Board Office Use: Legislative File Info.		
File ID Number	21-2831	
Introduction Date	11/18/2021	
Enactment Number		
Enactment Date		



# **Board Cover Memorandum**

То	Board of Education
From	Kyla Johnson-Trammell, Superintendent Tadashi Nakadegawa, Deputy Chief Facilities Planning & Management Brendan Havenar-Daughton, Energy & Sustainability Manager, Facilities Planning & Management
Meeting Date	December 15, 2021
Subject	Solar Photovoltaic Power Purchase Agreement (PPA)
Ask of the Board	Approval of the proposed solar photovoltaic (PV) PPA project.
Background	The OUSD Energy Manager conducted a district-wide feasibility study in partnership with Forefront Power to evaluate the potential for additional solar PV arrays on schoolyards, school rooftop and school and administrative parking lots. The proposed portfolio of projects will be designed to produce 3.5 MW across 26 school sites, including the Cole administration parking lot. Furthermore, five of the solar canopies in site parking lots will include an electric vehicle charging station.
Discussion	OUSD's Energy Manager has determined that this portfolio of projects represents the most cost-effective solar projects that maximize the available space for solar PV district-wide. Year one savings are estimated in the tens of thousands and the conservative twenty year savings estimate exceeds \$6,800,000. This project will be funded through a Power Purchase Agreement (PPA), which means that OUSD will not incur any capital or construction-related costs, nor will OUSD own or operate the systems. OUSD is only responsible for purchasing the electricity generated from these systems.
	In order to ensure the most favorable economic terms for OUSD, approval of this contract must occur before 2022. There is significant uncertainty around the evolution of state policy governing Net Energy Metering (NEM) rules that may substantially erode the estimated financial savings from this project. NEM policy relates to the compensation that utilities must pay for solar power exported back to the grid.

Page 2 of 2

- **Fiscal Impact** The fiscal impact of this project is revenue positive. Year one savings are estimated in the tens of thousands and the conservative twenty year savings estimate exceeds \$6,800,000.
- Attachment(s) Presentation attached

# **Oakland USD**

Solar Program Summary





### Oakland USD Solar Program Proposal

### **Table of Contents**

Oakland USD Solar Proposal Overview & Evaluation	3
Overview: Evaluation: Electric Vehicle Charging Stations:	6
NEM 3.0 Explained	8
What is Net Energy Metering (NEM)? What is NEM 3.0? Oakland USD NEM 3.0 Impact on Solar Savings What does Oakland USD need to do to Secure NEM 2.0?	9 10
Energy Storage	
Energy Storage	
About SPURR	16
What is SPURR? What is the Renewable Energy Aggregated Procurement (REAP) Program? How can Oakland USD benefit from the REAP Program?	
School Curriculum	
Solar Education & STEM Curriculum	
Local Participation	21
Local Business Utilization Policy PLA	
Frequently Asked Questions	23
FAQ	24
Appendix	26
Layouts Contracts	

# Oakland USD Solar Proposal Overview & Evaluation

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## **Overview:**

ForeFront Power's proposed renewable energy solutions will position the District as an undisputed leader of sustainability among California School districts. Having worked with the District to conceptualize and design this portfolio, ForeFront Power, in conjunction with SPURR, has a thorough understanding of the District's site specific characteristics, from its electrical configurations, facilities master plans, parking lot use, to its energy consumption profiles and sustainability goals. We bring all this diligence to bear to offer the best possible opportunity and value to the District.

Key Highlights:

- 3.5 MW of solar canopy and roof mount Solutions across 26 sites.
- Solar energy offsetting more than 77% of consumption at these sites.
- Electric Vehicle Charging Stations at five sites with solar parking canopies.
- Market-leading, PPA pricing & terms that offer the best financial returns of any procurement method available.
- Sustainability Education to bring solar education into the classroom.

Below is an overview of the portfolio specifics including size, energy offset, and savings.

#### **TABLE 1: OAKLAND USD SOLAR PORTFOLIO OVERVIEW**

Site	Evaluation Status	Solar Size	Production (kWh)	% Energy Offset	20 Year Savings
Brookfield Campus	In Progress	86	124,027	83%	\$165,363
Claremont Campus	In Progress	110	161,787	76%	\$167,160
Cleveland Campus	Complete	55	83,753	56%	\$87,221
Cole Admin	In Progress	235	363,764	80%	\$258,982
Elmhurst Campus	In Progress	157	233,865	73%	\$204,049
Fremont Campus	In Progress	274	426,982	62%	\$391,372
Frick Campus	Complete	141	219,778	77%	\$124,473
Glenview Campus	Complete	157	240,545	91%	\$329,847
Highland Campus	Complete	125	191,743	62%	\$209,263
Hoover Campus	Complete	102	157,396	90%	\$254,788
Horace Mann Campus	Complete	85	129,886	90%	\$186,596
Howard Campus	Complete	55	81,376	87%	\$43,765
Kings Estates Campus	Complete	118	153,135	95%	\$230,657
Lakeview Campus	Complete	94	139,343	92%	\$231,643
Laurel Campus (Rooftop)	In Progress	68	101,209	60%	\$145,418
Lockwood Campus	Complete	274	412,365	90%	\$749,709
Madison Campus	Complete	204	316,647	78%	\$490,041
Manzanita Campus	Complete	125	193,658	70%	\$446,433
MLK Jr. Campus	Complete	118	157,268	42%	\$219,233
Parker Campus	Complete	63	90,888	63%	\$123,629
Prescott Campus	Complete	149	239,506	93%	\$160,369
Reach Academy (Cox) Campus	Complete	141	217,754	72%	\$223,841
Redwood Heights Campus	Complete	69	105,979	90%	\$137,711
Stonehurst Campus	Complete	125	194,354	71%	\$287,464
The Center Campus	Complete	94	142,432	18%	\$17,330
Woodland Campus	Complete	290	434,995	95%	\$225,108
Total		3,514	5,314,435	77%	\$6,111,465

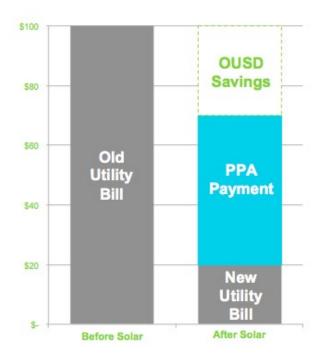
The District will be procuring the solar projects through a Power Purchase Agreement (PPA). This structure requires no capital outlay on behalf of the District. ForeFront Power will finance, construct, own, operate, and maintain the



projects. OUSD will simply buy the energy produced on the school campuses at rates that are lower than what the District pays PG&E and East Bay Community Energy. Key highlights of the PPA can be found below:

#### FIGURE 1: POWER PURCHASE AGREEMENT SUMMARY

- No Upfront Cost
- 0% Cost Escalator for 20 Years
- Utility Rate Hedge
- Monetize 26% Tax Credit
- Limited OUSD Risk
- Operations & Maintenance Included
- Guaranteed Performance





## **Evaluation:**

Alongside Oakland USD staff, the ForeFront Power team systematically evaluated all District schools for solar potential. We followed the steps below to accurately identify those school sites that would provide the most value to the District.





#### **KEY CONSIDERATIONS**

The key considerations when evaluating the District's potential solar projects were annual energy consumption and the availability of space. School sites with low annual energy consumption require small solar projects. Due to economies of scale, small projects (~50 kW and lower) are overwhelmed by fixed costs and do not produce savings. These smaller energy consuming campuses were thus eliminated from the proposal. The current proposal does include several small canopy and rooftop projects:

- Brookfield Campus
- Cleveland Campus
- Horace Mann Campus
- Howard Campus
- Lakeview Campus
- Laurel Campus (Rooftop)
- Parker Campus
- Redwood Heights

It is important to note that the sizes of these projects (>100 kW) lead to smaller savings relative to the larger proposed solar projects at the District.

Given the urban geography of Oakland USD, the availability of space for solar projects required special consideration. Using District staff knowledge, we carefully evaluated each school's parking lots, play areas, and field space to establish where solar canopies could feasibly be located. We paid attention to the use of each site, avoiding areas reserved for basketball or other activities. Solar canopies are most efficient when oriented to the south and Oakland USD Solar Program Proposal 6



unobstructed by trees. We focused on areas that are not shrouded by neighboring or District owned trees. There is limited expected or planned tree removal involved in the proposed projects.

We evaluated a number of planned, designed, and recently constructed schools at OUSD. These include: Laurel Campus (Rooftop), Claremont Campus, Fremont Campus, The Center Campus, Madison Campus, Glenview Campus, and the Cole Admin Campus. Through our diligence with District staff and architects we understand these school sites and included them in our feasibility study.

We also contemplated roof top systems at every school. Please see the FAQ section for a more detailed explanation on solar roof top projects at the District.

# **Electric Vehicle Charging Stations:**

- The Lockwood Campus, Woodland Campus, Fremont Campus, Lakeview Campus, and Madison Campus will be receiving 1 EV charging station per site. Each EVCS will have two charging ports.
- Due to cost efficiency, we have included EV charging stations at those school sites with solar canopies in the parking lots.
- The cost of the EVCS is incorporated into the PPA rates. More EV charging stations result in additional costs and lower savings from the solar projects. Thus, the District has elected to pursue the quantities specified above to optimize savings.

#### **FIGURE 3: EV CHARGING STATIONS**



# NEM 3.0 Explained





# What is Net Energy Metering (NEM)?

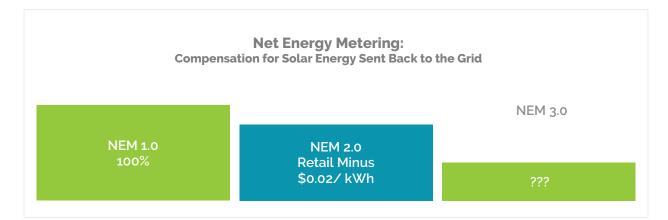
The Net Energy Metering framework in California determines the amount each investor owned utility (PG&E, SCE, SDG&E) compensates solar adopters for energy sent back to the grid (exported energy). In some utilities – most Irrigation Districts or municipal utilities – customers receive a low fixed \$/kWh credit.

PG&E's compensation to customers for exported solar energy has changed over time as follows:

- NEM 1.0: 2009 -2017 full retail rate.
- NEM 2.0: 2017 to Present full retail rate minus about \$0.02/kWh for non-by passable charges.

NEM 2.0 compensation is particularly lucrative to California schools given the seasonality of their energy consumption profiles. Schools typically consume much less energy in the summertime, allowing a significant amount of energy to back feed onto the grid. PG&E then compensates schools for each exported kWh at expensive Peak Summer Rates. Once a customer is on NEM 2.0, that customer can remain on this NEM 2.0 configuration for 20 years, the same length as the solar PPA.

#### TABLE 2: COMPENSATION FOR SOLAR ENERGY SENT BACK TO THE GRID



## What is NEM 3.0?

The CPUC is in the process of deciding how investor-owned utilities (IOUs) will deal with new net metered solar installations in the future. This new configuration is termed "NEM 3.0"

PG&E recently put forth its proposal for NEM 3.0 whereby solar customer like the District would:

- Be charged a monthly \$/kW fee/penalty based on the size of the solar installation
- Be credited for exported solar energy a pre-specified, lower rate that the current rate (about \$0.08/kWh).

As a result, the value of solar projects across California would be significantly reduced.

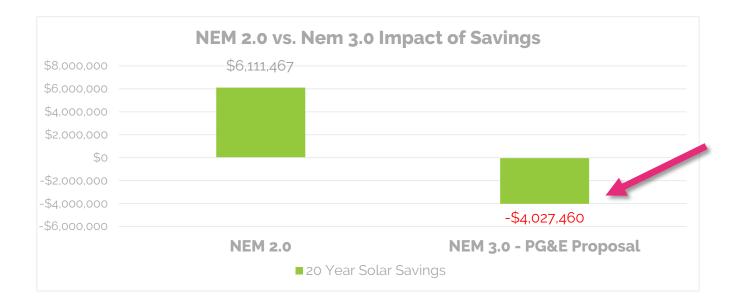


# **Oakland USD NEM 3.0 Impact on Solar Savings**

At Oakland USD, we would expect savings to change as follows:

# Over 20 years, savings would decrease from positive \$6.1 million under NEM 2.0 to negative \$4.0 million under NEM 3.0.

#### TABLE 3: NEM 3.0 IMPACT ON SOLAR SAVINGS

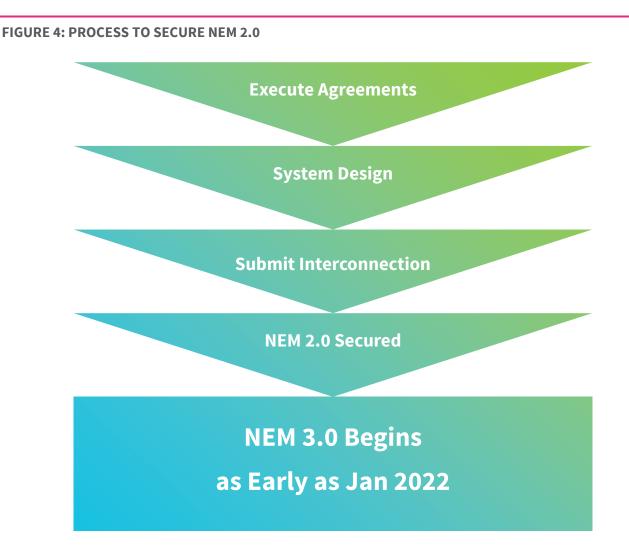




# What does Oakland USD need to do to Secure NEM 2.0?

To receive NEM 2.0 benefits for 20 years, Oakland USD needs to submit Interconnection Applications to PG&E. All interconnection filings need to be submitted and subsequently not materially changed and kept in good standing before NEM 3.0 is implemented. While the exact timing for NEM 3.0 is uncertain, **the industry expects NEM 3.0 will be finalized as early as January 2022 and as late as March 2022.** 

To submit interconnection applications that will remain in good standing, a substantial amount of additional design and development work needs to occur. Therefore, it is imperative that ForeFront Power commence the necessary design work to further develop these systems, submit the interconnection applications and subsequently de-risk any problems prior to the CPUC ending NEM 2.0 availability.



# Energy Storage



## **Energy Storage**

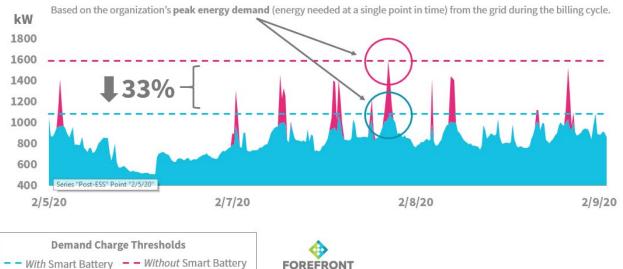
#### WHY ARE WE NOT INCLUDING BATTERIES?

- Below are brief explanations of the two-principal means by which batteries achieve savings on electricity bills: **Demand Shaving and Energy Arbitrage**.
  - Demand Shaving
    - The primary value stream that battery storage systems can provide to behind-the-meter customers is demand charge management. Demand charges, which are determined by the highest measured 15-minute interval during a billing period, can account for more than half of a customer's utility bill. Energy storage discharges stored energy at moments of peak demand, therefore reducing the total demand charges that you pay to the utility.
  - Energy Arbitrage
    - Customers benefit from energy arbitrage when energy storage systems charge during
      periods of low-cost energy time-of-use rates, and discharge to offset customer usage during
      periods of high time-of-use rates. Our AI-based software learns the customer's usage
      patterns and dispatches the battery to maximize savings in both demand and energy
      charges.

**TABLE 4: DEMAND SHAVING ILLUSTRATION** 

## **Energy Storage - Save by Shaving Demand Charges**

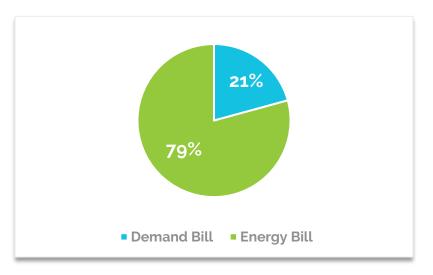
Demand charges: fees that utilities charge for maintaining a constant supply of electricity, additional to energy charges





- Battery Storage Solutions have not been incorporated at the Oakland USD sites due to a combination of factors:
  - Rate Tariff:
    - Most sites, including elementary, middle, and high schools are on rate tariffs that either have no PG&E demand charges or extremely low \$/kW demand charges.
    - Demand charges subsequently make up a smaller component (21%) of the total PG&E bill.
    - Thus, as battery solutions attempt to reduce demand charges, there is less opportunity for them to be effective and save the District money.

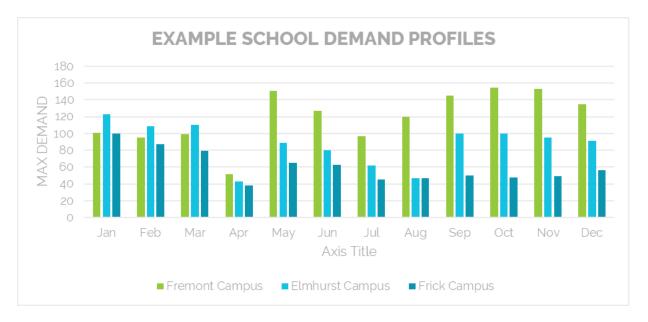
#### TABLE 5: BREAKDOWN OF OAKLAND USD PG&E UTILITY BILL



- Max Demand:
  - The higher the demand levels at a site, the larger the battery the system, and the more effective that battery can be. Oakland USD has low demand levels. See Table 4 below.
  - Oakland USD's low demand spikes do not enable large batteries that have better economies of scale and create cost-effective solutions.



TABLE 6: OAKLAND USD LARGE SITES DEMAND (KW)



- Maximum Annual Demand Above or Below 500 kW
  - Schools with maximum annual demand over 500 kW are forced onto a more expensive PG&E rate tariff known as B-19. This rate tariff has expensive demand charges.
  - Schools with maximum annual demand below 500 kW are allowed onto a less expensive PG&E rate tariffs known as B-1, B-6, and B-10. These rate tariffs have significantly less demand charges.

# About SPURR



# What is SPURR?

- Founded in 1989, School Project for Utility Rate Reduction (SPURR) is a joint powers authority (JPA) consisting of 300+ K-12 and community college districts representing thousands of public education facilities across the state.
- OUSD has been a member of SPURR since 1996.
- SPURR conducts statewide piggy-backable RFPs for services and products that help schools reduce utility costs, streamline procurement, and secure favorable contract terms and conditions for participants.
- SPURR offers buying programs for electricity, natural gas, lighting, telecom, demand response, solar, etc.
- SPURR is governed by a board of public-school administrators from across the state.
- SPURR's operations are funded through low, transparent administrative fees (typically 2%-3%) that are paid, by the winning vendors of the RFP processes, when a public agency utilizes one of SPURR's master contracts.

# What is the Renewable Energy Aggregated Procurement (REAP) Program?

- The REAP Program is a CA public school district solar buying program that leveraged the massive buying power of SPURR as well as Fresno USD, the 4<sup>th</sup> largest school district in the state, to conduct a highly competitive statewide RFP for solar and energy storage.
- Seven major solar vendors participated in the RFP including ForeFront Power, SunPower, Tesla, PFMG, Engie (formerly Opterra, formerly Chevron Energy Solutions), Borrego Solar, and Cupertino Electric.
- SPURR entered into a master contract with the winning vendor, ForeFront Power, that memorialized pricing and favorable contract terms/conditions available to CA public agencies. Our master contract has been extended twice, each time with further price reductions for K-12 districts.
- The REAP Program has been vetted and used by nearly 50 CA public agencies to procure solar/storage across hundreds of sites including Fresno USD, Bakersfield CSD, Stockton USD, Tracy USD, Lammersville USD, and many more.
- The REAP Program RFP was distributed statewide, advertised in two newspapers of record, included a clearly defined scope of work, resulted in numerous bids that were "apples-to-apples", relied on a transparent scoring criteria, employed a rigorous and formal evaluation process involving a selection committee consisting of two public agencies, and all RFP documents have been made publicly available.

## How can Oakland USD benefit from the REAP Program?

- In addition to low competitively bid pricing, the REAP Program offers a vetted pre-negotiated contract that reduces risk and delivers favorable contract terms/conditions to the District, including:
  - 0% annual escalation on the PPA rate.
  - 20-year PPA term that matches the 20-year NEM legacy period offered by PG&E. Longer term PPAs would expose the District to rate uncertainty and risk of "negative savings".
  - Annual 95% performance guarantee with a true-up rate tied to the PG&E retail rate.
  - Renewable Energy Certificates (RECs) accrue to the District and not the PPA provider.
  - District option to purchase and own the system in any year after year 6.
  - Title 24 compliant LED lighting under all carport canopies.
  - Solar educational curriculum.
- REAP's streamlined procurement process that allows the District to contract for projects ahead of PG&E's NEM 3 switchover.
- Use of the REAP Program instills credibility and confidence in the procurement process, exceeds applicable procurement law (GC 4217), and is consistent with ethical business practices.

# Solar Curriculum



# **Solar Education & STEM Curriculum**

Going solar is about more than just energy savings. Through ForeFront Power and its partner, Strategic Energy Innovations (SEI), OUSD's solar program will deliver educational services focused on renewable energy and Next Generation Science Standards (NGSS) to the classroom. Some features of this curriculum offering can include:

#### YOUR CAMPUS AS A LIVING LAB

ForeFront Power Performance Monitoring integrates into lesson plans and activities. Educators can access real time data online and broadcast to the classroom monitors or campus lobby. Teachers are able to download data on kW generation, environmental metrics, and much more.

#### FIGURE 5: SEI OFFERS HANDS-ON SOLAR CURRICULUM



#### SOLAR KITS

ForeFront partners with SEI to develop a curriculum program that best suites the goals and curricula of the District. We have a range of kits to choose from to supplement new and existing programming.

#### STEM LESSONS

We are pleased to include ForeFront Power staff as guest speakers for teachers who wish to hold classroom topics about renewable energy. These visits include fundamentals of solar technology and a description of the key components of the system.

We coordinate with your school staff to visit students when it makes the most sense for you. Our team members are excited about talking to our future leaders and can tailor presentations to suit the needs of individual classes.

#### ADDITIONAL BENEFITS OF SEI CURRICULUM

- Increase use of higher learning thinking addressing math and science connections through real-world connections.
- ForeFront Power Performance Monitoring integrated into lesson plans and activities.
- Strengthen student skills in working collaboratively to solve problems.
- Combined interactive learning materials, rich media, and instructional simulations with cross-school learning activities.



- Standard-based instruction that uses current school-based technology
- Project-based, inquiry-driven investigations of energy alternatives and energy smart technologies.
- Range of learning modalities in multi-sensory formats.
- Stimulates student interest in preparing for careers in STEM fields.
- Online Professional Development modules are available to all program participants.

#### EASY TO IMPLEMENT IN K-12 CLASSROOMS

SEI's Energize Schools curriculum engages students in sustainability projects, develops valuable career skills, and is aligned with Common Core, Next Generation Science Standards, and California Career Technical Education. Their courses engage, inspires, and empowers K-12 students to become environmental leaders in their communities, green their facilities, and conserve resources through hands-on learning.



For a full list of SEI's Energize Schools offering, visit <u>https://www.energizeschools.org/curriculum.html</u>.

Oakland USD's current solar program pricing includes \$1,000/site to integrate the SEI curriculum.

# Local Participation



# **Local Participation**

#### LOCAL BUSINESS UTILIZATION (LBU) POLICY

Oakland USD's Local Business Utilization (LBU) Policy encourages the use of small and locally based Oakland businesses for all District Capital Program construction or construction related agreements. The LBU Policy requires 50% participation on these project agreements.

The ForeFront Power team is committed to adhering to the District's LBU Policy to the greatest extent possible. We have consulted with the District's LBU Policy consultant, Andrea Lowe, and we have identified a number of scopes of work in the solar project construction process that provide an opportunity to subcontract with Oakland businesses. While these scopes are typically performed by one or two subcontracts, we will target these packages for local and small local businesses. The scopes of work include but are not limited to:

- Roof Racking Installation
- Canopy Installation
- Coring
- Landscaping/Tree Removal
- Slurry/Restriping
- Site Services (i.e. equipment rentals, storage, trash/recycling, toilets)
- Temporary/Permanent Fencing

We have already searched the City of Oakland and other agency databases to identify local firms that can perform the scopes listed above. Additionally, to ensure that we are prioritizing local business enterprises, we will continue to work with the District and the Local Business Enterprise Consultant team throughout the development of the projects.

