



## Staff Report Item 18

**TO:** Ava Community Energy Authority

**FROM:** Andy McElroy, Solar & Storage Associate

**SUBJECT:** **Solar and Storage Incentive Program**

**DATE:** April 17, 2024

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### **Abstract**

Ava recommends implementing a battery incentive program for residential installations and resilience hubs with upfront and ongoing incentives. The Program enrollment period would be 5 years long, with ongoing performance payments paid over a five-year term after installation. Upfront incentives will be covered by up to 40% of forecasted revenue surplus for 2023-2024 fiscal year. The ongoing performance payments are paid for with savings from the NEM2.0 to SBP transition and will be budgeted for annually starting with the upcoming FY24/25 budget. The transition from NEM2.0 to SBP reduces customer savings from installing solar by ~\$215/customer/year. Ava will re-direct these funds to the solar and storage incentive program to maintain the customer value of installing local solar at levels similar to NEM2.0.

### **Background and Discussion**

#### Context

April 2023 saw the sunset of NEM 2.0 in California, such that all new PV installations no longer receive 1:1 credits for kilowatt-hours exported to the grid. The item, Solar Billing Plan (SBP) Tariff Policy recommendations on the April 2024 Board of Directors item addresses Ava's proposed approach to managing this change.

New PV installations under SBP are not as financially beneficial as the main benefit from a PV-only system come during the day when the sun is energizing the PV

modules. See Table 1 below which illustrates how value of exported energy changes under SBP. Ava’s proposed SBP export bonuses will recover some of that value for stand-alone solar systems. Ava’s solar and battery incentive is meant to provide additional compensation to solar-paired batteries such that the customer is in a similar financial situation as they would have been under NEM2.0.



**Table 1: Value of solar export under NEM and SBP tariffs**

Ava’s Board of Directors allocated 40% of Ava’s forecasted 2023-2024 revenue surplus, or approximately \$20MM, to support solar and storage installations across residential customers (market rate and CARE + FERA) and community-benefiting Resilience Hubs. This amount is based on the projected revenue surplus for 2023-2024, pending final determination of that surplus amount. Once audited financials are available in Q3 2024, the final budget will be confirmed. Note that this 40% (estimated ~\$20MM) allocation is to cover the upfront incentive payments.

Resolution No R-2023-2 from January 17, 2023 Board Of Directors Meeting:

*To move forward with the Finance, Administrative, and Procurement subcommittee’s recommendation where 60% of the unallocated budget surplus is to be dedicated to on-bill credits with some portion specifically applied to CARE and FERA customers and the remaining 40% is to be allocated for incentives for net-billing tariff projects with an emphasis on resilience development.*

Program Proposal

The proposed program structure and initial incentive levels are described below, staff will have administrative ability to adjust incentive levels in response to market conditions and participation rates as more is learned after program deployment and will keep the Board apprised of any changes.

The program will have incentives split up into upfront and ongoing payments to encourage both initial enrollment and continued battery participation. Incentives will be allocated as follows.

- 50% of budget surplus (~\$10MM) for upfront incentives for CARE/FERA residential customers & Resilience Hubs:
  - Residential - CARE/FERA:
    - \$10,000 at PTO per battery (the definition of a single “battery” will be refined with program development)
    - \$2.00 / kWh / mo of battery capacity paid monthly that Ava, via its DERMS provider, can verify battery operation and ongoing participation in Ava’s demand load management activities.
  - Resilience Hub
    - \$400/kWh upfront incentive. For the purposes of allocation modeling, \$80,000 at PTO for a 200 kWh capacity battery was used, or \$40,000 for a 100 kWh battery, etc. The total number and size of Resilience Hubs is unknown and dependent on individual community projects yet to be developed. One of Ava’s goals is to create as much resilience in our service market as possible. As such, Ava will evaluate a system cap to avoid a few projects consuming the majority of funding. For modeling purposes, a 200 kWh cap would allow for 87 Resilience Hubs participating in the incentive at that size.
    - \$2.00 / kWh / mo of battery capacity paid monthly that Ava, via its DERMS provider, can verify battery operation and ongoing participation in Ava demand load management events.
- 50% of budget surplus (~\$10MM) for upfront incentives for Residential – market rate customers:
  - \$1,250 at PTO per battery (the definition of a single “battery” will be refined with program development)
  - \$2.00 / kWh / mo of battery capacity paid monthly that Ava, via its DERMS provider, can verify battery operation and ongoing participation in Ava demand load management events.

