BOARD OF SUPERVISORS AGENDA LETTER

Agenda Number:

Clerk of the Board of Supervisors
105 E. Anapamu Street, Suite 407
Santa Barbara, CA 93101
(805) 568-2240

Submitted on:
(COB Stamp)

Department Name:	General Services
Department No.:	063
For Agenda Of:	03/04/2025
Placement:	Departmental
Estimated Time:	30
Continued Item:	NA
If Yes, date from:	NA
Vote Required:	3/5

TO: Board of Supervisors

FROM: Department Director(s): Kirk Lagerquist, Director (805) 560-1011

DocuSigned by: Kirk Lagerquist
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Contact Info: John Green, Assistant Director (805) 568-3096

SUBJECT: Countywide Renewable Energy Development Project Decision

County Counsel Concurrence

As to form: Yes

Auditor-Controller Concurrence

As to form: Yes

Other Concurrence

As to form: Risk

Recommended Actions:

That the Board of Supervisors:

a) Receive and file information and a presentation on the Santa Barbara County Solar Development Update; and

b) Provide direction to staff regarding the following items presented:
   i. Direct staff to explore debt financing opportunities and move forward with direct purchase for all project sites; or
   ii. Move forward and negotiate Power Purchase Agreements for all sites; or
   iii. Move forward with Power Purchase Agreements for all Net Energy Metering 2.0 projects and postpone decision on Net-Billing Tarriff projects; or
   iv. Any combination of the above options; or
   v. No action; and

c) Determine that the proposed actions are not a “project” as defined by the California Environmental Quality Act (CEQA) Guidelines Section 15378(b) (5), as it is an administrative activity that will not result in direct or indirect changes in the environment.

Summary:

Santa Barbara County is considering 8 additional renewable energy projects to align with its Zero Net Energy (ZNE) Resolution, Energy Assurance Plan (EAP), and Climate Action Plan (CAP). Staff recommends moving forward item b.ii move forward and negotiate Power Purchase Agreements for all sites.

Discussion:

Beginning in late 2022, General Services staff began scoping out the most viable project locations for solar photovoltaic arrays and possible battery energy storage systems (BESS). This initiative supports the County by reducing reliance on external energy sources, improving reliability of electricity systems, supporting fiscally responsible management practices, and promoting a healthier environment. Staff have provided a summary of the eight (8) recommended project sites and are currently seeking direction from the Board of Supervisors regarding whether to finance and own these projects, enter Power Purchase Agreements (PPAs), a combination of options, or take no action.

Background:

The County is interested in expanding its renewable energy generation portfolio at multiple sites located throughout the County with the goal of decreasing annual electricity costs, reducing emissions, and continue progress toward Zero Net Energy and sustainability goals.

In 2023, the Energy Division provided a presentation to the Board of Supervisors and received direction to provide the costs and financial benefits of financing, developing, and owning renewable energy systems versus entering into PPAs. With the Net Energy Metering 2.0 (NEM 2.0) tariff deadline approaching, staff successfully submitted interconnection applications for six out of the eight total projects identified. Currently, five of the eight projects have NEM 2.0 interconnection agreements, with three of the eight projects now in pursuit of Net Billing Tariff (NBT).

In January 2024, staff hired Optony Inc. to support the development of the Solar PV and Battery Energy Storage Design, Installation, and Operation RFQ/RFP document, providing critical support for the County in the early stages of this project. Critical information was collected and documented throughout 2024 to provide sufficient information to proposers. While it was communicated that NEM 2.0 projects must be prioritized, it was determined that requiring this deadline as a contract requirement would limit responses to the RFQ/RFP.

In October 2024, County staff solicited statements of qualifications and cost proposals from qualified entities to provide professional services for the County of Santa Barbara Facilities located at the eight (8) sites across the County. County staff is also interested in incorporating an "islandable" Microgrid Energy Management System (MEMS), but those final decisions will be made later, based on project feasibility and need for resiliency.

Proposers provided responses that included the design and engineering, procurement of materials, permitting, installation, interconnection, and all associated documentation, maintenance, and warranties of turn-key Solar PV and BESS to be located at sites within the County. It is anticipated that such Systems may be purchased outright by the County or may be financed, owned, and operated by the Proposer under an agreement such as, but not limited to, a PPA.

