Northwest Electric & Solar

WASHINGTON ELECTRICAL LICENSE #NORTHES876MA

"Every day we help people fulfill their desire to protect the planet and future generations by choosing clean energy"
-Derek White, Owner

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This offer is valid for 30 days from August 11th, 2021

Who We Are

Our Mission

Here at Northwest Electric and Solar we install solar photovoltaic systems for residential and commercial projects. We believe in using the top of the line technology and customer service to provide the best experience possible as we all strive forward to a cleaner and energy independent future.

Experience and Expertise

- Journeyman Electrician on-site for every solar installation; solar specialist oversees inspection
- Journeyman goes through 4 to 5 year apprenticeship program
- Combined solar experience of over 40 years
- Established experience with local utilities: Seattle City Light, member of PSE Contractor Alliance Network and Registered SnoPUD Contractor

Workmanship and Equipment Warranty

25 year workmanship warranty, includes all equipment used:

- Modules
- Optimizers/Microinverters
- Inverters
- Mounting and Installation

Your Point of Contact at Northwest Electric and Solar

Mike Zhen

Raised in the PNW, Mike's love for technology and nature lead him to solar. Enamored by solar's capacity to help us and our planet, Mike was fortunate enough to have found himself within the great team at NWES.

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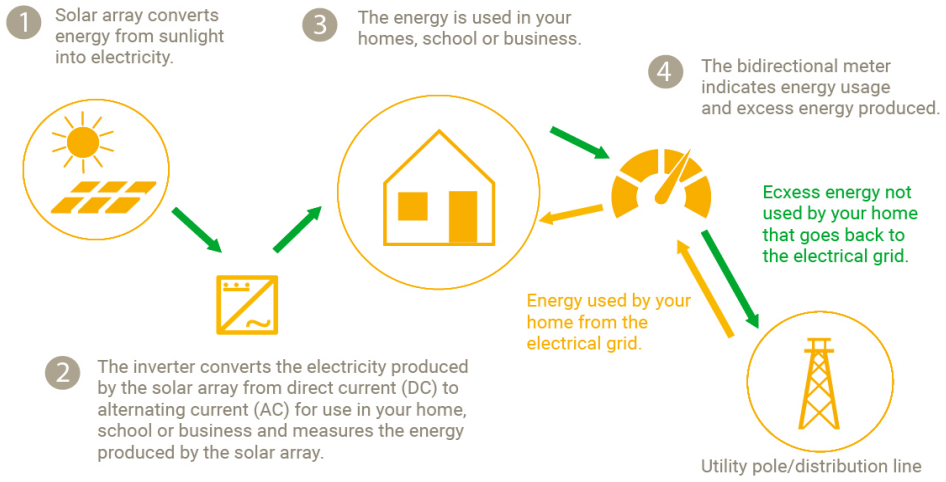
How Solar Works in Washington

Net Metering

Often the most misunderstood aspect of solar, but also the most important! Net Metering is the process by which you interact with the utility and make sure that you get to use all the energy that you make. Contrary to popular opinion when you send energy back to the grid the utility does not pay you for that energy. Instead, the utility tracks how much energy you send out to the grid, and then lets you pull that amount of energy back at a later time for free!

Because our sun exposure is so seasonal here in Washington state it's very likely that you'll produce more than what you use in the summer, building up a credit with the utility company, and then run off that credit during the winter months when you're likely to use more than what you produce. Your credit with the utility gets reset to zero on March 31st of every year so we aim to size your system to your exact electrical consumption profile.



Federal Tax Credit - ITC

The other incentive available for solar installations in Washington state! The ITC is calculated as 26% of your total contract value and is a dollar for dollar credit on your federal taxes. You'll want to fill out IRS form 5695 to take advantage of this incentive. If needed the tax credit can be taken over multiple years, but you do need to have tax liability to take advantage of this incentive!

