Clean Coalition
Making Clean Local Energy Accessible Now

Peninsula Advanced Energy Community (PAEC)

Task 8: Solar Siting Survey

Summary Final Report of Commercial-Scale Sites for 100 kW (AC) or Larger Solar Photovoltaic (PV)

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About the Clean Coalition

The Clean Coalition is a nonprofit organization whose mission is to accelerate the transition to renewable energy and a modern grid through technical, policy, and project development expertise.

The Clean Coalition drives policy innovation to remove barriers to procurement and interconnection of distributed energy resources (DER) — such as local renewables, advanced inverters, demand response, and energy storage — and we establish market mechanisms that realize the full potential of integrating these solutions. The Clean Coalition also collaborates with utilities and municipalities to create near-term deployment opportunities that prove the technical and financial viability of local renewables and other DER.

Visit us online at www.clean-coalition.org.

Legal Disclaimer

I. Introduction

The Peninsula Advanced Energy Community (PAEC) is a groundbreaking initiative to streamline policies and showcase projects that facilitate local renewables and other advanced energy solutions like energy efficiency, energy storage, and electric vehicle charging infrastructure. The PAEC will create pathways to cost-effective clean local energy and community resilience throughout San Mateo County and the City of Palo Alto; and beyond. The PAEC is a collaboration between the Clean Coalition, the California Energy Commission (CEC), Pacific Gas & Electric (PG&E), and an array of municipalities, emergency response jurisdictions, schools & universities, and corporate entities.

The PAEC initiative will play a key role in helping California achieve its bold climate and renewable energy goals by demonstrating that an Advanced Energy Community (AEC) is feasible — from both a technical and financial perspective. The vision of an AEC includes the following:

- A high percentage of power in the PAEC region will be generated from local, renewable sources.
- The energy used by residential and business customers will be used as efficiently as possible.
- New commercial construction will consist of 100% zero net energy buildings before the CEC's 2030 Title 24 requirement.
- More than 50% of existing commercial buildings in the coverage regions will be retrofitted to zero net energy before the CEC's 2030 Title 24 requirement.
- Approval of AEC projects will be quick and efficient, and capital to fund AEC projects readily available to be disbursed.
- Interconnecting local renewables to the electrical grid will be straightforward.
- The grid will be stable, robust, and reliable.
- Energy storage will be affordable and widespread.
- Electric transportation will replace the internal combustion engine and electric vehicles in the coverage regions will support the grid.
- Solar Emergency Microgrids will be installed at all critical facilities, including police and fire stations, emergency operations centers, and emergency shelters.

The Clean Coalition conducted the PAEC Solar Siting Survey to determine the technical siting potential for commercial-scale solar photovoltaic (PV) installations within the PAEC region. Although its focus is on PAEC, the methodology is general and can be applied anywhere. In addition to assessing the technical solar potential, the Clean Coalition also evaluated the Integration Capacity Analysis (ICA) of the nearest feeder line for the prospective solar sites. By combining this data, this Solar Siting Survey highlights the optimal locations to connect local solar to the grid, where the value is greatest and interconnection the quickest and cheapest.

The PAEC Solar Siting Survey identifies lower cost and higher value renewable resource opportunities reflecting characteristics of all available sites in relation to existing loads and grid infrastructure. The goal of this survey was to identify feasible, commercial-scale sites for installing 100 kW (AC) or larger solar PV within the PAEC region. By highlighting high-quality PV siting opportunities, this Solar Siting Survey helps utilities, cities, and communities understand the opportunity for local solar generation within a specific geographic area.

II. Technical Siting Potential

The PV generation potential is an assessment of electrical power that could be generated from a given location based upon a set of reasonable assumptions. The goal is to be within about 20% of the technical solar potential of what a more detailed assessment would uncover. There was no consideration of structural integrity or other considerations that can only be discovered by performing a deeper and much more detailed study for each individual site. The goal is to identify prospective solar sites that are worth further investigation.

