Sol-Ark®

NEM 3.0 Solutions

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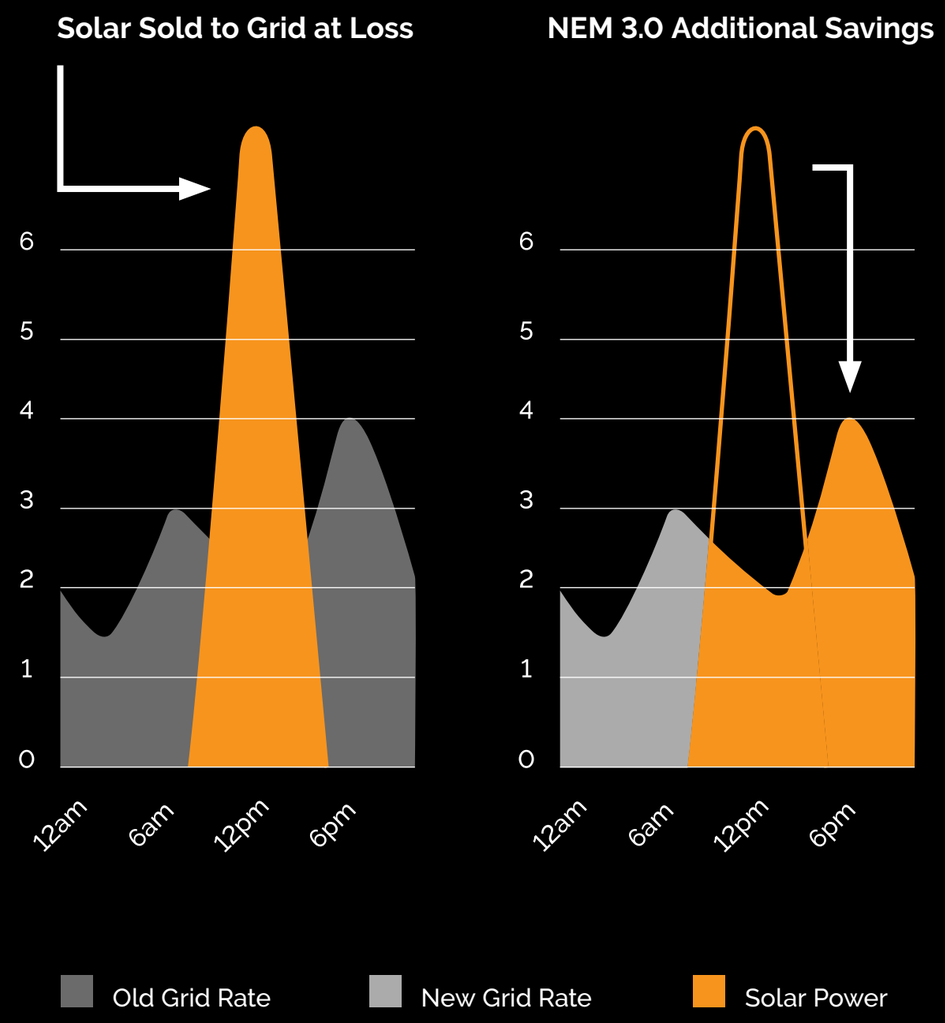


What is Net Metering?

Net-Metering policies govern how utilities pay solar array owners for electricity exported onto the grid.

Traditional net-metering assumed an even trade for solar production, whereas NEM 3.0 puts a significant time value on solar energy exports.

The adoption of net metering 3.0 (NEM 3.0) in California marks a major shift in the economics of residential solar. With lower compensation rates for exported electricity, battery storage is now essential to make solar projects financially viable.

As an established leader in hybrid inverters, Sol-Ark is well prepared to help installers navigate this transition.