To provide the best value for the County, various financing options were sought in the Proposals so that the County can select from appropriate choices including, but not limited to, direct purchase, PPA, and other cost-effective options recommended by Proposers.

Below is a list of all eight (8) facilities that are included in the Project:

Site	Address	Utility Provider	Solar PV	Battery Storage
Calle Real Campus (Expansion)	439 N. San Antonio Road, Santa Barbara, CA 93101	Southern California Edison (SCE)	1,400 kW-DC	946 kW / 1,892 kWh
Foster Road Campus	812 W. Foster Road, Santa Maria, CA 93455	Pacific Gas and Electric (PG&E)	726 kW-DC	NA
Downtown Campus	123 E. Anapamu Street, Santa Barbara, CA 93101	Southern California Edison (SCE)	648 kW-DC	614 kW / 1,228 kWh
Northern Branch Jail	2301 Black Road, Santa Maria, CA 93455	Pacific Gas and Electric (PG&E)	1,105 kW-DC	483 kW / 966 kWh
Lake Cachuma	2225 Hwy 154, Santa Barbara, CA 93105	Pacific Gas and Electric (PG&E)	580 kW-DC	NA
Animal Shelter	548 W. Foster Road, Santa Maria, CA 93455	Pacific Gas and Electric (PG&E)	131 kW-DC	75 kW / 150 kWh
New Cuyama Aquatics Center	290 Wasioja Street, New Cuyama, CA 93254	Pacific Gas and Electric (PG&E)	32 kW-DC	NA
Sheriff Coroner Building / Fire Station 34	3500 Harris Grade Road, Lompoc, CA 93436	Pacific Gas and Electric (PG&E)	68 kW-DC	NA

In January 2025, two firms, Engie and Endelos, were issued a notice of intent to award for the eight sites. Each firm was selected based on their qualifications to perform the specific scope of work at each location. To compare proposals from each firm, County staff requested that proposers utilize an expected electricity cost escalation of 3%, a 20-year timeline for costs and benefits, and $0 capital investment for PPAs. While further negotiations will need to be conducted, the twenty-year cost estimates for each location are provided below in a summary format:

Location	Intent to Award	Tarriff Status	Ownership Cost	Ownership Net Benefit	PPA Expense	PPA Net Benefit
Calle Real Campus	Endelos	NBT	$3.5M	$8.5M	$8.2M	$3.7M
Foster Road Campus	Engie	NEM 2.0	$4.7M	$8.8M	$5.6M	$6.6M
Santa Barbara Downtown Campus	Endelos	NEM 2.0	$2.3M	$2.9M	$4.4M	$2.7M
Northern Branch Jail	Engie	NEM 2.0	$5.7M	$9.3M	$7.5M	$7.5M
Lake Cachuma	Engie	NEM 2.0	$3.6M	$2.1M	$4.4M	$1.4M
Santa Maria Animal Shelter	Endelos	NBT	$0.7M	$1.3M	$6.3M	$0.6M
New Cuyama Aquatics Center	Endelos	NEM 2.0	$0.3M	$0.2M	$2M	$0M
Sheriff Coroner Building / Fire Station 34	Endelos	NBT	$0.4M	$0.6M	$0.4M	$0.2M

Once the Board of Supervisors provide direction on how to move forward with the projects presented, County staff will begin negotiating a final price for ownership and/or PPA. Contract execution is expected to take two to three months to negotiate. Once contracts are finalized, contractors can begin purchasing long lead-time items, such as transformers and switch gear. This equipment may take upwards of forty (40) weeks to procure and deliver. With April 2026 as the deadline to implement and energize NEM 2.0 projects, expediency is necessary. The selected contractors have submitted proposals which include project schedules that meet this timeline, but it is not recommended that this requirement be included as a legally binding contract element due to volatile market conditions, project design and development complexities, and challenges acquiring materials.

