

Solar Net Billing

New Solar Program Update

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**WATER AND
POWER**

How Solar PV Power Works

1

The solar panel cells take the energy from the sun and converts it into Direct Current (DC) electricity.

2

An inverter takes the DC electricity and converts it to grid compatible energy called alternating current (AC).

3

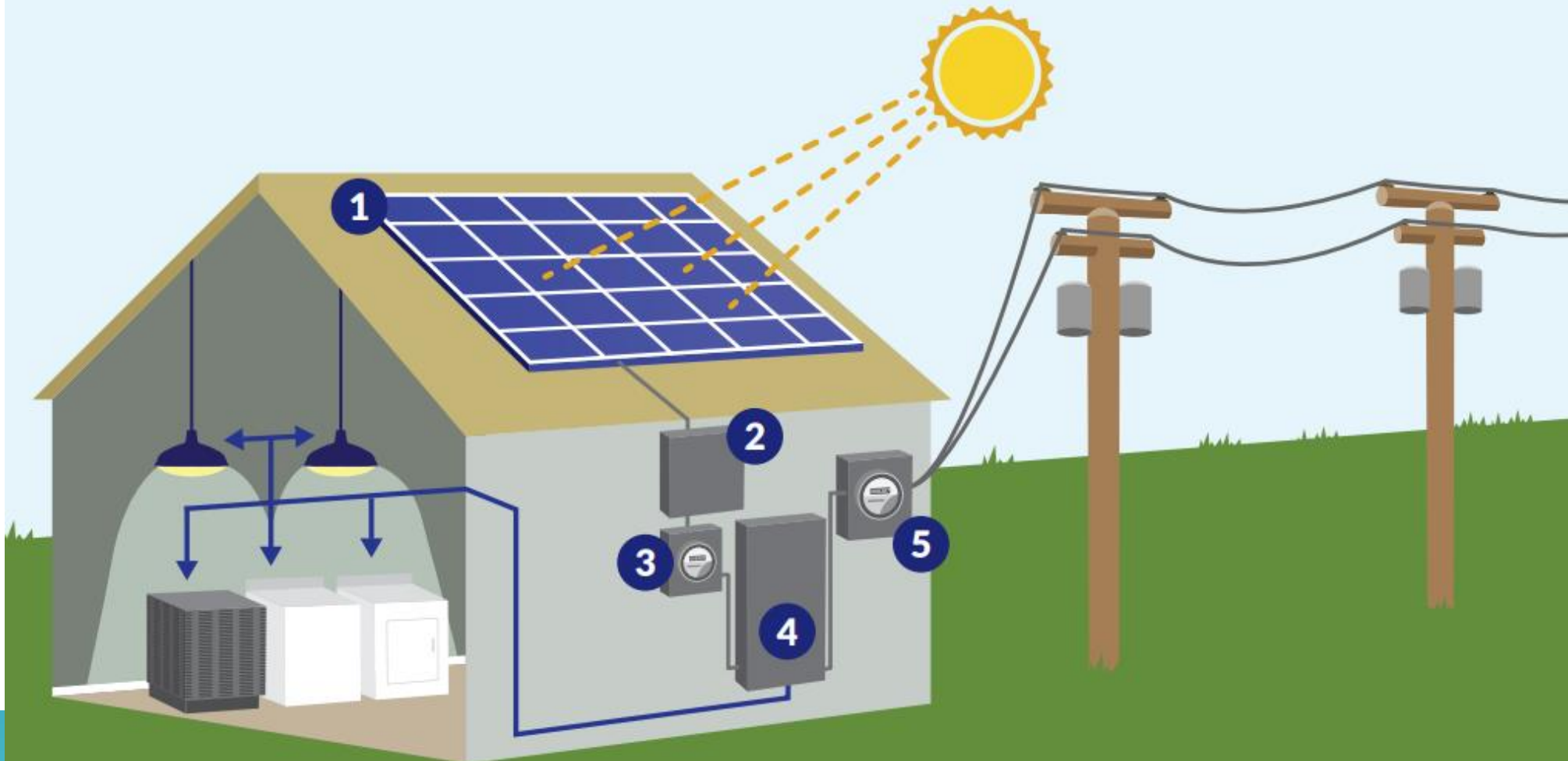
The solar production meter records how much electricity your solar system produces.