The results of the PAEC Solar Siting Survey can be used to create targeted marketing campaigns that allow utilities and communities to focus on those properties with high solar potential.

a. Methodology

Professional solar PV project developers validated the methodology and assisted in its creation. The survey is performed manually through a multi-step process:

- Scan an aerial survey source, such as Google Earth, for prospective solar sites.
- Measure the usable surface area (roof, parking lot, parking structure) and eliminate obvious portions that are not viable.
- Assess the probable PV density as explained below.
- Extrapolate the surface area and density assessment to obtain the projected generation capability in Watts (W) AC.

With current and pending solar PV panel efficiencies, high-medium-low density scenarios were examined and direct current (DC) power levels of 8-7-6 W/square feet (sq ft) were agreed on. For alternating current (AC) output, these numbers were backed off to 7-6-5 W/sq ft. These numbers are probably more conservative than needed, especially for the medium and low density scenarios, but it was felt they provided additional downward margin to allow for increasing roof clutter typically found in older buildings with lower density, but still usable, potential. The goal is to be within 20% of the values that a detailed design would produce.

Why not use online tools such as Google Sunroof for the survey? Tools available online are oriented toward residential solar installations. These tools use LIDAR data from aerial surveys conducted by the U.S. government with a resolution of about one square meter for each data point. They are reasonably accurate for uncluttered residential rooftops where the LIDAR data is combined with government records showing structure boundaries. However, these online tools totally omit parking lots and parking structures, and they overestimate the potential on cluttered flat rooftops because they cannot "see" the clutter of heating, ventilation and air condition (HVAC) components and piping with 1-meter resolution. Since parking lots and parking structures represent over 40% of the potential found in this survey, it is important to include these sites in an assessment of technical solar potential.

For parking lots, only the rows where two cars can park head-in to each other (two deep) are considered, which is typically toward the center of the parking lot. For the most part, single layer rows on the outer boundaries of parking lots were not assessed because the economic proposition for installing solar on the edge of a parking lot is less attractive. The support structure costs are the same, but these single layer rows offer only half the solar PV siting opportunity of the two-deep rows. The one exception made in the PAEC Solar Siting Survey was due to a report delivered to the Sequoia Union High School District, where many single-row parking canopies were proposed.

Parking structures are rated at high density because fire truck access space is not required between rows as it is with parking lots

b. Minimum Project Size

A minimum project size is established to provide a reasonable stopping point to the survey process. In this survey, 100 kW (AC) was chosen as the minimum project size. Some sites that are a little lower, but still close to that size are included, especially when part of an aggregated set of buildings or part of a larger entity, such as a school district.

This minimum size was chosen based upon two factors. First, the PAEC region incorporates land whose development mostly occurred decades ago and does not have many opportunities for single site projects larger than 500 kW. Also, the plan was to work closely with school districts to assess aggregated siting opportunities across multiple school sites, which individually cannot host large solar projects. As seen in **Error! Reference source not found.**, more than 80% of the individual sites in this study are less than 250 kW.

c. Types of Structures

In dense urban environments, rooftops provide a ready source of siting options. The large, flat rooftops found on commercial and industrial buildings are ideal for siting large solar arrays. South-facing angled roofs are also included here. In general, south-facing angled roofs offer smaller surface areas but can be useful in the aggregations discussed below.

The biggest untapped resources usually available in urban environments are parking lots and parking structures. Parking lots have a slightly lower density opportunity due to the openings between rows that must be maintained for fire truck access. Parking structures do not have this requirement and can have very dense canopies of PV arrays covering the top level of the structure. Adding solar to a parking lot or structure provides the added benefit of shade and rain protection for users.

d. Structure Aggregations

In the PAEC Solar Siting Survey, siting opportunities are not restricted solely to individual rooftops. There are logical groupings of structures that typically fall under a single ownership or management entity, including shopping centers, business parks, school campuses, hospitals, and apartment complexes. Although individual structures in these groups may not reach the minimum project size, their combined totals can far exceed 100 kW. Also, from a marketing standpoint, there are fewer owners or site managers to contact.

e. Icons Used in Map Files for Structures and Information

Solar sites are indicated on the map using the following icons:

Table 1: Site Icons

Site Type	Icon	Description
Flat Roof		Typically commercial and industrial rooftops. Usually has HVAC and piping clutter. Very shallow pitches are included.
Pitched Roof		Typical angled pitched roof found primarily at schools and some apartments.
Parking Lot **Parking Structure**		Parking lots are usually just the central double row head-in areas for cars. Parking structures usually cover the entire canopy.