## Customer Value Overview:

### Residential Market Rate

- \$2,690 in incentives
- Bill reduction from improved battery optimization during peak rate times

### Residential CARE/FERA

- \$11,440 in incentives
- Bill reduction from improved battery optimization during peak rate times

Payment requirements - Ava's DERMS must be able to confirm successful battery operation for TOU arbitrage and grid value. The DERMS provider will ensure that that batteries are optimized for current rates and will require participation in a limited number of dispatch events which will be established prior to Program launch and customer enrollment.

Payment mechanism - Ava will develop an incentive payment process with its selected DERMS provider, and plans to pay incentives to customers once the solar and storage system is operational.

### Program Implementation Overview

The solar and storage incentive program implementation requires adding staff and contracting with a DERMS platform to provide solar asset management software and program administration support.

In the first quarter of 2024, Ava recruited a Distributed Energy Resources (DERs) Associate to support the program. The DERs Associate, Forrest Csulak, began work at Ava in late March 2024, supporting the solar and storage program development as well as the launch of a DERMS platform.

A DERMS platform is required to support this program as it will allow Ava to remotely confirm the presence of a battery, monitor battery performance, ensure batteries are operating optimally, and provide an opportunity for Ava to coordinate participants' battery operations for maximum grid benefit. Ava is currently negotiating with a DERMS vendor to provide this software, and Local Development staff will present on this topic at an upcoming Board of Directors Meeting.

Program administration support will be provided by the DERMS vendor to enable online program enrollment, develop more specific program requirements such as an approved equipment list, calculate and pay enrolled customers, and provide customer support for enrollment and device connection/reconnection. Program administration support is also

currently being negotiated, and Local Development Staff will also be presenting on this topic at an upcoming Board of Directors meeting.

To launch the program, Ava will need to both engage in more detailed program development as well as finalize contracts for DERMS software and program administration support. As the timelines for these activities are planned, Ava will have more insight into a launch date. Ava is working toward a launch date in late 2024, and will also plan to return to the Board of Directors in Fall 2024 to provide an update on the timeline for program launch.

### **Fiscal Impact**

Fiscal impacts will result from three separate sources: upfront incentive payments for program participants, ongoing performance payments for program participants, and administration costs.

Program Costs - Upfront incentive payments will come from the 40% FY'23-24 budget surplus, estimated at \$20MM. Ongoing battery performance payments will be derived from the savings of transitioning from NEM2.0 to SBP, which is approximately \$215/customer/year. Ongoing performance payments will be based on program enrollment and ongoing participation and will be budgeted for during the annual budgeting process.

Administrative costs are estimated at ~\$2MM for the proposed 10-year program duration and were previously approved in the FY'24 Local Development budget.

### **Attachments:**

- A. Presentation



# 2024 Ava Solar + Storage Incentive Program



# Program Overview

## Background

- April 2023: NEM 2.0 sunset in California, limiting the value to customers of PV-only installations
- April 2024 Staff proposal to update NEM Policy to implement Net Billing Tariff
- December 2023: Ava's Board directed 40% of forecasted 2023-2024 revenue surplus toward solar and storage-related programs
- Staff reviewed preliminary Solar and Storage incentive program design at March Executive Committee

## Proposed Program Overview

- **Budget:** 40% of budget surplus for upfront incentives (budget estimated to be ~\$20MM), ongoing performance payments funded with NBT savings
- **Duration:** 5-year enrollment period, with ongoing incentives paid for 5 years after installation
- **Launch Date:** Targeting late 2024. We'll come back to the board for final program approval



# Program Design: Incentive Structure

## CARE/FERA Customers + Resilience Hubs

- 50% of upfront incentive budget
- Upfront Incentives:
  - CARE/FERA: \$10,000 per battery
  - Resilience Hubs: \$400/kWh
- Ongoing performance payments for battery management:
  - \$2/kWh of battery capacity paid monthly
- Customer total value over 5-years
  - CARE/FERA: est. \$11,440\*
  - Resilience Hub: est. \$104,000\*

## Market Rate Residential

- 50% of upfront incentive budget
- Upfront Incentives:
  - \$1,250 per battery
- Ongoing performance payments for battery management:
  - \$2/kWh of battery capacity paid monthly
- Customer total value over 5-year program: est. \$2,690\*