4

The main service panel uses electricity from the solar system **FIRST** and is supplemented by BWP's grid when needed.

5

Your main electricity meter measures how much power is being put into and taken out of BWP's grid.



Net Energy Metering (NEM) Background

NEM “1.0”

Established in 1995, required as rate structure until total installations meet 5% of peak demand

Net Energy Billing

Customers billed on net energy delivered to customer and excess energy received by BWP

Credits

Compensation for excess energy (more than 100% of usage) as kWh solar credits



A Brighter Future with Solar Energy

Burbank Water and Power (BWP) is exploring a new customer solar program that aims to:

1. Fairly compensate for solar exported to the grid
2. Increase size caps and simplify the approval process
3. Encourage more efficient use of solar energy



No Changes for Current Solar Customers



Existing Rates

Current solar customers will keep their existing rates.

You'll be grandfathered into the current system for 20 years.



No Changes

If you're already part of Burbank's solar community, you don't have to do anything to continue enjoying the current benefits of your solar system.



Continued Support

BWP values its existing solar customers and ensures their continued benefits.

Why Is It Time To Change?



Looking Forward

Design changes to reflect the needs of the future. For example, we now have higher solar adoption and technologies such as home battery storage.



Regulations

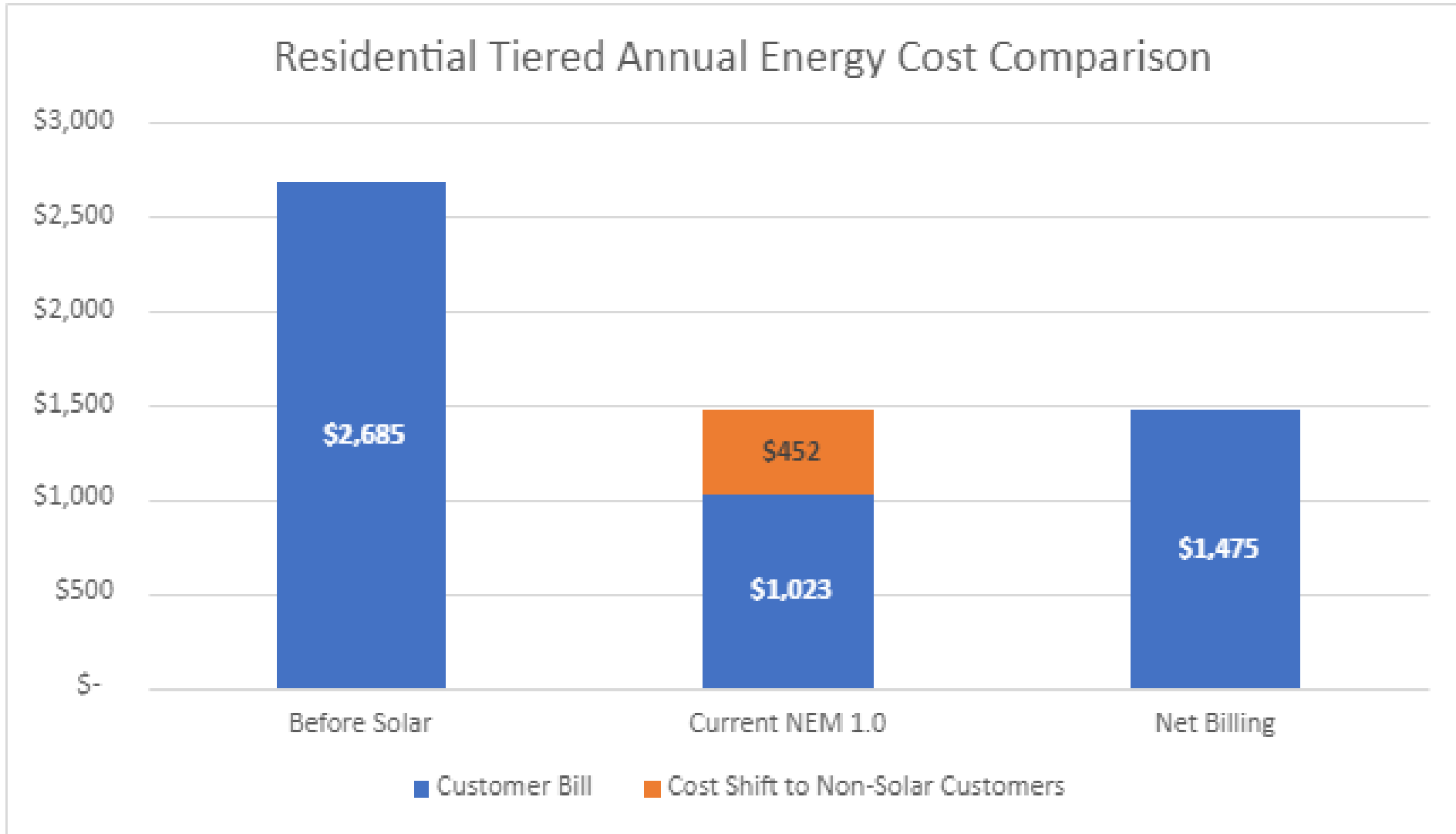
When solar generated in Burbank reaches 5% of peak demand, BWP is allowed to switch to solar net billing (estimated early 2025).



