unless it shall have given the Financing Party prior written notice of its intent to terminate or suspend this Agreement, as required by this Agreement, specifying the condition giving rise to such right, and the Financing Party shall not have caused to be cured the condition giving rise to the right of termination or suspension within thirty (30) days after such notice or (if longer) the periods provided for in this Agreement; provided that if such Provider default reasonably cannot be cured by the Financing Party within such period and the Financing Party commences and continuously pursues cure of such default within such period, such period for cure will be extended for a reasonable period of time under the circumstances, such period not to exceed an additional ninety (90) days. The Parties' respective obligations will otherwise remain in effect during any cure period.

(B) Continuation of Agreement. If the Financing Party or its assignee (including any purchaser or transferee), pursuant to an exercise of remedies by the Financing Party, shall acquire title to or control of Provider's assets and shall, within the time periods described in Section 21(a)(iii)(A) above, cure all defaults under this Agreement existing as of the date of such change in title or control in the manner required by this Agreement and which are capable of cure by a third person or entity, then such Person shall no longer be in default under this Agreement, and this Agreement shall continue in full force and effect.

(b) Financing Party a Third Party Beneficiary. Host agrees and acknowledges that Financing Party is a third party beneficiary of the provisions of this Section 21. Except with respect to Financing Party with respect to this Section 21, and except with respect to any defense or indemnity obligation conferred by this Agreement, this Agreement is made for the benefit of the parties to this Agreement only, and for the benefit of no others, and there are no third-party beneficiaries of this Agreement.

(c) Entry to Consent to Assignment. Host agrees to (i) execute any consents to assignment or acknowledgements and (ii) provide such opinions of counsel, at Provider's sole cost and expense, as may be reasonably requested by Provider and/or Financing Party in connection with such financing or sale of the Project.

(d) Agreement Binding on Successors and Assigns. This Agreement shall inure to and be binding upon the undersigned and their respective heirs, representatives, successors and permitted assigns. Any successors and assigns of either party shall be fully obligated to comply with the terms of this Agreement, and shall be deemed to be in default of this Agreement in the event of any non-compliance with the terms of this Agreement.

## **22. LIMITATIONS ON DAMAGES.**

(a) Limitation of Liability/Actual Damages. Except with respect to indemnification for third party claims pursuant to Article 15 and damages that result from the willful misconduct of Provider, Provider's aggregate liability under this Agreement arising out of or in connection with the performance or non-performance of this Agreement shall not exceed the sum of (i) the total payments made (or, as applicable, to be made) by Host under this Agreement in the prior twenty-four (24) months (including the portion of the Prepayment Amount in Exhibit A that was amortized during the prior twenty-four (24) months) and (ii) the remaining unamortized portion of the Prepayment Amount in Exhibit A, if any. The provisions of this Section 22(a) shall apply whether such liability arises in contract, tort (including negligence), strict liability or otherwise. Any action against Provider must be brought within one (1) year after the cause of action accrues. Notwithstanding anything above in this Section 22(a) there shall be no limitation on liability or actual damages recoverable by Host, except as set forth in Section 22(b), related to any claims related to construction and maintenance work performed on Site by Provider and its agents.

(b) Limitation of Liability/Recoverable Damages. Except as explicitly provided in this Agreement (including, without limitation, in Sections 10 and 20(b)), neither Party nor any of its Indemnified Persons shall be liable to the other Party or its Indemnified Persons for any special, punitive, exemplary, indirect or consequential damages, arising out of or in connection with this Agreement.

## **23. DISPUTE RESOLUTION.**

(a) Negotiation Period. The Parties shall negotiate in good faith and attempt to resolve any dispute, controversy or claim arising out of or relating to this Agreement (a "Dispute") within thirty (30) days after the date that a Party gives written notice of such Dispute to the other Party.

(b) Mediation. If, after such negotiation in accordance with Section 23(a), the Dispute remains unresolved, either Party may require that a non-binding mediation take place. In such mediation, representatives of the Parties with authority to resolve the dispute shall meet for at least three (3) hours with a mediator whom they choose together. The mediator's fee and expenses shall be paid one-half by each Party.

(c) Litigation/Choice of Forum. If, after mediation in accordance with Section 23(b), the Dispute remains unresolved, either Party may initiate litigation. The Parties agree that any litigation relating to this Agreement, including the interpretation thereof, shall be filed in the Superior Court of California, County of Marin

(d) Survival of Dispute Resolution Provisions. The provisions of this Section 23 shall survive any termination of this Agreement and shall apply (except as provided herein) to any disputes arising out of this Agreement.

## 24. NOTICES.

Delivery of Notices. All notices or other communications which may be or are required to be given by any party to any other party pursuant to this Agreement shall be in writing and shall be either (i) delivered by hand; (ii) mailed by first-class, registered or certified mail, return receipt requested, postage prepaid; (iii) delivered by a recognized overnight or personal delivery service; (iv) transmitted by facsimile (such transmission to be effective on the day of receipt if received prior to 5:00 pm local time on a business day or in any other case as of the next business day following the day of transmittal); or (v) transmitted by email if receipt of such transmission by email is specifically acknowledged by the recipient (automatic responses not being sufficient for acknowledgement), addressed as follows:

If to Host:

MCE  
1125 Tamalpais Ave  
San Rafael, CA 94901  
Attention: Power Resources Department  
Email: [procurement@mcecleanenergy.org](mailto:procurement@mcecleanenergy.org)  
Phone: 888-632-3674

If to Provider:

Energy Finance Associates, LLC  
475 Gate 5 Rd, #119  
Sausalito, CA 94965  
Attention: Darren Malvin  
Fax: (888) 204-7336  
Email: [info@ws-solar.net](mailto:info@ws-solar.net)

Notices shall be effective when delivered (or in the case of email, when acknowledged by the recipient) in accordance with the foregoing provisions, whether or not (except in the case of email transmission) accepted by, or on behalf of, the Party to whom the notice is sent.

Each Party may designate by Notice in accordance with this section to the other Party a new address to which any notice may thereafter be given.

## 25. MISCELLANEOUS.

(a) Governing Law. This Agreement shall be governed by the laws of the State of California, including principles of good faith and fair dealing that will apply to all dealings under this Agreement.

(b) Rules of Interpretation. Section headings are for convenience only and shall not affect the interpretation of this Agreement. References to sections are, unless the context otherwise requires, references to sections of this Agreement. The words "hereto", "hereof" and "hereunder" shall refer to this Agreement as a whole and not to any particular provision of this Agreement. The word "person" shall include individuals; partnerships; corporate bodies (including but not limited to corporations, limited partnerships and limited liability companies); non-profit corporations or associations; governmental bodies and agencies; and regulated utilities. The word "including" shall be deemed to be followed by the words "without limitation". In the event of any conflict between the text of this Agreement and the contents of an Exhibit hereto, the text of this Agreement shall govern.

(c) Construction. The Parties acknowledge and agree that each Party and counsel for each Party has reviewed and revised this Agreement and that any rule of construction to the effect that ambiguities are to be resolved against the drafting party shall not apply in an interpretation of this Agreement.

(d) Severability. If any non-material part of this Agreement is held to be unenforceable, the rest of the Agreement will continue in effect. If a material provision is determined to be unenforceable and the Party which would have been benefited by the provision does not waive its unenforceability, then the Parties shall negotiate in good faith to amend the Agreement to restore to the Party that was the beneficiary of such unenforceable provision the benefits of such provision. If the Parties are unable to agree upon an amendment that restores the Party's benefits, the matter shall be resolved under Section 23 (b) and (c) in order to restore to the Party that was the beneficiary of the unenforceable provision the economic benefits of such provision.