Logical clusters of related sites are grouped with the following icons:

Table 2: Aggregation Icons

Aggregation Type	Icon	Description
Apartment		Apartment buildings and parking
Transportation Maintenance		Municipal bus maintenance buildings
Business		Industrial and business complexes or campuses
Education		School campuses

Hospital		Hospital grounds, typically mostly parking
Shopping		Commercial shopping centers
Storage (belongings)		Rental storage units

Some sites are noted for other reasons. Existing sites have two icons, one that denotes interesting local installations in the survey area, and another to identify a goal of what high-density solar installations can look like. A few sites, typically already in the planning stages for PV projects, have been noted as well.

Table 3: Other Informational Icons

Site Type	Icon	Description
Existing		Informational notation regarding existing PV on neighboring buildings. No numeric data is provided.
Existing, Target **Red in Google Earth** **White in Google Maps**		High-density PV examples on neighboring buildings that should be used as reference targets for PV density.
More info to come		Site location noted for now without analysis. More information will come as PAEC project progresses.

f. Nearest Feeder and PV Capacity Analysis

The nearest feeder is found from PG&E's Integration Capacity Analysis (ICA) map. The various ICA category values are also obtained from this map and includes the hosting capacity estimates. If the structure PV exceeds the ICA value of the closest (shortest direct distance) feeder, the next closest feeder is used until a viable value is found.

See Section III. Integration Capacity Analysis for more details.

g. Distribution of Files

The PAEC Solar Siting Survey results are distributed in two forms, which are found at the URLs found in Appendix B:

- There are .kml (Keyhole Markup Language) files, which can be displayed on Google Earth or imported into Google Maps. These include a file for city boundaries and one for the siting survey.
- There is a .xslx (Excel) spreadsheet with a table containing all the data used to generate the .kml file, as well as summary breakdowns of the findings. The .kml files are generated from the data found in this file.

h. Summary of Siting Survey

The PAEC Solar Siting Survey identified more than 66 MW (AC) of technical PV siting potential on over 480 structures (see *Figure 1*) in the PAEC area that covers the southern portion of San Mateo County — sited on rooftops, parking lots, parking structures, and logical aggregations greater than about 100 kW (AC).

A summary of sites, grouped by siting potential and city, is shown in the table below. The spreadsheet with the complete summary can be found in Appendix B. An excerpt of the summary tables is shown below in *Figure 1*.

Figure 1: PAEC Solar Siting Survey Summary by Project Size and City

Summary by Structure PV Size

	Num_Sites	kW_Total	PV W_AC >=	500 kW	> and >=	250 kW	Less than	250 kW
Totals:	484	66,228 kW	24	17,073 kW	56	18,840 kW	404	30,315 kW
Atherton, CA 94027	33	1,502 kW	-	- kW	-	- kW	33	1,502 kW
Menlo Park, CA 94025	102	18,909 kW	7	5,786 kW	17	5,544 kW	78	7,579 kW
East Palo Alto, CA 94303	91	8,134 kW	4	2,499 kW	2	575 kW	85	5,060 kW
Redwood City, CA 94061	14	1,190 kW	-	- kW	1	445 kW	13	745 kW
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Redwood City, CA 94063	90	17,532 kW	9	6,466 kW	13	4,349 kW	68	6,717 kW
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Woodside, CA 94062	14	1,151 kW	-	- kW	1	327 kW	13	824 kW