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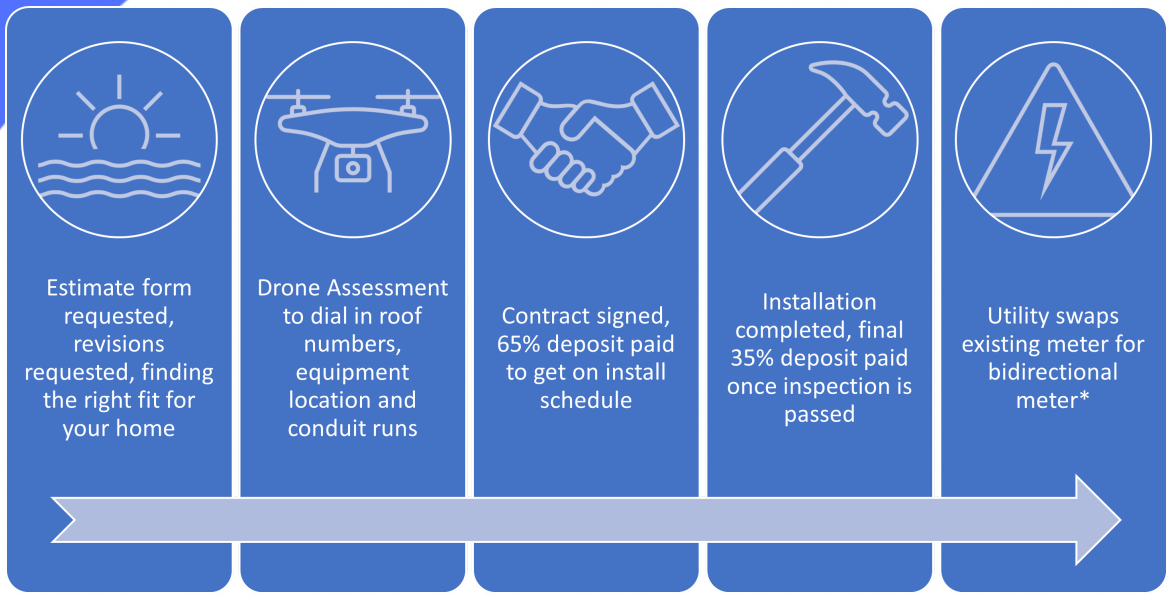
Going Solar with NWES



* Utility may take up to 5-10 business days to swap your meter. Energy produced by solar prior to the meter being swapped can be charged against you by the utility.

This Proposal

We've put together two options here for your review, what we call our **Tesla Package** and our **NWES Premium Package**.

A giant in the renewable energy game Tesla's name is synonymous with sleek cutting edge technology, and this option in our proposal is no different. This system uses all the same equipment that Tesla would use for a solar installation.

NWES's Premium Package offers the best products that we have found on the market that doesn't sacrifice aesthetics. These products are the best of the best and we're excited to offer them to all our clients.

If you've been looking into other products that you're really excited on let us know and we'll see if we can incorporate them into your project. The products that we're offering here are the ones that we believe are the best on the market, and we're happy to explain why we think that, but at the end of the day our goal is to find the best system for YOU! We want you to be happy with every aspect of your system and if you're excited about the features of particular products we'll work them into your project.

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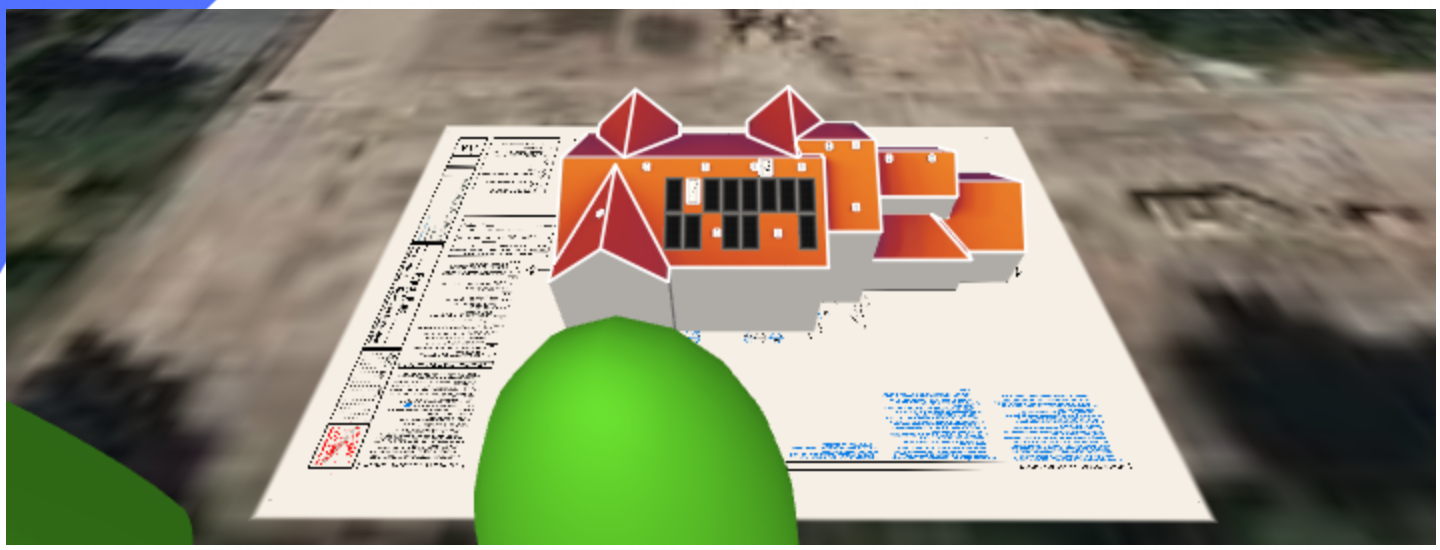
Tesla Solar PV System