Tariff Comparison (NEM 2.0 vs. NBT)

Staff are working closely with the proposed contractors to develop financial models for both NEM 2.0 and NBT projects. It is critical to understand the implications of both tariff structures before finalizing contracts. Five out of eight proposed projects have NEM 2.0 interconnection agreements. The deadline to achieve Permission to Operate (PTO) for NEM 2.0 projects is April 2026. This presents significant challenges due to long lead-time items, complexities in design, and contract negotiation timeframes.

NEM 2.0 customers are credited 1:1 for excess electricity, making over-generation a driving factor for financial viability. NBT customers are compensated for excess electricity based on "avoided cost" to the utility, thus discounting over-generation. This is typically why battery energy storage systems are included in NBT project design. Due to the considerable financial benefit of the NEM 2.0 vs. NBT tariffs, staff are dedicated to meeting the NEM 2.0 deadlines for current interconnection agreements.

For all NBT projects, BESS are being seriously considered to reduce demand charges and curtail the use of energy during peak hours (4:00PM – 9:00PM). This maximized the net savings for NBT projects and improve the energy resiliency efforts at County facilities. With BESS infrastructure, staff have the capacity to backup critical loads during power outages and curtail the impacts of Public Safety Power Shutoff events.

From a purely financial perspective, NBT projects are less attractive than NEM 2.0 projects. Moving NEM 2.0 projects to NBT presents a loss in net savings over the lifetime of the project, but still present positive net savings and support the County in meeting its energy and climate goals. Staff will consider the cost implications of moving NEM 2.0 projects to NBT and are prepared to negotiate contract terms that are financially viable under both tariff scenarios.

Project Summary

The direct purchase and long-term ownership of the eight sites presents the highest return on investment and will likely require a large portion of the cost to be debt financed. It should also be noted that, while the Investment Tax Credit has been made available to municipalities through the Inflation Reduction Act, there is a possibility that those funds could be inaccessible soon. The uncertainty of this funding source is important to consider when making a final decision.

- Total Capital Cost: $21.3M ($15M after tax credits)
- Estimated Savings over 20 Years: $55M
- Net Benefit: $33.7M ($40M after tax credits)

If the Board of Supervisors does not have an appetite for debt financing the proposed projects, or if it is determined that there is a desire to move forward with the proposed projects more quickly, PPA models allow for expediency with no capital investment. Written into PPA contracts are an opportunity to purchase the asset outright and can be facilitated in any year of the agreement. The net benefit of a PPA is calculated by subtracting the expected future cost of electricity with the estimated annual production of each solar array, multiplied by the pre-determined PPA rate.

Net Benefit = (Baseline Future Electricity Costs) – (Solar Production [kWh] x PPA rate [$/kWh])

- Total Capital Cost: $0
- Estimated Cost of PPA over 20 Years: $38.8M
- Net Benefit: $23M

Once direction is received, contract negotiations can begin. Purchase price and PPA terms will be revisited with the respective contractors. There is currently no proposed financial impact of the decisions requested. Once direction is provided, staff will negotiate terms of agreement and seek County Counsel, Risk Management, and Auditor Controller concurrence. When contracts are finalized, staff will return to the Board of Supervisors seeking final approval.

Staff Recommendation

While the expected net benefit to the County is higher in the direct purchase and ownership scenario, staff recommends moving forward with PPAs for all eight sites.

Foregoing the need to raise capital for PPAs frees up opportunities for debt financing other capital projects throughout the County. Additionally, given that the contractors will own, operate, maintain, and repair the arrays throughout the PPA term, they are incentivized to minimize downtime and maximize production. This reduces the need for County staff to address issues, freeing up limited human capital.

The contractors will also be responsible for pursuing Investment Tax Credits, thus relieving the County from the burden of filing a tax return. The PPA contracts will include the opportunity for purchase, so if the County has a financial appetite to own any of these arrays after tax credits have been capitalized, there will be an opportunity to do so in the future.

Special Instructions to Clerk of the Board:

Please return a Minute Order to Brandon Kaysen, General Services, 260 N San Antonio Road – Casa Nueva, Santa Barbara, CA 93110-1315 and email a copy to bkaysen@countyofsb.org.

Attachments:

Attachment A – Presentation – Santa Barbara County Solar Development Update

Authored by:

cc: Brandon Kaysen, General Services Energy Manager