Summary by Structure Types

	Roof_Flat	kW_Total	Roof_Angled	kW_Total	Pkg_Lot	kW_Total	Pkg_Garage	kW_Total
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East Palo Alto, CA 94303	60	4,991 kW	15	593 kW	15	2,312 kW	1	238 kW
Redwood City, CA 94061	2	168 kW	9	195 kW	4	828 kW	-	- kW
Redwood City, CA 94062	13	537 kW	1	30 kW	4	173 kW	-	- kW
Redwood City, CA 94063	53	9,160 kW	1	77 kW	30	7,097 kW	6	1,198 kW
Redwood City, CA 94065	18	2,446 kW	5	92 kW	18	3,077 kW	12	4,435 kW
San Carlos, CA 94070	36	3,361 kW	1	67 kW	4	1,568 kW	1	623 kW
Belmont, CA 94002	21	1,271 kW	2	50 kW	4	81 kW	-	- kW
Woodside, CA 94062	3	233 kW	10	591 kW	1	327 kW	-	- kW

III. Integration Capacity Analysis

The Integration Capacity Analysis (ICA) segment of PAEC Solar Siting Survey provides inputs from PG&E's ICA database at the feeder sections that appear to be closest for interconnection at the proposed site. The ICA calculations are only done for the 3-phase segments of the distribution grid.

PG&E's ICA mapping tool is found at:

> https://www.pge.com/b2b/energysupply/wholesaleelectricsuppliersolicitation/PVRFO/PVRAMMap/

The PG&E Help file link is found on that page as well. In the Help file, it notes: "These values are intended to help users by indicating DER capacities that are expected to require Detailed Interconnection Studies. It is encouraged that customers apply using DER capacities that are less than the reported Integration Capacity value to have better chances of passing the interconnection Fast Track."

In the pop-up window for each potential site, the following information appears:

Figure 2: ICA Data Table Example

ICA Data

Item	Data	UoM
Feeder ID	BELL HAVEN 1104	
Distance	-	ft
PV Minimal Impact	1,092	kW
PV Possible Impact	4,345	kW
EV Minimal Impact	1,810	kW
EV Possible Impact	2,154	kW

- The Feeder ID is the closest feeder identified for easy interconnection.
- Distance is estimated as a straight line from the nearest feeder line to a significant portion of the building or parking lot/structure. Zero distance means that the feeder crosses or appears to terminate on the property near the point of intended use.
- PV Minimal and Possible Impacts are calculations that, as noted above, allow the utility to assess whether the interconnection can be placed into the Fast Track queue**.**
- EV Minimal and Possible Impacts are similar to the PV impacts, but are numbers selected for workplace EV charging installations.

The *Figure 3* below summarizes the major ICA findings by feeder.

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Figure 3: ICA Summary by Feeder

ICA		SSS Findings		ICA			
Substation - Feeder	Feeder Nominal Voltage [kV]	Number of PV Structures	PV Total Generation on Structures [kW]	PV Feeder Minimal Impact [kW]	PV Feeder Possible Impact [kW]	EV Workplace Minimal Impact [kW]	EV Workplace Possible Impact [kW]
BELL HAVEN 0401	4	36	1,237	388	879	-	-
BELL HAVEN 0403	4	31	3,969	291	668	-	-
BELL HAVEN 1102	12	10	4,425	1,646	2,226	1,530	3,214
BELL HAVEN 1103	12	10	1,599	2,613	3,132	2,613	4,846
BELL HAVEN 1104	12	29	2,666	2,058	4,015	2,043	3,234
BELL HAVEN 1105	12	44	5,211	2,263	2,658	3,292	2,658
BELL HAVEN 1106	12	12	2,155	1,337	-	1,337	-
BELL HAVEN 1107	12	11	2,980	2,340	-	3,087	6,465
BELMONT 0401	4	7	587	645	1,073	645	713
BELMONT 1101	12	22	3,846	2,819	4,971	2,819	4,971
BELMONT 1103	12	28	871	1,305	-	2,438	2,677
BELMONT 1104	12	1	328	1,301	3,681	1,301	2,908
BELMONT 1106	12	31	2,582	1,542	-	2,613	4,197
BELMONT 1107	12	29	4,026	2,325	5,165	2,325	4,681
BELMONT 1109	12	15	2,088	2,819	6,473	2,819	3,856
BELMONT 1111	12	2	679	1,646	-	684	-
GLENWOOD 0405	4	14	682	274	-	106	-
GLENWOOD 0406	4	1	105	359	518	359	1,522
GLENWOOD 1101	12	36	2,650	2,016	4,087	2,263	3,399
GLENWOOD 1102	12	16	1,970	2,029	4,087	2,029	3,399
MENLO 0401	4	7	148	446	-	-	-
MENLO 0403	4	9	152	439	-	-	-
REDWOOD CITY 0405	4	7	610	468	560	468	1,246
REDWOOD CITY 0409	4	25	1,049	343	874	304	786
REDWOOD CITY 1101	12	3	1,477	569	-	1,537	-
REDWOOD CITY 1102	12	17	3,147	2,263	5,780	2,263	5,780
REDWOOD CITY 1103	12	20	2,121	2,613	4,324	2,613	4,044
REDWOOD CITY 1104	12	12	1,991	1,337	-	2,161	2,210
REDWOOD CITY 1105	12	7	1,781	2,263	3,691	2,263	3,800
REDWOOD CITY 1106	12	11	4,023	2,325	4,328	3,025	3,447
SAN CARLOS 0401	4	5	1,208	754	1,584	-	-
SAN CARLOS 1102	12	1	635	2,613	4,233	2,002	-
SAN CARLOS 1103	12	21	817	2,058	2,280	2,058	2,280
WOODSIDE 1102	12	15	1,151	1,029	-	440	-
WOODSIDE 1105	12	8	850	2,613	-	2,613	-