#### **PROJECT LABOR AGREEMENT (PLA)**

The District's Project Labor Agreement (PLA) promotes efficient and timely construction, peaceful settlement of labor disputes, OUSD efforts to prepare its students for careers in the construction trades, employment of Oakland residents, and the use of Oakland-based businesses.

ForeFront Power has reviewed and accepted the Oakland USD Project Labor Agreement. Throughout the design, diligence, pre-construction, and construction phases, we will continue to work with our contractors and subcontractors to fulfill all responsibilities required by the PLA. Along with our commitment to local businesses, we want to ensure that local residents help build this sustainability initiative.

We will ensure that each contractor submits a local hire compliance plan. This plan will serve as the roadmap toward maximizing construction trade opportunities for Oakland residents. We will work with subcontractors that are not currently signatory to a union and, along with the Districts PLA consultant, walk them through the required compliance procedures.

# Frequently Asked Questions



# FAQ

#### 1. HOW MUCH ENERGY ARE THE SOLAR PROJECTS OFFSETTING? WHY NOT MORE?

- As a portfolio, the solar systems will be offset 77% of the District's energy consumption based on average historical consumption.
- Solar offset numbers at each individual site are shown in Table 1.
- Certain sites are space-constrained whereby we cannot fit as much solar on-site as we would ideally like to effectuate the optimal offset.
- Certain other sites, like the Lockwood Campus, have ample extra room, but not we don't want the system to produce more energy needed, as that would reduce the District savings.
- The District also wants to leave some "headroom" for energy efficiency measures in the future to further reduce energy consumption.
- These numbers will be updated further as we proceed into the design and engineering process.

#### 2. WHAT HAPPENS AT THE END OF THE 20 YEAR PPA TERM?

- At the end of the PPA, the District has 3 options:
  - ForeFront Power removes the system at no cost to the District.
  - The District can purchase the system at Fair Market Value.
  - The District can simply extend the PPA for another 5 or 10 years.
- The District will have substantial leverage at that point in time forcing ForeFront Power to perform significant construction effort to remove the system vs giving the District a rate that will make the District satisfied for an addition extension period.

#### 3. IS THERE A BUYOUT CLAUSE IN THE CONTRACT?

- Yes, the District has the option to purchase the system any year after year 6. During the first 5 years, ForeFront Power is extracting the tax benefits of the project and thus the District can't purchase it in years 1-5. Starting in year 6, the option is to purchase the system at the greater of Fair Market Value and the Schedule of Termination Values in the contract.
- If the District elected to purchase all systems in year 6,
  - This would require an approximate \$7.5 million capital outlay.
  - Savings could range between \$6 million to \$8 million depending on the District's cost of financing such a purchase.

#### 4. HOW ARE SOLAR SAVINGS PROJECTS CALCULATED?

- ForeFront Power conducted a robust savings analysis using tariff modeling, solar production projections, and granular electricity consumption data for each site. ForeFront Power incorporated the following conservative assumptions into its savings analysis:
- Evaluation of historical consumption data for each site, using 2019 consumption data as the base case in each scenario. 2020 data was not used due to Covid-related irregularities in energy consumption.
- The latest and greatest PG&E and East Bay Community Energy rate tariffs that would apply at each site to create an accurate projection of future spend given historical consumption.
- Annual Utility Energy Rate and Demand Rate escalation of 2.7% & 5.0%, respectively, which are conservative relative to long-term historical averages in PG&E.
- Annual solar degradation rate of 0.5%.
- All these projects are based off the industry standard 3rd, party solar savings analysis tool, Energy Tool Base.
- The Solar Savings have been provided to the District and are attached again for convenience.

### 5. IS PRICING COMPETITIVE PRICING?



• SPURR has reviewed ForeFront Power's proposed PPA rates for Oakland USD and has found that the rate adjustments reflect the scope of work for the projects and that the pricing is consistent with the competitively sourced pricing in the REAP Program master contract.

#### 6. ARE SOLAR ROOF TOP PROJECTS INCLUDED?

- Yes, ForeFront is proposing on multiple roofs across the District. Our proposal includes both newly constructed roofs (ex. Glenview Campus) and to-be-constructed roofs (ex. Laurel Campus).
- It is important to note that roof top solar installations are less common in California Schools because of several factors.:
  - Rooftop solar projects require a full DSA permit review which can take up to a full year. This contracts
    with solar canopies which use DSA Pre-Check designs. Carports typically can be permitted through
    DSA in a single day.
  - The solar agreement is for 20 years. The roof top life should match that term. Often roofs need to be replaced every 20 years. Thus if a roof is 10 years old, halfway through the solar agreement term, the solar would have to be uninstalled, the roof replaced, and solar reinstalled. This is costly and significantly impacts project economics.
  - "Solar-Ready Roofs" is a broad term that can take on many meanings. Often this simply means that
    the roof can withstand the weight of a solar installation. However other factors are necessary to
    make a roof truly solar ready including having supporting cross-beams to mount solar, having conduit
    from the electrical room to the roof, or having the roof arranged in such a way to limit obstructions to
    allow solar panels.
  - Solar rooftop systems typically require at least some minimum roof penetrations. These penetrations
    are flashed and sealed to prevent roof leaks. Roof warranties can be maintained through the
    installation of solar.

# Appendix





## Layouts

Brookfield Campus
Claremont Campus
Cleveland Campus
Cole Admin
Elmhurst Campus
Fremont Campus
Frick Campus
Glenview Campus
Highland Campus
Hoover Campus
Horace Mann Campus
Howard Campus
Kings Estates Campus
Lakeview Campus
Laurel Campus (Rooftop)
Lockwood Campus
Madison Campus
Manzanita Campus
MLK Jr. Campus
Parker Campus
Prescott Campus
Reach (Cox) Campus
Redwood Heights Campus
Stonehurst Campus
The Center Campus
Woodland Campus

MODULE TYPE	DESCRIPTION
	Longi LR4-72HPH-435M
QUANTITY	198
INVERTERS	(02) CPS SCA 36KTL/DO
SYSTEM SIZE (DC)	86.13 kW
SYSTEM SIZE (AC)	72.00 kW
SYSTEM SIZE (AC-CEC)	79.26 kW CEC
LAT/LONG	37.735193, -122.189493
AZIMUTH ANGLE	100°
TILT ANGLE	7°
SNOWLOAD	0 PSF
WINDSPEED	92 MPH
SEISMIC CATEGORY	E
TREE/LIGHT POLES	~5/0
ADA SPACE/COVERED	
ADA SPACE/COVERED	
WILL VARY BASED O CANOPIES HAVE A N OF 10' UNLESS OT CANOP 1 X 5 STR	EM SIZE AND LOCATION N FURTHER DILIGENCE MINIMUM CLEARANCE "HERWISE SPECIFIED Y BLOCKS: RING BLOCK RING BLOCK
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to the trans	

N.A

1.5

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POCC: 208V 100 KVA, 480V to 208V Step Down Transformer Needed 🗕

AC Run: ~660

11 11-

Property to the west of this line belongs to City of Oakland

1-





2017 FOREFRONT POWER, LLC AND ITS AFFILIATES ALL RIGHTS RESERVED 100 MONTGOMERY STREET #1400 SAN FRANCISCO, CA 94104 (855) 204-5083 www.ForeFrontPower.com

STAMP:

## NOT FOR CONSTRUCTION

## **Oakland USD Brookfield Campus**

401 Jones Ave, Oakland, CA 94603

PROJECT NUMBER: CA-21-0140

SHEET TITLE:

CONCEPTUAL LAYOUT

SHEET SIZE:

#### TABLOID 11" X 17"

NO.	REVISION	DATE	INIT.

SYSTEM D	DESCRIPTION	
MODULE TYPE	Longi LR4-72HPH-435M	
QUANTITY	252	a
INVERTERS	(02)PVI 50TL	
SYSTEM SIZE (DC)	109.62 kW	ell'en
SYSTEM SIZE (AC)	100.00 kW	
SYSTEM SIZE (AC-CEC)	100.88 kW-CEC	
LAT/LONG	37.774029; -122.209772	
AZIMUTH ANGLE	155°	
TILT ANGLE	7°	
SNOWLOAD	0 PSF	-
WINDSPEED	92 MPH	
SEISMIC CATEGORY	E	
RACKING TYPE	PITCHED ROOF	
GAP	01"	3
1 12 123 7		-

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NOTE: DESKTOP ANALYSIS OF TOPOGRAPHY AND TREE HEIGHTS WERE ASSUMED FOR THE DESIGNS. FINAL SYSTEM SIZE AND LOCATION WILL VARY BASED ON FURTHER DILIGENCE

> – POCC:120/208V, 1600A Step Down Transformer Needed

> > (2)

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## NOT FOR CONSTRUCTION

## Oakland USD Claremont Campus

5750 College Ave, Oakland, CA 94618

PROJECT NUMBER: CA-20-0218

SHEET TITLE:

CONCEPTUAL LAYOUT

SHEET SIZE:

#### TABLOID 11" X 17"

NO.	REVISION	DATE	INIT.

SYSTEM	1 DESCRIPTION
MODULE TYPE	Longi LR4-72HPH-435M
QUANTITY	126
INVERTERS	(01)PVI 50TL
SYSTEM SIZE (DC)	54.81 kW
SYSTEM SIZE (AC)	50.00 kW
SYSTEM SIZE (AC-CEC	
LAT/LONG	37.803868, -122.243874
AZIMUTH ANGLE	205°
TILT ANGLE	7°
SNOWLOAD	0 PSF
	92 MPH
SEISMIC CATEGORY	E N/A
ADA SPACE/COVEREI	
AND TREE HEIGHTS	VALYSIS OF TOPOGRAPHY WERE ASSUMED FOR THE
	STEM SIZE AND LOCATION
	OPY BLOCKS:
	TRING BLOCKS
1	
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## NOT FOR CONSTRUCTION

## Oakland USD Cleveland Campus

745 Cleveland St, Oakland, CA 94606

PROJECT NUMBER: CA-20-0350

SHEET TITLE:

CONCEPTUAL LAYOUT

SHEET SIZE:

#### TABLOID 11" X 17"

NO.	REVISION	DATE	INIT.

	DESCRIPTION	2 1 3 0 0 0 0 5
	Longi LR4-72HPH-435M	
	540	
NVERTERS	(01)PVI 60TL (03)PVI 36TL (01)PVI 50TL	
YSTEM SIZE (DC)	234.90 kW	
STEM SIZE (AC)	218.00 kW	
YSTEM SIZE (AC-CEC)	216.18 kW-CEC	
T/LONG	37.807434; -122.289582	
IMUTH ANGLE	199°;109°	
T ANGLE	7° (Canopy)	
OWLOAD	0 PSF	A LAND I TO THE
INDSPEED	92 MPH	
EISMIC CATEGORY	E	
ACKING TYPE	FLAT ROOF + CARPORT	POCC: 480V, 2000A
ITCH	56"	
The second se	LYSIS OF TOPOGRAPHY	
1 X 7 STI	RINGBLOCK	





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## NOT FOR CONSTRUCTION

## Oakland USD Cole Admin Campus

1011 Union St, Oakland, CA 94607

PROJECT NUMBER: CA-20-0181

SHEET TITLE:

CONCEPTUAL LAYOUT

SHEET SIZE:

#### TABLOID 11" X 17"

NO.	REVISION	DATE	INIT.

STEM SIZE (DC)       156.60 kW         STEM SIZE (AC)       122.00 kW         STEM SIZE (AC-CEC)       144.12 kW CEC         T/LONG       37.745270, -12         ZIMUTH ANGLE       240°         LT ANGLE       7°         IOWLOAD       0 PSF         INDSPEED       92 MPH         ISMIC CATEGORY       E         REE/LIGHT POLES       ~2/0         NOTE: DESKTOP ANALYSIS OF TOPO         AND TREE HEIGHTS WERE ASSUMED         DESIGNS. FINAL SYSTEM SIZE AND LC         WILL VARY BASED ON FURTHER DIL         CANOPIES HAVE A MINIMUM CLEAR         OF 10' UNLESS OTHERWISE SPEC		
TEM SIZE (DC)       156.60 kW         TEM SIZE (AC)       122.00 kW         TEM SIZE (AC-CEC)       144.12 kW CEC         7LONG       37.745270, -12         MUTH ANGLE       240°         FANGLE       7°         DWLOAD       0 PSF         DWLOAD       92 MPH         SMIC CATEGORY       E         EE/LIGHT POLES       ~2/0         A SPACE/COVERED       2/0         OTE: DESKTOP ANALYSIS OF TOPO       ND TREE HEIGHTS WERE ASSUMED         ESIGNS. FINAL SYSTEM SIZE AND LC       NILL VARY BASED ON FURTHER DIL         CANOPIES HAVE A MINIMUM CLEAI       OF 10' UNLESS OTHERWISE SPECI         CANOPY BLOCKS:       2 X 6 STRING BLOCKS:	ANTITY	360
SYSTEM SIZE (DC) 156.60 kW SYSTEM SIZE (AC) 122.00 kW SYSTEM SIZE (AC-CEC) 144.12 kW CEC LAT/LONG 37.745270, -12 AZIMUTH ANGLE 240° TILT ANGLE 7° SNOWLOAD 0 PSF WINDSPEED 92 MPH SEISMIC CATEGORY E TREE/LIGHT POLES ~2/0 ADA SPACE/COVERED 2/0 NOTE: DESKTOP ANALYSIS OF TOPO AND TREE HEIGHTS WERE ASSUMED DESIGNS. FINAL SYSTEM SIZE AND LC WILL VARY BASED ON FURTHER DIL CANOPIES HAVE A MINIMUM CLEAI OF 10' UNLESS OTHERWISE SPECT CANOPY BLOCKS: 2 X 6 STRING BLOCKS	NVERTERS	(02) CPS SCA 36KTL/DO (01) CPS SCA 50KTL/DO
SYSTEM SIZE (AC-CEC) 144.12 kW CEC AT/LONG 37.745270, -12 AZIMUTH ANGLE 240° TILT ANGLE 7° SNOWLOAD 0 PSF WINDSPEED 92 MPH SEISMIC CATEGORY E TREE/LIGHT POLES ~2/0 ADA SPACE/COVERED 2/0 NOTE: DESKTOP ANALYSIS OF TOPO AND TREE HEIGHTS WERE ASSUMED DESIGNS. FINAL SYSTEM SIZE AND LC WILL VARY BASED ON FURTHER DIL CANOPIES HAVE A MINIMUM CLEAR OF 10' UNLESS OTHERWISE SPECT CANOPY BLOCKS: 2 X 6 STRING BLOCKS	YSTEM SIZE (DC)	
AT/LONG 37.745270, -12 ZIMUTH ANGLE 240° ILT ANGLE 7° NOWLOAD 0 PSF VINDSPEED 92 MPH EISMIC CATEGORY E REE/LIGHT POLES ~2/0 DA SPACE/COVERED 2/0 NOTE: DESKTOP ANALYSIS OF TOPO AND TREE HEIGHTS WERE ASSUMED DESIGNS. FINAL SYSTEM SIZE AND LC WILL VARY BASED ON FURTHER DIL CANOPIES HAVE A MINIMUM CLEAI OF 10' UNLESS OTHERWISE SPECT	YSTEM SIZE (AC)	122.00 kW
AZIMUTH ANGLE 240° TILT ANGLE 7° SNOWLOAD 0 PSF WINDSPEED 92 MPH SEISMIC CATEGORY E TREE/LIGHT POLES ~2/0 ADA SPACE/COVERED 2/0 NOTE: DESKTOP ANALYSIS OF TOPO AND TREE HEIGHTS WERE ASSUMED DESIGNS. FINAL SYSTEM SIZE AND LC WILL VARY BASED ON FURTHER DIL CANOPIES HAVE A MINIMUM CLEAI OF 10' UNLESS OTHERWISE SPECT CANOPY BLOCKS: 2 X 6 STRING BLOCKS	YSTEM SIZE (AC-CEO	C) 144.12 kW CEC
TILT ANGLE       7°         SNOWLOAD       0 PSF         WINDSPEED       92 MPH         SEISMIC CATEGORY       E         TREE/LIGHT POLES       ~2/0         ADA SPACE/COVERED       2/0         NOTE: DESKTOP ANALYSIS OF TOPO         AND TREE HEIGHTS WERE ASSUMED         DESIGNS. FINAL SYSTEM SIZE AND LC         WILL VARY BASED ON FURTHER DIL         CANOPIES HAVE A MINIMUM CLEAR         OF 10' UNLESS OTHERWISE SPECT         CANOPY BLOCKS:         2 X 6 STRING BLOCKS	AT/LONG	37.745270, -122.165087
SNOWLOAD 0 PSF WINDSPEED 92 MPH SEISMIC CATEGORY E TREE/LIGHT POLES ~2/0 ADA SPACE/COVERED 2/0 NOTE: DESKTOP ANALYSIS OF TOPO AND TREE HEIGHTS WERE ASSUMED DESIGNS. FINAL SYSTEM SIZE AND LC WILL VARY BASED ON FURTHER DIL CANOPIES HAVE A MINIMUM CLEAI OF 10' UNLESS OTHERWISE SPECT	ZIMUTHANGLE	240°
WINDSPEED       92 MPH         SEISMIC CATEGORY       E         TREE/LIGHT POLES       ~2/0         ADA SPACE/COVERED       2/0         NOTE: DESKTOP ANALYSIS OF TOPO         AND TREE HEIGHTS WERE ASSUMED         DESIGNS. FINAL SYSTEM SIZE AND LC         WILL VARY BASED ON FURTHER DIL         CANOPIES HAVE A MINIMUM CLEAR         OF 10' UNLESS OTHERWISE SPECT         CANOPY BLOCKS:         2 X 6 STRING BLOCKS	ILT ANGLE	
SEISMIC CATEGORY E TREE/LIGHT POLES ~2/0 ADA SPACE/COVERED 2/0 NOTE: DESKTOP ANALYSIS OF TOPO AND TREE HEIGHTS WERE ASSUMED DESIGNS. FINAL SYSTEM SIZE AND LC WILL VARY BASED ON FURTHER DIL CANOPIES HAVE A MINIMUM CLEAR OF 10' UNLESS OTHERWISE SPECT CANOPY BLOCKS: 2 X 6 STRING BLOCKS		
TREE/LIGHT POLES ~2/0 ADA SPACE/COVERED 2/0 NOTE: DESKTOP ANALYSIS OF TOPO AND TREE HEIGHTS WERE ASSUMED DESIGNS. FINAL SYSTEM SIZE AND LC WILL VARY BASED ON FURTHER DIL CANOPIES HAVE A MINIMUM CLEA OF 10' UNLESS OTHERWISE SPECT		
ADA SPACE/COVERED 2/0 NOTE: DESKTOP ANALYSIS OF TOPO AND TREE HEIGHTS WERE ASSUMED DESIGNS. FINAL SYSTEM SIZE AND LC WILL VARY BASED ON FURTHER DIL CANOPIES HAVE A MINIMUM CLEA OF 10' UNLESS OTHERWISE SPECT CANOPY BLOCKS: 2 X 6 STRING BLOCKS		
NOTE: DESKTOP ANALYSIS OF TOPO AND TREE HEIGHTS WERE ASSUMED DESIGNS. FINAL SYSTEM SIZE AND LC WILL VARY BASED ON FURTHER DIL CANOPIES HAVE A MINIMUM CLEA OF 10' UNLESS OTHERWISE SPECT CANOPY BLOCKS: 2 X 6 STRING BLOCKS		
AND TREE HEIGHTS WERE ASSUMED DESIGNS. FINAL SYSTEM SIZE AND LC WILL VARY BASED ON FURTHER DIL CANOPIES HAVE A MINIMUM CLEAI OF 10' UNLESS OTHERWISE SPECT CANOPY BLOCKS: 2 X 6 STRING BLOCKS		
2 X 6 STRING BLOCKS	AND TREE HEIGHTS DESIGNS. FINAL SY WILL VARY BASED CANOPIES HAVE A OF 10' UNLESS	S WERE ASSUMED FOR TH STEM SIZE AND LOCATIC O ON FURTHER DILIGENCI A MINIMUM CLEARANCE OTHERWISE SPECIFIED
	2 X 6 S	TRING BLOCKS
	-	
	an mainth	
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		-
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118/01/201	10 81	C.
	130	

SYSTEM DESCRIPTION

MODULE TYPE

A-143

(map)

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PLATE

Longi LR4-72HPH-435M





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## NOT FOR CONSTRUCTION

### Oakland USD Elmhurst Campus

1800 98th Ave, Oakland, CA 94603

PROJECT NUMBER: CA-21-0144

SHEET TITLE:

CONCEPTUAL LAYOUT

SHEET SIZE:

#### TABLOID 11" X 17"

NO.	REVISION	DATE	INIT.

SYSTEM DESCRIPTION			
Longi LR4-72HPH-435M			
756			
(02) CPS SCA 60KTL/DO (01) CPS SCA 50KTL/DO (01) CPS SCA 25KTL/DO (02) CPS SCA 36KTL/DO			
328.86 kW			
267.00 kW			
302.65 kW-CEC			
37.774721, -122.210559			
210°			
7°;10°			
0 PSF			
92 MPH			
E			
0/2			
2/2			

Courtland Ave

NOTE: DESKTOP ANALYSIS OF TOPOGRAPHY AND TREE HEIGHTS WERE ASSUMED FOR THE DESIGNS. FINAL SYSTEM SIZE AND LOCATION WILL VARY BASED ON FURTHER DILIGENCE

114 4

CANOPY BLOCKS: 1 x 4 STRING BLOCKS (3 Modules Wide) 2 x 6 STRING BLOCKS 1 x 8 STRING BLOCKS

> PITCHED ROOF: 324 Modules located on roof. Pitched roof racking

> > 2001

AC Run: ~600' -

**SELE** 

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POCC: 480V, 600A

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## NOT FOR CONSTRUCTION

## Oakland USD Fremont Campus

4610 Foothill Blvd, Oakland, CA 94601

PROJECT NUMBER: CA-21-0145

SHEET TITLE:

CONCEPTUAL LAYOUT

SHEET SIZE:

#### TABLOID 11" X 17"

NO.	REVISION	DATE	INIT.

## CANOPY BLOCKS: 2 X 9 STRING BLOCKS

on series

Tom:

0

WILL VARY BASED ON FURTHER DILIGENCE

SYSTEM DESCRIPTION

MODULE TYPE	Longi LR4-72HPH-435M
QUANTITY	360
INVERTERS	(02)PVI 60TL
SYSTEM SIZE (DC)	140.94 kW
SYSTEM SIZE (AC)	120.00 kW
SYSTEM SIZE (AC-CEC)	144.12 kW-CEC
LAT/LONG	37.771625, -122.185130
AZIMUTH ANGLE	190°
TILT ANGLE	7°
SNOWLOAD	0 PSF
WINDSPEED	92 MPH
SEISMIC CATEGORY	E
TREE/LIGHT POLES	N/A
ADA SPACE/COVERED	
	ALYSIS OF TOPOGRAPHY
AND TREE HEIGHTS V	VERE ASSUMED FOR THE TEM SIZE AND LOCATION





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## NOT FOR CONSTRUCTION

### **Oakland USD** Frick Campus

2845 64th Ave, Oakland, CA 94605

PROJECT NUMBER: CA-20-0327

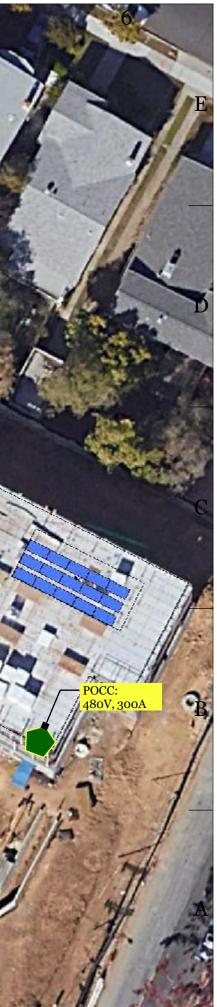
SHEET TITLE:

CONCEPTUAL LAYOUT

SHEET SIZE:

#### TABLOID 11" X 17"

NO.	REVISION	DATE	INIT.
	_		





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## NOT FOR CONSTRUCTION

## Oakland USD Glenview Campus

4215 La Cresta Ave, Oakland, CA 94602

PROJECT NUMBER: CA-20-0178

SHEET TITLE:

CONCEPTUAL LAYOUT

SHEET SIZE:

#### TABLOID 11" X 17"

REVISION	DATE	INIT.
	REVISION	REVISION DATE

SYSTEM DESCRIPTION			
MODULE TYPE	Longi LR4-72HPH-435M		
QUANTITY	288		
INVERTERS	(01)PVI 60TL (01)PVI 50TL		
SYSTEM SIZE (DC)	125.28 kW		
SYSTEM SIZE (AC)	110.00 kW		
SYSTEM SIZE (AC-CEC)	115.29 kW-CEC		
LAT/LONG	37.751313, -122.179768		
AZIMUTH ANGLE	239°		
TILT ANGLE	7°		
SNOWLOAD	0 PSF		
WINDSPEED	92 MPH		
SEISMIC CATEGORY	E		
TREE/LIGHT POLES	N/A		
ADA SPACE/COVERED	N/A		

NOTE: DESKTOP ANALYSIS OF TOPOGRAPHY AND TREE HEIGHTS WERE ASSUMED FOR THE DESIGNS. FINAL SYSTEM SIZE AND LOCATION WILL VARY BASED ON FURTHER DILIGENCE -

CANOPY BLOCKS: 1 X 9 STRING BLOCKS 1 X 7 STRING BLOCKS

POCC:480V Assumed

AC Run:~ 250'





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### NOT FOR CONSTRUCTION

### Oakland USD Highland Campus

8521 A St, Oakland, CA 94621

PROJECT NUMBER: CA-20-0332

SHEET TITLE:

CONCEPTUAL LAYOUT

SHEET SIZE:

#### TABLOID 11" X 17"

NO.	REVISION	DATE	INIT.