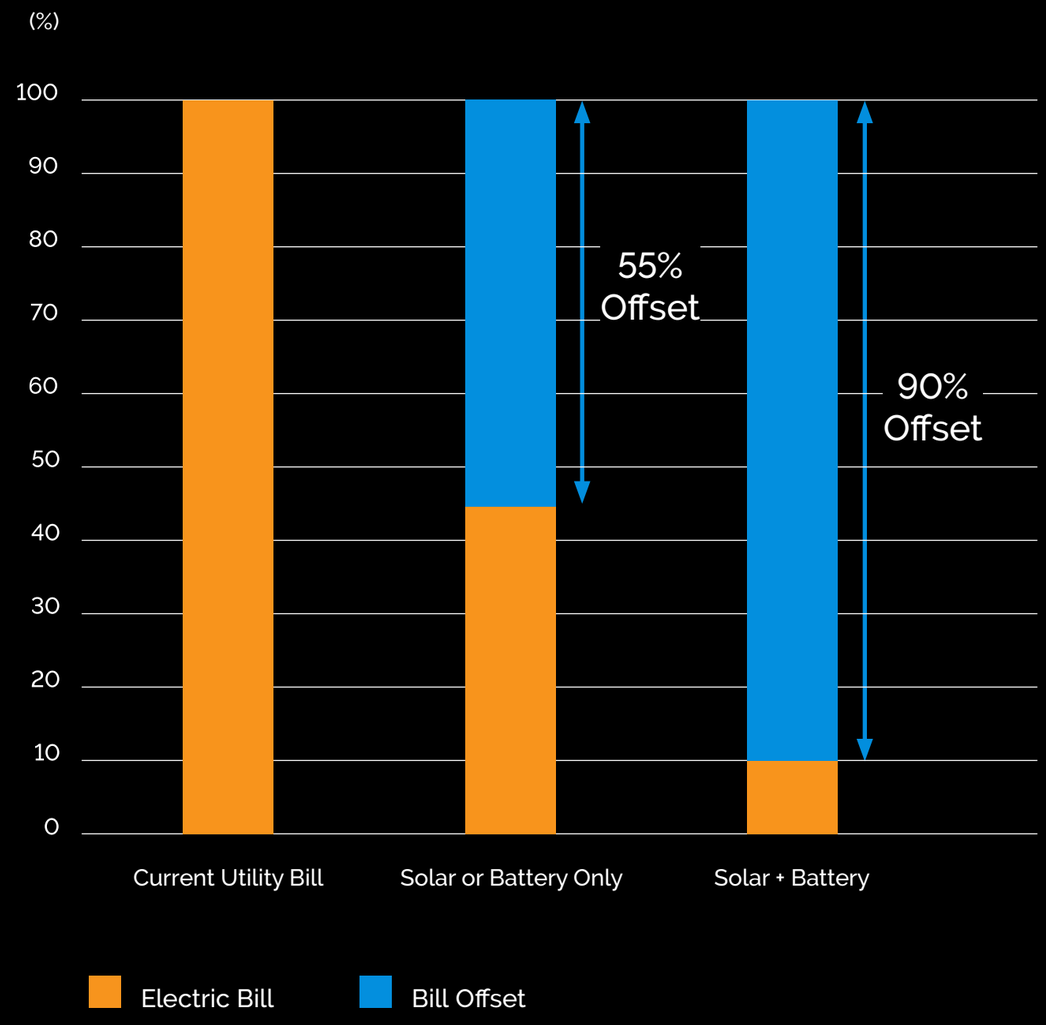
Under NEM 3.0, Adding a Battery to Solar is the ONLY Way to Significantly Reduce a Homeowner's Electric Bill

With a solar-only system, homeowners have limited control over when they can use their solar energy, and only solar power consumed on site offers any real savings.

With a battery-only system, expensive peak energy can be replaced by cheaper off-peak energy.

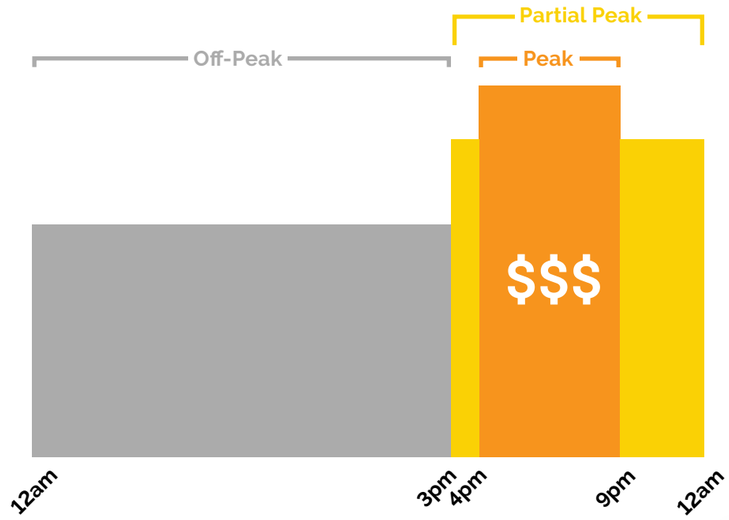
Combining both solar and batteries under NEM 3.0 offers maximum bill reductions and includes low cost options prioritizing savings over backup power.