(e) No Recourse to Members of Host. Host is organized as a Joint Powers Authority in accordance with the Joint Exercise of Powers Act of the State of California (Government Code Section 6500, et seq.) pursuant to its Joint Powers Agreement and is a public entity separate from its constituent members. Host shall solely be responsible for all debts, obligations and liabilities accruing and arising out of this Agreement. Provider shall have no rights and shall not make any claims, take any actions or assert any remedies against any of Host's constituent members in connection with this Agreement.

(f) Amendment and Waiver. This Agreement may only be amended by a writing signed by both Parties. Any waiver of any of the terms hereof shall be enforceable only to the extent it is waived in a writing signed by the Party against whom the waiver is sought to be enforced. Any waiver shall be effective only for the particular event for which it is issued and shall not constitute a waiver of a subsequent occurrence of the waived event nor constitute a waiver of any other provision hereof, at the same time or subsequently.

(g) Assignment. Neither Party may assign, sell, transfer or in any other way convey or hypothecate its rights, duties or obligations under this Agreement, either in whole or in part, without the prior written consent of the other Party (which consent shall not be unreasonably withheld or delayed), except that without consent of Host, Provider may (i) without releasing itself from its obligations under this Agreement, collaterally assign this Agreement in accordance with Section 21 in connection with a transaction with any Financing Party or (ii) assign this Agreement to an Affiliate so long as such Affiliate is concurrently with such assignment succeeding to all or substantially all of Provider's interest in and assets constituting the Project. For purposes of this Section 25(f), transfer does not include any sale of all or substantially all of the assets of Provider or Host or any merger of Provider or Host with another person, whether or not Provider or Host is the surviving entity from such merger, or any other change in control of Provider or Host, provided any such surviving entity assumes all obligations of Provider or Host, as appropriate, under this Agreement; provided however, with respect to Host, such surviving entity is acceptable to Financing Party in Financing Party's sole discretion.

(h) Service Contract. This Agreement is a service contract pursuant to Section 7701(e)(3) of the Internal Revenue Code. Host will not take the position on any tax return or in any other filings suggesting that it is anything other than a purchase of electricity from the Project.

(i) No Joint Venture. This Agreement does not create a joint venture, partnership or other form of business association between the Parties.

(j) Counterparts. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Delivery of signature by fax, or scan delivered by email, receipt acknowledged, or electronic signature are effective to bind a Party hereto.

(k) Mobile-Sierra. Notwithstanding any other provision of this Agreement, neither Party shall seek, nor shall they support any third party seeking, to prospectively or retroactively revise the rates, terms or conditions of service of this Agreement through application or complaint to FERC pursuant to the provisions of Section 205, 206 or 306 of the Federal Power Act, or any other provisions of the Federal Power Act, absent prior written agreement of the Parties. Further, absent the prior written agreement in writing by both Parties, the standard of review for changes to the rates, terms or conditions of service of this Agreement proposed by a Party, a non-Party or the FERC acting *sua sponte* shall be the "public interest" standard of review set forth in United Gas Pipe Line Co. v. Mobile Gas Service Corp., 350 U.S. 332 (1956) and Federal Power Commission v. Sierra Pacific Power Co., 350 U.S. 348 (1956).

IN WITNESS WHEREOF, intending to be legally bound hereby, Provider and Host have executed this Agreement as of the date first set forth above.

**Marin Clean Energy**

By: \_\_\_\_\_

Name (printed): Dawn Weisz

Title: Chief Executive Officer

Date: \_\_\_\_\_

By: \_\_\_\_\_

Name (printed): Kathrin Sears

Title: Technical Committee Chair

Date: \_\_\_\_\_

**Energy Finance Associates LLC**

By: \_\_\_\_\_

Name: Darren Malvin

Title: Manager

Date: \_\_\_\_\_



## GLOSSARY OF TERMS

"Acceptable Financial Institution" means a financial institution approved by Host that has a Moody's rating of not less than A3 or Standard & Poor's rating of not less than A- for at least the two calendar quarters immediately preceding the date of this Agreement and maintains that rating as of the date of the issuance of the Letter of Credit.

"Access Rights" means the rights provided in this Agreement for Provider and its designees, including Installer, to enter upon and cross the Site to install, operate, maintain, repair and remove the Project, and to interconnect the Project with the Local Electric Utility and to provide water, electric and other services to the Project.

"Adjusted Annual Product" means, for an Operation Year, the sum of (i) the electrical output delivered by Provider during such Operation Year, plus (ii) Curtailed Generation for such Operation Year.

"Affiliate" means, as to any Person, any other Person which, directly or indirectly, is in control of, is controlled by, or is under common control with, such Person. For purposes of this definition, "control" of a Person means the power, directly or indirectly, to direct or cause the direction of the management and policies of such Person whether by contract or otherwise.

"Agreement" means this Power Purchase Agreement, including all exhibits attached hereto, as the same may be amended from time to time in accordance with the provisions hereof.

"Annual Product" means the total amount of electrical output expected to be delivered by Provider during each Operation Year as set forth in Exhibit H.

"Applicable Law" means any constitutional provision, law, statute, rule, regulation, ordinance, treaty, order, decree, judgment, decision, certificate, holding, injunction, registration, license, franchise, permit, authorization, or guideline issued by a Governmental Authority that is applicable to a Party to this Agreement or the transaction described herein. Applicable Law also includes an approval, consent or requirement of any Governmental Authority having jurisdiction over such Party or its property, enforceable at law or in equity.

"Applicable Solar Program" means the program indicated on Exhibit H.

"Business Day" means a day other than Saturday, Sunday, or other day on which commercial banks in New York City are authorized or required by law to be closed.

"Change in Law" means that after the date of this Agreement, an Applicable Law is amended, modified, nullified, suspended, repealed, found unconstitutional or unlawful, or changed or affected in any material respect by any Applicable Law. Change in Law does not include changes in federal or state income tax laws. Change in Law does include material changes in the interpretation of an Applicable Law.

"Commercial Operation Date" means the date, which shall be specified by Provider to Host pursuant to Section 4(d), when the Project is physically complete and has successfully completed all performance tests and satisfies the interconnection requirements of the Local Electric Utility.

"Confidential Information" means information of a confidential or proprietary nature, whether or not specifically marked as confidential. Such information shall include, but not be limited to, any documentation, records, listing, notes, data, computer disks, files or records, memoranda, designs, financial models, accounts, reference materials, trade-secrets, prices, strategic partners, marketing plans, strategic or other plans, financial analyses, customer names or lists, project opportunities and the like, provided however that Confidential Information does not include information which (i) was in the possession of the receiving Party before receipt from the disclosing Party; (ii) is or becomes publicly available other than as a result of unauthorized disclosure by the receiving Party; (iii) is received by the receiving Party from a third party not known by the receiving Party with the exercise of reasonable diligence to be under an obligation of confidentiality respecting the information; or (iv) is independently developed by the receiving Party without reference to information provided by the disclosing Party.

"Curtailed Generation" means the amount of electric energy (in MWh) that the Project did not generate in a given Operation Year as a result of a Force Majeure Event, System Emergency, transmission outages or curtailments directed by the Transmission Authority due to circumstances outside of Provider's reasonable control, or Host-caused curtailment.

"Dispute" means a controversy or claim arising out of or relating to this Agreement.