SYSTEM I	DESCRIPTION		1
MODULE TYPE	Longi LR4-72HPH-435M	A	E
QUANTITY	234		
INVERTERS	(01)PVI 50TL; (01)PVI 36TL		
SYSTEM SIZE (DC)	101.79 kW		JE.
SYSTEM SIZE (AC)	86.00 kW		
SYSTEM SIZE (AC-CEC)	93.67 kW-CEC		V
LAT/LONG	37.823257, -122.274410		
AZIMUTH ANGLE	198°		2
TILT ANGLE	7°	1HI	Cim.
SNOWLOAD	0 PSF		
WINDSPEED	92 MPH		
SEISMIC CATEGORY	E	W.	橋
TREE/LIGHT POLES	N/A		
ADA SPACE/COVERED	N/A		-
	A ALL DAY		E
NOTE: DESKTOP ANA	ALYSIS OF TOPOGRAPHY		

1 ---

AND TREE HEIGHTS WERE ASSUMED FOR THE DESIGNS. FINAL SYSTEM SIZE AND LOCATION WILL VARY BASED ON FURTHER DILIGENCE

CANOPY BLOCKS: 1 X 5 STRING BLOCKS 1 X 8 STRING BLOCKS

> POCC: 208V, 2000A 100 KVA, 480V to 208V Step Down Transformer Needed -

> > AC Run: ~300'

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## NOT FOR CONSTRUCTION

## **Oakland USD Hoover Campus**

890 Brockhurst St, Oakland, CA 94608

PROJECT NUMBER: CA-20-0328

SHEET TITLE:

CONCEPTUAL LAYOUT

SHEET SIZE:

#### TABLOID 11" X 17"

NO.	REVISION	DATE	INIT.





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## NOT FOR CONSTRUCTION

### Oakland USD Horace Mann Campus

5222 Ygnacio Ave, Oakland, CA 94601

PROJECT NUMBER: CA-21-0142

SHEET TITLE:

CONCEPTUAL LAYOUT

SHEET SIZE:

### TABLOID 11" X 17"

NO.	REVISION	DATE	INIT.

CVCTCA -	DESCRIPTION	
MODULE TYPE	DESCRIPTION	4
	Longi LR4-72HPH-435M	
NVERTERS	(01) CPS SCA 50KTL/DO	
YSTEM SIZE (DC)	54.81 kW	
YSTEM SIZE (AC)	50.0 kW	
YSTEM SIZE (AC-CEC)	50.44 kW CEC	
AT/LONG	37.761926, -122.152274	
ZIMUTH ANGLE	116°	
ILT ANGLE	7°	
NOWLOAD	0 PSF	
VINDSPEED	92 MPH	This parcel of land is owned by City of Oakland
EISMIC CATEGORY	E	IS OWNED BY CITY OF OAKIAID
REE/LIGHT POLES	~20/0	
DA SPACE/COVERED	2/0	POCC: 208V, 400A
WILL VARY BASED C	TEM SIZE AND LOCATION ON FURTHER DILIGENCE MINIMUM CLEARANCE THERWISE SPECIFIED	75 KVA, 480V to 208V Step Down Transformer Needed Meter# 1010260969
	PY BLOCKS: RING BLOCK	AC Run: ~120'
Fontaine		





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## NOT FOR CONSTRUCTION

### Oakland USD Howard Campus

8755 Fontaine St, Oakland, CA 94605

PROJECT NUMBER: CA-21-0143

SHEET TITLE:

CONCEPTUAL LAYOUT

SHEET SIZE:

### TABLOID 11" X 17"

NO.	REVISION	DATE	INIT.

SYSTEM DESCRIPTION			
MODULE TYPE	Longi LR4-72HPH-435M		
QUANTITY	270		
INVERTERS	(01)PVI 60TL;(01)PVI 36TL		
SYSTEM SIZE (DC)	117.45 kW		
SYSTEM SIZE (AC)	96.00 kW		
SYSTEM SIZE (AC-CEC)	108.09 kW-CEC		
LAT/LONG	37.765745, -122.153519		
AZIMUTH ANGLE	156°		
TILT ANGLE	7°		
SNOWLOAD	0 PSF		
WINDSPEED	92 MPH		
SEISMIC CATEGORY	E		
TREE/LIGHT POLES	~0.5 Acres/0		
ADA SPACE/COVERED	N/A		
	A DESCRIPTION OF THE		

Trees cast shadows

NOTE: DESKTOP ANALYSIS OF TOPOGRAPHY AND TREE HEIGHTS WERE ASSUMED FOR THE DESIGNS. FINAL SYSTEM SIZE AND LOCATION WILL VARY BASED ON FURTHER DILIGENCE

> CANOPY BLOCKS: 1 X 9 STRING BLOCKS 1 X 6 STRING BLOCKS

> > POCC:208V 125 KVA, 480V to 208V Step Down Transformer Needed

1

- AC Run: ~680'





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## NOT FOR CONSTRUCTION

## Oakland USD Kings Estates Campus

8251 Fontaine St, Oakland, CA 94605

PROJECT NUMBER: CA-20-0323

SHEET TITLE:

CONCEPTUAL LAYOUT

SHEET SIZE:

### TABLOID 11" X 17"

NO.	REVISION	DATE	INIT.

#### CANOPY BLOCKS: 2 X 6 STRING BLOCKS

#### NOTE: DESKTOP ANALYSIS OF TOPOGRAPHY AND TREE HEIGHTS WERE ASSUMED FOR THE DESIGNS. FINAL SYSTEM SIZE AND LOCATION WILL VARY BASED ON FURTHER DILIGENCE

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/ /

SYSTEM DESCRIPTION

216

(02)PVI 36TL

Longi LR4-72HPH-435M

MODULE TYPE

QUANTITY

INVERTERS

AC Run: ~150

POCC: 208V, 800A 75 KVA, 480V to 208V Step Down Transformer Needed

C

AC Run: ~150'





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## NOT FOR CONSTRUCTION

### Oakland USD Lakeview Campus

746 Grand Ave, Oakland, CA 94610

PROJECT NUMBER: CA-20-0351

SHEET TITLE:

CONCEPTUAL LAYOUT

SHEET SIZE:

#### TABLOID 11" X 17"

NO.	REVISION	DATE	INIT.

SYSTEM DESCRIPTION			
MODULE TYPE	Longi LR4-72HPH-435M		
QUANTITY	156		
INVERTERS	(01)PVI 60TL		
SYSTEM SIZE (DC)	67.86 kW		
SYSTEM SIZE (AC)	60.00 kW		
SYSTEM SIZE (AC-CEC)	62.45 kW-CEC		
LAT/LONG	37.792678, -122.196283		
AZIMUTH ANGLE	145°;235°		
TILT ANGLE	5°;9°		
SNOWLOAD	0 PSF		
WINDSPEED	92 MPH		
SEISMIC CATEGORY	E		
TREE/LIGHT POLES	N/A		
ADA SPACE/COVERED	N/A		
A. I. S. F.			

NOTE: DESKTOP ANALYSIS OF TOPOGRAPHY AND TREE HEIGHTS WERE ASSUMED FOR THE DESIGNS. FINAL SYSTEM SIZE AND LOCATION WILL VARY BASED ON FURTHER DILIGENCE

FLAT ROOF & PITCHED ROOF: 126 x 435W PV Modules (5 Deg) 30 x 435W PV Modules (Pitched roof)

SP.

y air





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## NOT FOR CONSTRUCTION

### Oakland USD Laurel Campus (Rooftop)

### 3750 Brown Ave Oakland, CA 94619 PROJECT NUMBER:

CA-20-0293

SHEET TITLE:

CONCEPTUAL LAYOUT

SHEET SIZE:

#### TABLOID 11" X 17"

NO.	REVISION	DATE	INIT.

SYSTEM DESCRIPTION			
MODULE TYPE	Longi LR4-72HPH-435M		
QUANTITY	612		
INVERTERS	(02)PVI 50TL (03)PVI 36TL		
SYSTEM SIZE (DC)	266.22 kW		
SYSTEM SIZE (AC)	208.00 kW		
SYSTEM SIZE (AC-CEC)	245.01 kW-CEC		
LAT/LONG	37.760408, -122.192114		
AZIMUTH ANGLE	140°		
TILT ANGLE	7°		
SNOWLOAD	0 PSF		
WINDSPEED	92 MPH		
SEISMIC CATEGORY	E		
TREE/LIGHT POLES	3/0		
ADA SPACE/COVERED	10/0		

NOTE: DESKTOP ANALYSIS OF TOPOGRAPHY AND TREE HEIGHTS WERE ASSUMED FOR THE DESIGNS. FINAL SYSTEM SIZE AND LOCATION WILL VARY BASED ON FURTHER DILIGENCE 1710

CANOPY BLOCKS: 2 X 8 STRING BLOCKS 3 X 6 STRING BLOCKS

AC Run: ~350' -

and and

POCC:208V, 1200A Meter# 1009413145 250 KVA, 480V to 208V Step Down Transformer Needed

Tree to be removed





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## NOT FOR CONSTRUCTION

### Oakland USD Lockwood Campus

1390 66th Ave, Oakland, CA 94621

PROJECT NUMBER: CA-20-0324

SHEET TITLE:

CONCEPTUAL LAYOUT

SHEET SIZE:

#### TABLOID 11" X 17"

NO.	REVISION	DATE	INIT.





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## NOT FOR CONSTRUCTION

### Oakland USD Madison Campus

400 Capistrano Dr, Oakland, CA 94603

PROJECT NUMBER: CA-21-0296

SHEET TITLE:

CONCEPTUAL LAYOUT

SHEET SIZE:

#### TABLOID 11" X 17"

NO.	REVISION	DATE	INIT.

QUANTITY	Longi LR4-72HPH-435M
'	288
INVERTERS	(02)PVI 50TL
SYSTEM SIZE (DC)	125.28 kW
SYSTEM SIZE (AC)	100.00 kW
SYSTEM SIZE (AC-CEC)	
	37.791712, -122.224746
	187°
	7°
	0 PSF
	92 MPH
	E
TREE/LIGHT POLES ADA SPACE/COVERED	N/A
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STAMP:

## NOT FOR CONSTRUCTION

### **Oakland USD** Manzanita Campus

2409 E 27th St, Oakland, CA 94601

PROJECT NUMBER: CA-20-0329

SHEET TITLE:

CONCEPTUAL LAYOUT

SHEET SIZE:

#### TABLOID 11" X 17"

NO.	REVISION	DATE	INIT.



SYSTEM DESCRIPTION			
MODULE TYPE	Longi LR4-72HPH-435M		
QUANTITY	270		
INVERTERS	(01)PVI 60TL (01)PVI 36TL		
SYSTEM SIZE (DC)	117.45 kW		
SYSTEM SIZE (AC)	96.00 kW		
SYSTEM SIZE (AC-CEC)	108.09 kW-CEC		
LAT/LONG	37.806276, -122.282310		
AZIMUTH ANGLE	112°		
TILT ANGLE	7°		
SNOWLOAD	0 PSF		
WINDSPEED	92 MPH		
SEISMIC CATEGORY	E		
TREE/LIGHT POLES	~2/3 (Lot of shade)		
ADA SPACE/COVERED	N/A		
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## NOT FOR CONSTRUCTION

### **Oakland USD Martin Luther** King Jr Campus

960 10th St, Oakland, CA 94601

PROJECT NUMBER: CA-20-0330

SHEET TITLE:

CONCEPTUAL LAYOUT

SHEET SIZE:

### TABLOID 11" X 17"

NO.	REVISION	DATE	INIT.

CANOPY BLOCKS: 2 X 6 STRING BLOCKS

CANOPIES HAVE A M OF 13'6" UNLESS OTHERWISE SP

NOTE: DESKTOP ANALYSIS OF TOPOGRAPHY AND TREE HEIGHTS WERE ASSUMED FOR THE DESIGNS. FINAL SYSTEM SIZE AND LOCATION WILL VARY BASED ON FURTHER DILIGENCE

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MODULE TYPE	Longi LR4-72HPH-435M
QUANTITY	216
INVERTERS	(02) CPS SCA 36KTL/DO
SYSTEM SIZE (DC)	93.96 kW
SYSTEM SIZE (AC)	72.00 kW
SYSTEM SIZE (AC-CEC)	86.47 kW-CEC
LAT/LONG	37.765779, -122.166533
AZIMUTH ANGLE	147°;237°
TILT ANGLE	7°
SNOWLOAD	0 PSF
WINDSPEED	92 MPH
SEISMIC CATEGORY	E
TREE/LIGHT POLES	~0/0
ADA SPACE/COVERED	N/A

SYSTEM DESCRIPTION

POCC: 208V, 600A Meter# 1010113523 100 KVA, 480V to 208V Step Down Transformer Needed

AC Run: ~250'





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### NOT FOR CONSTRUCTION

### **Oakland USD Parker Campus**

7929 Ney Ave, Oakland, CA 94605

PROJECT NUMBER: CA-21-0147

SHEET TITLE:

CONCEPTUAL LAYOUT

SHEET SIZE:

### TABLOID 11" X 17"

NO.	REVISION	DATE	INIT.





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## NOT FOR CONSTRUCTION

## Oakland USD Prescott Campus

920 Campbell St, Oakland, CA 94607

PROJECT NUMBER: CA-20-0294

SHEET TITLE:

CONCEPTUAL LAYOUT

SHEET SIZE:

### TABLOID 11" X 17"

NO.	REVISION	DATE	INIT.



AC Run:~630

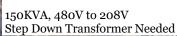
POCC:208V, 2000A Meter# 1009505042

CANOPY BLOCKS: 2 X 9 STRING BLOCKS

NOTE: DESKTOP ANALYSIS OF TOPOGRAPHY AND TREE HEIGHTS WERE ASSUMED FOR THE DESIGNS. FINAL SYSTEM SIZE AND LOCATION WILL VARY BASED ON FURTHER DILIGENCE

	1	
MODULE TYPE	Longi LR4-72HPH-435M	and the
QUANTITY	324	le.
INVERTERS	(02)PVI 60TL	
SYSTEM SIZE (DC)	140.94 kW	200
SYSTEM SIZE (AC)	120.00 kW	1C
SYSTEM SIZE (AC-CEC)	129.71 kW-CEC	and the
LAT/LONG	37.747684, -122.161732	
AZIMUTH ANGLE	150°	
TILT ANGLE	7°	
SNOWLOAD	0 PSF	
WINDSPEED	92 MPH	K.C
SEISMIC CATEGORY	E	
TREE/LIGHT POLES	N/A	
ADA SPACE/COVERED	N/A	5
		//
		11

SYSTEM DESCRIPTION



**Oakland USD** 

NOT FOR CONSTRUCTION

## Reach (Cox) Campus

# 9860 Sunnyside St, Oakland, CA 94603

PROJECT NUMBER: CA-20-0333

SHEET TITLE:

CONCEPTUAL LAYOUT

SHEET SIZE:

### TABLOID 11" X 17"

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NO.	REVISION	DATE	INIT.

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SYSTEM DESCRIPTION			
MODULE TYPE	Longi LR4-72HPH-435M		
QUANTITY	162		
INVERTERS	(01) CPS SCA 60 KTL/DO		
SYSTEM SIZE (DC)	70.47 kW		
SYSTEM SIZE (AC)	60.00 kW		
SYSTEM SIZE (AC-CEC)	64.85 kW-CEC		
LAT/LONG	37.797605, -122.185872		
AZIMUTH ANGLE	210°		
TILT ANGLE	7°		
SNOWLOAD	0 PSF		
WINDSPEED	92 MPH		
SEISMIC CATEGORY	E		
TREE/LIGHT POLES	~5/0		
ADA SPACE/COVERED	2/0		
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NOTE: DESKTOP ANALYSIS OF TOPOGRAPHY AND TREE HEIGHTS WERE ASSUMED FOR THE DESIGNS. FINAL SYSTEM SIZE AND LOCATION WILL VARY BASED ON FURTHER DILIGENCE

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AC Run: ~500'

101 1

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CANOPIES HAVE A MINIMUM CLEARANCE OF 10' UNLESS OTHERWISE SPECIFIED

CANOPY BLOCKS: 1 X 9 STRING BLOCK

A. A

POCC: 208V 100 KVA, 480V to 208V Step Down Transformer Needed



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## NOT FOR CONSTRUCTION

### Oakland USD **Redwood Heights** ES

4401, 39th Ave, Oakland, CA 94619

PROJECT NUMBER: CA-21-0148

SHEET TITLE:

CONCEPTUAL LAYOUT

SHEET SIZE:

### TABLOID 11" X 17"

NO.	REVISION	DATE	INIT.



SYSTEM DESCRIPTION			
MODULE TYPE	Longi LR4-72HPH-435M		
QUANTITY	378		
INVERTERS	(02)PVI 50TL (01)PVI 36TL		
SYSTEM SIZE (DC)	164.43 kW		
SYSTEM SIZE (AC)	136.00 kW		
SYSTEM SIZE (AC-CEC)	151.32 kW-CEC		
LAT/LONG	37.736723, -122.174053		
AZIMUTH ANGLE	238°		
TILT ANGLE	7°		
SNOWLOAD	0 PSF		
WINDSPEED	92 MPH		
SEISMIC CATEGORY	E		
TREE/LIGHT POLES	N/A		
ADA SPACE/COVERED	N/A		
	CONTRACTOR OF		



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## NOT FOR CONSTRUCTION

### **Oakland USD** Stonehurst Campus

10315 E St, Oakland, CA 94603

PROJECT NUMBER: CA-20-0326

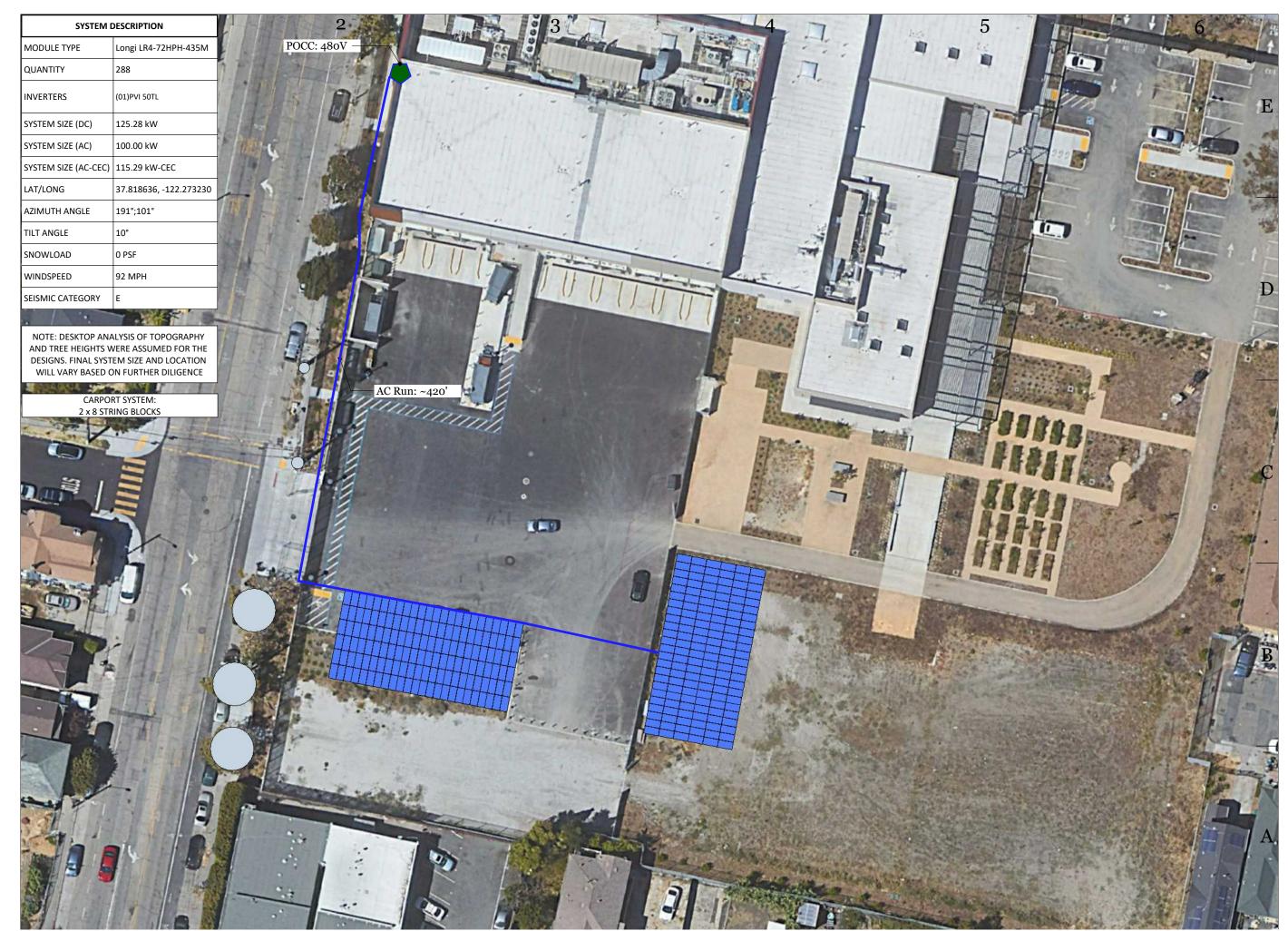
SHEET TITLE:

CONCEPTUAL LAYOUT

SHEET SIZE:

#### TABLOID 11" X 17"

NO.	REVISION	DATE	INIT.





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## NOT FOR CONSTRUCTION

## Oakland USD The Center Campus

### 2850 West St, Oakland, CA 94608

PROJECT NUMBER: CA-20-0180

SHEET TITLE:

CONCEPTUAL LAYOUT

SHEET SIZE:

### TABLOID 11" X 17"

NO.	REVISION	DATE	INIT.

MODULE TYPE	Longi LR4-72HPH-435M
QUANTITY	666
INVERTERS	(02) CPS SCA 36KTL/DO (01) CPS SCA 60KTL/DO (02) CPS SCA 50KTL/DO
SYSTEM SIZE (DC)	289.71 kW
SYSTEM SIZE (AC)	232.00 kW
SYSTEM SIZE (AC-CEC)	266.62 kW CEC
LAT/LONG	37.753826, -122.186470
AZIMUTH ANGLE	230°;140°
TILT ANGLE	7°
SNOWLOAD	0 PSF
WINDSPEED	92 MPH
SEISMIC CATEGORY	E
TREE/LIGHT POLES	~10/8
ADA SPACE/COVERED	4/2
NOTE: DESKTOP ANA	ALYSIS OF TOPOGRAPHY
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SYSTEM DESCRIPTION

POCC: 208V, 1600A Meter# 1009505489 250 KVA, 480V to 208V Step Down Transformer Needed





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### NOT FOR CONSTRUCTION

### Oakland USD Woodland Campus

1025 81st Ave, Oakland, CA 94621

PROJECT NUMBER: CA-21-0141

SHEET TITLE:

CONCEPTUAL LAYOUT

SHEET SIZE:

#### TABLOID 11" X 17"

NO.	REVISION	DATE	INIT.