Utility Bill Offset



NEM 3.0 Power Hours

August and September 6PM–8PM PV-to-Grid export value is worth significantly above retail value compared to traditional net-metered systems. Battery-optimized systems increase savings further by avoiding peak rates throughout the year to reduce the cost of grid electricity.



Under NEM 3.0, Optimized Systems Can Exceed Net-Metering Economics

Solar Radiation		Max Grid Export Value		
Month	kWh/m2/Day	NEM 3.0	NEM 2.0	No NEM
Jan	4.3	15%	90%	15%
Feb	5.1	10%	90%	15%
Mar	6.1	5%	90%	15%
Apr	6.8	0%	90%	15%
May	7.1	5%	90%	15%
Jun	6.9	70%	90%	15%
Jul	7.5	70%	90%	15%
Aug	7.5	140%	90%	15%
Sept	6.8	600%	90%	15%
Oct	5.8	30%	90%	15%
Nov	5	15%	90%	15%
Dec	4	15%	90%	15%
Weighted Average	6.1	92%	90%	15%

NEM 3.0 Settings Can Be Programmed Easily on a Sol-Ark LCD Touch Screen or Online

Early mornings in August and September, the battery is discharged to 5% and then charged to 100% by solar. Between 6PM–8PM the battery will sell back power to the grid to maximize NEM 3.0 credits. The grid will maintain the battery at 20% overnight. Other settings are programmed for other seasons to optimize the electric rate structure.

Under NEM 3.0, a 6kW PV Array with 20 kwh Battery might only Offset 55% of Home Energy Use but Offset 90% of the Electric Bill

Sol-Ark Solutions Are Future Proof and NEM 3.0 Ready

Built-In Seasonal Time-of-Use and Grid Export Control

Automatic, Smart Shifting of Loads

Integration with Virtual Power Plants

Sol-Ark Lite

Lowest cost entry point with upgrade path

8kWac Hybrid Inverter

- Time-of-Use Metering
- Load Side Connection
- Non-Backup / 240V Backup

Maximize Savings

- Solar and / or Batteries
- Reduce Electric Bills
- Add Backup Later

Sol-Ark Essentials

Field tested since 2018

9kWac Hybrid Inverter

- + 3kW DC Solar Bonus
- 13kW Max Solar
- Multiple Battery Options

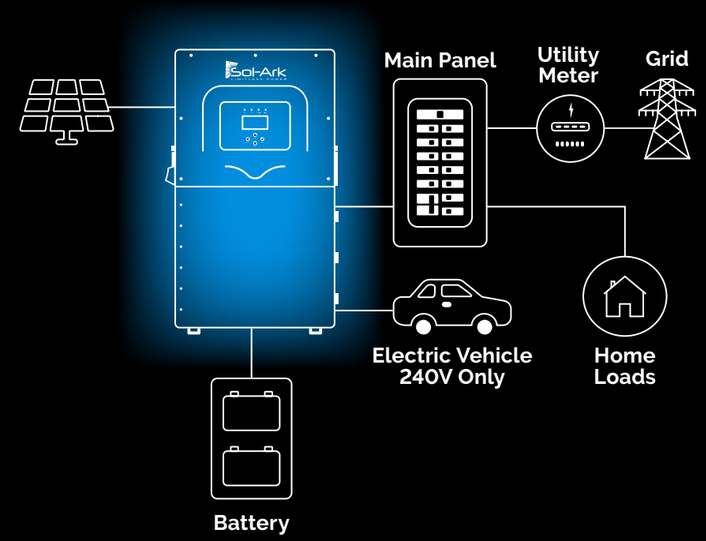
Fast and Easy Backup

- Load Side Connection
- Automatic 9kW Essentials Backup
- Avoid Service Upgrade
- 120/240V Backup

Budget Friendly

Sol-Ark Lite Hybrid Inverter

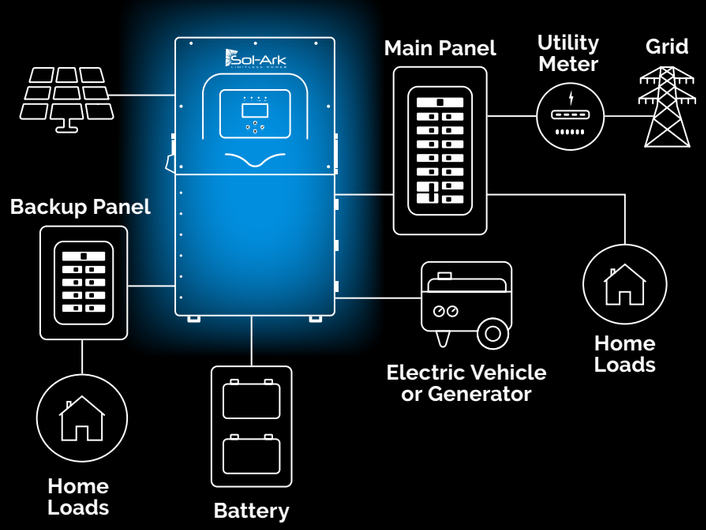
- Lower Electric Bill
- Least Possible Cost
- Add Backup Later