Cost Shift

The current NEM 1.0 is outdated, and overly values the energy that our customers export to the grid. This shifts the cost of energy to non-solar customers.

Cost Shift



Source: rates applied to averaged residential customer data

Net Energy Metering Solar Net Billing

What's Different?

- Moves to a time of use (TOU) rate structure
- Removes concept of solar energy credits
- Instead of solar energy credits (in kWh), customers receive bill credits (in \$) for all energy exported to the grid
- Energy exported will be compensated at BWP's avoided cost of energy (ACOE) rate, which varies by season and time of day

Avoided Cost of Energy

Avoided Generation



Renewable Attribute



Energy Delivered by BWP

Generation



Renewable Attribute



Utility Cost to Serve



Current System

Export Compensation with NEM 1.0

(Retail Energy Rates - FY 2024/25)

Rate Time Period	Residential Tiered (\$/kWh)	Small Commercial (\$/kWh)	Medium Commercial (\$/kWh)
Summer On-Peak (4 PM – 7 PM)	Tier 1: 0.1472 Tier 2: 0.2249	0.3501	0.2395
Summer Mid-Peak (8 AM – 4 PM & 7 PM – 11 PM)		0.2140	0.1585
Summer Off-Peak (11 PM – 8 AM)		0.1686	0.1315
Winter Mid-Peak (8 AM – 11 PM)		0.2140	0.1585
Winter Off-Peak (11 PM – 8 AM)		0.1686	0.1315

Source: City of Burbank 24/25 Fee Schedule, <https://www.burbankca.gov/documents/d/financial-services/final-for-print-fy-24-25-fee-schedule-adopted>

Proposed

Export Compensation with Solar Net Billing

(New System using BWP's Avoided Cost of Energy)

Rate Time Period	Avoided Generation Energy Costs (\$/kWh)	Avoided RPS Costs (\$/kWh)	Total Avoided Cost of Energy (\$/kWh)
Summer On-Peak (4 PM – 7 PM)	0.1086	0.007	0.1156
Summer Mid-Peak (8 AM – 4 PM & 7 PM – 11 PM)	0.0725	0.007	0.0795
Summer Off-Peak (11 PM – 8 AM)	0.0602	0.007	0.0672
Winter Mid-Peak (8 AM – 11 PM)	0.0596	0.007	0.0666
Winter Off-Peak (11 PM – 8 AM)	0.0596	0.007	0.0666