\* based on 12kWh residential battery and 200kWh resilience hub battery size for representative purposes only



# Program Capacity and Design

Program Enrollment Capacity	
Market Rate Residential	7,680
CARE/FERA	328
Resilience Hubs	87

The program will be open to all Ava residential customers and Resilience Hubs\* subject to the Net Billing Tariff, including:

- New PV + new battery customers
- Existing PV + new battery customers
- Existing PV + existing battery customers

Batteries must connect and maintain connectivity to Ava's Distributed Energy Resource Management System (DERMS) to be eligible for upfront and ongoing incentives.

Resilience Hub battery installation projects may be capped by capacity to ensure that multiple resilience hubs of varying sizes across Ava's service territory can benefit.

\*Resilience Hubs will be defined for Program Participation

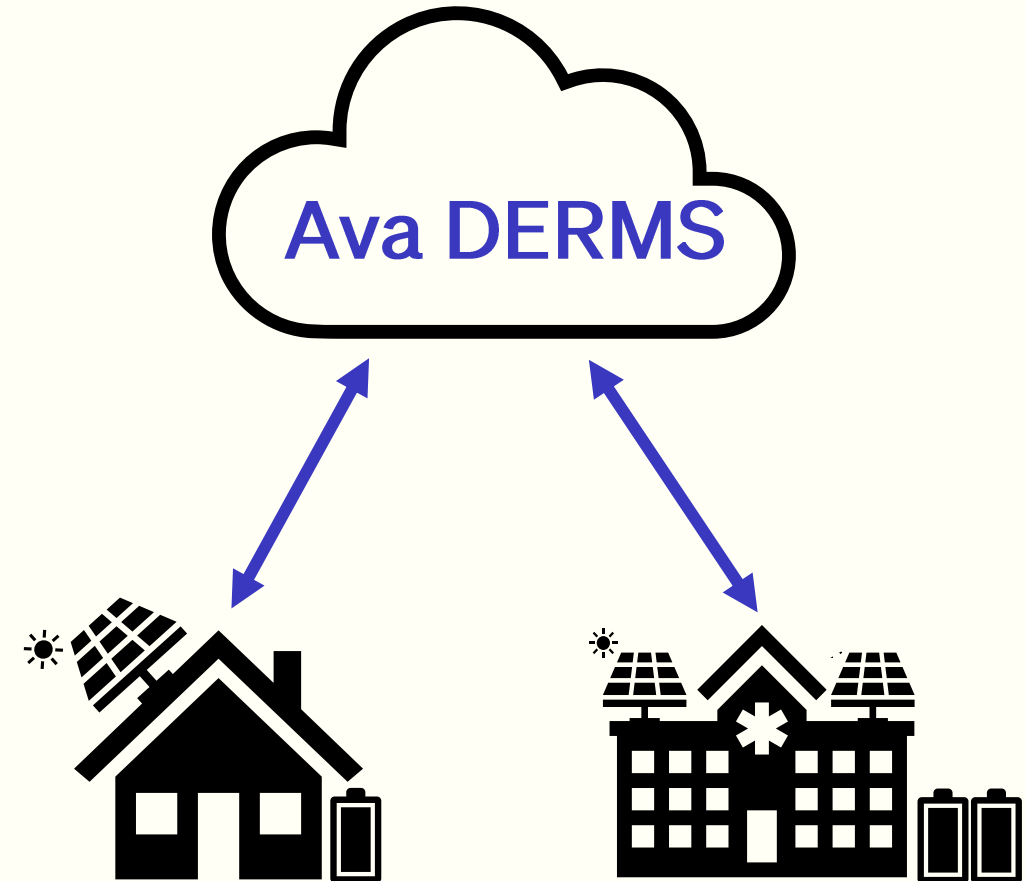


# Interaction with Ava's DERMS

Ava's new DERMS will help facilitate this program by serving these three primary roles:

1. **Eligibility Check:** Verify initial battery installation and continued connectivity.
2. **Battery Optimization:** Optimize customer batteries for current rates; with ability to dispatch batteries in a coordinated way for grid benefit.
3. **Administration Support:** Enable online program enrollment, refine specific program requirements, handle ongoing enrollment incentive payments, and manage customer technical support.