Note that there are a number of feeders on which the proposed PV generation exceeds the minimal or possible impact capacities. This is normal, and exemplifies why those who apply for interconnection first on a feeder can have potentially lower interconnection costs if their projects are under the impact levels that the utility has pre-calculated. This is first mover advantage.

IV. Spreadsheet and Google Earth .kml File Content

a. Summary Sheets

The PV Summary sheet is derived from the data sheet described below. Totals are given for solar PV siting potential and are then broken by structure type and by City/Zip Code combinations. Also, a breakdown of aggregations is provided, based on site type and by City/Zip Code. See *Figure 1* for an excerpt and *Figure 6* for a copy of the PV Summary.

The legend symbols used in the map are defined on the PV Summary sheet. The survey has uncovered more the 65 MW of siting potential in the PAEC area. A couple of high potential companies are noted on the summary sheet. Oracle has about 3.5 MW and Facebook over 4 MW of solar PV potential on their properties, mostly on parking lots and parking structures.

The ICA Summary sheet is also derived from the data sheet. It contains the table in *Figure 3* as described in Section III. Integration Capacity Analysis.

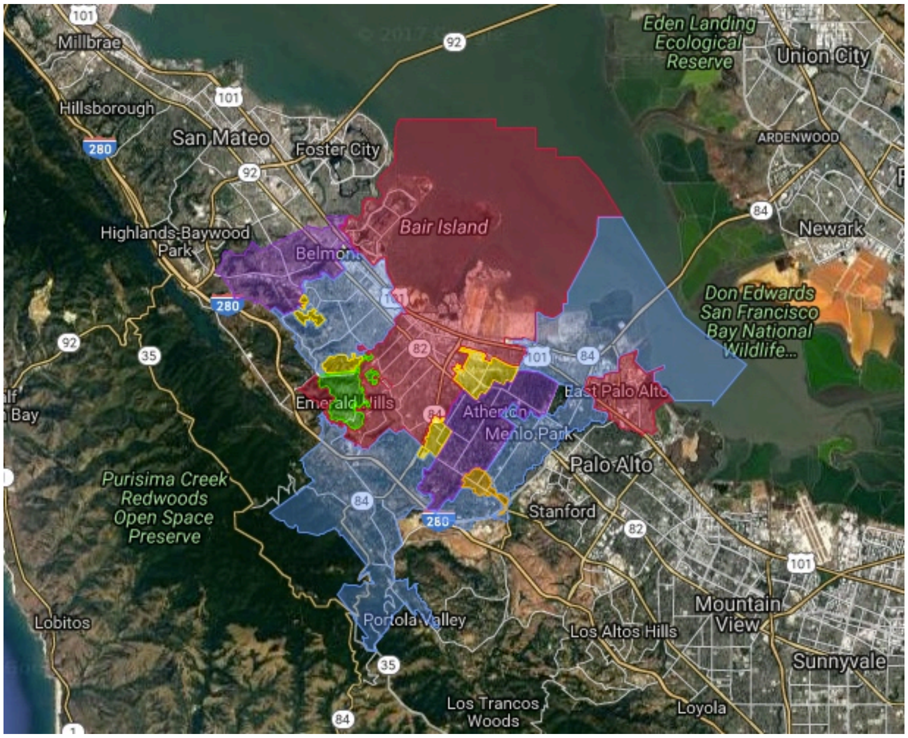
b. Data