#### CONFIDENTIAL AND PROPRIETARY

#### \*\*\*

#### GENERAL TERMS AND CONDITIONS OF

#### **ENERGY SERVICES AGREEMENT**

These General Terms and Conditions of Energy Services Agreement are dated as of the \_\_\_\_\_\_day of \_\_\_\_\_\_, 2021 and are witnessed and acknowledged by FFP BTM SOLAR, LLC, a Delaware limited liability company ("ForeFront Power") and Oakland Unified School District, a public school district organized and existing under the laws of the state of California ("Purchaser"), as evidenced by their signature on the last page of this document. These General Terms and Conditions are intended to be incorporated by reference into Energy Services Agreements that may be entered into between ForeFront Power and Purchaser or between their respective Affiliates. These General Terms and Conditions shall have no binding effect upon ForeFront Power or Purchaser, respectively, except to the extent Purchaser or ForeFront Power (or an Affiliate thereof) becomes a party to an Energy Services Agreement that incorporates these General Terms and Conditions.

#### 1. DEFINITIONS.

1.1 In addition to other terms specifically defined elsewhere in this Agreement, where capitalized, the following words and phrases shall be defined as follows:

"<u>Affiliate</u>" means, with respect to any specified Person, any other Person directly or indirectly controlling, controlled by or under common control with such specified Person.

"Agreement" means, the Energy Services Agreement.

"<u>Applicable Law</u>" means, with respect to any Person, any constitutional provision, law, statute, rule, regulation, ordinance, treaty, order, decree, judgment, decision, certificate, holding, injunction, registration, license, franchise, permit, authorization, guideline, Governmental Approval, consent or requirement of any Governmental Authority having jurisdiction over such Person or its property, enforceable at law or in equity, including the interpretation and administration thereof by such Governmental Authority.

"<u>Assignment</u>" has the meaning set forth in Section 13.1.

"<u>Bankruptcy Event</u>" means with respect to a Party, that either (i) such Party has (A) applied for or consented to the appointment of, or the taking of possession by, a receiver, custodian, trustee or liquidator of itself or of all or a substantial part of its property; (B) admitted in writing its inability, or be generally unable, to pay its debts as such debts become due; (C) made a general assignment for the benefit of its creditors; (D) commenced a voluntary case under any bankruptcy law; (E) filed a petition seeking to take advantage of any other law relating to bankruptcy, insolvency, reorganization, winding up, or composition or readjustment of debts; (F) taken any corporate or other action for the purpose of effecting any of the foregoing; or (ii) has a petition in bankruptcy filed against it, and such petition is not dismissed within ninety (90) days after the filing thereof.

"Business Day" means any day other than Saturday, Sunday or any other day on which banking institutions in New York, NY are required or authorized by Applicable Law to be closed for business.

"Commercial Operation" has the meaning set forth in Section 3.3(b).

"<u>Commercial Operation Date</u>" has the meaning set forth in Section 3.3(b).

"Confidential Information" has the meaning set forth in Section 15.1.

"<u>Covenants, Conditions and Restrictions</u>" or "<u>CCR</u>" means those requirements or limitations related to the Premises as may be set forth in a lease, if applicable, or by any association or other organization, having the authority to impose restrictions.

"<u>Delay Liquidated Damages</u>" means the daily payment of (i) \$0.250/day/kW (DC) of the estimated nameplate capacity of the System (as set forth in Schedule 1 of the Special Conditions).

"Disruption Period" has the meaning set forth in Section 4.3.

"<u>Early Termination Date</u>" means any date on which this Agreement terminates other than by reason of expiration of the then applicable Term.

"<u>Early Termination Fee</u>" means the fee payable by Purchaser to Provider under the circumstances described in Section 2.2, Section 2.3 or Section 11.2.

"Effective Date" has the meaning set forth in the preamble to the Special Conditions.

"Energy Services" has the meaning set forth in the Special Conditions.

"<u>Energy Services Agreement</u>" means each Energy Services Agreement (including the Schedules attached thereto) that may be entered into between ForeFront Power and Purchaser or between their respective Affiliates that incorporates these General Terms and Conditions by reference.

"Energy Services Payment" has the meaning set forth in the Special Conditions.

"<u>Environmental Attributes</u>" shall mean, without limitation, carbon trading credits, renewable energy credits or certificates, emissions reduction credits, emissions allowances, green tags, tradable renewable credits, or Green-e® products.

"Environmental Documents" has the meaning set forth in Section 7.2(f).

"<u>Environmental Law</u>" means any and all federal, state, local, provincial and foreign, civil and criminal laws, statutes, ordinances, orders, common law, codes, rules, regulations, judgments, decrees, injunctions relating to the protection of health and the environment, worker health and safety, and/or governing the handling, use, generation, treatment, storage, transportation, disposal, manufacture, distribution, formulation, packaging, labeling, or release to the environment of or exposure to Hazardous Materials, including any such requirements implemented through Governmental Approvals.

"<u>Estimated Remaining Payments</u>" means as of any date, the estimated remaining Energy Services Payments to be made through the end of the then-applicable Term, as reasonably determined by Provider.

"Expiration Date" means the date on which this Agreement terminates by reason of expiration of the Term.

"<u>Fair Market Value</u>" means, with respect to any tangible asset or service, the price that would be negotiated in an arm's-length, free market transaction, for cash, between an informed, willing seller and an informed, willing buyer, neither of whom is under compulsion to complete the transaction. Fair Market Value of the System will be determined pursuant to Section 2.4.

"<u>Financing Party</u>" means, as applicable (i) any Person (or its agent) from whom Provider (or an Affiliate of Provider) leases the System, (ii) any Person (or its agent) who has made or will make a loan to or otherwise provides financing to Provider (or an Affiliate of Provider) with respect to the System, or (iii) any Person acquiring a direct or indirect interest in Provider or in Provider's interest in this Agreement or the System as a tax credit investor.

"<u>Force Majeure Event</u>" has the meaning set forth in Section 10.1.

"<u>ForeFront Power</u>" has the meaning set forth in the Preamble.

"General Terms and Conditions" means these General Terms and Conditions of the Energy Services Agreement, including all Exhibits hereto.

"<u>Guaranteed Commercial Operation Date</u>" has the meaning set forth in Section 5 of the Special Conditions, subject to extension as set forth in Section 2.2(b).

"<u>Guaranteed Construction Start Date</u>" has the meaning set forth in Section 5 of the Special Conditions, subject to extension as set forth in Section 2.2(b).

"<u>Governmental Approval</u>" means any approval, consent, franchise, permit, certificate, resolution, concession, license, or authorization issued by or on behalf of any applicable Governmental Authority, including any such approval, consent, order or binding agreements with or involving a governmental authority under Environmental Laws.

"<u>Governmental Authority</u>" means any federal, state, regional, county, town, city, or municipal government, whether domestic or foreign, or any department, agency, bureau, or other administrative, regulatory or judicial body of any such government.

"<u>Hazardous Materials</u>" means any hazardous or toxic material, substance or waste, including petroleum, petroleum hydrocarbons or petroleum products, and any other chemicals, materials, substances or wastes in any amount or concentration which are regulated under or for which liability can be imposed under any Environmental Law.

"Initial Term" has the meaning set forth in Section 2 of the Special Conditions.

"<u>Installation Work</u>" means the construction and installation of the System and the start-up, testing and acceptance (but not the operation and maintenance) thereof, all performed by or for Provider (by using one or more qualified contractors holding the appropriate licenses required in the jurisdiction where the System will be installed) at the Premises.

"<u>Invoice Date</u>" has the meaning set forth in Section 6.2.

"<u>Liens</u>" has the meaning set forth in Section 7.1(d).

"Local Electric Utility" means the local electric distribution owner and operator providing electric distribution and interconnection services to Purchaser at the Premises.

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

"Option Price" has the meaning set forth in Section 2.3(i).

"Party" or "Parties" has the meaning set forth in the preamble to the Special Conditions.

"<u>Person</u>" means an individual, partnership, corporation, limited liability company, business trust, joint stock company, trust, unincorporated association, joint venture, firm, or other entity, or a Governmental Authority.

"<u>Pre-existing Environmental Conditions</u>" means any: (i) violation of, breach of or non-compliance with any Environmental Laws with respect to the Premises that first existed, arose or occurred on or prior to Provider's commencement of construction at the Premises and (ii) the presence or release of, or exposure to, any Hazardous Materials at, to, on, in, under or from the Premises that first existed, arose or occurred on or prior to Provider's commencement of construction at the Premises that first existed, arose or occurred on or prior to Provider's commencement of construction at the Premises.

"<u>Premises</u>" means the premises described in <u>Schedule 1</u> of the Special Conditions. The Premises includes the entirety of any structures and underlying real property located at the address in <u>Schedule 1</u> of the Special Conditions.

"<u>Provider</u>" has the meaning set forth in the Special Conditions.

"<u>Provider Default</u>" has the meaning set forth in Section 11.1(a).

"Provider Indemnified Parties" has the meaning set forth in Section 16.2.

"<u>Purchase Date</u>" means the first Business Day that occurs after the applicable purchase date set forth in Schedule 3 of the Special Conditions.

"<u>Purchaser</u>" has the meaning set forth in the preamble to the Special Conditions.

"<u>Purchaser Default</u>" has the meaning set forth in Section 11.2(a).

"Purchaser Indemnified Parties" has the meaning set forth in Section 16.1.

"Renewal Term" if applicable, has the meaning set forth in Section 2 of the Special Conditions.

"<u>Representative</u>" has the meaning set forth in Section 15.1.

"<u>Security Interest</u>" has the meaning set forth in Section 8.2(a).

"<u>Site-Specific Requirements</u>" means the site-specific information and requirements as may be set forth in Schedule 6 of the Special Conditions.

"Special Conditions" means each Energy Services Agreement, excluding these General Terms and Conditions.

"<u>Stated Rate</u>" means a rate per annum equal to the lesser of (a) the "prime rate" (as reported in The Wall Street Journal) plus two percent (2%) or (b) the maximum rate allowed by Applicable Law.

"System" has the meaning set forth in Schedule 1 of the Special Conditions.

"System-based Incentives" means any accelerated depreciation, installation or production-based incentives, investment tax credits and subsidies including, but not limited to, the subsidies in <u>Schedule 1</u> of the Special Conditions and all other related subsidies and incentives.

"System Operations" means Provider's operation, maintenance and repair of the System performed by Provider or for Provider (by using one or more qualified contractors holding the appropriate licenses required in the jurisdiction where the System will be installed) in accordance with the requirements herein.

"Term" means the Initial Term, and the subsequent Renewal Term(s), if any.

"<u>Term Year</u>" means a twelve (12) month period beginning on the first day of the Term and each successive twelve (12) month period thereafter.

"<u>Termination Date</u>" means the date on which this Agreement ceases to be effective, including on an Early Termination Date or the Expiration Date.

1.2 Interpretation. The captions or headings in these General Terms and Conditions are strictly for convenience and shall not be considered in interpreting this Agreement. Words in this Agreement that impart the singular connotation shall be interpreted as plural, and words that impart the plural connotation shall be interpreted as singular, as the identity of the parties or objects referred to may require. The words "include", "includes", and "including" mean include, includes, and including "without limitation" and "without limitation by specification." The words "hereof", "herein", and "hereunder" and words of similar import refer to this Agreement as a whole and not to any particular provision of this Agreement. Except as the context otherwise indicates, all references to "Articles" and "Sections" refer to Articles and Sections of these General Terms and Conditions.

#### 2. TERM AND TERMINATION.

- 2.1 <u>Term</u>. The Initial Term is as specified in the Special Conditions.
- 2.2 <u>Early Termination</u>.

(a) Purchaser may terminate this Agreement prior to any applicable Expiration Date for any reason upon sixty (60) days' prior written notice. If Purchaser terminates the Agreement prior to the Expiration Date of the Initial Term, Purchaser shall pay, as liquidated damages, the Early Termination Fee set forth on Schedule 3, Column 1 of the Special Conditions, and Provider shall cause the System to be disconnected and removed from the Premises in accordance with Section 2.4. Upon Purchaser's payment to Provider of the Early Termination Fee, this Agreement shall terminate automatically.

Purchaser may (i) if Provider fails to commence construction by the Guaranteed Construction Start (b) Date, be entitled (as its sole remedy) to Delay Liquidated Damages not to exceed \$22.5/kW (DC) of the estimated nameplate capacity of the System (as set forth in Schedule 1 of the Special Conditions), (ii) terminate this Agreement with no liability whatsoever, including, but not limited to the Early Termination Fee, if Provider fails to commence construction of the System by the date that is ninety (90) days after the Guaranteed Construction Start Date, or (iii) if Provider fails to achieve Commercial Operation by the Guaranteed Commercial Operation Date, be entitled (as its sole remedy) to Delay Liquidated Damages not to exceed \$15/kW (DC) of the estimated nameplate capacity of the System (as set forth in Schedule 1 of the Special Conditions), plus (if Installation Work had commenced at the Premises as of the date of termination) any costs reasonably incurred by Purchaser to return its Premises to its condition prior to commencement of the Installation Work. Further, Purchaser may terminate this Agreement with no liability whatsoever, including, but not limited to the Early Termination Fee, if Provider fails to commence Commercial Operation by the date that is sixty (60) days after the Guaranteed Commercial Operation Date. The Guaranteed Construction Start Date and Guaranteed Commercial Operation Date shall be extended on a day-for-day basis if any of the following occurs: (x) notwithstanding Provider's commercially reasonable efforts, interconnection approval is not obtained within sixty (60) days after the Effective Date, provided that interconnection applications are submitted within 45 days of the later of (a) the Effective Date and (b) finalization of the System layout, (y) a Force Majeure Event occurs or for any delays by the Local Electric Utility or (z) an occurrence of any other unforeseeable event outside of Provider's reasonable control, provided that Provider makes reasonable efforts to mitigate the impact of such events on the Guaranteed Construction Start Date or Guaranteed Commercial Operation Date (as applicable). Any such extension pursuant to subsection (z) shall be subject to the approval of Purchaser which shall not be unreasonably withheld, conditioned or delayed.

#### 2.3 <u>Purchase Option</u>.

(i) On any Purchase Date, so long as a Purchaser Default shall not have occurred and be continuing, Purchaser has the option to purchase the System for a purchase price (the "<u>Option Price</u>") equal to the greater of (a) the Fair Market Value of the System as of the Purchase Date, or (b) the Early Termination Fee as of the Purchase Date, as specified in <u>Schedule 3</u>, <u>Column 2</u> of the Special Conditions. To exercise its purchase option, Purchaser shall, not less than one hundred and eighty (180) days prior to the proposed Purchase Date, provide written notice to Provider of Purchaser's intent to exercise its option to purchase the System on such Purchase Date. Within thirty (30) days of receipt of Purchaser's notice, Provider shall specify the Option Price, and provide all calculations and assumptions supporting said Option Price to Purchaser. Purchaser shall then have a period of thirty (30) days after notification to confirm or retract its decision to exercise the purchase option or, if the Option Price is equal to the Fair Market Value of the System, to dispute the determination of the Fair Market Value of the System. In the event

Purchaser confirms its exercise of the purchase option in writing to Provider (whether before or after any determination of the Fair Market Value determined pursuant to Section 2.3(ii)), (i) the Parties shall promptly execute all documents necessary to (A) cause title to the System to pass to Purchaser on the Purchase Date, free and clear of any Liens, and (B) assign all vendor warranties for the System to Purchaser, and (ii) Purchaser shall pay the Option Price to Provider on the Purchase Date, such payment to be made in accordance with any previous written instructions delivered to Purchaser by Provider or Provider's Financing Party, as applicable, for payments under this Agreement. Upon execution of the documents and payment of the Option Price, in each case as described in the preceding sentence, this Agreement shall terminate automatically. Payment of the Option Price shall be in lieu of and instead of any payments as described in Section 2.2 hereof. In the event Purchaser retracts its exercise of, or does not timely confirm, the purchase option, the provisions of this Agreement shall be applicable as if Purchaser had not exercised any option to purchase the System.

(ii) Determination of Fair Market Value. If the Option Price indicated by Provider in accordance with Section 2.3(i) is equal to the Fair Market Value (as determined and demonstrated by supporting documentation provided by Provider) and Purchaser disputes such stated Fair Market Value within thirty (30) days of receipt of such notice from Provider, then the Parties shall mutually select an independent appraiser with experience and expertise in the Energy Services industry. Such appraiser shall have expertise and experience in valuing photovoltaic systems, resale markets for such systems and related environmental attributes, and shall act reasonably and in good faith to determine Fair Market Value and shall set forth such determination in a written opinion delivered to the Parties. The valuation made by the appraiser shall be binding upon the Parties in the absence of fraud or manifest error; however, if Purchaser in good faith disputes the valuation made by the appraiser, Purchaser shall have the right to retract its decision to exercise the Purchase Option. The costs of the appraisal shall be borne by Purchaser if such appraisal results in a value equal or greater than the value provided by Provider pursuant to Section 2.3(i); otherwise, the Parties shall equally share such cost.

2.4 <u>Removal of System at Expiration</u>. Subject to Purchaser's exercise of its purchase option under Section 2.3, upon the expiration or earlier termination of this Agreement, Provider shall, at Provider's expense, remove all of its tangible property comprising the System from the Premises on a mutually convenient date but in no case later than ninety (90) days after the Termination Date. The Premises shall be returned to its original condition, except for System mounting pads or other support structures on roof-mounted systems only, and ordinary wear and tear. If the System is to be located on a roof, then in no case shall Provider's removal of the System affect the integrity of Purchaser's roof, which shall be as leak proof as it was prior to removal of System (other than ordinary wear and tear). For purposes of Provider's removal of the System. Purchaser's covenants pursuant to Section 7.2 shall remain in effect until the date of actual removal of the System. Provider shall leave the Premises in neat and clean order. If Provider fails to remove or commence substantial efforts to remove the System by such agreed upon date, Purchaser shall have the right, at its option, to remove the System to a public warehouse and restore the Premises to its original condition (other than System mounting pads or other support structures and ordinary wear and tear) at Provider's reasonable cost.

#### 2.5 <u>Conditions Prior to the Commercial Operation Date</u>.

(a) In the event that any of the following events or circumstances occur prior to the Commercial Operation Date, Provider may (at its sole discretion) provide notice that it is terminating this Agreement, in which case neither Party shall have any liability to the other except for any such liabilities that may have accrued prior to such termination, including but not limited to Provider's restoration of the Premises in accordance with Section 2.4:

(i) Provider determines that the Premises, as is, is insufficient to accommodate the System or unsuitable for construction or operation of the System.

(ii) There exist site conditions (including environmental conditions) or construction requirements that were not known as of the Effective Date and that could reasonably be expected to materially increase the cost of Installation Work or would adversely affect the electricity production from the System as designed.

(iii) There is a material adverse change in the regulatory environment, incentive program or federal or state tax code (including the expiration of any incentive program or tax incentives in effect as of the Effective Date) that could reasonably be expected to adversely affect the economics of the installation for Provider and its investors.

(iv) Provider is unable to obtain financing for the System on terms and conditions satisfactory to it.

(v) Provider has not received: (1) a fully executed a license in the form of Exhibit A of these General Conditions from the owner of the Premises (if the Purchaser is a tenant), (2) a release or acknowledgement from any mortgagee of the Premise, if required by Provider's Financing Party, to establish the priority of its security interest in the System, and (3) such other documentation as may be reasonably requested by Provider to evidence Purchaser's ability to meet its obligations under Section 7.2(d)(ii) to ensure that Provider will have access to the Premises throughout the Term.

(vi) There has been a material adverse change in the rights of Purchaser to occupy the Premises or Provider to construct the System on the Premises.

(viii) Purchaser has determined that there are easements, CCRs or other land use restrictions, liens or encumbrances that would materially impair or prevent the installation, operation, maintenance or removal of the System.

(ix) There has been a material adverse change in Purchaser's credit-worthiness.

(b) If any of the conditions set forth in Section 2.5(a) are partly or wholly unsatisfied, and Provider wishes to revise the information in the Special Conditions, then Provider may propose modifications to the Special Conditions for acceptance by Purchaser. If Purchaser does not accept such modified Special Conditions, Provider may terminate this Agreement as provided in Section 2.5(a) and shall restore the Premises in accordance with Section 2.4. If Purchaser accepts such revised Special Conditions, such revised Special Conditions shall be deemed an amendment of this Agreement, and this Agreement shall remain in force and effect upon execution by both Parties.

2.6 <u>Co-Located Systems</u>. With respect to any Systems that are co-located at the same Premises and connected to the same meter, the Parties acknowledge that the Systems are intended to be owned and operated as one integrated system, and that the Energy Services Payment (a) represents the added value of integrating the Systems to enable Provider's delivery of the Energy Services pursuant to the Agreements when needed by Purchaser, and (b) is a component part of the total consideration payable to Provider in exchange for Provider's comprehensive duties under this Agreement and the Agreement(s) related to the other co-located System(s). Accordingly, the Parties further agree (x) to treat the Systems as one integrated system for all purposes, and (y) that any right or option that is exercised with respect to the System or this Agreement, whether in respect of early termination, purchase option or otherwise, shall also be exercised with respect to the Agreement(s) related to the other co-located System(s).

#### 3. CONSTRUCTION, INSTALLATION AND TESTING OF SYSTEM.

3.1 <u>Installation Work</u>. Provider will cause the System (by using one or more qualified contractors holding the appropriate licenses required in the jurisdiction where the System will be installed) to be designed, engineered, installed and constructed substantially in accordance with <u>Schedule 1</u> of the Special Conditions and Applicable Law. At its request, Purchaser shall have the right to review all construction plans and designs, including engineering evaluations of the impact of the System. Provider shall perform the Installation Work at the Premises between the hours of 7:00 a.m. and 7:00 p.m. in a manner that minimizes inconvenience to and interference with the use of the Premises to the extent commercially practical.

3.2 <u>Approvals: Permits</u>. Purchaser shall assist Provider in obtaining all necessary consents, approvals and permits required to perform Purchaser's obligations under this Agreement, including but not limited to those related to the Local Electric Utility, any Governmental Approval, and any consents, waivers, approvals or releases required pursuant to any applicable contract or CCR.

#### 3.3 <u>System Acceptance Testing</u>.

(a) Provider shall conduct testing of the System in accordance with such methods, acts, guidelines, standards and criteria reasonably accepted or followed by providers of Energy Services similar to those provided by the System in the United States. Provider shall provide Purchaser with reasonable advanced notice of such testing

and shall permit Purchaser or Purchaser's representative to observe such testing. Purchaser's observation of such testing shall not be construed as or deemed an approval of such testing or test results.

(b) If the results of such testing indicate that the System is capable of providing the Energy Services, using such instruments and meters as have been installed for such purposes, and the System has been approved for interconnected operation by the Local Electric Utility ("<u>Commercial Operation</u>"), then Provider shall send a written notice to Purchaser to that effect, and the date of such notice shall be the "<u>Commercial Operation Date</u>".

#### 4. <u>SYSTEM OPERATIONS</u>.

4.1 <u>Provider as Owner and Operator</u>. The System will be owned by Provider or Provider's Financing Party and will be operated and maintained and, as necessary, repaired by Provider at its sole cost and expense; *provided*, any repair or maintenance costs incurred by Provider as a result of Purchaser's negligence or breach of its obligations hereunder shall be reimbursed by Purchaser.

4.2 <u>Metering</u>. Provider shall install and maintain a utility grade kilowatt-hour (kWh) meter for the measurement of electrical energy provided by the System and may, at its election, install a utility grade kilowatt-hour (kWh) meter for the measurement of electrical energy delivered by the Local Electric Utility and consumed at the Premises. Such meter(s) shall meet the general commercial standards of the solar photovoltaic industry or the required standards of the Local Electric Utility.

#### 4.2.1 <u>Meter Testing</u>.

(a) Provider shall provide certificates of calibration for all meters prior to the time of their installation, no meter will be placed in service for which Provider has not provided certificates of calibration. Provider shall test or arrange for all meters to be tested in accordance with the meter manufacturer's recommendations. Provider shall bear all costs and expenses associated with each meter testing. Purchaser shall be notified at least ten (10) days in advance of such testing and shall have the right to be present during such tests. Provider shall provide Purchaser with detailed written results of all meter tests.

(b) Provider shall test or arrange for meter inspection and testing bi-annually when performing System operations and maintenance.

#### 4.2.2 <u>Cost of Meter Repair</u>.

(a) If meter testing, as described above demonstrates that a meter was operating outside of its allowable calibrations ( $\pm$  2%), then Provider will pay for the cost of repairs or replacement necessary to restore a meter to proper working order.

(b) If a meter is found to be inaccurate by more than two percent (2%), invoices for the prior six (6) months or from the last date such meter was registering accurately, whichever period is less, shall be adjusted to reconcile the discrepancy and payment for the amount of the adjustment issued by the appropriate party within 45 days, except that Purchaser shall not be obligated to pay interest on any amount found to be due because a meter was operating outside of its allowable calibration (+/- 2%).