"Early Termination Amount" means an amount determined in accordance with Exhibit B-2, as of the year of the Operations Period set forth thereon, which includes all lost revenues from the sale or utilization of electrical energy, Environmental Attributes, or Tax Attributes.

"Electric Service Provider" means any person, including the Local Electric Utility, authorized by the State of California to provide electric energy and related services to retail users of electricity in the area in which the Site is located.

"Environmental Attributes" means Renewable Energy Certificates, carbon trading credits, emissions reductions credits, emissions allowances, green tags, Green-e certifications, or other entitlements, certificates, products, or valuations attributed to the Project and its displacement of conventional energy generation, or any other entitlement pursuant to any federal, state, or local program applicable to renewable energy sources, whether legislative or regulatory in origin, as amended from time to time, and excluding, for the avoidance of doubt, any Tax Attributes and the Applicable Solar Program.

"Fair Market Value" means the price that would be paid in an arm's length, free market transaction, in cash, between an informed, willing seller and an informed, willing buyer (who is neither a lessee in possession nor a used equipment or scrap dealer), neither of whom is under compulsion to complete the transaction, taking into account, among other things, the age and performance of the Project, the remaining obligations due under the terms of this agreement including but not limited to insurance, financing, operations and maintenance costs and estimated remaining energy payments due under this agreement, advances in solar technology, provided that installed equipment shall be valued on an installed basis and costs of removal from a current location shall be a deduction from the valuation.

"Financing Party" means a Project Lessor or Lender or purchaser of the Project, or other entity acquiring any interest in the Project.

"Force Majeure Event" means any act or event that prevents the affected Party from performing its obligations in accordance with this Agreement, if such act or event is beyond the reasonable control, and not the result of the fault or negligence, of the affected Party or the affected Party's directors, officers, employees, agents, lessees, tenants and invitees, and such Party had been unable to overcome such act or event with the exercise of due diligence (including the expenditure of reasonable sums). Subject to the foregoing, Force Majeure Events may include but are not limited to the following acts or events: (i) natural phenomena, such as storms, hurricanes, floods, lightning and earthquakes; (ii) explosions or fires arising from lightning or other causes unrelated to the acts or omissions of the Party seeking to be excused from performance or of such Party's directors, officers, employees, agents, lessees, tenants and invitees; (iii) acts of war or public disorders, civil disturbances, riots, insurrection, sabotage, epidemic, terrorist acts, or rebellion; (iv) strikes or labor disputes; and (v) delays in approval by utilities out of the Party's control. Force Majeure Events shall not include the failure to obtain necessary building permits, equipment failures or acts or omissions of directors, officers, agents, tenants, lessees, invitees, suppliers or subcontractors, except to the extent such acts or omissions arise from a Force Majeure Event. Changes in prices for electricity shall not constitute Force Majeure Events.

"Governmental Authority" means any international, national, federal, provincial, state, municipal, county, regional or local government, administrative, judicial or regulatory entity operating under any Applicable Laws and includes any department, commission, bureau, board, administrative agency or regulatory body of any government.

"Guaranteed Commercial Operation Date" means the following date: October 17, 2017.

"Hazardous Materials" means all hazardous or toxic substances, wastes or other pollutants, including petroleum, petroleum hydrocarbons or petroleum products, petroleum by-products, radioactive materials, asbestos or asbestos-containing materials, gasoline, diesel fuel, pesticides, radon, urea formaldehyde, lead or lead-containing materials, polychlorinated biphenyls; and any other chemicals, materials, substances or wastes in any amount or concentration which are now included in the definition of "hazardous substances," "hazardous materials," "hazardous wastes," "extremely hazardous wastes," "restricted hazardous wastes," "toxic substances," "toxic pollutants," "pollutants," "regulated substances," "solid wastes," or "contaminants" or words of similar import, under any Applicable Law.

"Host" means Marin Clean Energy, and all successors and assigns.

"Indemnified Person" means the person who asserts a right to indemnification under Section 15.

"Indemnifying Party" means the Party who has the indemnification obligation under Section 15 to the Indemnified Person.

"Initial Period" has the meaning provided in Section 2.

"Installer" means the person designated by Provider to install the Project on the Premises.

"Interim Purchase Option Price" means an amount determined in accordance with Exhibit B-1, as of the applicable anniversary of the Commercial Operation Date set forth thereon.

"Land Registry" means the office where real estate records for the Site are customarily filed.

"Lender" means persons providing construction or permanent financing to Provider in connection with installation of the Project.

"Letter of Credit" shall have the meaning provided in Section 9(e) hereof.

"Liens" has the meaning provided in Section 8(c).

"Local Electric Utility" means the entity authorized and required under Applicable Law to provide electric distribution service to Host at the Site.

"Losses" means any and all losses, liabilities, claims, allegations, demands, suits, causes of action, judgments, awards, damages, cleanup and remedial obligations, interest, fines, fees, penalties, costs, and expenses (including all attorney's fees and other costs and expenses incurred in defending any such claims or matters or in asserting or enforcing any indemnity obligation).

"Operations Period" has the meaning provided in Section 2.

"Operations Year" means a twelve month period beginning at 12:00 am on an anniversary of the Commercial Operations Date and ending at 11:59 pm on the day immediately preceding the next anniversary of the Commercial Operations Date, provided that the first Operations Year shall begin on the Commercial Operations Date.

"Party" means either Host or Provider, as the context shall indicate, and "Parties" means both Host and Provider.

"Performance Measurement Period" means each period during the Operations Period consisting of two (2) consecutive Operation Years, commencing on the Commercial Operation Date such that the first Performance Measurement Period shall consist of the first and second Operation Years.

"Point of Delivery" has the meaning set forth in Section 5(a) and Exhibit E.

"Premises" means the portions of the Site described on Exhibit D.

"Prepayment Amount" means the payment amount required upon the Commercial Operation Date as set forth in Exhibit A. The Prepayment Amount is amortized over a ten (10) year period, beginning on the Commercial Operation Date.

"Project" means an integrated system for the generation of electricity from solar energy consisting of the photovoltaic panels and associated equipment to be installed on each of the Premises in accordance with this Agreement.

"Project Lessor" means, if applicable, any Person to whom Provider transferred the ownership interest in the Project, subject to a leaseback of the Project from such Person.

"Project Removal" has the meaning set forth in Section 9(e).

"Provider" means Energy Finance Associates LLC, a California limited liability company, and all successors and assigns.

"Relocation Event" means the relocation of the Project, starting at the shutdown of the Project pursuant to such relocation, and ending at the commercial operation of the Project when such relocated Project is reinstalled at a new location, as determined by the Provider in its reasonable discretion.

"Renewable Energy Certificate" or "REC" means a certificate, credit, allowance, green tag, or other transferable indicia, howsoever entitled, created by an applicable program or certification authority indicating generation of a particular quantity of energy, or product associated with the generation of a megawatt-hour (MWh) from a renewable energy source by a renewable energy project.

"Self-Help Production Work" shall have the meaning provided in Section 6(a) hereof.

"Self-Help Removal Work" shall have the meaning provided in Section 9(e) hereof.

"Site" means the real property described on Exhibit C attached hereto.

"Tax Attributes" means the investment tax credits (including any grants or payments in lieu thereof) and any tax deductions or other benefits under the Internal Revenue Code or applicable federal, state, or local law available as a result of the ownership and operation of the Project or the output generated by the Project (including, without limitation, tax credits (including any grants or payments in lieu thereof) and accelerated and/or bonus depreciation.)