The spreadsheet columns are clearly labeled. All information appearing in the .kml map is derived from the data sheet. For roofs that do not fit easily into a rectangular definition or may have cutouts or shade exclusions, notes can be found in the *Area_ft2* formula entries with comments that explain which portions of the rooftops were assessed (“+”) or excluded (“-“). For angled roofs, typically only the south facing slopes were assessed.

c. Map Content

The output of the survey process is a .kml file that is viewable in Google Earth. The legend for the symbols used on the map is found on the spreadsheet summary page and Section II.e. The technical solar PV capacity for each structure and for relevant aggregations is shown next to the icon. When the icon is clicked, a pop-up screen appears with the relevant information for that site, as found in the data sheet. Aggregation icons are scaled to be slightly larger than their components constituents.

Figure 4: An overview of the core PAEC geography assessed



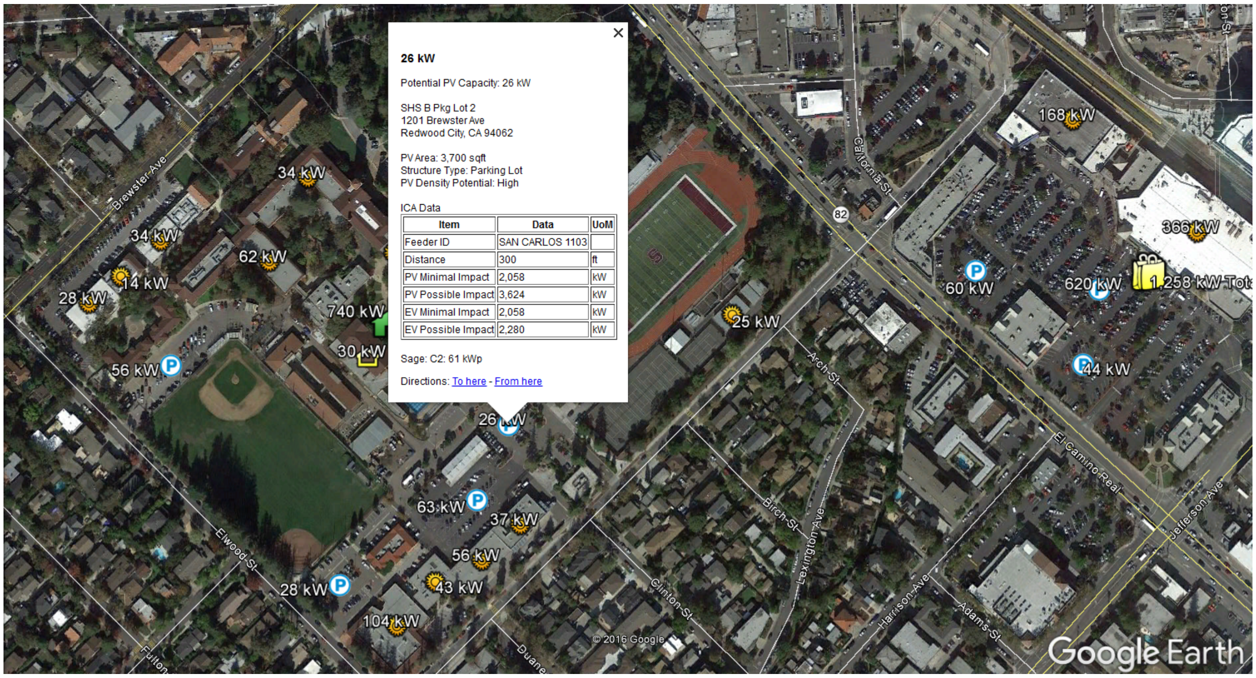
The controls in Google Earth allow for viewing of the city outlines, as well as for the individual sites. Conversely, selecting the item's icon on the map causes the folder to scroll to that item. If the transparent color used to identify a city interferes with viewing details of a roof, that city's polygon can be deselected in the Google Earth folder view.