4.2.3 <u>Meter Data</u>. Provider shall gather and maintain the data from all meters, including but not limited to, interval data registered at least once every fifteen (15) minutes ("<u>Meter Data</u>"), and shall make such Meter Data promptly available to Purchaser at Purchaser's request.

4.3 <u>System Disruptions</u>. In the event that (a) the owner or lessee of the Premises repairs the Premises for any reason not directly related to damage caused by the System, and such repair requires the partial or complete temporary disassembly or movement of the System, or (b) any act or omission of Purchaser or Purchaser's employees, Affiliates, agents or subcontractors (collectively, a "<u>Purchaser Act</u>") results in a disruption or outage in System production, then, in either case, Purchaser shall (i) pay Provider for all work required by Provider to disassemble or move the System and (ii) continue to make all payments for the Energy Services during such period of System

disruption (the "<u>Disruption Period</u>"), and (iii) reimburse Provider for any other lost revenue during the Disruption Period, including any lost revenue associated with any reduced sales of Environmental Attributes and any reduced System-based Incentives, if applicable, during the Disruption Period. For the purpose of calculating Energy Services Payments and lost revenue for such Disruption Period, Energy Services for each month of said months shall be deemed to have been produced at the average rate over the same month for which data exists (or, if the disruption occurs within the first twelve (12) months of operation, the average over such period of operation). Notwithstanding the foregoing, Purchaser shall be entitled to exercise its rights under Section 9 (Allowed Disruption Time) of the Special Conditions.

#### 5. <u>TITLE TO SYSTEM.</u>

5.1 Throughout the duration of this Agreement, Provider or Provider's Financing Party shall be the legal and beneficial owner of the System at all times, and the System shall remain the personal property of Provider or Provider's Financing Party and shall not attach to or be deemed a part of, or fixture to, the Premises. The System shall at all times retain the legal status of personal property as defined under Article 9 of the Uniform Commercial Code. Purchaser covenants that it will use reasonable commercial efforts to place all parties having an interest in or lien upon the real property comprising the Premises on notice of the ownership of the System and the legal status or classification of the System as personal property. If there is any mortgage or fixture filing against the Premises which could reasonably be construed as attaching to the System as a fixture of the Premises, Purchaser shall provide, at Provider's request, a disclaimer or release from such lien holder. If Purchaser is the fee owner of the Premises, Purchaser consents to the filing by Provider, on behalf of Purchaser, of a disclaimer of the System as a fixture of the Premises in the office where real estate records are customarily filed in the jurisdiction of the Premises. If Purchaser is not the fee owner, Purchaser will, at Provider's request, use commercially reasonable efforts to obtain such consent from such owner.

5.2 <u>Environmental Attributes And System-Based Incentives</u>. Purchaser's purchase of Energy Services includes Environmental Attributes, but does not include System-based incentives. System-based Incentives shall be owned by Provider or Provider's financing party for the duration of the System's operating life. Purchaser disclaims any right to System-based Incentives based upon the installation of the System at the Premises, and shall, at the request of Provider, execute any document or agreement reasonably necessary to fulfill the intent of this Section 5.2.

#### 6. PRICE AND PAYMENT.

6.1 <u>Consideration</u>. Purchaser shall pay to Provider a monthly Energy Services Payment for the Energy Services provided during each calendar month of the Term as set forth in the Special Conditions.

6.2 <u>Invoice</u>. Provider shall invoice Purchaser on or about the first day of each month (each, an "<u>Invoice</u> <u>Date</u>"), commencing on the first Invoice Date to occur after the Commercial Operation Date, for the Energy Services Payment in respect of the immediately preceding month. The last invoice shall include Energy Services provided only through the Termination Date of this Agreement. Invoices shall state, at a minimum, (i) the amount of actual electricity produced by the System and delivered to the delivery point during the invoice period (if applicable), (ii) the rates applicable to, and any charges incurred by, Purchaser under this Agreement, and (iii) the total amount due from Purchaser.

6.3 <u>Time of Payment</u>. Purchaser shall pay all undisputed amounts due hereunder within thirty (30) days after Purchaser's receipt of an invoice from Provider.

6.4 <u>Method of Payment</u>. Purchaser shall make all payments under this Agreement either (a) by electronic funds transfer in immediately available funds to the account designated by Provider from time to time or (b) by check timely delivered to the location designated by Provider from time to time. All payments that are not paid when due shall bear interest accruing from the date becoming past due until paid in full at a rate equal to the Stated Rate.

6.5 <u>Disputed Payments</u>. If a *bona fide* dispute arises with respect to any invoice, Purchaser shall not be deemed in default under this Agreement and the Parties shall not suspend the performance of their respective obligations hereunder, including payment of undisputed amounts owed hereunder. If an amount disputed by Purchaser

is subsequently deemed to have been due pursuant to the applicable invoice, interest shall accrue at the Stated Rate on such amount from the date becoming past due under such invoice until the date paid.

#### 7. <u>GENERAL COVENANTS</u>.

7.1 <u>Provider's Covenants</u>. Provider covenants and agrees to the following:

(a) <u>Notice of Damage or Emergency</u>. Provider shall (x) promptly notify Purchaser if it becomes aware of any damage to or loss of the use of the System or that could reasonably be expected to adversely affect the System, (y) immediately notify Purchaser if it becomes aware of any event or circumstance relating to the System or the Premises that poses a significant risk to human health, the environment, the System or the Premises. In the event of unreasonable damage to the Premises caused by, or as the result of, the System, Provider shall, at its sole cost, repair said Premises to the condition existing prior to such damage.

(b) <u>Governmental Approvals</u>. While providing the Installation Work, Energy Services, and System Operations, Provider shall obtain and maintain and secure all Governmental Approvals required to be obtained and maintained and secured by Provider and to enable Provider to perform such obligations.

(c) <u>Health and Safety</u>. Provider shall take all necessary and reasonable safety precautions with respect to providing the Installation Work, Energy Services, and System Operations that shall comply with all Applicable Laws pertaining to the health and safety of persons and real and personal property. All work shall be performed by licensed professionals, as may be required by Applicable Law, and in accordance with such methods, acts, guidelines, standards and criteria reasonably accepted or followed by a majority of System integrators in the United States.

(d) Liens. Other than a Financing Party's security interest in or ownership of the System, Provider shall not directly or indirectly cause, create, incur, assume or suffer to exist any mortgage, pledge, lien (including mechanics', labor or materialman's lien), charge, security interest, encumbrance or claim of any nature ("Liens") on or with respect to the Premises or any interest therein, in each case to the extent such Lien arises from or is related to Provider's performance or non-performance of its obligations hereunder. If Provider breaches its obligations under this Section, it shall (i) immediately notify Purchaser in writing, (ii) promptly cause such Lien to be discharged and released of record without cost to Purchaser, and (iii) defend and indemnify Purchaser against all costs and expenses (including reasonable attorneys' fees and court costs at trial and on appeal) incurred in discharging and releasing such Lien; *provided*, Provider shall have the right to contest any such Lien, so long as it provides a statutory bond or other reasonable assurances of payment that either remove such Lien from title to the Premises or that assure that any adverse judgment with respect to such Lien will be paid without affecting title to the Premises.

(e) <u>System Condition</u>. Provider shall take all actions reasonably necessary, including but not limited to repair and maintenance, to ensure that the System is capable of operating at a commercially reasonable continuous rate throughout the Term.

(f) <u>Environmental Indemnification by Provider</u>. Provider shall indemnify, hold harmless and defend Purchaser Indemnified Parties from and against all claims, pay costs and expenses, and conduct all actions required under Environmental Laws in connection with the deposit, release, or spill of any Hazardous Materials at, on, above, below or near the Premises by Provider. In no event shall Provider be responsible for the existence of any Hazardous Materials at the Premises prior to the Effective Date. Provider shall promptly notify Purchaser if it becomes aware of any Hazardous Materials, or any deposit, spill, or release of any Hazardous Materials at, on, above, below or near the Premises.

(g) <u>Production Data</u>. Provider shall provide Purchaser with access to System production data in electronic format, such as tabular Excel or csv with each production unit in a separate cell. Production data could be delivered monthly or by granting Purchaser access to a web portal.

7.2 <u>Purchaser's Covenants</u>. Purchaser covenants and agrees as follows:

(a) <u>Notice of Damage or Emergency</u>. Purchaser shall (i) promptly notify Provider if it becomes aware of any damage to or loss of the use of the System or that could reasonably be expected to adversely affect the System, (ii) immediately notify Provider it becomes aware of any event or circumstance that poses an imminent risk to human health, the environment, the System or the Premises. In the event of damage to Purchaser's premises caused by, or as the result of, the System, Provider shall, at its sole cost, repair said premises to the condition existing prior to such damage.

(b) <u>Liens</u>. Purchaser shall not directly or indirectly cause, create, incur, assume or suffer to exist any Liens on or with respect to the System or any interest therein. If Purchaser breaches its obligations under this Section, it shall immediately notify Provider in writing, shall promptly cause such Lien to be discharged and released of record without cost to Provider, and shall indemnify Provider against all costs and expenses (including reasonable attorneys' fees and court costs at trial and on appeal) incurred in discharging and releasing such Lien.

(c) <u>Consents and Approvals</u>. To the extent that only Purchaser is authorized to request, obtain or issue any necessary approvals, Governmental Approvals, rebates or other financial incentives, Purchaser shall cooperate with Provider to obtain or issue such approvals, Governmental Approvals, rebates or other financial incentives in the name of Provider. Purchaser shall provide to Provider copies of all Governmental Approvals and CCRs applicable to the Premises, other than those obtained by Provider or to which Provider is a party.

#### (d) <u>Access to Premises, Grant of License</u>.

(i) Purchaser hereby grants to Provider a revocable non-exclusive license coterminous with the Term containing all the rights necessary for Provider to use and occupy portions of the Premises for the installation, operation, maintenance and removal of the System pursuant to the terms of this Agreement, including ingress and egress rights to the Premises for Provider and its employees, contractors and subcontractors and access to electrical panels and conduits to interconnect or disconnect the System with the Premises' electrical wiring; *provided*, with respect to Provider's access to the Site, such license shall be subject to conditions or limitations for the protection of minor students that are imposed generally on commercial contractors by Purchaser or by Applicable Law. If Provider's financing structure requires that Purchaser enter into a license agreement directly with Financing Party, Provider shall enter into such an agreement which shall be in a form set forth by Provider and which contain substantially the same rights as set forth in this Section 7.2(d).

(ii) Regardless of whether Purchaser is owner of the Premises or leases the Premises from a landlord, Purchaser hereby covenants that (x) Provider shall have access to the Premises and System during the Term of this Agreement and for so long as needed after termination to remove the System pursuant to the applicable provisions herein, and (y) neither Purchaser nor Purchaser's landlord will interfere or handle any Provider equipment or the System without written authorization from Provider; *provided*, Purchaser and Purchaser's landlord shall at all times have access to and the right to observe the Installation Work or System removal.

(iii) If Purchaser is a lessee of the Premises, Purchaser further covenants that it shall deliver to Provider, a license from Purchaser's landlord in substantially the form attached hereto as <u>Exhibit A</u> of these General Conditions.

(e) <u>Temporary storage space during installation or removal</u>. Purchaser shall use commercially reasonable efforts to provide for sufficient space at the Premises for the temporary storage and staging of tools, materials and equipment and for the parking of construction crew vehicles and temporary construction trailers and facilities reasonably necessary during the Installation Work, System Operations or System removal, and access for rigging and material handling. Subject to Purchaser's indemnity obligations set forth herein, Purchaser shall have no liability whatsoever in connection with personal property or equipment of Provider or Provider's employees, consultants, contractors, and vendors. Provider shall be solely responsible for the safety and security of Provider's employees, consultants, contractors, subcontractors, and vendors, as well as any personal property, including but not limited to, any tools, materials, and equipment of such parties used or stored on the Premises.

(f) <u>Environmental Documents</u>. On or before the Effective Date of each Special Conditions Purchaser shall identify and set forth in each Special Conditions and unless previously delivered, Purchaser shall, to the extent the same are known and in the possession or control of Purchaser, deliver to Provider copies of all reports, agreements, plans, inspections, tests, studies or other materials concerning the presence of Hazardous Materials at, from or on the

Premises including, but not limited to, soil reports, design drawings, environmental reports, sampling results or other documents relating to Hazardous Materials that have been identified or may be present on, in or under the Premises (collectively, the "<u>Environmental Documents</u>"). Thereafter, Purchaser agrees to provide copies of any new Environmental Documents within ten (10) days of receipt of same. Purchaser hereby agrees to furnish such other documents in Purchaser's possession or control with respect to Governmental Approvals compliance with Environmental Law or Hazardous Materials with respect to the Premises as may be reasonably requested by Provider from time to time.

(g) <u>Compliance with Environmental Laws</u>. Notwithstanding anything to the contrary in this Agreement, Purchaser shall operate and maintain the Premises to comply with the requirements of all applicable Environmental Laws that limit or govern the conditions or uses of the Premises, without impairing or interfering with Provider's construction, operation and ownership of the System or occupancy of the Premises. In no event shall Provider have any liability or obligation with respect to any Pre-existing Environmental Laws with respect to Pre-Existing Environmental Laws with respect to Pre-Existing Environmental Conditions.

(h) <u>Environmental Indemnification by Purchaser</u>. Purchaser shall indemnify, hold harmless and defend Provider from and against all claims, pay costs and expenses, and conduct all actions required under Environmental Laws in connection with (i) the existence at, on, above, below or near the Premises of any Pre-existing Environmental Conditions, and (ii) any Hazardous Materials released, spilled or deposited at, on above or below the Premises by the Purchaser. Purchaser shall promptly notify Provider if it becomes aware of any Hazardous Materials, or any deposit, spill, or release of any Hazardous Materials at, on, above, below or near the Premises.

#### 8. <u>REPRESENTATIONS & WARRANTIES</u>.

8.1 <u>Representations and Warranties of Both Parties</u>. In addition to any other representations and warranties contained in this Agreement, each Party represents and warrants to the other as of the Effective Date that:

(a) it is duly organized and validly existing and in good standing in the jurisdiction of its organization;

(b) it has the full right and authority to enter into, execute, deliver, and perform its obligations under this Agreement;

(c) it has taken all requisite corporate or other action to approve the execution, delivery, and performance of the Agreement;

(d) this Agreement constitutes its legal, valid and binding obligation enforceable against such Party in accordance with its terms, except as may be limited by applicable bankruptcy and other similar laws now or hereafter in effect;

(e) there is no litigation, action, proceeding or investigation pending or, to the best of its knowledge, threatened before any court or other Governmental Authority by, against, affecting or involving any of its business or assets that could reasonably be expected to adversely affect its ability to carry out the transactions contemplated herein;

(f) its execution and performance of this Agreement and the transactions contemplated hereby do not and will not constitute a breach of any term or provision of, or a default under, (i) any contract, agreement or Governmental Approval to which it or any of its Affiliates is a party or by which it or any of its Affiliates or its or their property is bound, (ii) its organizational documents, or (iii) any Applicable Laws; and

(g) its execution and performance of this Agreement and the transactions contemplated hereby do not and will not require any consent from a third party, including any Governmental Approvals from any Governmental Authority, that are not identified in the Special Conditions.

8.2 <u>Representations of Purchaser</u>. Purchaser represents and warrants to Provider as of the Effective Date that:

(a) Purchaser acknowledges that it has been advised that part of the collateral securing the financial arrangements for the System may be the granting of a first priority perfected security interest (the "<u>Security Interest</u>") in the System to a Financing Party;

(b) To Purchaser's knowledge, the granting of the Security Interest will not violate any term or condition of any covenant, restriction, lien, financing agreement, or security agreement affecting the Premises;

(c) Purchaser is aware of no existing lease, mortgage, security interest or other interest in or lien upon the Premises that could attach to the System as an interest adverse to Provider's Financing Party's Security Interest therein;

(d) To Purchaser's knowledge, there exists no event or condition which constitutes a default, or would, with the giving of notice or lapse of time, constitute a default under this Agreement;

(e) To Purchaser's knowledge, Purchaser has identified and disclosed to Provider in the Special Conditions (i) all Environmental Documents in Purchaser's possession or control, (ii) all CCRs, Governmental Approvals or other restrictions imposed under Applicable Laws with respect to the use of the Premises that could affect the construction and operation of the System within Purchaser's possession or control, and (iii) all environmental reports, studies, data or other information relating to the use of the Premises by Provider within the Purchaser's possession or control;

(f) To Purchaser's knowledge, the Premises is in compliance with Environmental Laws, and that Purchaser holds and is in compliance with all Governmental Approvals required for the ownership and any current operations or activities conducted at the Premises; and

(g) Purchaser has identified in the Special Conditions and delivered to Provider all material reports and information concerning the presence or release of Hazardous Materials on, in or under the Premises in Purchaser's possession or control.

Any Financing Party shall be an intended third-party beneficiary of this Section 8.2.

8.3 <u>EXCLUSION OF WARRANTIES</u>. EXCEPT TO THE EXTENT OTHERWISE EXPRESSLY SET FORTH HEREIN, THE INSTALLATION WORK, SYSTEM OPERATIONS, AND ENERGY SERVICES PROVIDED BY PROVIDER TO PURCHASER PURSUANT TO THIS AGREEMENT SHALL BE "AS-IS WHERE-IS." NO OTHER WARRANTY TO PURCHASER OR ANY OTHER PERSON, WHETHER EXPRESS, IMPLIED OR STATUTORY, IS MADE AS TO THE INSTALLATION, DESIGN, DESCRIPTION, QUALITY, MERCHANTABILITY, COMPLETENESS, USEFUL LIFE, FUTURE ECONOMIC VIABILITY, OR FITNESS FOR ANY PARTICULAR PURPOSE OF THE SYSTEM, THE ENERGY SERVICES OR ANY OTHER SERVICE PROVIDED HEREUNDER OR DESCRIBED HEREIN, OR AS TO ANY OTHER MATTER, ALL OF WHICH ARE EXPRESSLY DISCLAIMED BY PROVIDER.

#### 9. TAXES AND GOVERNMENTAL FEES.

9.1 <u>Purchaser Obligations</u>. Purchaser shall reimburse and pay for any documented taxes, fees or charges imposed or authorized by any Governmental Authority and paid by Provider due to Provider's sale of the Energy Services to Purchaser (other than income taxes imposed upon Provider). Provider shall notify Purchaser in writing with a detailed statement of such amounts, which shall be invoiced by Provider and payable by Purchaser. Purchaser shall timely report, make filings for, and pay any and all sales, use, income, gross receipts or other taxes, and any and all franchise fees or similar fees assessed against it due to its purchase of the Energy Services. This Section 9.1 excludes taxes specified in Section 9.2.

9.2 <u>Provider Obligations</u>. Subject to Section 9.1 above, Provider shall be responsible for all income, gross receipts, ad valorem, personal property or real property or other similar taxes and any and all franchise fees or similar fees assessed against it due to its ownership of the System.

#### 10. FORCE MAJEURE.

10.1 Definition. "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 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 conditions, "Force Majeure Event" shall include without limitation the following acts or events: (i) natural phenomena, such as storms, hurricanes, floods, lightning, volcanic eruptions 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; (iii) acts of war or public disorders, civil disturbances, riots, insurrection, sabotage, epidemic, terrorist acts, or rebellion; (iv) strikes or labor disputes (except strikes or labor disputes caused solely by employees of Provider or as a result of such party's failure to comply with a collective bargaining agreement); and (v) action or inaction by a Governmental Authority (unless Purchaser is a Governmental Authority and Purchaser is the Party whose performance is affected by such action nor inaction). A Force Majeure Event shall not be based on the economic hardship of either Party, or upon the expiration of any lease of the Premises by the Purchaser from the owner of the Premises.

10.2 Excused Performance. Except as 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 (other than the failure to pay amounts due hereunder), if and to the extent that such delay or failure is attributable to the occurrence of a Force Majeure Event; *provided*, the Party claiming relief under this Article 10 shall as soon as practicable after becoming aware of the circumstances constituting Force Majeure (i) notify the other Party in writing of the existence of the Force Majeure Event, (ii) exercise all reasonable efforts necessary to minimize delay caused by such Force Majeure Event, (iii) notify the other Party in writing of the cessation or termination of said Force Majeure Event and (iv) resume performance of its obligations hereunder as soon as practicable thereafter; *provided*, Purchaser shall not be excused from making any payments and paying any unpaid amounts due in respect of Energy Services delivered to Purchaser prior to the Force Majeure Event performance interruption. Subject to Section 10.3 below, the Parties agree that to the extent permitted by Applicable Law, the Term of this Agreement shall extend on a day for day basis for every day in which the occurrence of a Force Majeure Event has affected either Party's performance of its obligations hereunder.

10.3 <u>Termination in Consequence of Force Majeure Event</u>. If a Force Majeure Event shall have occurred that has affected Provider's performance of its obligations hereunder and that has continued for a continuous period of one hundred eighty (180) days, then either Party shall be entitled to terminate this Agreement upon ninety (90) days' prior written notice to the other Party. If at the end of such ninety (90) day period such Force Majeure Event shall still continue, this Agreement shall automatically terminate. Upon such termination for a Force Majeure Event, neither Party shall have any liability to the other (other than any such liabilities that have accrued prior to such termination, including but not limited to Provider's obligations to remove the System and restore the Premises as set forth herein), and Purchaser shall have no obligation to pay the Early Termination Fee.

#### 11. <u>DEFAULT</u>.

11.1 Provider Defaults and Purchaser Remedies.

(a) <u>Provider Defaults</u>. The following events shall be defaults with respect to Provider (each, a "<u>Provider</u> <u>Default</u>"):

(i) A Bankruptcy Event shall have occurred with respect to Provider;

(ii) Provider fails to pay Purchaser any undisputed amount owed under the Agreement within thirty (30) days from receipt of notice from Purchaser of such past due amount; and

(iii) Provider breaches any material representation, covenant or other term of this Agreement and (A) if such breach can be cured within thirty (30) days after Purchaser's written notice of such breach and Provider

fails to so cure, or (B) Provider fails to commence and pursue a cure within such thirty (30) day period if a longer cure period is needed.

(b) <u>Purchaser's Remedies</u>. If a Provider Default described in Section 11.1(a) has occurred and is continuing, in addition to other remedies expressly provided herein, and subject to Article 12, Purchaser may terminate this Agreement with no penalty or liability whatsoever, including but not limited to the Early Termination Fee, and exercise any other remedy it may have at law or equity or under this Agreement.

11.2 <u>Purchaser Defaults and Provider's Remedies</u>.

(a) <u>Purchaser Default</u>. The following events shall be defaults with respect to Purchaser (each, a "<u>Purchaser Default</u>"):

(i) A Bankruptcy Event shall have occurred with respect to Purchaser;

(ii) Purchaser breaches any material representation, covenant or other term of this Agreement if (A) such breach can be cured within thirty (30) days after Provider's notice of such breach and Purchaser fails to so cure, or (B) Purchaser fails to commence and pursue said cure within such thirty (30) day period if a longer cure period is needed, such longer cure period not to exceed ninety (90) days; and

(iii) Purchaser fails to pay Provider any undisputed amount due Provider under this Agreement within thirty (30) days from receipt of notice from Provider of such past due amount.

(b) <u>Provider's Remedies</u>. If a Purchaser Default described in Section 11.2(a) has occurred and is continuing, in addition to other remedies expressly provided herein, and subject to Article 12, Provider may terminate this Agreement and upon such termination, (A) Provider shall be entitled to receive from Purchaser the Early Termination Fee set forth on Schedule 3, Column 1 of the Special Conditions, and (B) Provider may exercise any other remedy it may have at law or equity or under this Agreement.

11.3 <u>Cross Default</u>. With respect to any Systems that are co-located at the same Premises, if a Party defaults under this Agreement, it shall also be a default of such Party under the Agreement(s) related to the other co-located System(s); *provided*, a cure of the original default shall be a cure of any such cross default. In the event of a cross default, the non-defaulting Party shall be entitled to exercises its rights with respect to this Agreement and all such other Agreements, including terminating all such Agreements and, if Provider terminates one or more Agreements due to a Purchaser Default, Purchaser shall pay the Early Termination Fees for all such terminated Agreements.

11.4 <u>Removal of System</u>. Upon any termination of this Agreement pursuant to this Article 11 and payment of the Early Termination Fee (if applicable), Provider will remove the System pursuant to Section 2.4 hereof.

#### 12. LIMITATIONS OF LIABILITY.

12.1 Except as expressly provided herein, neither Party shall be liable to the other Party or its Indemnified Persons for any special, punitive, exemplary, indirect, or consequential damages, losses or damages for lost revenue or lost profits, whether foreseeable or not, arising out of, or in connection with this Agreement.