"Term" shall have the meaning provided in Section 2 hereof.

EXHIBIT A

## ENERGY PURCHASE RATES

Host shall pay Provider the Prepayment Amount of \$ [REDACTED], which shall be due upon the Commercial Operation Date, as follows:

<b>Schedule</b>	<b>Payment Amount</b>
Deposit No. 1: due when Contract is signed	\$ [REDACTED]
Deposit No. 2: due upon Installation of Carport Structures	\$ [REDACTED]
Deposit No. 3: due upon Substantial Completion (i.e., when panels and inverters are installed)	\$ [REDACTED]
Net Payment due upon Commercial Operation Date (reflecting credit for and application of Deposit Nos. 1-3 previously paid to Provider toward Prepayment Amount in the amount of \$73,612)	\$ [REDACTED]
<b>Total Prepayment Amount</b>	<b>\$ [REDACTED]</b>

Host shall pay Provider for electricity produced by the Project at the rates set forth below:

Year of Term	Energy Purchase Rate
1	\$ [REDACTED]
2	\$ [REDACTED]
3	\$ [REDACTED]
4	\$ [REDACTED]
5	\$ [REDACTED]
6	\$ [REDACTED]
7	\$ [REDACTED]
8	\$ [REDACTED]
9	\$ [REDACTED]
10	\$ [REDACTED]
11	\$ [REDACTED]
12	\$ [REDACTED]
13	[REDACTED]
14	\$ [REDACTED]
15	\$ [REDACTED]
16	\$ [REDACTED]
17	\$ [REDACTED]
18	\$ [REDACTED]

19	\$ [REDACTED]
20	\$ [REDACTED]

Notes:

- Electricity price in first year of operations is \$ [REDACTED]
- Annual PPA Escalator of [REDACTED] in each successive year of operation.
- The Energy Purchase Rate reflects the application of the Prepayment Amount, which is amortized over a ten-year period.

EXHIBIT B-1

INTERIM PURCHASE OPTION PRICE

Months from Commercial Operation Date	Applicable Interim Purchase Option Price
72	\$ [REDACTED]
120	\$ [REDACTED]
180	\$ [REDACTED]
240	\$ [REDACTED]

EXHIBIT B-2

EARLY TERMINATION AMOUNT

Year of Operations Period	Applicable Early Termination Amount
1	\$ [REDACTED]
2	\$ [REDACTED]
3	\$ [REDACTED]
4	\$ [REDACTED]
5	\$ [REDACTED]
6	\$ [REDACTED]
7	\$ [REDACTED]
8	\$ [REDACTED]
9	\$ [REDACTED]
10	\$ [REDACTED]
11	\$ [REDACTED]
12	\$ [REDACTED]
13	\$ [REDACTED]
14	\$ [REDACTED]
15	\$ [REDACTED]
16	\$ [REDACTED]
17	\$ [REDACTED]
18	\$ [REDACTED]
19	\$ [REDACTED]
20	\$ [REDACTED]





EXHIBIT D

DESCRIPTION OF PREMISES

Address: 1125 Tamalpais Ave., San Rafael, CA 94901

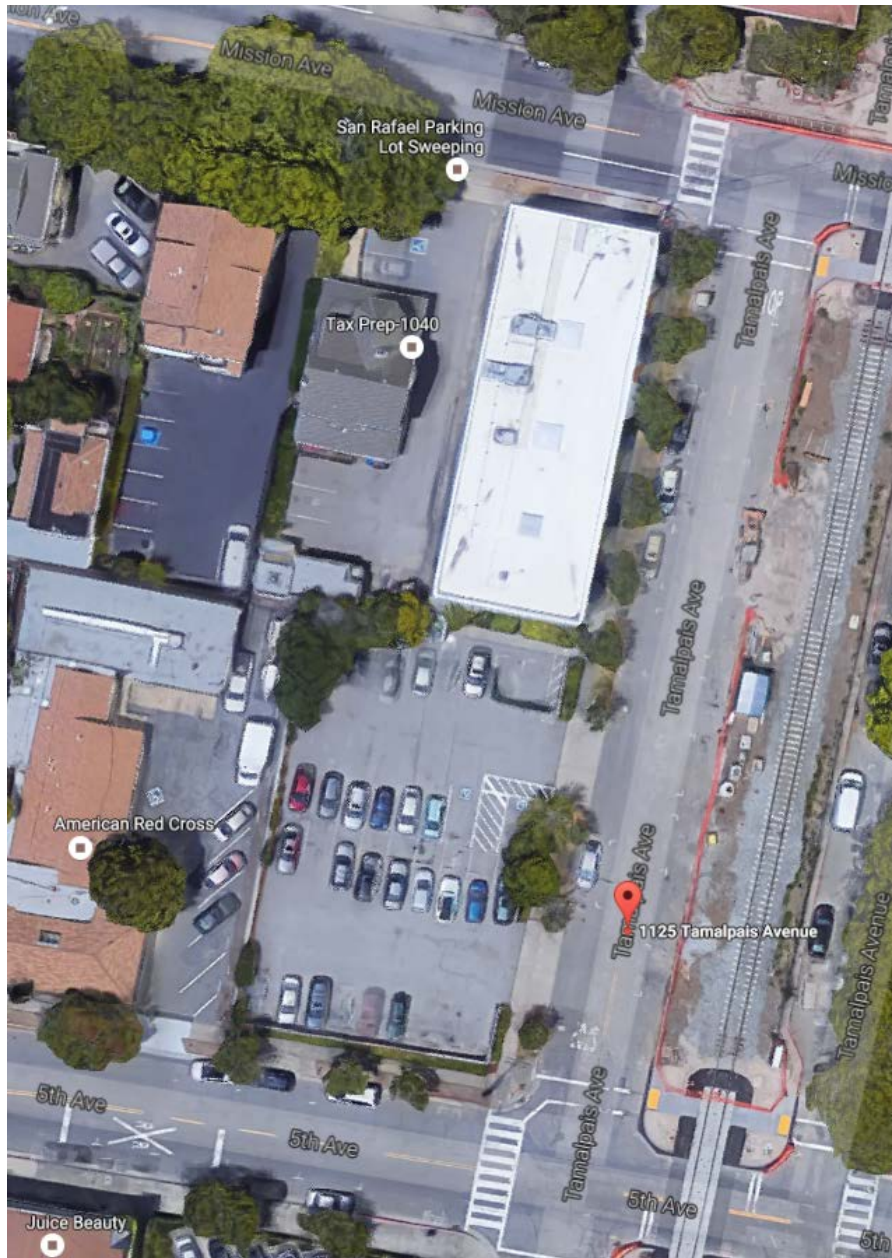


EXHIBIT E

DESCRIPTION OF PROJECT

Nameplate Capacity (kW):	79.695 kW
Output Criteria:	60 hertz / 208/120 3-phase Volt
Photovoltaic Modules:	Sunpower 345 P17 W modules or mutually agreed upon equivalent
Inverters:	SolarEdge Inverters or mutually agreed upon equivalent
Type of Mounting Structure:	Carport by M Bar C or mutually agreed upon equivalent
Lighting	Appropriate quantity of LED fixtures mounted to underside of structures
Data Monitoring Equipment:	SolarEdge Integrated Monitoring

EXHIBIT F

INSURANCE REQUIREMENTS

1. General Liability

(a) Both Host and Provider will have a minimum level of commercial general liability insurance for the term of the Power Purchase Agreement of 1 million dollars (\$1,000,000) for each occurrence, and 2 million dollars (\$2,000,000) in the aggregate. Insurance coverage shall be at least as broad as the Insurance Services Office (ISO) Commercial General Liability Coverage "occurrence" form, with no coverage deletions.