The .kml file can also be imported into Google Maps for viewing, but it loses several features when viewed with this tool, such as:

- The estimated site capacity no longer appears next to the map icon, but does appear in the folder on the left.
- The Aggregation symbol is not larger than its constituents.
- Certain icons that are colored in Google Earth (e.g. the red target for ideal example rooftops with high density PV) are not colored in Google Maps.
- The folders on the left do not collapse.

In spite of these shortcomings, the Google Maps version is still accurate and useful because many potential viewers may not have the Google Earth application.

Figure 5: A close-up view from the PAEC Solar Siting Survey



d. Structure Types

The major structure types examined are flat roofs, angled roofs, parking lots, and parking structures. They are easily identified by their symbols as defined in ***Table 1: Site Icons***.

e. Aggregations

Aggregations are easily identified by their symbols. A new one that has been added to this survey due to the lower project size is public storage facilities. The symbols used are defined in ***Table 2: Aggregation Icons***.

V. Conclusion

An AEC maximizes the amount of energy that can be generated locally, thus minimizing its need for, and dependence on, the centralized grid power. Solar PV is the most underutilized source of electricity within the PAEC region. The PAEC Solar Siting Survey, which uncovered over 65 MW of technical solar PV siting potential in the southern portion of San Mateo County, shows the enormous opportunity to expand local solar generation in the PAEC. Notably, more than 40% of this siting potential is on parking lots and parking structures. This Solar Siting Survey is the first step to help communities find ways to tap into this underutilized resource. Assuming 1 MW of solar in California supplies enough energy to power 250 typical California homes for one year, this survey identified enough local solar PV capacity to power over 16,000 homes.

Identification of these sites with large local PV potential is an important step for the next phase of the AEC deployment. Not only is a large amount of clean energy available, several of the large sites are contenders for applications for the Community Microgrids and Solar Emergency Microgrids (SEM), where the addition of energy storage coupled with solar can provide resilient community facilities that keep power in the event of a grid outage.

A Community Microgrid is a coordinated local grid area served by one or more distribution substations and supported by high penetrations of local renewables and other distributed energy resources (DER) such as energy storage and demand response. Community Microgrids represent a new approach for designing and operating the electric grid, relying heavily on DER to achieve a more sustainable, secure, and cost-effective energy system while generally providing renewables-driven power backup for prioritized loads over indefinite durations. The substation-level foundation of a Community Microgrid ensures that the approach can be readily extended throughout a utility's service territory and replicated across utilities. For more information, see http://www.clean-coalition.org/our-work/community-microgrids/.

A SEM is an essential asset for communities seeking enhanced resilience of their local power grid. In the event of a power outage or natural disaster, a solar emergency microgrid can island from the larger grid to provide continuous power to a critical facility, such as an emergency response command center, hospital, or police station. Local renewable energy, battery backup, and load shedding solutions are key elements of a solar emergency microgrid. For more information see http://www.clean-coalition.org/peninsula-advanced-energy-community-launches-will-provide-framework-for-the-future-of-clean-energy/.