12.2 A Party's maximum liability to the other Party under this Agreement, shall be limited to the aggregate Estimated Remaining Payments as of the date of the events giving rise to such liability, *provided*, the limits of liability under this Section 12.2 shall not apply with respect to (i) indemnity obligations hereunder in respect of personal injury or environmental claims and (ii) any obligation of Purchaser to pay Energy Service Payments, the Early Termination Fee or the Option Price, (iii) any obligation of Provider to pay for Lost Savings in accordance with the Special Conditions and (iv) if applicable, any obligation of Provider to remove the System and restore the Premises in accordance with Section 2.4.

#### 13. ASSIGNMENT.

13.1 <u>Assignment by Provider</u>. Provider shall not sell, transfer or assign (collectively, an "<u>Assignment</u>") the Agreement or any interest therein, without the prior written consent of Purchaser, which shall not be unreasonably withheld, conditioned or delayed; *provided*, Purchaser agrees that Provider may assign this Agreement without the consent of the Purchaser to an Affiliate of Provider or any party providing financing for the System. In the event that Provider identifies a secured Financing Party in the Special Conditions, or in a subsequent notice to Purchaser, then Purchaser shall comply with the provisions set forth in <u>Exhibit B</u> of these General Terms and Conditions and agrees to provide such estoppels, acknowledgments and opinions of counsel as Provider may reasonably request from time to time. Any Financing Party shall be an intended third-party beneficiary of this Section 13.1. Any Assignment by Provider without obtaining the prior written consent and release of Purchaser, when such consent is required by this Section 13.1, shall not release Provider of its obligations hereunder.

13.2 <u>Acknowledgment of Collateral Assignment</u>. In the event that Provider identifies a secured Financing Party in the Special Conditions, or in a subsequent notice to Purchaser, then Purchaser hereby acknowledges:

(a) The collateral assignment by Provider to the Financing Party, of Provider's right, title and interest in, to and under this Agreement, as consented to under Section 13.1 of this Agreement.

(b) That the Financing Party as such collateral assignee shall be entitled to exercise any and all rights of lenders generally with respect to Provider's interests in this Agreement.

(c) That it has been advised that Provider has granted a first priority perfected security interest in the System to the Financing Party and that the Financing Party has relied upon the characterization of the System as personal property, as agreed in this Agreement in accepting such security interest as collateral for its financing of the System.

Any Financing Party shall be an intended third- party beneficiary of this Section 13.2.

13.3 <u>Assignment by Purchaser</u>. Purchaser shall not assign this Agreement or any interest therein, without Provider's prior written consent, which consent shall not be unreasonably withheld, conditioned or delayed. Any Assignment by Purchaser without the prior written consent of Provider shall not release Purchaser of its obligations hereunder.

#### 14. <u>NOTICES</u>.

14.1 <u>Notice Addresses</u>. Unless otherwise provided in this Agreement, all notices and communications concerning this Agreement shall be in writing and addressed to the other Party (or Financing Party, as the case may be) at the addresses set forth in the Special Conditions, or at such other address as may be designated in writing to the other Party from time to time.

14.2 <u>Notice</u>. Unless otherwise provided herein, any notice provided for in this Agreement shall be hand delivered, sent by registered or certified U.S. Mail, postage prepaid, or by commercial overnight delivery service, and shall be deemed delivered to the addressee or its office when received at the address for notice specified above when hand delivered, upon confirmation of sending when sent by facsimile (if sent during normal business hours or the next Business Day if sent at any other time), on the Business Day after being sent when sent by overnight delivery service (Saturdays, Sundays and legal holidays excluded), or five (5) Business Days after deposit in the mail when sent by U.S. mail.

14.3 <u>Address for Invoices</u>. All invoices under this Agreement shall be sent to the address provided by Purchaser. Invoices shall be sent by regular first class mail postage prepaid.

#### 15. CONFIDENTIALITY.

Confidentiality Obligation. If either Party provides confidential information, including business 15.1 plans, strategies, financial information, proprietary, patented, licensed, copyrighted or trademarked information, and/or technical information regarding the financing, design, operation and maintenance of the System or of Purchaser's business ("Confidential Information") to the other or, if in the course of performing under this Agreement or negotiating this Agreement a Party learns Confidential Information regarding the facilities or plans of the other, the receiving Party shall (a) protect the Confidential Information from disclosure to third parties with the same degree of care accorded its own confidential and proprietary information, and (b) refrain from using such Confidential Information, except in the negotiation and performance of this Agreement. Notwithstanding the above, a Party may provide such Confidential Information to its officers, directors, members, managers, employees, agents, contractors, consultants, Affiliates, lenders (existing or potential), investors (existing or potential) and potential third-party assignees of this Agreement or third-party acquirers of Provider or its Affiliates (provided and on condition that such potential third-party assignees be bound by a written agreement restricting use and disclosure of Confidential Information) (collectively, "Representatives"), in each case whose access is reasonably necessary. Each such recipient of Confidential Information shall be informed by the Party disclosing Confidential Information of its confidential nature and shall be directed to treat such information confidentially and shall agree to abide by these provisions. In any event, each Party shall be liable (with respect to the other Party) for any breach of this provision by any entity to whom that Party improperly discloses Confidential Information. The terms of this Agreement (but not its execution or existence) shall be considered Confidential Information for purposes of this Article, except as set forth in Section 15.3. All Confidential Information shall remain the property of the disclosing Party and shall be returned to the disclosing Party or destroyed after the receiving Party's need for it has expired or upon the request of the disclosing Party.

15.2 <u>Permitted Disclosures</u>. Notwithstanding any other provision herein, neither Party shall be required to hold confidential any information that:

(a) Becomes publicly available other than through the receiving Party;

(b) Is required to be disclosed by a Governmental Authority, under Applicable Law, including but not limited to the California Public Records Act, or pursuant to a validly issued subpoena or required filing, but a receiving Party subject to any such requirement shall promptly notify the disclosing Party of such requirement;

(c) Is independently developed by the receiving Party; or

(d) Becomes available to the receiving Party without restriction from a third party under no obligation of confidentiality.

Goodwill and Publicity. Neither Party shall use the name, trade name, service mark, or trademark 15.3 of the other Party in any promotional or advertising material without the prior written consent of such other Party. The Parties shall coordinate and cooperate with each other when making public announcements related to the execution and existence of this Agreement, and each Party shall have the right to promptly review, comment upon, and approve any publicity materials, press releases, or other public statements by the other Party that refer to, or that describe any aspect of, this Agreement; provided, no such publicity releases or other public statements (except for filings or other statements or releases as may be required by Applicable Law) shall be made by either Party without the prior written consent of the other Party. At no time will either Party acquire any rights whatsoever to any trademark, trade name, service mark, logo or other intellectual property right belonging to the other Party. Notwithstanding the foregoing, Purchaser agrees that Provider may, at its sole discretion, take photographs of the installation process of the System and/or the completed System, and Provider shall be permitted to use such images (regardless of media) in its marketing efforts, including but not limited to use in brochures, advertisements, websites and news outlet or press release articles. The images shall not include any identifying information without Purchaser permission and the installation site shall not be disclosed beyond the type of establishment (such as "Retail Store," "Distribution Center," or such other general terms), the city and state.

15.4 <u>Enforcement of Confidentiality Obligation</u>. Each Party agrees that the disclosing Party would be irreparably injured by a breach of this Article 15 by the receiving Party or its Representatives or other Person to whom

the receiving Party discloses Confidential Information of the disclosing Party and that the disclosing Party may be entitled to equitable relief, including injunctive relief and specific performance, in the event of any breach of the provisions of this Article 15. To the fullest extent permitted by Applicable Law, such remedies shall not be deemed to be the exclusive remedies for a breach of this Article 15, but shall be in addition to all other remedies available at law or in equity.

# 16. <u>INDEMNITY</u>.

16.1 <u>Provider's Indemnity</u>. Subject to Article 12, Provider agrees that it shall indemnify and hold harmless Purchaser, its permitted successors and assigns and their respective directors, officers, members, shareholders and employees (collectively, the "<u>Purchaser Indemnified Parties</u>") from and against any and all Losses incurred by Purchaser Indemnified Parties to the extent arising from or out of the following: any claim for or arising out of any injury to or death of any Person or loss or damage to property of any Person to the extent arising out of Provider's negligence or willful misconduct. Provider shall not, however, be required to reimburse or indemnify any Purchaser Indemnified Party for any Loss to the extent such Loss is due to the negligence or willful misconduct of any Purchaser Indemnified Party.

16.2 <u>Purchaser's Indemnity</u>. Subject to Article 12 and to the extent permitted by Applicable Law, Purchaser agrees that it shall indemnify and hold harmless Provider, its permitted successors and assigns and their respective directors, officers, members, shareholders and employees (collectively, the "<u>Provider Indemnified Parties</u>") from and against any and all Losses incurred by Provider 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 or loss or damage to property of any Person to the extent arising out of Purchaser's negligence or willful misconduct. Purchaser shall not, however, be required to reimburse or indemnify any Provider Indemnified Party for any Loss to the extent such Loss is due to the negligence or willful misconduct of any Provider Indemnified Party.

# 17. INSURANCE.

17.1 <u>Generally</u>. Purchaser and Provider shall each maintain the following insurance coverages in full force and effect throughout the Term either through insurance policies or acceptable self-insured retentions: (a) Workers' Compensation Insurance as may be from time to time required under applicable federal and state law, (b) Commercial General Liability Insurance with limits of not less than \$2,000,000 general aggregate, \$1,000,000 per occurrence, and (c) automobile insurance with commercially reasonable coverages and limits. Additionally, Provider shall carry adequate property loss insurance on the System which need not be covered by Purchaser's property coverage. The amount and terms of insurance coverage will be determined at Provider's sole discretion.

17.2 <u>Certificates of Insurance</u>. Each Party, upon request, shall furnish current certificates evidencing that the insurance required under Section 17.1 is being maintained. Each Party's insurance policy provided hereunder shall contain a provision whereby the insured agrees to give the other Party thirty (30) days' written notice before the insurance is cancelled or materially altered.

17.3 <u>Additional Insureds</u>. Each Party's insurance policy shall be written on an occurrence basis and shall include the other Party as an additional insured as its interest may appear.

17.4 <u>Insurer Qualifications</u>. All insurance maintained hereunder shall be maintained with companies either 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) or having a parent company's debt to policyholder surplus ratio of 1:1.

# 18. MISCELLANEOUS.

18.1 <u>Integration; Exhibits</u>. The Agreement, together with the Exhibits and Schedules attached thereto or incorporated by reference, constitute the entire agreement and understanding between Provider and Purchaser with respect to the subject matter thereof and supersedes all prior agreements relating to the subject matter hereof which are of no further force or effect. The Exhibits and Schedules attached to this Agreement, including these General

Terms and Conditions as incorporated by reference, are integral parts of this Agreement and are an express part of this Agreement. In the event of a conflict between the provisions of these General Terms and Conditions and any applicable Special Conditions, the provisions of the Special Conditions shall prevail.

18.2 <u>Amendments</u>. This Agreement may only be amended, modified or supplemented by an instrument in writing executed by duly authorized representatives of Provider and Purchaser.

18.3 <u>Industry Standards</u>. Except as otherwise set forth herein, for the purpose of this Agreement the normal standards of performance within the Energy Services industry in the relevant market shall be the measure of whether a Party's performance is reasonable and timely. Unless expressly defined herein, words having well-known technical or trade meanings shall be so construed.

18.4 <u>Cumulative Remedies</u>. Except as set forth to the contrary herein, any right or remedy of Provider or Purchaser shall be cumulative and without prejudice to any other right or remedy, whether contained herein or not.

# 18.5 [<u>Reserved</u>].

18.6 <u>Limited Effect of Waiver</u>. The failure of Provider or Purchaser to enforce any of the provisions of this Agreement, or the waiver thereof, shall not be construed as a general waiver or relinquishment on its part of any such provision, in any other instance or of any other provision in any instance.

18.7 <u>Survival</u>. The obligations under Section 2.4 (Removal of System), Section 7.1 (Provider Covenants), Sections 7.2(d), (e), (f), (g) and (h) (Purchaser Covenants), Section 8.3 (Exclusion of Warranties), Article 9 (Taxes and Governmental Fees), Article 12 (Limitation of Liability), Article 14 (Notices), Article 15 (Confidentiality), Article 18 (Miscellaneous), all payment or indemnification obligations accrued prior to termination of this Agreement, or pursuant to other provisions of this Agreement that, by their sense and context, are intended to survive termination of this Agreement shall survive the expiration or termination of this Agreement for any reason.

18.8 <u>Governing Law</u>. This Agreement shall be governed by and construed in accordance with the laws of the State of California without reference to any choice of law principles. The Parties agree that the courts of the State of California and the Federal Courts sitting therein shall have jurisdiction over any action or proceeding arising under this Agreement to the fullest extent permitted by Applicable Law. The Parties waive to the fullest extent permitted by Applicable Law any objection it may have to the laying of venue of any action or proceeding under this Agreement any courts described in this Section 18.8.

18.9 <u>Severability</u>. If any term, covenant or condition in this Agreement shall, to any extent, be invalid or unenforceable in any respect under Applicable Law, the remainder of this Agreement shall not be affected thereby, and each term, covenant or condition of this Agreement shall be valid and enforceable to the fullest extent permitted by Applicable Law and, if appropriate, such invalid or unenforceable provision shall be modified or replaced to give effect to the underlying intent of the Parties and to the intended economic benefits of the Parties.

18.10 <u>Relation of the Parties</u>. The relationship between Provider and Purchaser shall not be that of partners, agents, or joint ventures for one another, and nothing contained in this Agreement shall be deemed to constitute a partnership or agency agreement between them for any purposes, including federal income tax purposes. Provider and Purchaser, in performing any of their obligations hereunder, shall be independent contractors or independent parties and shall discharge their contractual obligations at their own risk.

18.11 <u>Successors and Assigns</u>. This Agreement and the rights and obligations under this Agreement shall be binding upon and shall inure to the benefit of Provider and Purchaser and their respective successors and permitted assigns.

18.12 <u>Counterparts</u>. This Agreement may be executed in one or more counterparts, all of which taken together shall constitute one and the same instrument.

18.13 <u>Electronic Delivery</u>. This Agreement may be duly executed and delivered by a Party by execution and facsimile or electronic, "pdf" delivery of the signature page of a counterpart to the other Party.

18.14 <u>Liquidated Damages Not Penalty</u>. Purchaser acknowledges that the Early Termination Fee constitutes liquidated damages, and not penalties, in lieu of Provider's actual damages resulting from the early termination of this Agreement. Purchaser further acknowledges that Provider's actual damages may be impractical and difficult to accurately ascertain, and in accordance with Purchaser's rights and obligations under this Agreement, the Early Termination Fee constitutes fair and reasonable damages to be borne by Purchaser in lieu of Provider's actual damages.

[Remainder of page intentionally left blank.]

These General Terms and Conditions are witnessed and acknowledged by ForeFront Power and Purchaser below. Neither ForeFront Power nor Purchaser shall have any obligations or liability resulting from its witnessing and acknowledging these General Terms and Conditions.

"FOREFRONT POWER": FFP BTM SOLAR, LLC

By: \_\_\_\_\_\_ Name: \_\_\_\_\_\_ Title: \_\_\_\_\_\_ Date: \_\_\_\_\_

"PURCHASER": Oakland Unified School District

By:	
Name:	
Title:	
Date:	

# Exhibit A

# of General Terms and Conditions

# [PURCHASER'S LETTERHEAD]

[Landlord's Address]

Attn: Authorized Representative

# Re: <u>Proposed Energy System Installation at [Address of Premises]</u>. <u>Lease dated [] between [PURCHASER]</u> and [LANDLORD] (the "Lease")

Dear Authorized Representative:

As has been discussed with you, [PURCHASER] ("Purchaser") and [FFP Entity], LLC ("Provider") have entered into an Energy Services Agreement, pursuant to which Provider will install, finance, operate, and maintain a [solar photovoltaic] [battery storage] system at the above-referenced premises which [PURCHASER] leases from you pursuant to the Lease. By signing below and returning this letter to us, you confirm that:

1. The [solar photovoltaic] [battery storage] system and the renewable energy (including environmental credits and related attributes) produced by the system are personal property, and shall not be considered the property (personal or otherwise) of [LANDLORD] upon installation of the system at the premises. Landlord consents to the filing by Provider of a disclaimer of the System as a fixture of the Premises in the office where real estate records are customarily filed in the jurisdiction of the Premises.

2. Provider or its designee (including finance providers) shall have the right without cost to access the premises in order to install, operate, inspect, maintain, and remove the [solar photovoltaic] [battery storage] system. [LANDLORD] will not charge Purchaser or Provider any rent for such right to access the premises.

3. [LANDLORD] has been advised that the finance providers for the [solar photovoltaic] [battery storage] system have a first priority perfected security interest in the system. Provider and the finance providers for the [solar photovoltaic] [battery storage] system (including any system lessor or other lender) are intended beneficiaries of [LANDLORD]'s agreements in this letter.

4. [LANDLORD] will not take any action inconsistent with the foregoing.

We thank you for your consideration of this opportunity and we look forward to working with you in our environmental campaign to increase the utilization of clean, renewal energy resources.

Very truly yours,

[PURCHASER]

By:

Name: Title:

Acknowledged and agreed by:

[LANDLORD]

By: \_\_\_\_\_ Name: Title:

# <u>Exhibit B</u>

# of General Terms and Conditions

### Certain Agreements for the Benefit of the Financing Parties

Purchaser acknowledges that Provider will be receiving financing accommodations from one or more Financing Parties and that Provider may sell or assign the System or this Agreement and/or may secure Provider's obligations by, among other collateral, a pledge or collateral assignment of this Agreement and a first security interest in the System. In order to facilitate such necessary sale, conveyance, or financing, and with respect to any such Financing Party, Purchaser agrees as follows:

(a) <u>Consent to Collateral Assignment</u>. Purchaser consents to either the assignment, sale or conveyance to a Financing Party or the collateral assignment by Provider to a Financing Party, of Provider's right, title and interest in and to this Agreement.

(b) <u>Notices of Default</u>. Purchaser will deliver to the Financing Party, concurrently with delivery thereof to Provider, a copy of each notice of default given by Purchaser under this Agreement, inclusive of a reasonable description of Provider default. No such notice will be effective absent delivery to the Financing Party. Purchaser will not mutually agree with Provider to cancel, modify or terminate this Agreement without the written consent of the Financing Party, however, this provision shall not be interpreted to limit any termination rights of either Party as set forth in the Agreement.

(c) <u>Rights Upon Event of Default</u>. Notwithstanding any contrary term of this Agreement:

i. The Financing Party 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 and only in the event of Provider's or Purchaser's default. The Financing Party shall also be entitled to exercise all rights and remedies of secured parties generally with respect to this Agreement and the System.

ii. 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 thereunder 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 Purchaser hereby gives it the option to do so.

iii. Upon the exercise of remedies under its security interest in the System, including any sale thereof 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) in lieu thereof, the Financing Party shall give notice to Purchaser of the transferee or assignee of this Agreement. Any such exercise of remedies shall not constitute a default under this Agreement.

iv. Upon any default not reasonably susceptible to cure by a Finance Party, including, without limitation, 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 the Financing Party made within ninety (90) days of such default, Purchaser shall enter into a new agreement with the Financing Party or its designee having the same terms and conditions as this Agreement.

# (d) <u>Right to Cure</u>.

i. Purchaser will not exercise any right to terminate or suspend this Agreement unless it shall have given the Financing Party prior written notice by sending notice to the Financing Party (at the address provided by Provider) of its intent to terminate or suspend 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. The Parties agree that the cure rights described herein are in addition to and apply and commence following the expiration of any notice and cure period applicable to Provider The Parties respective obligations will otherwise remain in effect during any cure period; *provided*, 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 additional ninety (90) days.

ii. If the Financing Party (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 Sub-section (c)(i). 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 or entity shall no longer be in default under this Agreement, and this Agreement shall continue in full force and effect.

# Exhibit C

# of General Conditions

#### Requirements Applicable to the Installation Work

Section B.1 <u>Prohibition Against Use of Tobacco</u>. All properties and facilities owned, leased or operated by the Purchaser are tobacco-free work places. No person on, at or in any Purchaser-controlled property or facility, including, without limitation, the Premises, may smoke, chew or otherwise use tobacco products. Provider shall be responsible for: (i) informing any and all persons present on or at the Premises on account of the Installation Work about the Purchaser's tobacco-free policy; and (ii) strictly enforcing such policy with respect to the Premises. The Purchaser, Provider, and each Subcontractor shall require that any person present on or at the Premises, and shall prohibit such person from thereafter being present or performing any of the Installation Work on or at the Premises.

#### Section B.2 <u>Prohibition Against Use of Drugs</u>.

(a) <u>Purchaser Drug-Free Policy</u>. All properties and facilities owned, leased or operated by the Purchaser are drug-free work places. No person on, at or in any Purchaser-controlled property or facility, including, without limitation, the Premises, may: (i) engage in the unlawful manufacture, dispensation, possession or use, including being under the influence, of any controlled substance, (ii) possess or use any alcoholic beverage, or (iii) use any substance which may cause significant impairment of normal abilities. Provider shall be responsible for: (i) informing any and all persons present on or at the Premises on account of the Installation Work about the Purchaser's drug-free policy; and (ii) strictly enforcing such policy with respect to the Premises. The Purchaser, Provider, and each Subcontractor shall require that any person present on or at the Premises on account of the Installation Work who violates such policy must permanently leave the Premises, and shall prohibit such person from thereafter being present or performing any of the Installation Work on or at the Premises.

(b) <u>Drug-Free Workplace Certification</u>. Provider is hereby made subject to the requirements of Government Code Sections 8350 et seq., the Drug-Free Workplace Act of 1990.

Section B.3 <u>Compliance with Labor Requirements</u>. The Installation Work is a "public works" project as defined in Section 1720 of the California Labor Code ("Labor Code") and made applicable pursuant to Section 1720.6 of the Labor Code. Therefore, the Installation Work is subject to applicable provisions of Part 7, Chapter 1, of the Labor Code and Title 8 of the California Code of Regulations, Section 16000 et seq. (collectively, "Labor Law"). Provider acknowledges that, as provided by Senate Bill 854 (Stats. 2014, Ch. 28), the Project is subject to labor compliance monitoring and enforcement by the California Department of Industrial Relations ("DIR").

Section B.4 <u>Compliance with Labor Code Requirements</u>. Provider must be, and shall be deemed and construed to be, aware of and understand the requirements of the Labor Law that require the payment of prevailing wage rates and the performance of other requirements on public works projects. Provider, at no additional cost to the Purchaser, must: (i) comply with any and all applicable Labor Law requirements, including, without limitation, requirements for payment of prevailing wage rates, inspection and submittal (electronically, as required) of payroll records, interview(s) of workers, et cetera; (ii) ensure that its Subcontractors are aware of and comply with the Labor Law requirements; (iii) in connection with Labor Law compliance matters, cooperate with the DIR, the Purchaser and other entities with competent jurisdiction; and (iv) post all job-site notices required by law in connection with the Installation Work, including, without limitation, postings required by DIR regulations. A Subcontractor that has been debarred in accordance with the Labor Code, including, without limitation, pursuant to Sections 1777.1 or 1777.7, is not eligible to bid on, perform, or contract to perform any portion of the Installation Work. Wage rates for the Installation Work shall be in accordance with the general prevailing rates of per-diem wages determined by the Director of Industrial Relations pursuant to Labor Code Section 1770. The following Labor Code sections are by this reference incorporated into and are a fully operative part of the Contract, and Provider shall be responsible for compliance therewith:

(a) Section 1735: Anti-Discrimination Requirements;

- (b) Section 1775: Penalty for Prevailing Wage Rate Violations;
- (c) Section 1776: Payroll Records;
- (d) Sections 1777.5,1777.6 and 1777.7: Apprenticeship Requirements;
- (e) Sections 1810 through 1812: Working Hour Restrictions;
- (f) Sections 1813 and 1814: Penalty for Failure to Pay Overtime; and
- (g) Section 1815: Overtime Pay.

Section B.5 <u>Requirements for Payroll Records</u>. Provider must comply with all applicable provisions of Labor Code Sections 1776 and 1812, which relate to preparing and maintaining accurate payroll records, and making such payroll records available for review and copying by the Purchaser, the DIR Division of Labor Standards Enforcement, and the DIR Division of Apprenticeship Standards. The payroll records must be certified and made available as required by Labor Code Section 1776.