(b) Both the Host and Provider general liability insurance coverage shall be endorsed to specify that the Provider's and Host's insurance is primary and that any insurance or self-insurance maintained by the Local Electric Utility shall not contribute with it.

2. Additional Insurance Requirements

Additional insurance requirements and terms are included in the Applicable Solar Program contract.

3. Additional Insurance Provisions

Host shall furnish Provider with certificates of insurance and endorsements of all required insurance, as may be reasonably requested, including for purposes of compliance with Applicable State Solar rebate program. The documentation required for the Applicable Solar Program shall state that coverage shall not be cancelled except after thirty (30) days prior written notice has been given to the Local Electric Utility. The documentation must be signed by a person authorized by the insurer to bind coverage on its behalf.

4. Additional Installation Contractor Requirements

Installation contractors will have valid commercial general liability, workers compensation, and business auto insurance as follows:

Commercial general liability insurance will be in the following amounts: \$ [REDACTED] for each occurrence and \$ [REDACTED] aggregate.

Workers compensation insurance or self-insurance indicating compliance with any applicable labor codes, laws or statutes, state or federal, where Installer performs work.

Auto coverage not less than [REDACTED] (\$ [REDACTED]) each accident for bodily injury and property damage, and [REDACTED] (\$ [REDACTED]) in the aggregate.

Excess liability insurance on an occurrence basis covering claims (on at least a following form basis) in excess of the underlying insurance for Commercial General Liability, Auto Liability and Employers' Liability with a minimum limit per occurrence of [REDACTED] (\$ [REDACTED]) and [REDACTED] (\$ [REDACTED]) in the aggregate.

The amounts of insurance required for Commercial General Liability, Auto Liability, Employers' Liability and Excess Liability may be satisfied by Installer purchasing coverage in the amounts specified or by any combination of primary and excess insurance, so long as the total amount of insurance meets the requirements specified above.



EXHIBIT G

PRELIMINARY PROJECT SCHEDULE

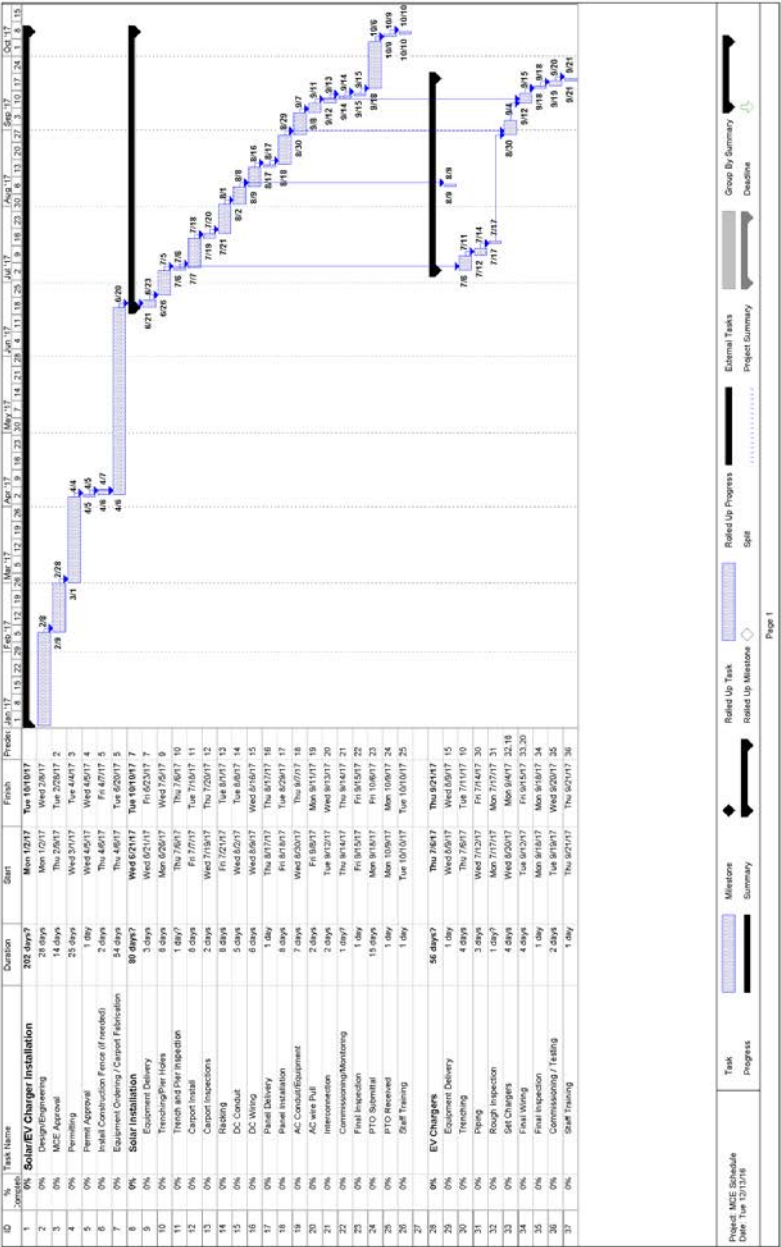


EXHIBIT H

ANNUAL SYSTEM OUTPUT

<b>Year</b>	<b>Total kWh</b>
1	120,000
2	119,400
3	118,803
4	118,209
5	117,618
6	117,030
7	116,445
8	115,862
9	115,283
10	114,707
11	114,133
12	113,563
13	112,995
14	112,430
15	111,868
16	111,308
17	110,752
18	110,198
19	109,647
20	109,099

\*Note – this chart will be adjusted based on as-built conditions

Baseline Production Calculation. Provider shall take SunEye or other mutually agreeable measurements of solar exposure and horizons for each array within 30 days of the Commercial Operation Date to determine initial shading at the site. Host shall ensure that trees and adjacent structures are kept below the initial shading measurements. Any changes from the baseline measurements to on-site shading shall be offered in the calculation of the Adjusted Annual Product.

**MARIN CLEAN ENERGY  
STANDARD SHORT FORM CONTRACT**

**FIRST AGREEMENT  
BY AND BETWEEN  
MARIN CLEAN ENERGY AND AMERICAN SOLAR CORPORATION**

**THIS FIRST AGREEMENT** ("Agreement") is made and entered into this day **XX, 2017** by and between MARIN CLEAN ENERGY, hereinafter referred to as "MCE" and AMERICAN SOLAR CORPORATION, hereinafter referred to as "Contractor."

**RECITALS:**

**WHEREAS**, MCE desires to retain a person or firm to provide the following services: provision and installation of EV Charging Stations;

**WHEREAS**, Contractor warrants that it is qualified and competent to render the aforesaid services;

**NOW, THEREFORE**, for and in consideration of the agreement made, and the payments to be made by MCE, the parties agree to the following:

**1. SCOPE OF SERVICES:**

Contractor agrees to provide all of the services described in **Exhibit A** attached hereto and by this reference made a part hereof.

**2. FURNISHED SERVICES:**

MCE agrees to make available all pertinent data and records for review, subject to MCE Policy 001 - Confidentiality.