5.04kW System



System Components

Type	Manufacturer	Model	Quantity
Module	Tesla	T420S	12
DC Optimizer	SolarEdge Technologies Inc.	P505	12
Inverter	SolarEdge Technologies Inc.	SE11400H-US	1

Our Tesla offering comes with Tesla proprietary Zep mounting system. Railless, with an array "skirt". This mounting system provide a sleek low profile look for your array. (Only available for comp shingle and standing seam metal roofs)

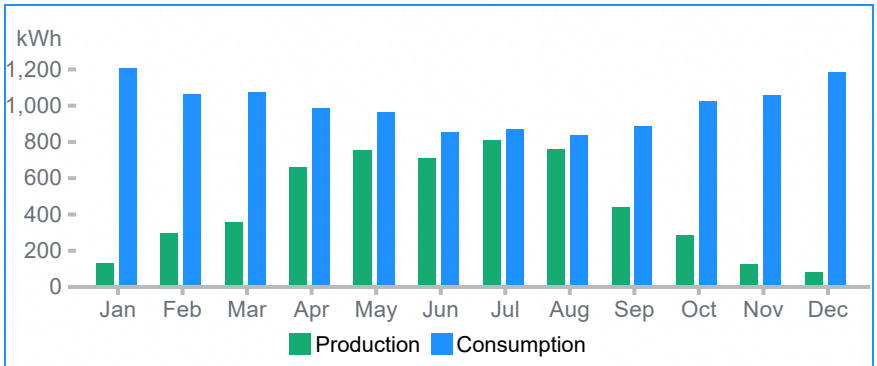
System Performance

System Size (kWDC): 5.04

First Year Power Output (kWh): 5,383

Specific Production (kWh/kW): 1,068

First Year Energy Offset (%): 45



As you can see production in WA is very seasonal. Regularly monitoring your system to make sure it's operating properly ensures that you'll be producing as much power as possible year-round!

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Purchasing Your Solar PV System

Price Per Watt ($/W): 2.89
Total System Cost ($): 14,566
First Year Energy Savings ($): 711
Federal Tax Credit ($): 3,787
System Cost After One Year ($): 10,068

There are two primary routes that you can go for purchasing your PV system. The overall process for each is very similar, but each method has its own benefits. In each method, NWES collects a 65% deposit to get your materials ordered up and lock your project into our schedule. Once your project has passed inspection from the local permitting authority we will notify the utility that you're ready to start producing power and collect the remaining 35% of your contract value. Please be aware that depending on your utility provider it may take up to 10 business days for your system to be fully operational for this point as some utilities need to replace your electrical meter to properly account for your solar production.

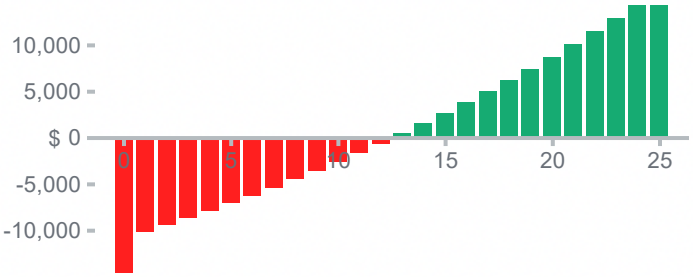
The first method is a simple cash payment for the system price. This offers the lowest overall system cost, quickest ROI, and reduces the number of companies involved in your project.