Versatile Architecture

Sol-Ark Essentials Hybrid Inverter

- Lower Electric Bill
- Backup Small Loads
- Budget Friendly Preparedness



Sol-Ark Whole Home

The most powerful residential hybrid inverter on the market

Most Backup Power

- 15kWac Solar
- 12kWac Batteries
- 200A Grid Pass-Through

Multiple Solar Options

- 6X DC Solar Ports
- 3X Full Sized MPPT
- 19kW AC Coupling
- Rapid Shutdown Controls

Flexible Battery Choice

- 275A Battery Charger
- 2X 48V Battery Ports
- Upgradable UL9540 Options

Seamless Grid Control

- Multi-Season Time-of-Day Settings
- Automatic 5ms Transfer Time
- Virtual Power Plant Ready

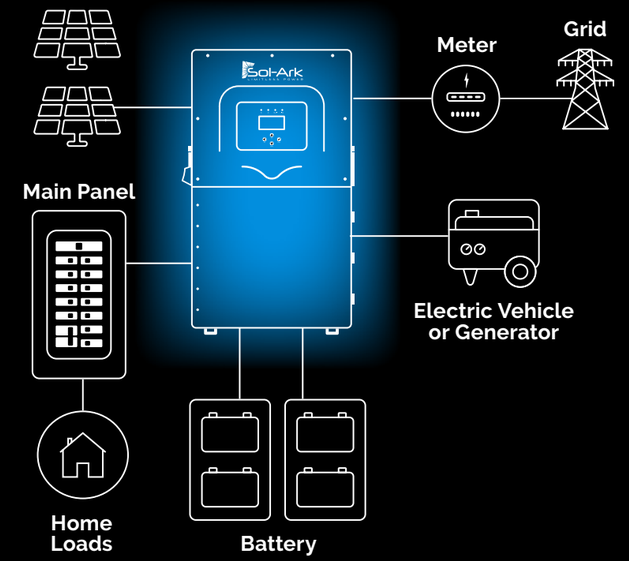
EV or Generator Ready

- Dedicated GEN Port for EV, Generators, or AC Coupling
- AutoStart Capable

Innovative. Simple. Secure.

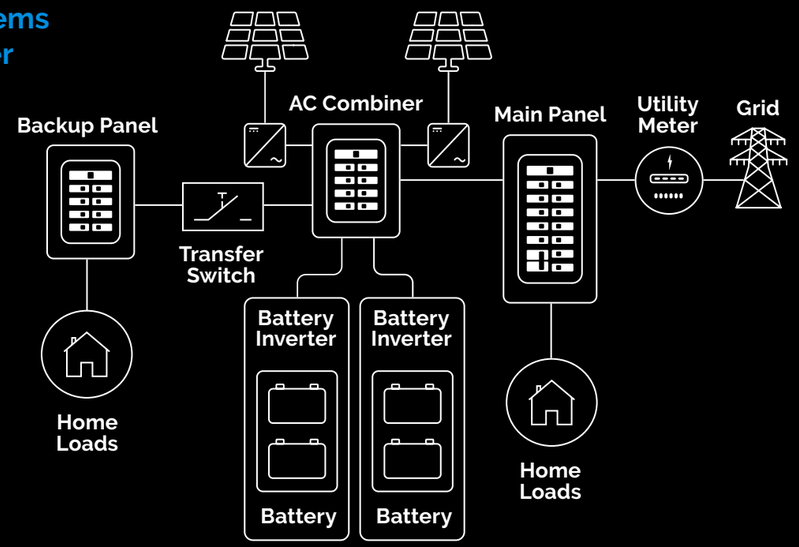
Sol-Ark Whole Home Hybrid Inverter

- Quick
- Easy
- Effective



Competitor Systems for Backup Power

- Complicated
- Expensive
- Essentials Only



Sol-Ark Solutions Are Flexible and Expandable

- Works With or Without Solar
- Works With or Without Batteries
- Generator Ready
- Integrates With Virtual Power Plants
- Integrates with Hydrogen Fuel Cells
- Integrates With Wind Turbines

Future Proof Your System Through Battery Choice

Batteries wear out faster than inverters, and battery technology is still evolving. Sol-Ark's platform includes your pick of UL9540 battery partners, enabling modern battery features today with easy 48V replacement down the road.