**3. FEES AND PAYMENT SCHEDULE; INVOICING:**

The fees and payment schedule for furnishing services under this Agreement shall be based on the rate schedule which is attached hereto as **Exhibit B** and by this reference incorporated herein. Said fees shall remain in effect for the entire term of the Agreement. Contractor shall provide MCE with his/her/its Federal Tax I.D. number prior to submitting the first invoice. Contractor is responsible for billing MCE in a timely and accurate manner. Contractor shall email invoices to MCE at [invoices@mcecleanenergy.org](mailto:invoices@mcecleanenergy.org) on a monthly basis for any services rendered or expenses incurred hereunder. Fees and expenses invoiced beyond 90 days will not be reimbursable. The final invoice must be submitted within 30 days of completion of the stated scope of services or termination of this Agreement.

**4. MAXIMUM COST TO MCE:**

In no event will the cost to MCE for the services to be provided herein exceed the maximum sum of **\$71,356**.

**5. TIME OF AGREEMENT:**

This Agreement shall commence on **January 15, 2017**, and shall terminate on **August 1, 2017**, unless otherwise amended or extended by mutual agreement. Certificate(s) of Insurance must be current on the day the Agreement commences and if scheduled to lapse prior to termination date, must be automatically updated before final payment may be made to Contractor.

**6. INSURANCE AND SAFETY:**

All required insurance coverages shall be substantiated with a certificate of insurance and must be signed by the insurer or its representative evidencing such insurance to MCE. The general liability policy shall be endorsed naming Marin Clean Energy and its employees, officers and agents as additional insureds. The certificate(s) of insurance and required endorsement shall be furnished to MCE prior to commencement of work. Each certificate shall provide for thirty (30) days advance written notice to MCE of any cancellation or reduction in coverage. Said policies shall remain in force through the life of this Agreement and shall be payable on a per occurrence basis only, except those required by paragraph 6.4 which may be provided on a claims-made basis consistent with the criteria noted therein.

Nothing herein shall be construed as a limitation on Contractor's obligations under paragraph 16 of this Agreement to indemnify, defend and hold MCE harmless from any and all liabilities arising from the Contractor's negligence, recklessness or willful misconduct in the performance of this Agreement. MCE agrees to timely notify the Contractor of any negligence claim.

Failure to provide and maintain the insurance required by this Agreement will constitute a material breach of the agreement. In addition to any other available remedies, MCE may suspend payment to the Contractor for any services provided during any time that insurance was not in effect and until such time as the Contractor provides adequate evidence that Contractor has obtained the required coverage.

### **6.1 GENERAL LIABILITY**

The Contractor shall maintain a commercial general liability insurance policy in an amount of no less than one million dollars (\$1,000,000) with a two million dollar (\$2,000,000) aggregate limit. MCE shall be named as an additional insured on the commercial general liability policy and the Certificate of Insurance shall include an additional endorsement page. (see sample form: ISO - CG 20 10 11 85).

### **6.2 AUTO LIABILITY**

Where the services to be provided under this Agreement involve or require the use of any type of vehicle by Contractor in order to perform said services, Contractor shall also provide comprehensive business or commercial automobile liability coverage including non-owned and hired automobile liability in the amount of one million dollars combined single limit (\$1,000,000.00).

### **6.3 WORKERS' COMPENSATION**

The Contractor acknowledges the State of California requires every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of the Labor Code. If Contractor has employees, a copy of the certificate evidencing such insurance or a copy of the Certificate of Consent to Self-Insure shall be provided to MCE prior to commencement of work.

### **6.4 PROFESSIONAL LIABILITY INSURANCE (REQUIRED FOR PROFESSIONAL SERVICES AGREEMENTS ONLY)**

Coverages required by this paragraph may be provided on a claims-made basis with a "Retroactive Date" either prior to the date of the Agreement or the beginning of the contract work. If the policy is on a claims-made basis, coverage must extend to a minimum of twelve (12) months beyond completion of contract work. If coverage is cancelled or non-renewed, and not replaced with another claims made policy form with a "retroactive date" prior to the Agreement effective date, the contractor must purchase "extended reporting" coverage for a minimum of twelve (12) months after completion of contract work. Contractor shall maintain a policy limit of not less than \$1,000,000 per incident. If the deductible or self-insured retention amount exceeds \$100,000, MCE may ask for evidence that contractor has segregated amounts in a special insurance reserve fund or contractor's general insurance reserves are adequate to provide the necessary coverage and MCE may conclusively rely thereon.

Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the performance of the Agreement. Contractor shall monitor the safety of the job site(s) during the project to comply with all applicable federal, state, and local laws, and to follow safe work practices.

### **7. NONDISCRIMINATORY EMPLOYMENT:**

Contractor and/or any permitted subcontractor, shall not unlawfully discriminate against any individual based on race, color, religion, nationality, sex, sexual orientation, age or condition of disability. Contractor and/or any permitted subcontractor understands and agrees that Contractor and/or any permitted subcontractor is bound by and will comply with the nondiscrimination mandates of all Federal, State and local statutes, regulations and ordinances.

### **8. SUBCONTRACTING:**

The Contractor shall not subcontract nor assign any portion of the work required by this Agreement without prior written approval of MCE except for any subcontract work identified herein. If Contractor hires a subcontractor under this Agreement, Contractor shall require subcontractor to provide and maintain insurance coverage(s) identical to what is required of Contractor under this Agreement and shall require subcontractor to name Contractor as additional insured under this Agreement. It shall be Contractor's responsibility to collect and maintain current evidence of insurance provided by its subcontractors and shall forward to MCE evidence of same.

### **9. ASSIGNMENT:**

The rights, responsibilities and duties under this Agreement are personal to the Contractor and may not be transferred or assigned without the express prior written consent of MCE.

### **10. RETENTION OF RECORDS AND AUDIT PROVISION:**

Contractor and any subcontractors authorized by the terms of this Agreement shall keep and maintain on a current basis full and complete documentation and accounting records, employees' time sheets, and correspondence pertaining to this Agreement. Such records shall include, but not be limited to, documents supporting all income and all expenditures. MCE shall have the right, during regular business hours, to review and audit all records relating to this Agreement during the Contract period and for at least five (5) years from the date of the completion or termination of this Agreement. Any review or audit may be conducted on Contractor's premises or, at MCE's option, Contractor shall provide all records within a maximum of fifteen (15) days upon receipt of written notice from MCE. Contractor shall refund any monies erroneously charged.



**11. WORK PRODUCT:**

All finished and unfinished reports, plans, studies, documents and other writings prepared by and for Contractor, its officers, employees and agents in the course of implementing this Agreement shall become the sole property of MCE upon payment to Contractor for such work. MCE shall have the exclusive right to use such materials in its sole discretion without further compensation to Contractor or to any other party. Contractor shall, at MCE's expense, provide such reports, plans, studies, documents and writings to MCE or any party MCE may designate, upon written request. Contractor may keep file reference copies of all documents prepared for MCE.

**12. TERMINATION:**

- A. If the Contractor fails to provide in any manner the services required under this Agreement or otherwise fails to comply with the terms of this Agreement or violates any ordinance, regulation or other law which applies to its performance herein, MCE may terminate this Agreement by giving five (5) calendar days written notice to the party involved.
- B. The Contractor shall be excused for failure to perform services herein if such services are prevented by acts of God, strikes, labor disputes or other forces over which the Contractor has no control.
- C. Either party hereto may terminate this Agreement for any reason by giving thirty (30) calendar days written notice to the other parties. Notice of termination shall be by written notice to the other parties and be sent by registered mail.
- D. In the event of termination not the fault of the Contractor, the Contractor shall be paid for services performed to the date of termination in accordance with the terms of this Agreement so long as proof of required insurance is provided for the periods covered in the Agreement or Amendment(s).