Section B.6 <u>Contractor Registration</u>. On and after March 1, 2015, no contractor may bid on a public works project unless the contractor is, and no subcontractor may be listed in any bid for a public works project unless the subcontractor is, currently registered with the DIR and qualified to perform public work pursuant to Labor Code Section 1725.5. On and after April 1, 2015, no contractor or subcontractor may be awarded a contract for work on a public works project, or may perform any work on a public works project, unless the contractor or subcontractor is currently registered with the DIR and qualified to perform public work pursuant to Labor Code Section 1725.5. It is not a violation of Labor Code Section 1725.5 for an unregistered contractor to submit a bid authorized by Business and Professions Code Section 7029.1 or Public Contract Code Section 20103.5, if the contractor is registered at the time the contract is awarded.

Section B.7 <u>Permits and Licenses</u>. Without limiting anything set forth in Section B.7 of this Exhibit C, Provider, its Subcontractors, and all of their respective employees and agents: (i) shall secure and maintain in force at all times during the performance of the Installation Work such licenses and permits as are required by law; and (ii) shall comply with all federal and State, and County laws and regulations, and other governmental requirements applicable to the System or the Installation Work. Provider or its subcontractors shall obtain and pay for all permits and licenses required for the performance of, or necessary in connection with, the Installation Work, and shall give all necessary notices and deliver all necessary certificates to the Purchaser, and shall pay all royalties and license fees arising from the use of any material, machine, method or process used in performing the Installation Work. Provider shall be solely responsible for all charges, assessments and fees payable in connection with any such licenses, permits, materials, machines, methods, and processes.

Section B.8 <u>Protection of Minor-Aged Students</u>. Provider, in conformance with Education Code Section 45125.1, shall require and be responsible for ensuring compliance by each and every person who will be on or at the Premises in connection with the construction, maintenance, operation or other purposes related to the System with all California Department of Justice guidelines and requirements relating to fingerprinting and criminal-history background checks, regardless of whether Section 45125.1 otherwise by its terms would apply to any such activities. In the event Education Code Section 45125.1 is repealed or superseded, Provider, following receipt of written notice from the Purchaser, shall comply with such successor or other requirements as determined by the Purchaser in its reasonable discretion. The Purchaser, in its discretion, may exempt in writing any person(s) from the foregoing requirements if Provider makes alternative arrangements for supervision of such person(s) that are acceptable to the Purchaser in its sole discretion.

### **ENERGY SERVICES AGREEMENT – SOLAR**

#### <u>Site Name</u>

This Energy Services Agreement ("<u>Agreement</u>") is made and entered into as of this \_\_\_\_\_\_ day of \_\_\_\_\_\_, 2021 (or, if later, the latest date of a Party's execution and delivery to the other Party of this Agreement, the "Effective Date"), between FFP BTM SOLAR, LLC, a Delaware limited liability company ("<u>Provider</u>"), and Oakland Unified School District, a public school district organized and existing under the laws of the state of California ("<u>Purchaser</u>"; and, together with Provider, each, a "<u>Party</u>" and together, the "<u>Parties</u>").

#### RECITALS

- A. Purchaser desires that Provider install and operate a solar photovoltaic system at the Premises (as hereafter defined) for the purpose of providing Energy Services (as hereafter defined), and Provider is willing to have the Installation Work performed by using one or more qualified contractors holding the appropriate licenses required in the jurisdiction where the System will be installed;
- B. Provider is in the business of designing, constructing, owning, financing, and operating solar photovoltaic systems for the purpose of selling power generated by the systems to its purchasers;
- C. California Government Code sections 4217.10 et seq. authorizes a public entity to enter into energy service contracts, facility financing contracts, and related agreements to implement the State's conservation and alternative energy supply source policy;
- D. Purchaser's governing body has made those findings required by Government Code section 4217.12 that the anticipated cost to the Purchaser for Energy Services provided by the System under this Agreement is expected to be less than the anticipated marginal cost to the Purchaser of electrical energy that would have been consumed by Purchaser in the absence of its purchase of the Energy Services;
- E. Provider and Purchaser acknowledged those certain General Terms and Conditions of Energy Services Agreement between FFP BTM Solar, LLC and Purchaser dated as of \_\_\_\_\_\_, 2021 ("<u>General Terms</u> <u>and Conditions</u>"), which are incorporated by reference as set forth herein; and
- F. The terms and conditions of this Energy Services Agreement, excluding the General Terms and Conditions incorporated herein, constitute the "Special Conditions" referred to in the General Terms and Conditions.

In consideration of the mutual promises set forth below, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties hereby agree as follows:

- 1. <u>Incorporation of General Terms and Conditions</u>. The General Terms and Conditions are incorporated herein as if set forth in their entirety.
- 2. Initial Term. The initial term of this Agreement shall commence on the Effective Date and shall continue for Twenty (20) years from the Commercial Operation Date (as defined in the General Terms and Conditions), unless and until extended or terminated earlier pursuant to the provisions of this Agreement (the "Initial Term"). After the Initial Term, this Agreement may be renewed for an additional five (5) year term (a "Renewal Term"). At least one hundred and eighty (180) days, but no more than three hundred and sixty-five (365) days, prior to the expiration of the Initial Term, Provider shall give written notice to Purchaser of the availability of the Renewal Term. Purchaser shall have sixty (60) days to agree to continuation of this Agreement for the Renewal Term. Absent agreement to the Renewal Term this Agreement shall expire on the Expiration Date. The Initial Term and the subsequent Renewal Term, if any, are referred to collectively as the "Term".
- 3. <u>Schedules</u>. The following Schedules hereto are hereby incorporated into this Agreement:

Schedule 1	Description of the Premises, System and Subsidy
Schedule 2	Energy Services Payment
Schedule 3	Early Termination Fee
Schedule 4	Estimated Annual Production
Schedule 5	Notice Information
Schedule 6	Reserved
Schedule 7	Specific Items for Scope of Work

4. <u>Privacy</u>. Purchaser acknowledges that the System may collect certain information about Purchaser's electricity usage and the System performance. Such information may be stored and processed in the United States or any other country in which Provider or its third-party service providers, or its or their respective affiliates, subsidiaries, or service providers, maintain facilities. Purchaser consents to any such transfer of information outside of Purchaser's country.

# 5. <u>Milestone Dates</u>.

- 5.1 The Guaranteed Construction Start Date is 210 days from Effective Date.
- 5.2 The Guaranteed Commercial Operation Date is 180 days from Guaranteed Construction Start Date.
- 6. <u>Purchase Requirement; Energy Services Payment</u>. "Energy Services" means the supply of electrical energy output from the System and any associated reductions in Purchaser's peak demand from its Local Electric Utility. Purchaser agrees to purchase one hundred percent (100%) of the Energy Services generated by the System and made available by Provider to Purchaser during each relevant month of the Term, up to a maximum of one hundred and ten percent (110%) of Estimated Annual Production, as defined in Schedule 4. While the Energy Services are calculated and billed on a per kWh basis as set forth in Schedule 2 of these Special Conditions, they represent a package of services and benefits.
- 7. <u>Estimated Annual Production</u>. The annual estimate of electricity generated by the system for each year of the initial term is set as forth in Schedule 4 of the Special Conditions ("<u>Estimated Annual Production</u>"). Within sixty (60) days of each annual anniversary of the Commercial Operation Date, Provider will provide a statement to Purchaser that shows the actual annual kWh production from the System for the Term Year, the Estimated Annual Production, and the Minimum Guaranteed Output (defined below).
- 8. <u>Minimum Guaranteed Output</u>. If the System fails to generate at least ninety-five percent (95%) of the Estimated Annual Production for a full Term Year (such amount, the "<u>Minimum Guaranteed Output</u>"), other than as a result of the acts or omissions of Purchaser or the Local Electric Utility (including a Disruption Period), or an Event of Force Majeure, Provider shall credit Purchaser an amount equal to Purchaser's Lost Savings on the next invoice or invoices during the following Term Year. The formula for calculating Lost Savings for the applicable Term Year is as follows:

Lost Savings =  $(MGO*WPR - AE) \times RV$ 

MGO = Minimum Guaranteed Output, as measured in total kWh, for the System for the applicable Term Year.

WPR = Weather Performance Ratio, measured as the ratio of the actual insolation over typical (proforma) insolation. Such Weather Performance Ratio shall only apply if the ratio is less than 1.00.

AE = Actual Electricity, as measured in total kWh, delivered by the System for the Term Year plus the estimated lost energy production during a Disruption Period.

RV = (ATP - kWh Rate)

ATP = Average tariff price, measured in \$/kWh, for the Term Year paid by Purchaser with respect to the Premises. This price is determined by dividing the total cost for delivered electricity, including all charges associated with such electricity howsoever named, including, without limitation, charges for distribution, transmission, demand, and systems benefits, paid to the Local Electric Utility during the applicable Term Year by the total amount of delivered electricity by the electric utility during such Term Year.

kWh Rate = the kWh Rate in effect for the applicable Term Year(s), measured in \$/kWh.

If the RV is zero or less, then no Lost Savings payment is due to Purchaser. Any Lost Savings payment shall occur no later than sixty (60) days after the end of the Term Year during which such Lost Savings occurred.

- 9. <u>Allowed Disruption Time</u>. Notwithstanding the provisions in Section 4.3 of the General Terms and Conditions to the contrary, during years 4 through 20 (but not years 1 through 3) of the Term, Purchaser shall be afforded a one-time allocation of fifteen (15) days which may be used consecutively or in separate periods of at least twenty-four (24) hours each ("<u>Allowed Disruption Time</u>") during which the System shall be rendered non-operational. Purchaser shall not be obligated to make payments to Provider for electricity not received during the Allowed Disruption Time, nor shall Purchaser be required to reimburse Provider for any other lost revenue during the Allowed Disruption Time, including any lost revenue associated with any reduced sales of Environmental Attributes, and Provider shall be credited for the estimated lost production the System would have produced during such Allowed Disruption Time toward satisfaction of its Minimum Guaranteed Output, as set forth in Section 8 of the Special Conditions, such estimated lost production to be calculated in the same manner as set forth in Section 4.3 of the General Conditions.
- 10. <u>Sunlight Access</u>. Purchaser will take all reasonable actions as necessary to prevent other buildings, structures or flora from overshadowing or otherwise blocking access of sunlight to the System.
- 11. <u>Use of System</u>. Purchaser will not use electrical energy generated by the System for the purposes of heating a swimming pool within the meaning of Section 48 of the Internal Revenue Code.

IN WITNESS WHEREOF and in confirmation of their consent to the terms and conditions contained in this Agreement and intending to be legally bound hereby, Provider and Purchaser have executed this Agreement as of the Effective Date.

PROVIDER: FFP BTM SOLAR, LLC

#### PURCHASER: OAKLAND UNIFIED SCHOOL DISTRICT


By:		
Name:		
Title:		
Date:		

# **SCHEDULES**

# I. Schedule 1 – Description of the Premises, System and Subsidy

<u>A. Premises</u>	[Physical Address:] [APN Number:]
Site diagram attached:	□ Yes □No
<b>B.</b> Description of Solar System	[Grid-interconnected or any other general descriptors]
Solar System Size:	[ ] kW (DC) (this is an estimate (and not a guarantee) of the System size; Provider may update the System Size prior to the Commercial Operation Date.)
C. Anticipated Subsidy or <u>Rebate</u>	[\$]

# II. <u>Schedule 2 – Energy Services Payment</u>

Purchaser shall pay to Provider a monthly payment (the "<u>Energy Services Payment</u>") for the Energy Services provided by the System during each calendar month of the Term equal to the product of (x) Actual Monthly Production for the System for the relevant month multiplied by (y) the kWh Rate.

The "<u>Actual Monthly Production</u>" means the amount of energy recorded by Provider's metering equipment during each calendar month of the Term.

The kWh Rate with respect to the System under this Agreement shall be in accordance with the following schedule:

|--|

Term Year	kWh Rate (\$/kWh)	Term Year	\$/kWh Rate (\$/kWh)
1		11	
2		12	
3		13	
4		14	
5		15	
6		16	
7		17	
8		18	
9		19	
10		20	

#### CONFIDENTIAL AND PROPRIETARY

<u>Distribution Upgrades</u>. Within thirty (30) days of receipt of notice from the Local Electric Utility of distribution upgrade costs required by the Local Electric Utility, Purchaser will provide written notice (email is acceptable) to Provider of Purchaser's election of one of the following options:

- a. Purchaser will bear all the distribution upgrade costs, and the kWh Rates stated in the PPA Rate Table will remain unchanged. Purchaser shall make payments directly to the Local Electric Utility in accordance with the requirements of the Local Electric Utility.
- b. For every \$0.01 per watt DC of such distribution upgrade costs, the kWh rate in the PPA Rate Table will increase [\$\_] per kWh. Provider shall then be responsible for all associated costs and payments.

<u>Scope Changes (ITC Eligible)</u>. If changes in project scope occur that are eligible for the Federal Investment Tax Credit (including but not limited to adverse geotechnical conditions or the inclusion of spare conduit) and the costs directly related such changes go beyond those contemplated as part of the development and implementation of the System in this Agreement, Provider will provide reasonable documentation demonstrating the direct and actual time and materials costs relating to such costs to Purchaser. Within thirty (30) days after Purchaser receives such documentation, Purchaser will provide written notice to Provider of Purchaser's election of one of the following options:

- a. Purchaser will bear all of the reasonably documented scope change costs, and the kWh rate as stated in Table 1 will remain unchanged.
- b. For every \$0.01 per watt DC of such costs, the kWh rate in Table 1 will increase [\$] per kWh. Provider shall then be responsible for all associated costs and payments.

<u>Scope Changes (Non-ITC Eligible)</u>. If changes in project scope occur that are not eligible for the Federal Investment Tax Credit (including but not limited to ADA compliance costs not related to System configuration or construction) and the costs directly related such changes go beyond those contemplated as part of the development and implementation of the System in this Agreement, Provider will provide reasonable documentation demonstrating the direct and actual time and materials costs relating to such costs to Purchaser. Within thirty (30) days after Purchaser receives such documentation, Purchaser will provide written notice to Provider of Purchaser's election of one of the following options:

- a. Purchaser will pay the entire amount of such associated costs, and the kWh rate as stated in the PPA Rate Table will remain unchanged.
- b. For every \$0.01 per watt DC of such associated costs, the kWh rate in the PPA Rate Table will increase [\$\_\_\_\_] per kWh. Provider shall then be responsible for all associated costs and payments.

If the aggregate of costs set forth above for which Purchaser has elected to pay for via increased kWh Rate exceed the maximum total kWh Rate increase of [], the Provider has the option to terminate this Agreement and to remove the System pursuant to Section 2.4 of the General Conditions.

# III. <u>Schedule 3 – Early Termination Fee</u>

The Early Termination Fee with respect to the System under this Agreement shall be calculated in accordance with the following:

Early Termination Occurs in Year:	Column 1 Early Termination Fee where Purchaser does <u>not</u> take Title to the System (\$/Wdc including costs of removal)	Purchase Date Occurs on the 91 <sup>st</sup> day following: (Each "Anniversary" below shall refer to the anniversary of the Commercial Operation Date)	Column 2 Early Termination Fee where Purchaser takes Title to the System (\$/Wdc, does <u>not</u> include costs of removal)
1*			
2			
3			
4			
5			
6		5 <sup>th</sup> Anniversary	
7		6 <sup>th</sup> Anniversary	
8		7 <sup>th</sup> Anniversary	
9		8 <sup>th</sup> Anniversary	
10		9 <sup>th</sup> Anniversary	
11		10 <sup>th</sup> Anniversary	
12		11 <sup>th</sup> Anniversary	
13		12 <sup>th</sup> Anniversary	
14		13 <sup>th</sup> Anniversary	
15		14 <sup>th</sup> Anniversary	
16		15 <sup>th</sup> Anniversary	
17		16 <sup>th</sup> Anniversary	
18		17 <sup>th</sup> Anniversary	
19		18 <sup>th</sup> Anniversary	
20		19 <sup>th</sup> Anniversary	

At Expiration (the end of the Initial Term), the amount in Column 1 shall be deemed to be zero (0). \*Includes Early Termination prior to the Commercial Operation Date.

# IV. Schedule 4 – Estimated Annual Production

Estimated Annual Production commencing on the Commercial Operation Date with respect to System under this Agreement shall be as follows:

Term Year	Estimated Production (kWh)	Term Year	Estimated Production (kWh)
1		11	
2		12	
3		13	
4		14	
5		15	
6		16	
7		17	
8		18	
9		19	
10		20	

#### CONFIDENTIAL AND PROPRIETARY

The values set forth in the table above are estimates (and not guarantees), of approximately how many kWhs are expected to be generated annually by the System assuming the System size indicated in Schedule 1 and based on initial System designs. Provider may deliver to Purchaser an updated table on or about the Commercial Operation Date based on the actual System size and design.

### V. <u>Schedule 5 – Notice Information</u>

Purchaser:	Provider:
[ ]	FFP BTM Solar, LLC c/o Forefront Power, LLC Attn: Director, Energy Services 100 Montgomery St., Suite 725 San Francisco, CA 94104
	With a copy to
	FFP BTM Solar, LLC c/o Forefront Power, LLC Attn: Legal Department 100 Montgomery St., Suite 725 San Francisco, CA 94104 Email: FPLegal@forefrontpower.com
	Financing Party.

Financing Party: [To be provided by Provider when known]

# VI. <u>Schedule 6 – Reserved</u>

#### VII. Schedule 7 – Specific Items for Scope of Work

- 1. Provider Responsibilities:
  - 1.1. All System structures shall be permitted through DSA as carports or shade structures, as applicable. Provider shall cause to DSA permits to be issued on behalf of the project(s).
  - 1.2. Solar arrays will be canopy height of 10' minimum clearance.
  - 1.3. Provider shall be responsible for all tree trimming and tree removal in order to facilitate the installation of the Systems. Purchaser shall acknowledge and approve removal of trees identified by Provider, in order to install the system and such approval shall not be unreasonably withheld. Irrigation re-routing shall not be the responsibility of the Provider.
  - 1.4. Provider shall be responsible for verifying and understanding existing ADA parking, striping, and paths of travel and what code-required upgrades may be necessary as a result of the System and any pre-existing non-compliance. Provider shall be responsible for all required ADA striping, signage within the solar canopy footprint and connecting to existing ADA-compliant path of travel. Provider's scope excludes any demolition, grading, paving, curb cuts, or truncated domes throughout the Premises to achieve ADA compliance, or any required ADA striping and signage outside of the solar canopy footprint and connecting to the existing ADA-compliant path of travel. Should any excluded items for ADA-compliance be required, Provider

will work with Purchaser in good faith to determine a mutually-acceptable solution for Purchaser to pay the costs associated with such upgrades, including potentially an increase in the kWh rate in Schedule 2.

- 1.5. Provider intends to interconnect the System to Purchaser-owned [] V service conductors at a mutually agreeable location. Provider assumes that the existing conductors and service equipment are sufficiently capable of accepting the additional electrical load of the System. Provider shall not bear responsibility for any required upgrades to the pre-existing electrical system.
- 1.6. Provider shall be responsible for all fees associated with the interconnection application, except that Provider shall not be responsible for transmission and distribution upgrades determined necessary by the Local Electric Utility.
- 1.7. Provider assumes free, unobstructed native soil, capable of providing structural support to the PV system. Provider shall not be responsible for such additional expenses related to underground conditions that are rocky, sandy, contaminated, contain ground water, result in caving, or otherwise have problematic construction limitations. Additional expenses related to these conditions include, but are not limited to, hard rock drilling, de-watering, installation of casings, spread footings, importing of backfill, or other abnormal installation methods. Provider shall work with Purchaser in good faith to determine a mutually-acceptable solution for Purchaser to pay such additional costs, including potentially an increase in the kWh rate in Schedule 2.
- 1.8. Provider agrees to construct the System in no more than [1] construction phases.
- 2. Purchaser Responsibilities:
  - 2.1. [Purchaser shall enter into contract with a DSA Inspector and any and all Special Inspectors required in order to fully inspect the project. Purchaser shall coordinate with Provider in order to facilitate and deliver all DSA forms required in order to schedule and complete the DSA permit appointment. Purchaser shall be responsible for all Inspector of Record Fees and Special Test Fees.
  - 2.2. Purchaser shall cause the DSA Inspector to issue a DSA Form 6 upon completion of the System in a timely manner in order to allow Provider to facilitate interconnection and financing activities as required for the System.
  - 2.3. Purchaser shall. in the event that any pre-existing, open A-Numbers with DSA relating to the Premises need to be closed out in order to proceed with the installation of the Systems, be responsible for engaging architect and engineering resources at its sole expense to close out open A-Numbers. Provider shall provide support for such actions as reasonably required.
  - 2.4. Purchaser shall deliver to Provider all as-built drawings with DSA A-Numbers listed, in order to fully develop the solar plan sets and designs.]
  - 2.5. Any irrigation re-routing shall be the responsibility of the Purchaser.

Board Office Use: Le	gislative File Info.
File ID Number	20-1789
Introduction Date	9/23/20
Enactment Number	20-1555
Enactment Date	10/28/2020 os



# Memo

То	Board of Education
From	Kyla Johnson-Trammell, Superintendent Jody London, Board President Shanthi Gonzales, Board Vice President Tadashi Nakadegawa, Acting Deputy Chief of Facilities Brendan Havenar-Daughton, Energy & Sustainability Manager
Board Meeting Date	October 28, 2020
Subject	Climate Emergency Action Resolution
Action	Approval of proposed Board Resolution – Climate Emergency Action Resolution
Background	In acknowledgement of our students' urgent demand for equitable and just climate action and in concert with student voices from around the world, the Climate Emergency Action Resolution presented herewith declares a climate emergency and commits the District to immediate action.
	It is evident that our changing climate is negatively impacting the District's operations and compromising student outcomes. Excessive heat, wildfire smoke, and power outages related to climate change will continue to reduce the actual number instructional days and adversely impact our students' ability to learn in a healthy and safe environment. The recurrent blanket of toxic smoke over Oakland and much of the west coast is testament to this reality, as were the Public Safety Power Shutoffs in 2019, closing many of our schools for days on end.
	We have now set a new record for annual hazardous air quality days, compounding the long-standing air quality crisis already experienced by the most vulnerable and least-advantaged members of our

community. Many of our students live and go to school in neighborhoods that continue to be disproportionately impacted by environmental pollution.<sup>1</sup> This Resolution is grounded in our values of equity and justice and specifically highlights the critical need to keep the concerns of Black, Indigenous and People of Color (BIPOC) central to this work.

Apart from the paramount issue of protecting human health, the District stands to reduce waste, cut expenses and even generate revenue from many of the "climate actions" that will be detailed in the forthcoming Board Policy and Sustainability Plan.

Oakland Unified School District has a long history of action on different aspects of sustainability. This includes work involving facilities, buildings and grounds, custodial services, nutrition, and student instruction.<sup>2</sup> Most recently the Board passed BP 6142.5, Environmental and Climate Change Literacy, recognizing that Climate Change is the greatest threat facing future generations, and that education plays a critical role in preparing future citizens to be actively engaged in working together to create solutions to this crisis. In alignment with this goal, this Climate Emergency Action Resolution calls for the identification of specific opportunities for student engagement in sustainability planning and implementation activities for the purpose of curriculum enhancement within and outside of the classroom. Furthermore, it acknowledges that Oakland's students must be afforded genuine agency to help lead society's commitment to, and implementation of urgent climate action.

The intent of this Resolution is to declare an emergency and establish an OUSD Task Force and Community Sustainability Advisory Council to work collaboratively to define and implement an equitable and just Climate Action and Sustainability Planning process. This process serves as a road map for drafting a Climate Action and Sustainability Board Policy. The proposed approach to the planning process can be described in three phases:<sup>3</sup>

- Phase One Climate Emergency Action Resolution
- Phase Two Climate Action and Sustainability Board Policy
- Phase Three Sustainability Plan

<sup>&</sup>lt;sup>1</sup> As determined by the State of California CalEnviroScreen tool. See Attachment A for a detailed map.

<sup>&</sup>lt;sup>2</sup> See Attachment B for a timeline outlining OUSD's ongoing commitment to ecological Sustainability.

<sup>&</sup>lt;sup>3</sup> See Attachment C for an overview on the Climate Action and Sustainability Planning Approach.