Ava is actively contracting with a DERMS provider and will seek the Board's approval at a future meeting. Ava will continue working with the solar industry to develop battery dispatch rules



# Program Benefits

## How will this benefit the customer?

- CARE/FERA customers: Initial upfront incentive would cover roughly half the upfront cost of a solar and storage system, or almost all of a battery-only installation. Funds allocated are sufficient to significantly increase CARE/FERA solar installations.
- Resilience Hubs: Upfront and ongoing payments would increase energy storage capacity, deepening energy resilience at hub locations.
- Market rate residential customers: participating in the program will increase customer savings and will recover lost savings from transitioning from NEM2.0 to NBT

## How will this benefit the grid?

- More customers with optimized charging and discharging strategies will reduce grid strain during peak hours.
- Controllable battery capacity will give Ava more flexibility to respond to grid emergencies + will provide customers with opportunities to participate in grid management programs beyond Ava's in the future.



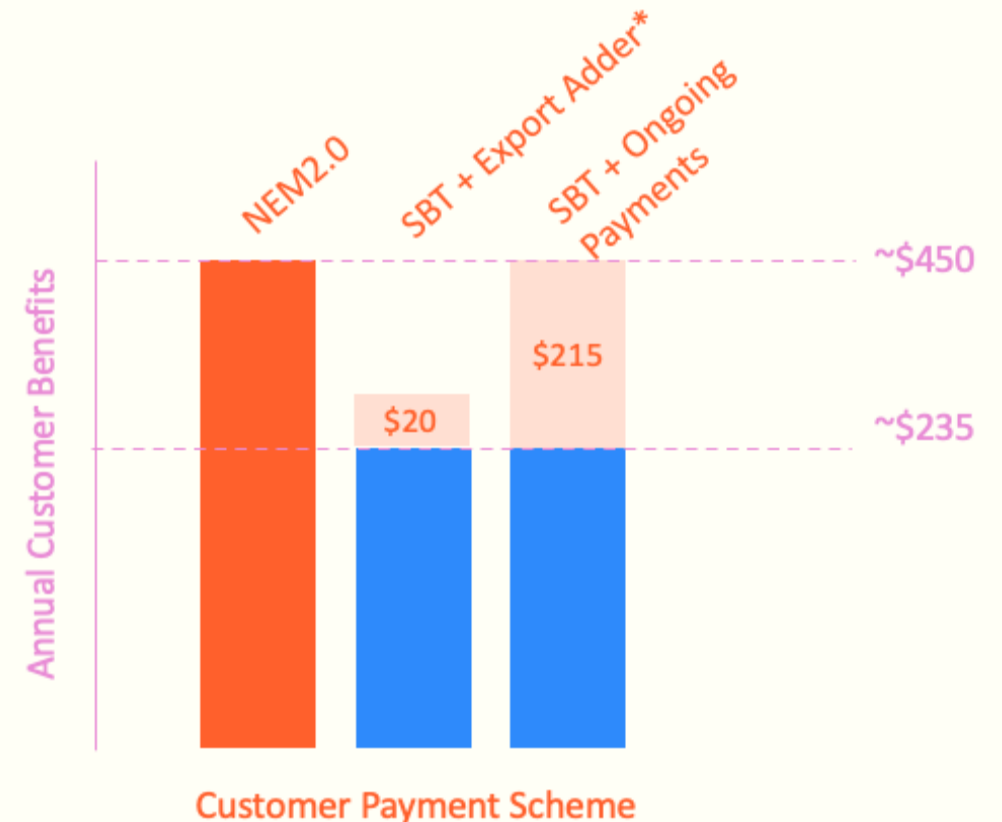
# Budget Funding

## Upfront Incentive:

- 40% of the FY 23-2024 budget surplus, ~\$20M
- Ava will finalize Program budget once audited financials are complete in October 2024

## Ongoing Performance Incentive:

- Transition from NEM2.0 to NBT reduces customer savings from installing solar by ~\$215/customer/year. Ava will redirect these funds to the ongoing performance incentive in this program to maintain the customer value of installing local solar at levels similar to NEM2.0.
- With full ongoing battery participation, Ava would provide \$7.8M in performance payments over 10 years.
- Ava staff will include a budget request for ongoing participation payment funding as a part of the upcoming FY24/25 budget process.



\*Exports with batteries will be lower than stand alone solar



# Thank you!



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