**13. AMENDMENT:**

This Agreement may be amended or modified only by written agreement of all parties.

**14. ASSIGNMENT OF PERSONNEL:**

The Contractor shall not substitute any personnel for those specifically named in its proposal unless personnel with substantially equal or better qualifications and experience are provided, acceptable to MCE, as is evidenced in writing.

**15. JURISDICTION AND VENUE:**

This Agreement shall be construed in accordance with the laws of the State of California and the parties hereto agree that venue shall be in Marin County, California.

**16. INDEMNIFICATION:**

Contractor agrees to indemnify, defend, and hold MCE, its employees, officers, and agents, harmless from any and all liabilities including, but not limited to, litigation costs and attorney's fees arising from any and all claims and losses to anyone who may be injured or damaged by reason of Contractor's negligence, recklessness or willful misconduct in the performance of this Agreement.

**17. NO RECOURSE AGAINST CONSTITUENT MEMBERS OF MCE:**

MCE is organized as a Joint Powers Authority in accordance with the Joint Exercise of Powers Act of the State of California (Government Code Section 6500, et seq.) pursuant to the Joint Powers Agreement and is a public entity separate from its constituent members. MCE shall solely be responsible for all debts, obligations and liabilities accruing and arising out of this Agreement. Contractor shall have no rights and shall not make any claims, take any actions or assert any remedies against any of MCE's constituent members in connection with this Agreement.

**18. COMPLIANCE WITH APPLICABLE LAWS:**

The Contractor shall comply with any and all Federal, State and local laws and resolutions (including, but not limited to the County of Marin Nuclear Free Zone, Living Wage Ordinance, and Resolution #2005-97 of the Board of Supervisors prohibiting the off-shoring of professional services involving employee/retiree medical and financial data) affecting services covered by this Agreement.

## 19. NOTICES

This Agreement shall be managed and administered on MCE's behalf by the Contract Manager named below. All invoices shall be submitted by email. All notices shall be given to MCE at the following location:

Contract Manager:	Catalina Murphy
MCE Address:	1125 Tamalpais Avenue
	San Rafael, CA 94901
Email Address:	contracts@mcecleanenergy.org
Telephone No.:	(415) 464-6014

Notices shall be given to Contractor at the following address:

Contractor:	Darren Malvin of American Solar Corporation
Address:	475 Gate 5 Rd #119
	Sausalito, CA 94965
Email Address:	Darren@AmericanSolar.net
Telephone No.:	(415) 868-1111 ext. 111

## 20. ACKNOWLEDGEMENT OF EXHIBITS

In the event of a conflict between the Terms of this Agreement and the terms in any of the following Exhibits, the terms in this Agreement will govern.

	<input checked="" type="checkbox"/>	<u>Check applicable Exhibits</u>	<u>CONTRACTOR'S INITIALS</u>
<u>EXHIBIT A.</u>	<input checked="" type="checkbox"/>	Scope of Services	
<u>EXHIBIT B.</u>	<input checked="" type="checkbox"/>	Fees and Payment	
<u>EXHIBIT C.</u>	<input checked="" type="checkbox"/>	Additional Terms and Conditions	

## 21. SEVERABILITY

Should any provision of this Agreement be held invalid or unenforceable by a court of competent jurisdiction, such invalidity will not invalidate the whole of this Agreement, but rather, the remainder of the Agreement which can be given effect without the invalid provision, will continue in full force and effect and will in no way be impaired or invalidated.

## 22. COMPLETE AGREEMENT

This Agreement along with any attached Exhibits constitutes the entire Agreement between the parties. No modification or amendment shall be valid unless made in writing and signed by each party. Failure of either party to enforce any provision or provisions of this Agreement will not waive any enforcement of any continuing breach of the same provision or provisions or any breach of any provision or provisions of this Agreement.

## 23. COUNTERPARTS

This Agreement may be executed in one or more counterparts each of which shall be deemed an original and all of which shall be deemed one and the same Agreement.

## 24. PERFORMANCE AND PAYMENT BOND (REQUIRED FOR CONSTRUCTION PROJECTS ONLY)

Contractor shall furnish, concurrently with signing the contract, a Performance & Payment Bond for a sum not less than 100 percent (100%) of the total amount of the contract. The bond shall be in the form of a bond and not a deposit in lieu of a bond. The bond shall be executed by an admitted surety insurer. The bond shall guarantee payment by Contractor of all materials, provisions, provender,

supplies, and equipment used in, upon, for, or about the performance of said construction, and protect MCE from any liability, losses, or damages arising therefrom.

**IN WITNESS WHEREOF**, the parties have executed this Agreement on the date first above written.

**APPROVED BY**

**Marin Clean Energy:**

**CONTRACTOR:**

By: \_\_\_\_\_

CEO

Date: \_\_\_\_\_

By: \_\_\_\_\_

Name: \_\_\_\_\_

By: \_\_\_\_\_

Chairperson

Date: \_\_\_\_\_

Date: \_\_\_\_\_

**MCE COUNSEL REVIEW AND APPROVAL** *(Only required if any of the noted reason(s) applies)*

**REASON(S) REVIEW:**

- ☒ **Standard Short Form Content Has Been Modified**  
☐ **Optional Review by MCE Counsel at Marin Clean Energy's Request**

**MCE Counsel:** \_\_\_\_\_

**Date:** \_\_\_\_\_

## **EXHIBIT A**

### **SCOPE OF SERVICES (required)**

Contractor will provide purchase and installation of EV Charging Stations services as requested and directed by MCE staff, up to the maximum time/fees allowed under this Agreement.

**1. Project Description:**

Contractor shall provide and install an Electric Vehicle charging system ("EV chargers") at 1125 Tamalpais Ave., San Rafael, CA 94901 as follows:

- Two (2) single port Chargepoint CT4011 bollard mounted EV chargers for the Handicapped parking stalls, or a mutually agreed upon similar charger.
- Four (4) dual port Chargepoint CT4023 EV chargers mounted to the support structure of the carport solar PV array, or a mutually agreed upon similar charger.
- One (1) year of software and service from Chargepoint or a mutually agreed upon vendor, AC combiners, AC breakers, and wire as required.

**2. Contractor's Obligations:**

- Design system, secure basic building permit, and provide engineering stamps. Contractor's scope of services and quoted costs under this Agreement are exclusive of: additional engineering, surveying, or architectural work by Contractor or other third parties.
- Install system per manufacturer's specifications using best installation practices.
- Coordinate building and electrical inspections required or needed for successful completion of the project and safe operability of the system.

**3. Assumptions:**

- Contractor's price assumes that no additional trenching will be required, as this will share the trench opened for installing the solar PV carport.
- Conduit of a sufficient size exists from the MCE parking lot to the point of interconnection.
- Contractor will not resurface or pave the parking lot.

**4. Specific Contract Provisions:**

- Construction shall be deemed to be Commenced upon the delivery of materials to Customer jobsite. Contractor must substantially commence work without lawful excuse, within twenty (20) days from completion of the solar carport structures.
- Contractor installs the charging system with a one (1) year warranty.
- Contractor shall be permitted to extend completion date for reasons including but not limited to weather, disaster, material or labor shortages, strikes, changes to specifications, delays in receiving payments, additional work or acts of governmental authorities, with appropriate contract amendments in place.
- Contractor does not guarantee any rebates or incentives offered by any entity other than itself.