	The tentative timeline for this work is proposed below: Phase One - (Resolution) - Initiated in August; First Read September 23rd; Board Approval October 28th (2020) Phase Two - (Policy) - November 2020 through April 2021 (target board meeting closest to earth day (4/22) for approval) Phase Three - (Administrative Requirements/Plan) - April 2021 - April 2022
Discussion	The current ecological crisis heat waves, fires, floods, and other extreme weather events attributable to the changing climate and its adverse impact on district operations and student outcomes underscores the need for OUSD to take immediate action to mitigate and adapt to climate change. While there are several programs and initiatives in place throughout the district, there is opportunity to better embed and coordinate these activities across all departments. OUSD is presented with an opportunity to bring together and build upon current sustainability efforts across the District through the creation of a comprehensive Sustainability Plan. The District should join other school districts and local governments in California and across the country in declaring a climate emergency and committing to immediate action.
	Passage of this Climate Emergency Action Resolution will approve the establishment of an Interdepartmental Task Force and Sustainability Advisory Committee responsible for developing a Climate Action and Sustainability board policy and ultimately, a comprehensive District- wide Sustainability Plan.
Fiscal Impact	This work can be accomplished by current staff. A core part of the policy and plan will be to identify funding opportunities for improvements and utility and waste disposal cost savings.
Attachment	Attachment A: Map of CalEnviroScreen Disadvantaged Communities and OUSD Schools Attachment B: Timeline of Sustainability Initiatives in OUSD Attachment C: Overview of OUSD Climate Action and Sustainability Planning Approach Attachment D: Student Voices and Perspectives

# RESOLUTION OF BOARD OF EDUCATION OF THE OAKLAND UNIFIED SCHOOL DISTRICT

# Resolution No. 2021-0081

# **OUSD Climate Emergency Action**

**WHEREAS**, there is overwhelming scientific consensus that human activity, specifically the extraction and burning of fossil fuels, is the primary driver of the climate crisis; and that the resulting accumulation of greenhouse gases in the atmosphere is causing adverse climate threats that are already impacting human and ecological health around the world;

**WHEREAS**, climate change is a generational justice, human rights, social justice, and equity issue; and "climate neglect" or "climate inaction" has resulted in real harm to the physical and emotional well-being of young people;

**WHEREAS,** California is already experiencing the devastating effects of climate change, including prolonged heat waves, drought, wildfires, sea-level rise, and a growing list of local species threatened by extinction;

**WHEREAS**, excessive heat, wildfire smoke, and power outages related to climate change will continue to negatively impact instruction in the Oakland Unified School District ("District" or "OUSD") and can adversely impact the ability of OUSD students to learn in a healthy and safe environment;

**WHEREAS**, environmental racism has subjected Oakland's Black, Indigenous and People of Color (BIPOC) and low-income communities to more severe negative impacts on their health and well-being from air pollution and hotter temperatures caused by climate change;

**WHEREAS**, racist redlining policies have caused residents in East and West Oakland to be exposed to five times the toxic emissions levels compared to increasingly gentrified parts of Oakland, according to the Greenlining Institute, making community members more susceptible to asthma, other respiratory illnesses such as COVID-19, and premature death;

**WHEREAS**, nearly a third of asthma cases and other respiratory illnesses in California are due to poor air quality that is the result of burning fossil fuels and other pollution, and according to the California Department of Public Health, 18% of Oakland's youth have asthma - which the US Centers for Disease Control has identified as a leading cause for school absenteeism and is associated with widening achievement gaps;

**WHEREAS**, the incredible urgency and magnitude of the climate crisis calls for immediate and bold leadership in all sectors of society, all institutions, and all elected leaders within the next ten years to mitigate irreversible damage to Earth's life-sustaining ecosystems;

**WHEREAS**, the City of Oakland has joined the global effort to combat climate change by declaring a climate emergency in 2018 and committing to the 2030 Equitable Climate Action Plan goal to cut greenhouse gas emissions by 56% by 2030 compared to 2005 emission levels;

**WHEREAS**, the OUSD Board of Education ("Board") recently passed Board Policy 6142.5 - Environmental and Climate Change Literacy, which recognizes that climate change is the greatest threat facing future generations, and that education plays a critical role in preparing future citizens to be actively engaged to create solutions to this crisis;

**WHEREAS,** the Board acknowledges that OUSD's students and their community must be afforded genuine agency to help lead society's commitment to, and implementation of, urgent climate action because student voice, student opinion, and student action are critical to effectively combating the climate crisis;

**WHEREAS**, the Board is committed to principles of equity, justice and inclusion, and transitioning to 100% clean energy, and expanding ecologically sustainable practices can help advance these goals by (i) saving money that can be invested into under-resourced schools, (ii) improving indoor air quality, which results in better learning outcomes, (iii) helping to address climate change, which disproportionately harms low-income communities and communities of color, (iv) creating multidisciplinary learning opportunities, and (v) expanding community resiliency;

**WHEREAS,** according to the American Red Cross, school facilities comprise over 50% of emergency shelters, and an investment by OUSD in solar plus battery storage could serve the dual purpose of keeping schools operational during power outages and expanding community resiliency during disasters;

**WHEREAS**, energy-related expenses are the largest non-personnel expenditure in school district budgets (according to the U.S. Environmental Protection Agency), and savings from energy costs can be redirected into classrooms and student learning;

WHEREAS, the District intends to build on the accomplishments of its ongoing efforts aligned with ecological sustainability, including but not limited to:

- 1. Designing and building ecologically sustainable schools and facilities by adhering to the Collaborative for High Performance Schools standards;
- 2. Investing in energy-efficient lighting and high efficiency building systems;
- 3. Installing 4.7 MW of solar photovoltaic systems installed at 16 sites throughout the District;
- 4. Becoming, in 2013, a priority school district with StopWaste in a Partnership Resolution that adopts the county's waste diversion goals;

- 5. Developing and implementing a comprehensive District-wide food share program and a donation program that provides surplus food to our students, families and communities;
- Approving Board Resolution No. 1314-1109 Authorizing and Approving Shared Operational Savings and Green Revolving Fund Program in Support of District-Wide Sustainability;
- 7. Adopting, in 2019, Board Policy 7110.1, Development of Living Schoolyards, which outlines the Board's vision for all OUSD school grounds to have living schoolyards that support 21st Century education, promote children's health, well-being and joy and function as ecologically rich community schools that connect children and their neighborhoods to the natural world right outside their classroom door, every day;

**WHEREAS**, the District has a long history of tackling society's deeply rooted systemic challenges through innovative and creative solutions that put students first, and thus OUSD is uniquely positioned to lead by example, establish bold goals, and adopt paradigm-shattering commitments to climate action that influence and inspire other organizations, school districts, and public agencies to prioritize climate action.

**NOW, THEREFORE, BE IT RESOLVED** that the Board declares a climate emergency and recognizes its direct and immediate threat to our students, families, schools, city, region, state, nation, and all of humanity;

**BE IT FURTHER RESOLVED**, the Board hereby establishes the goal of achieving 100% clean electricity by 2030 and phasing out the use of fossil fuels by 2040, which is a bold step toward becoming a carbon-neutral school district - one that off-sets or avoids all carbon pollution generated by our operations;

**BE IT FURTHER RESOLVED**, that the Board urges the Superintendent to establish an Interdepartmental Task Force of appropriate Department heads, or their senior deputies, led by the OUSD Energy & Sustainability Manager to draft a Climate Action and Sustainability Board Policy that describes a holistic and equitable sustainability planning process focused on the areas of energy, water, waste, transportation, facilities, schoolyards, purchasing, curriculum integration, climate adaptation, and the implementation of a sustainability revolving fund;

**BE IT FURTHER RESOLVED**, If established, the Task Force shall meet on a regular basis during the policy development phase to collect relevant data, identify strategies, prioritize actions, set goals, and ensure accountability and also coordinate and publicly document interdepartmental sustainability efforts in collaboration with a Sustainability Advisory Council (outlined below). It is the expectation of the Board that, if established, the Task Force and Advisory Council collaborate closely to draft and present a Climate Action and Sustainability Board Policy to the Board for its consideration within one year of passage of this Resolution. Any Board Policy adopted by the Board to effectuate this Resolution shall include therein a requirement for an update to the Facilities Committee twice a year regarding progress towards the goals contained herein;

**BE IT FURTHER RESOLVED**, that the Board also urges the Superintendent to establish a Sustainability Advisory Council that includes representation of OUSD families, teachers, students, environmental/climate justice representatives, and subject matter experts to help inform the creation and implementation of the associated Climate Action and Sustainability Board Policy and subsequent District-wide Sustainability Plan; and,

**BE IT FURTHER RESOLVED**, that the District's final Sustainability Plan should acknowledge and align with the goals set forth within the District's existing ecological, financial and social sustainability related board policies, agreements and resolutions such as Board Resolution No. 1314-1109 - Authorizing and Approving Shared Operational Savings and Green Revolving Fund Program in Support of District-Wide Sustainability by establishing a revolving fund that captures financial savings from sustainability projects and reinvests in sustainability priorities, and with Board Policy 6142.5 - Environmental and Climate Change Literacy by identifying specific opportunities for student engagement in planning and implementation activities for the purpose of curriculum enhancement within and outside of the classroom;

**BE IT FURTHER RESOLVED**, the Board encourages the Interdepartmental Task Force and the Sustainability Advisory Council if established, to seek partnerships with local student environmental and social justice groups, business leaders, nonprofits, and government agencies and organizations to promote climate education in District classrooms and ecologically sustainable practices in District operations, and to focus on climate-resilient District decision-making;

**BE IT FURTHER RESOLVED**, that the Board directs the Superintendent to designate the OUSD Energy & Sustainability Manager as liaison to the City of Oakland's Environmental Service Division to coordinate any OUSD Sustainability Plan activities with the City of Oakland's Equitable Climate Action Plan;

**BE IT FURTHER RESOLVED**, the Board commits to prioritizing the concerns of BIPOC and marginalized communities in the planning process and implementation of the OUSD Climate Action and Sustainability Board Policy and Sustainability Plan;

**BE IT FURTHER RESOLVED**, that climate injustice is racial injustice, and the Board believes that climate solutions must advance racial and environmental justice in alignment with the leadership of Black Lives Matter and the Movement for Black Lives;

**BE IT FURTHER RESOLVED**, that the Board does hereby urge the United States Congress to take swift and effective action to fight climate change; and

**BE IT FURTHER RESOLVED**, that the Board directs the Executive Assistant & Parliamentarian to the Board to transmit official copies of this Resolution to the Alameda County Office of Education, the State Superintendent of Public Instruction, and the President of the State Board of Education, the California School Boards Association, the National School Boards Association, the District's state and national representatives in Sacramento and Washington D.C., and the Schools for Climate Action campaign.

Passed by the following vote:

PREFERENTIAL AYE:	Student Director Jessica Ramos, Student Director Samantha Pal	
PREFERENTIAL NOE:	None	
PREFERENTIAL ABSTENTION:	None	
PREFERENTIAL RECUSE:	None Roseann Torres, Aimee Eng, Jumoke Hinton Hodge, Gary Yee,	
AYES:	James Harris, Vice President Shanthi Gonzales, President Jody London	
NOES:	None	
ABSTAINED:	None	
RECUSE:	None	
ABSENT:	None	

# **CERTIFICATION**

We hereby certify that the foregoing is a full, true and correct copy of a Resolution passed at a Regular Meeting of the Board of Education of the Oakland Unified School District held on October 28, 2020.

Legislative File			
File ID Number:	20-1789		
Introduction Date:	9/23/2020		
Enactment			
Number:	20-1555		
Enactment Date:	10/28/2020		
By:	OS		

# OAKLAND UNIFIED SCHOOL DISTRICT

pdy tade

Jody London President, Board of Education

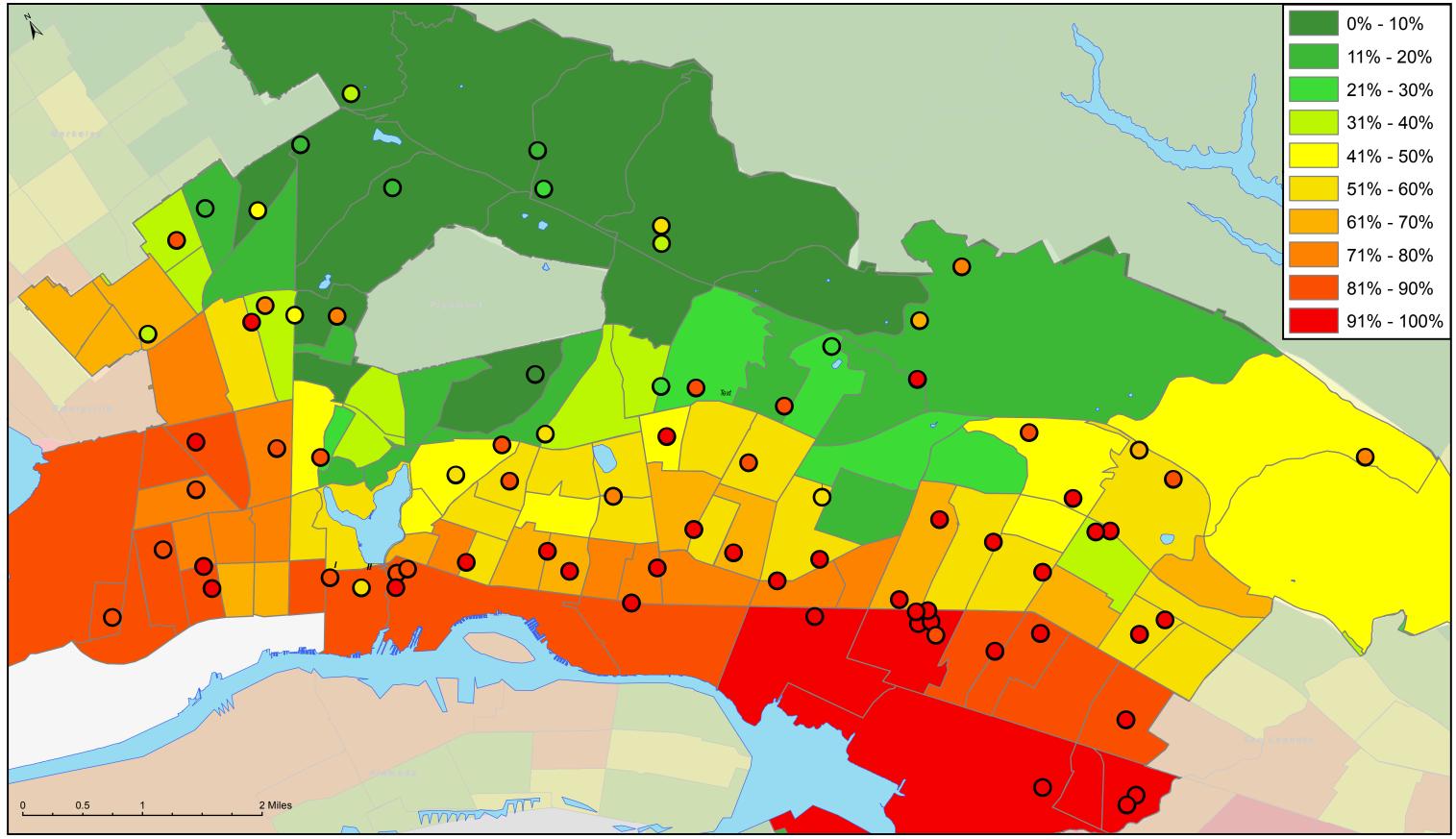
Jof Bf-have

Kyla Johnson-Trammell Superintendent and Secretary, Board of Education



# **OAKLAND UNIFIED**

2018 District-Run Schools: % LCFF Student (Foster, English Learners, Free or Reduced Lunch Eligible) SCHOOL DISTRICT Oakland Census Tracts: California Communities Environmental Health Screening Pecentile Community Schools, Thriving Students



California Communities Environmental Health Screening Tool (CalEnviroScreen) source: https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-30 CalEnviroScreen identifies California communities in 2018 by census tract that are disproportionately burdened by, and vulnerable to, multiple sources of pollution.

SLRadke/OUSD-RAD 10.10.2019

# Environmental Sustainability Initiatives in Oakland Unified School District

2006: Measure B, \$435 million facilities bond

2007: Board adopts Collaborative for High Performance Schools (CHPS) as standard for school facilities projects. Board also adopts energy efficiency policy.

2009: Chabot Elementary portable replacement project is first in California to receive matching grants for being green verified. Today Oakland Unified is one of the districts with the most CHPS verified schools in California.

2009: Board adopts policy on vegetation management, governing roles, responsibilities, and planting lists for school gardens. (This policy will be incorporated into living schoolyards administrative regulation, hopefully in 2020.)

2009: Nutrition Services establishes a food donation program with two local nonprofits to be recipients to our meal programs surplus food from 4 schools.

2009: Custodial Services adds an award to their annual recognition program for custodial staff, Green Gloves Award, to recognize a leader custodian for their engaged and innovative involvement in their schools waste sorting program.

2009: Custodial Services hosts their first and annual Green Gloves Symposium that encompasses professional development, a panel discussion of engaged custodians and training on specifics to school waste sorting program.

2009: Custodial Services initiates OUSD Green Gloves Program that focuses on waste reduction and sorting programs for our schools and facilities.

2010: Nutrition Services takes on the Green Gloves Program in a partnership with Custodial Services.

2011: Board stops approving contracts for styrofoam in food services program, effectively ending use of styrofoam trays. Nutrition Services switches over to compostable trays.

2011: OUSD wins <u>Golden Bell award</u> from California School Board Association (CSBA) for Green Gloves cafeteria composting program

2012: Measure J facilities bond (\$475 million) includes funds for solar panels, new central kitchen with adjacent 1-acre educational farm.

2012: Nutrition Services replaces plastic wrapped spork kit district wide with dispensers for utensils and napkins and not replacing the straw.

2013: OUSD becomes a priority school district with StopWaste in a <u>Partnership Resolution</u> that adopts the county's waste diversion goals.

2013-Green California Schools and Community College recognition for our Green Gloves Program with a Student Engagement Award

2014 (ish): OUSD wins CSBA Golden Bell Award for Wellness Champion program

2014-2015: Solar panels installed at 16 sites across the district. 4.6 MW.

2015-2019: OUSD receives \$xx million in Prop 39 energy efficiency grants from the California Energy Commission. Funds are used for \_\_\_\_\_.

2015: OUSD becomes a member of USGBC Center for Green Schools, <u>School Sustainability</u> <u>Leaders Network</u>.

January 2016: Environmental Justice Caucus (EJC) of the OEA is formed, a group of educators to promote and share resources about teaching environmental and climate literacy.

2016: La Escuelita Education Center wins awards for net zero energy design, <u>ZNE School</u> <u>Leadership Awards</u>

2016: Nutrition Services expands Food Share bins to be in cafeterias district wide that includes promotion of Take it to Go! Program.

2017: OUSD becomes a founding member of the <u>National Green Schools Alliance</u> District Collaborative.

2018 - OUSD partnered with StopWaste, LVJUSD and Alameda County Deputy Sheriff's League on a Smart Cafeteria Initiative. This program, funded in part by a \$500,000 grant from CalRecycle, focused on programs to reduce wasted food through prevention, food share, re-serving, and donation of surplus to those in need.

June 2018: OUSD joins We Are Still In Coalition, affirming support for Paris Climate Accord. Board directs Superintendent to develop new policy on living schoolyards and updated policy on environmental education that includes climate literacy for all graduates.

2018: Trust for Public Land and the Rose Foundation receive grants from California Climate Investment fund for living schoolyard projects at six schools.

2018: Partnership with <u>KidScoop</u> is started with providing waste reduction and sorting content in their newspapers that are provided to selected elementary schools.

2018: Collaboration with StopWaste in creating How to Sort Cafeteria Waste at School video.

February 2019: Board adopts policies on living schoolyards, environmental education. <u>OUSD Environmental Climate Change Literacy</u>

2019: Board directs Superintendent to develop an environmentally preferable purchasing policy. This should come to the Board in fall 2020.

2020: Central Kitchen is completed.

Resources:

OUSD Environmental Climate Change Literacy OUSD Green Gloves Nutrition Services webpages Exploring and Celebrating the Earth-Distance Learning Curated Resources StopWaste Schools Program KidScoop 2018-19 KidScoop 2019-2020 Sharing the Table: A Roadmap to Reducing and Recovering Surplus Food in Schools

# **Overview of OUSD Climate Action and Sustainability Planning Approach**

A truly just planning process requires all voices to be lifted up, most importantly those voices from Black, Indigenous, Communities of Color (BIPOC) that have consistently been silenced throughout the entirety of US History.

The proposed approach to the creation of an equitable and just Climate Action and Sustainability Planning process can be described in three phases.

# Phase One - OUSD Climate Emergency Action Resolution

This Resolution is high level and intentionally defers the work of strategic planning and goals-setting to the policy development phase in order to allow for deep and meaningful stakeholder engagement. The intent of this Resolution is to declare an emergency and establish an OUSD Task Force and Community Sustainability Advisory Council to work hand-in-hand to define and implement an equitable and just planning process.

In Summary the <u>Resolution</u>:

- Declares Climate Emergency
- Establishes Interdepartmental Task Force
- Establishes Sustainability Advisory Council
- Sets a concrete goal to achieve 100% clean electricity by 2030 and phasing out the use of fossil fuels by 2040 (this is the only goal called out in the Resolution as it is central to climate action)
- Highlights the need to keep the concerns of Black and Indigenous People of Color (BIPOC), frontline and marginalized communities central in the planning process and implementation

# Phase Two - OUSD Climate Action and Sustainability Board Policy

This policy will present the vision of OUSD's Climate Action and Sustainability Activities. The policy will provide high-level direction and establish overarching sustainability goals. The policy will be created by the OUSD Task Force and Community Sustainability Advisory Council, working in collaboration. Prior to the drafting of this board policy, these bodies will define an equitable and just policy planning process to guide policy development.

In Summary, the <u>Policy</u> will:

- Establish OUSD's vision for climate action and sustainability work
- Establish high-level goals for each area of this work as described in the Resolution
- Provide a general framework for related implementation activities

Be developed in partnership with Oakland's extensive network of community based organizations, especially those serving BIPOC members

- Be fully vetted by the general public and by all corners of OUSD's community of stakeholders
- Will provide a road map for comprehensive and robust sustainability planning at the district level

# Phase Three - Sustainability Plan / Administrative Regulations

This plan (AKA Administrative Regulation) will serve as OUSD's comprehensive implementation plan related to climate action and sustainability. It will be the single resource containing all of OUSD's sustainability goals, strategies, implementation timelines, funding considerations, etc. The Interdepartmental Task Force and Sustainability Advisory Council should be proactively proposing updates to this plan on a regular basis which will inform the formal board-approved updates every two years.

# **Tentative Timeline**

Phase One - (Resolution) - Initiated in August; First Read September 23rd; Board Approval October 28th (2020) Phase Two - (Policy) - November 2020 through April 2021 (target board meeting closest to earth day (4/22) for approval) Phase Three - (Plan) - April 2021 - April 2022

# Student Voices | Climate Emergency Action Resolution

In October 2020, students from two periods of Mr. Senn's science classes at Oakland Tech were invited to provide direct feedback on OUSD's draft Climate Emergency Action Resolution. 38 students responded with over 1300 comments and questions. OUSD's Energy and Sustainability Manager reviewed all of the student feedback and incorporated 12 specific suggested edits to the final language of the Resolution. The sample of verbatim student quotes below reflects their deep interest, concern and curiosity for the climate crisis and how OUSD goes about addressing it. Our students are speaking up about the climate crisis, and their voices ring loud and clear.

"I hope that this plan can actually be implemented and recognized by everyone." - Connie Q.

"Recognizing youth advocacy as something more than a token inclusion is crucial to combating the climate crisis. I'm pumped that it's a key aspect of this resolution!" - **Sage P.** 

"In order for everyone to beat climate change together we must first start off with racial injustice. Racial injustice blocks off a large population of people that are also willing to stop climate change." - **Anthony Y.** 

"I am interested in being closer and go[ing] deeper into this project as a Brown student from East Oakland." - **Emily R.** 

"They should listen to us, yes. AND the burden shouldn't fall on us alone. We were born into a trashed world. We did not make this mess and older generations need to take responsibility for cleaning it up." - **Maya W.** 

"How will students be afforded genuine agency?" - Kiyomi J.

"Schools with higher percentages of BIPOC students (in low-income communities) also tend to be riddled with the most structural & systemic problems, exacerbating the pre-existing health conditions brought on by environmental racism. Although the board say[s] they commit to keeping the concerns of BIPOC central to the planning process, how will they make sure that these concerns are actually met with real-life solutions, not just "consideration"?" - Lucia J.

"The absenteeism issue is especially prevalent now, with all of the fires and smoke affecting people with asthma. Two years ago, when there was tons of smoke in the air right before Thanksgiving, I could not go outside without my inhaler or a smoke mask. I missed three days of school." - **Sage P.** 

"Will the progress of the Task Force be provided to the public, so the community may understand their actions and input suggestions? When is the earliest time that the Task Force will be put together?" - **Wilson W.** 

"I like that the task force will be interdepartmental. Also will a twice a year update be enough?" - Elizabeth F.

"...[R]ates of asthma are some of the best evidence for environmental injustice." - Maya W.