A Selection of Our Industry Leading Battery Partners

Deka BATTERIES
EnduroEnergy Systems, Inc.
HOMEGRID
PYLONTECH
Pytes
STORZ POWER

Sol-Ark Offers Three NEM 3.0 Solutions Designed Specifically to Meet Homeowner Energy Goals

Sol-Ark Lite

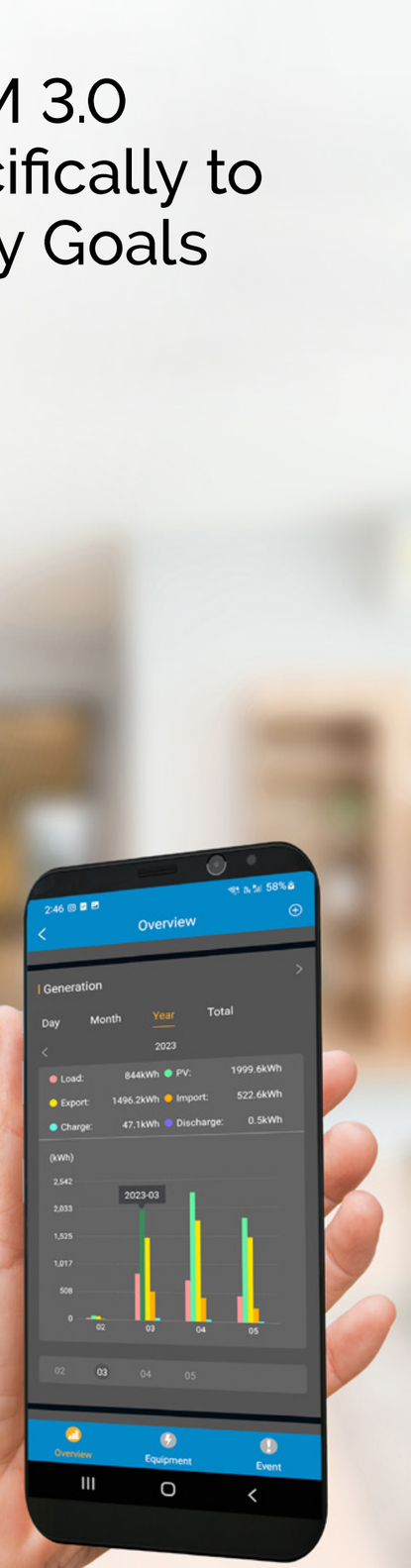
- 8K-1p enables optimizing solar savings and time-of-use
- Economic grid-tied system with backup for select 240V appliances
- Flexible solution enables upgrading to backup power in the future

Sol-Ark Essentials

- 12k-2p enables optimizing solar savings and time-of-use
- Allows for basic essentials backup including refrigeration, lighting and critical medical devices
- Flexible solution enables upgrading to more backup power in the future

Sol-Ark Whole Home

- 15k-2p enables optimizing solar savings and time-of-use
- Provides whole home backup during power outages
- Flexible solution is generator ready and modular



Reduce Electric Bills

	Lite	Essentials	Most Popular: Whole Home
SOLAR POWER, BATTERY	Select a flexible solution that works with or without solar, with or without batteries	✔	✔	✔
MONITORING, SAVINGS, VPP	Maximize energy savings with various electric rates structures and grid service programs	✔	✔	✔
MICRO-INVERTER, DC OPTIMIZER, DC STRING	Maximize energy output with SmartSensor™ and minimize losses from shading with ShadeGuard™	✔	✔	✔
BACKUP POWER	Utilize AI-Powered smart load to maximize energy efficiency			✔

Get Backup Power

	Essentials	Whole Home
BACKUP POWER	Produce and save energy when the grid is down	✔	✔
EV CHARGER, GENERATOR	Integrate with generators or EV chargers	✔	✔
GARAGE, KITCHEN, LIGHTS, OFFICE, WATER HEATER, MINI-SPLIT, WASHER, DRYER	Automatically protect smaller loads on a 100A sub-panel	✔	✔
WELL, COMPRESSORS, HVAC, POOL	Automatically protect large loads on a 200A main panel		✔

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