## EXHIBIT B FEES AND PAYMENT SCHEDULE

For services provided under this agreement, MCE shall pay the Contractor in accordance with the following payment fees/schedule:

<b>Payment Schedule</b>	<b>Payment Amount</b>
Project deposit	\$10,000
Upon equipment delivery and commencement of installation	\$30,000
Upon substantial completion (Equipment Installation)	\$20,000
Upon passed inspection	\$9,278
<b>Total Payments</b>	<b>\$69,278</b>
<b>Performance and Payment Bond</b>	<b>Not to exceed 3% of the total payments (\$69,278)</b>

All payments are due within thirty (30) days of invoice. Contractor's quoted pricing and the payments listed above are inclusive of permit, engineering stamps, electric utility fees, sales tax, shipping and labor paid at prevailing wage rates. In no event shall the total cost to MCE for the service provided herein exceed the maximum sum of **\$71,356** for the term of the agreement.

## **EXHIBIT C ADDITIONAL TERMS AND CONDITIONS**

The Additional Terms and Conditions as set forth in this Exhibit C are hereby incorporated into the Agreement. In the event of a conflict between any provision(s) of these Additional Terms and Conditions and any other provision(s) of the Agreement, the parties shall consider these Additional Terms and Conditions as controlling, with the exception of Paragraphs **6, 12, 16, 17, 18** and **24** of the Agreement which shall be controlling regardless of any conflict(s) therewith; and/or unless otherwise required by applicable state or local law.

**C1. Further Actions:** The parties to this Agreement agree to execute and deliver any further instruments or perform any acts, in a timely fashion, that are or may become necessary to effectuate the purposes of this Agreement.

**C2. Force Majeure:** Contractor's failure to perform any term or condition of this Agreement as a result of conditions beyond its control such as, but not limited to, war, strikes, fires, floods, earthquakes, tsunamis, terrorism, civil unrest, acts of God, governmental restrictions, power failures, or damage or destruction of any network facilities or servers, shall not be deemed a breach of this Agreement.

**C3. Right to Substitute:** The identification of materials, products and equipment in this Agreement is made for the purpose of establishing a standard, and any material, product or equipment of other manufacturers or vendors which will perform adequately the duties of the System as described in Exhibit A will be considered equally acceptable provided the material, product or equipment is, in Contractor's opinion, of equivalent quality and performance. If materials, products or equipment called for in this Agreement are not available, for example, due to a shortage, unavailability, supply-chain breakdown or supplier problem such as labor unrest or discontinuance of a product or product line, then Contractor may, upon MCE's prior written consent, which shall not be unreasonably withheld, substitute materials, products or equipment of similar or better quality and performance and Contractor shall be entitled to an adjustment in the contract price accordingly. A delay in obtaining delivery of substitute items will be a legitimate reason for extending the contract time.

**C4. Limitation of Liability:** In recognition of the relative risks and benefits of the project to both Customer and Contractor, the risks have been allocated such that Customer agrees, to the fullest extent permitted by law, to limit the liability of Contractor to Customer for any and all claims, losses, expenses, attorneys fees, expert witness fees, costs and damages of any nature, so that the total aggregate liability of Contractor to Customer shall not exceed \$35,000 or Contractor's total fee for services rendered on this project under this Agreement, whichever is greater. It is intended that this limitation apply to any and all liability or cause of action however alleged or arising, regardless of whether in tort, in contract or under statute and regardless of whether in law or equity, unless otherwise prohibited by law. In the event Customer does not wish to limit Contractor's liability to the amount set forth above, Contractor agrees to raise the limitation of liability to a sum not to exceed \$70,000 for increased consideration of seven percent (7%) of the total fee or \$750, whichever is greater, or to a sum not to exceed \$140,000 for increased consideration of fourteen percent (14%) of the total fee or \$1,500, whichever is greater, upon the Contractor's receiving both Customer's written request and Customer's payment of the increased consideration prior to the start of Contractor's work.

**C5. Waiver of Consequential Damages and Delay Damages:** Customer waives any and all claims against Contractor for consequential damages arising out of or relating this Agreement, including, without limitation, damages for rental expenses, loss of use, loss of income, loss of profit, loss of financing, loss of business, and for loss of management or employee productivity or of the services of such persons. Customer waives any and all claims against Contractor for damages for economic loss sustained by Customer in the event the project is delayed or not completed, even if the delay or non-completion is due to the negligence or default of Contractor.

**C6. Product of Negotiation:** Drafting This Agreement is a product of negotiation between the parties, each of which has had the opportunity to consult with counsel. Both parties are the “drafter” of this Agreement and, on that basis, the parties expressly waive Cal. Civil Code §1654, which provides that any ambiguities caused by “the drafter” of the contract must be resolved against “the drafter.”

**C7. Contractor Law Provisions:** American Solar Corporation is a California licensed [B] contractor, license number 905389. Contractors are required by law to be licensed by the California State License Board in the State of California. Any questions concerning a contractor may be referred to the California Contractors State License Board, P.O. Box 26000, Sacramento, CA 95826.

**C8. Mechanics Lien Law:** In compliance with the Contractor's license, section 7018, (B&P Code, Div. 3, Chap. 9), this is to inform you that under the Mechanics' Lien Law (California Code of Civil Procedure, Section 1181 et seq.) any contractor, sub-contractor, laborer, supplier, or other person who helps to improve your property, but is not paid for his work or supplies, has the right to enforce a claim against your property. This means that after a court hearing, your property could be sold by a court officer and the proceeds of the sale used to satisfy the indebtedness. This can happen even if you have paid your own contractor in full, if the subcontractor, laborer, or supplier remains unpaid.

**C9. Mediation:** In the event of any claim or controversy regarding the rights and obligations of the parties hereunder, the parties shall first meet and confer in a good faith effort to settle and resolve their differences. Prior to commencing any action or proceeding arising under or relating to this Agreement, the parties shall participate in a mediation of the matters which they have been unable to resolve.

**C10. No Third-Party Beneficiaries:** This Agreement shall inure to the benefit of Contractor and Customer only, and not to the benefit of any third party. There are no intended beneficiaries of this Agreement other than Customer and Contractor. No action may be brought by any third party to enforce or interpret this Agreement or any provision thereof.

[illegible]

MARIN CLEAN ENERGY  
11255 TAMALPAIS AVENUE  
SAN RAFAEL, CA 94901



475 GATE 5 ROAD, SUITE 119  
SAUSALITO, CA 94965  
888-SOLAR-51  
CA LIC. #905389

PV LAYOUT

PV LAYOUT

MARIN CLEAN ENERGY

DRAWN BY: **ATOM**  
 415/532-0328

DATE: 9/14/16

SCALE:  $1/16'' = 1'$

SHEET: PV 1.0

**PROPERTY OF AMERICAN SOLAR**

IDENTICAL TO THE DRAWING AND ANY DATA, DESCRIPTION, AND OTHER INFORMATION CONTAINED HEREIN ARE CONSIDERED AS PROPRIETARY MATERIAL, THE EXCLUSIVE PROPERTY OF AMERICAN SOLAR AND SHALL NOT BE REPRODUCED, REFORMED, ADAPTED, UNLAWFULLY COPIED, OR IN ANY MANNER REPRODUCED FOR ANY PURPOSES WITHOUT THE EXPRESS WRITTEN PERMISSION OF A QUALIFIED AUTHORIZED REPRESENTATIVE OF AMERICAN SOLAR. ALL RIGHTS ARE RESERVED.

# Preliminary Site Plan





Overhead View





View from Southwest





View from Southeast





View from East Side