VI. Appendices

Appendix A: PAEC Solar Siting Survey Summary

Figure 6: Total PV Summary

Summary by Structure PV Size

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Other symbols: Existing PV; Existing PV, High Density (Colored red in G-Earth); Questions, TBD

Aggregate Facilities Summary

Summary by **Aggregation Type**: PV at All Sites

Aggregation Type	Num_Sites	kW_Total	PV W_AC >=	500 kW	> and >=	250 kW	Less than	250 kW
Airport	-	- kW	-	- kW	-	- kW	-	- kW
Apartments	3	1,132 kW	1	627 kW	1	369 kW	1	136 kW
Biz	11	13,349 kW	11	13,349 kW	-	- kW	-	- kW
Bus	1	278 kW	-	- kW	1	278 kW	-	- kW
Edu	27	7,752 kW	5	4,099 kW	5	1,672 kW	17	1,981 kW
Fire_Stn	-	- kW	-	- kW	-	- kW	-	- kW
Golf	-	- kW	-	- kW	-	- kW	-	- kW
Hospital	2	1,018 kW	1	590 kW	1	429 kW	-	- kW
Pump_Stn	-	- kW	-	- kW	-	- kW	-	- kW
Shopping	13	14,794 kW	13	14,794 kW	-	- kW	-	- kW
Storage	10	3,399 kW	1	637 kW	5	2,045 kW	4	717 kW
Totals:	67	41,721 kW	32	34,095 kW	13	4,793 kW	22	2,833 kW

Heavy Hitters	
Oracle	3,490 kW
Facebook	4,339 kW

Summary of **Aggregate Facilities** by City/ZIP

	Apartments		Biz		Edu		Shopping	
	Num_Sites	kW_Total	Num_Sites	kW_Total	Num_Sites	kW_Total	Num_Sites	kW_Total
Atherton, CA 94027	-	- kW	-	- kW	5	1,502 kW	-	- kW
Menlo Park, CA 94025	-	- kW	3	4,954 kW	5	865 kW	-	- kW
East Palo Alto, CA 94303	2	763 kW	-	- kW	8	1,726 kW	2	3,440 kW
Redwood City, CA 94061	-	- kW	-	- kW	1	195 kW	1	996 kW
Redwood City, CA 94062	-	- kW	-	- kW	1	740 kW	-	- kW
Redwood City, CA 94063	1	369 kW	1	1,318 kW	4	587 kW	7	8,264 kW
Redwood City, CA 94065	-	- kW	6	5,869 kW	1	115 kW	2	1,550 kW
San Carlos, CA 94070	-	- kW	1	1,208 kW	-	- kW	1	544 kW
Belmont, CA 94002	-	- kW	-	- kW	1	871 kW	-	- kW
Woodside, CA 94062	-	- kW	-	- kW	1	1,151 kW	-	- kW
Totals:	3	1,132 kW	11	13,349 kW	27	7,752 kW	13	14,794 kW

	Storage		Hospital		Bus	
	Num_Sites	kW_Total	Num_Sites	kW_Total	Num_Sites	kW_Total
Atherton, CA 94027	-	- kW	-	- kW	-	- kW
Menlo Park, CA 94025	-	- kW	-	- kW	-	- kW
East Palo Alto, CA 94303	3	582 kW	-	- kW	-	- kW
Redwood City, CA 94061	-	- kW	-	- kW	-	- kW
Redwood City, CA 94062	-	- kW	-	- kW	-	- kW
Redwood City, CA 94063	3	1,200 kW	2	1,018 kW	-	- kW
Redwood City, CA 94065	-	- kW	-	- kW	-	- kW
San Carlos, CA 94070	4	1,617 kW	-	- kW	1	278 kW
Belmont, CA 94002	-	- kW	-	- kW	-	- kW
Woodside, CA 94062	-	- kW	-	- kW	-	- kW
Totals:	10	3,399 kW	2	1,018 kW	1	278 kW

Appendix B: PAEC Solar Siting Survey Files

The following files are available with the Solar Siting Survey information:

- Data spreadsheet including Summary sheet shown in Appendix A.
- kml file importable into Google Earth that contains city outlines and Solar Siting Survey sites

  https://drive.google.com/drive/u/1/folders/0B0ebi4di8sxfc2NXZ0o3UUVlVGs

- A Google-Maps viewable version of the kml file that is accurate but has fewer viewing features than when viewed in Google-Earth

  https://drive.google.com/open?id=125yAL1mUho28elCU0gnwJnqaxg0