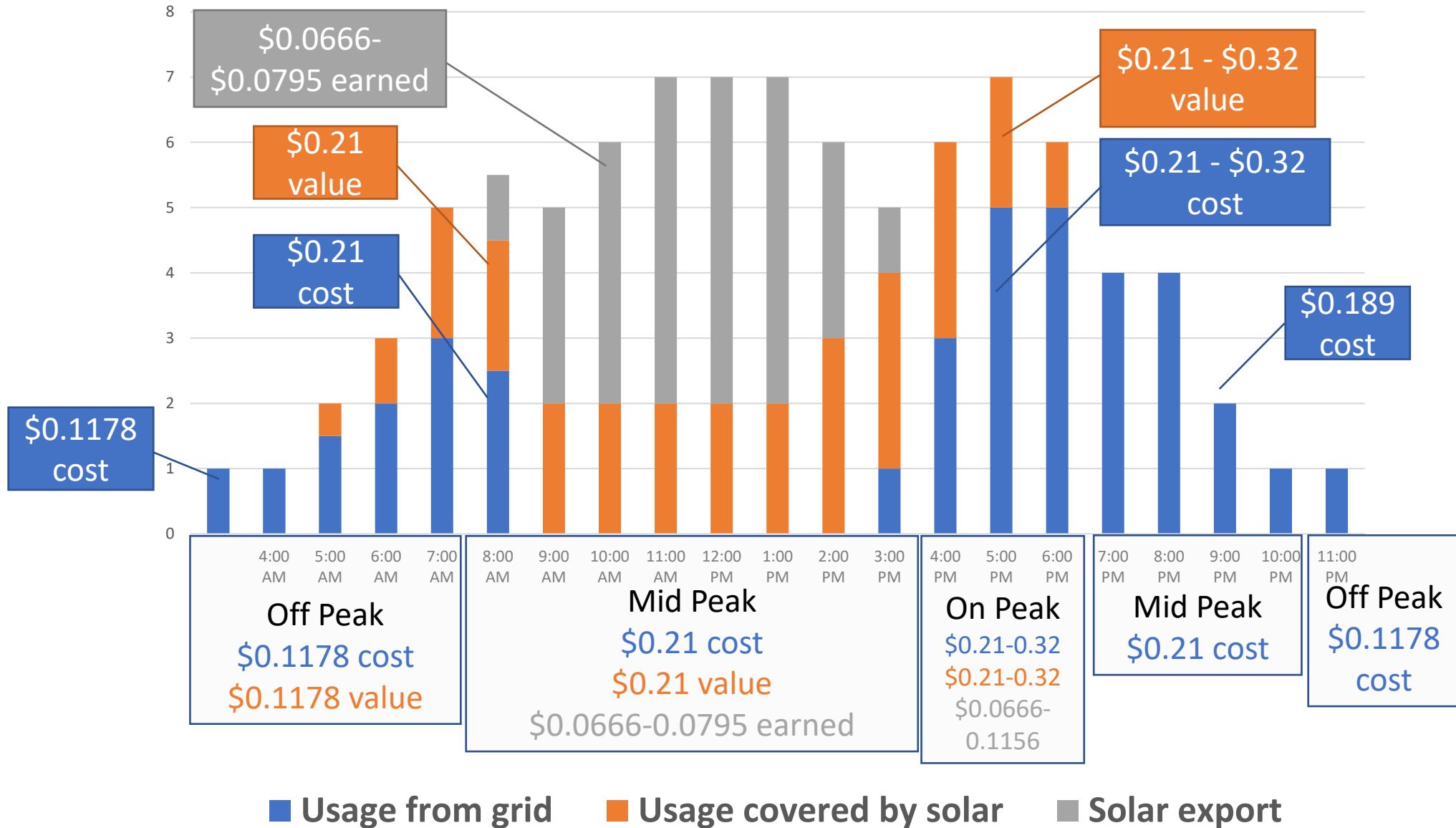
Sources: Avoided Generation – calculated using hourly market curve from CAISO SP-15 and Palos Verde price data
Avoided RPS costs – based on historical PCC3 REC prices – internal price data

Proposed

Customer Value with Solar Net Billing

Rate Time Period	1. Cost for Usage from BWP or Customer's Avoided Cost w/ Solar (\$/kWh)	2. Customer's Revenue for Exported Solar Energy (\$/kWh)
Summer On-Peak (4 PM – 7 PM)	0.32	0.1156
Summer Mid-Peak (8 AM – 4 PM & 7 PM – 11 PM)	0.21	0.0795
Summer Off-Peak (11 PM – 8 AM)	0.1178	0.0672
Winter Mid-Peak (8 AM – 11 PM)	0.21	0.0666
Winter Off-Peak (11 PM – 8 AM)	0.1178	0.0666

The Solar Customer's Value of Electricity Varies (\$/kWh)



Source: Sample averaged residential customer solar data

Annual Bill Impacts

Customer Type	Monthly Usage (kWh)	No Solar Customer Bill (annual)	NEM 1.0 (Current)		Net Billing (Proposed)	
			NEM Bill	Percent Saved	Net Billing Bill	Percent Saved
Residential Tiered	894	\$2,685	\$1,023	62%	\$1,475	45%
Small Commercial	1,608	\$4,794	\$1,655	65%	\$2,746	43%
Medium Commercial	17,021	\$49,653	\$38,046	23%	\$40,417	19%

Source: rates applied to averaged historical customer data from each rate class

Annual Bill Impacts with Oversizing

Customer Type	Annual Bills						
	No Solar	NEM 1.0	Percent Reduction	Net Billing (100%)	Percent Reduction	Net Billing (150%)	Percent Reduction
Residential Tiered	\$2,685	\$1,023	62%	\$1,475	45%	\$938	65%
Small Commercial	\$4,794	\$1,655	65%	\$2,746	43%	\$1,266	74%
Medium Commercial	\$49,653	\$38,046	23%	\$40,417	19%	\$34,613	30%

Source: rates applied to averaged historical customer data from each rate class

Solar Net Billing for New Solar Customers



Launch Date

New program is expected to start in 2025 for all new or upgraded solar installations.



Advantages

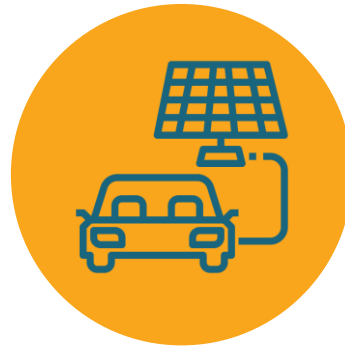
Increased size limits, fair compensation, and streamlined approval process.

Increased Size Limits



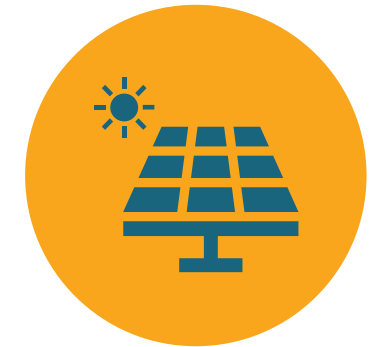
Larger Systems

BWP proposes supporting solar systems up to 5 MW.



Commercial Systems

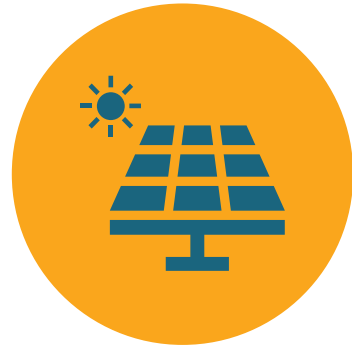
For commercial systems, the size limits are determined by the service capacity



Residential Systems

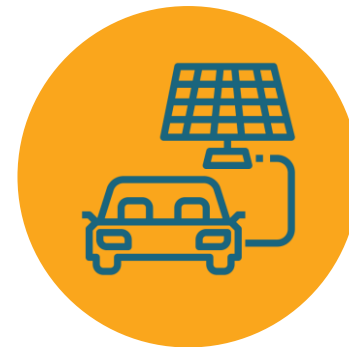
Systems over 10 kW, system size limit is 150% of annual usage, with additional capacity subject to review.

Increased Size Limits



Oversizing Benefits

Customers can "oversize" their solar systems. This helps reduce monthly energy costs and "future-proof" properties.



EV Preparation

Larger systems can accommodate future electric vehicle purchases. This allows for long-term energy planning.

Fair Compensation for Overgeneration



ACOE Compensation

New “Avoided Cost of Energy” system provides clarity on solar compensation.



Direct Bill Credit

Savings applied directly to the next bill.



Excess Generation

Additional amounts go towards future bills or can be received by check annually, upon request.

Streamlined Approval Process



Simpler Forms

Simplified interconnection agreement for the customer to sign.



Faster Review

Removing size review for systems under 10 kW.
For systems over 10kW Providing pre-calculated exceptions for those that want to exceed 150% of annual usage

What is Considered an Upgrade?



New Panels

Adding panels to your existing system.



Adding a Battery

Adding battery storage to your system.

A BWP rebate for battery energy storage is planned.



New Owner

If a property with existing solar is sold or transferred ownership, that would require a new interconnection agreement.

**With BWP,
your solar
future is
taking off**



**We're modernizing solar
billing for new solar
customers in Burbank!**

- Higher maximums for new solar systems
- Lower monthly bills
- No more complicated credit system
- And more!

Questions/Comments?



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