The second method is to pursue a loan through a third-party vendor. We work with several lending institutions regularly, that have low-interest rate solar lending programs, ask your point of contact for a reference if you're interested in financing your system through a 3rd party lender. This route offers a way to go solar without the large initial investment required by a cash purchase.

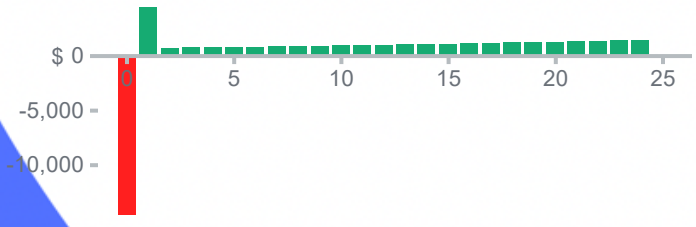
Cash

25 Year Lifetime Savings ($):14,359
Payback Period (Years):12.5

Cumulative Cash Flow



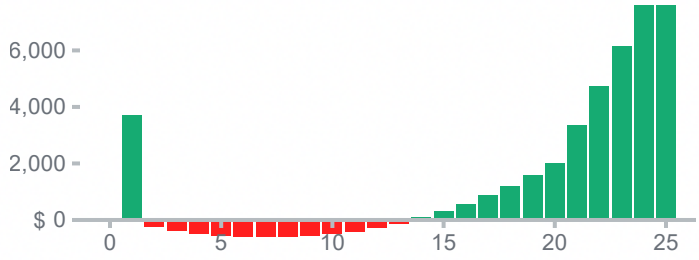
Annual Cash Flow



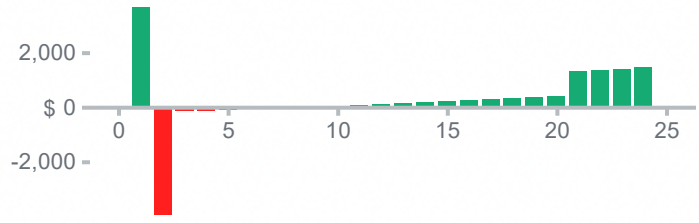
Loan

Estimated Interest Rate (%):4.99% for 20 years
Estimated Monthly Payments ($):73
25 Year Lifetime Savings ($):7,607

Cumulative Cash Flow



Annual Cash Flow



All of our performance and financial calculations estimate that utility rates will increase 3.5% which is consistent with the projected national average over the next 20-25 years. We also estimate that individual panel performance will degrade by 0.3 % each year.

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Sustainability Report

The 25 year power output of 129,848 kilowatt-hours generated by this system is equivalent to an annual:

5 Acres of U.S. forests storing carbon for one year

414 Gallons of gasoline consumed

157 Trash bags of waste recycled instead of landfilled

1 Passenger vehicles driven for one year

Energy equivalency report values are drawn from Environmental Protection Agency (EPA) and Intergovernmental Panel on Climate Change (IPCC) studies.

Monitoring and Maintenance

For the most part, your solar array is very low maintenance. One thing that you will want to make a regular habit though is checking in on your monitoring software. By regularly checking in on your monitoring software you can catch any production issues that arise and minimize their impact. We recommend checking in on your monitoring at least once a week.

Our Tesla package comes with SolarEdge's cellular monitoring system. SolarEdge's system allows you to monitor the production of not just the system as a whole, but every module on your roof as well! Every system comes with a 5-year cellular subscription and has the capability of adding consumption monitoring. If you're interested in adding consumption monitoring to your system, ask your point of contact to include it in your proposal!

The other aspect of solar PV maintenance is making sure your system is clean, free from debris, and ready to produce as much power as possible. We recommend cleaning your system twice a year if you have a roof with a good pitch, and 4 times a year if your roof is pitched at 5 degrees or less.

We get a lot of rain here in Washington, so your panels will clean themselves most of the year if they're pitched. If they're not pitched, then there is a greater likelihood of some buildup on your panels. All that being said, you really want to make sure your system is producing as much power as possible during the summer, so it's probably a good idea to clean your system once towards the end of spring and once again towards the middle or end of summer.

If you're not interested in getting up on your roof and cleaning your panels, ask your point of contact about our maintenance package!

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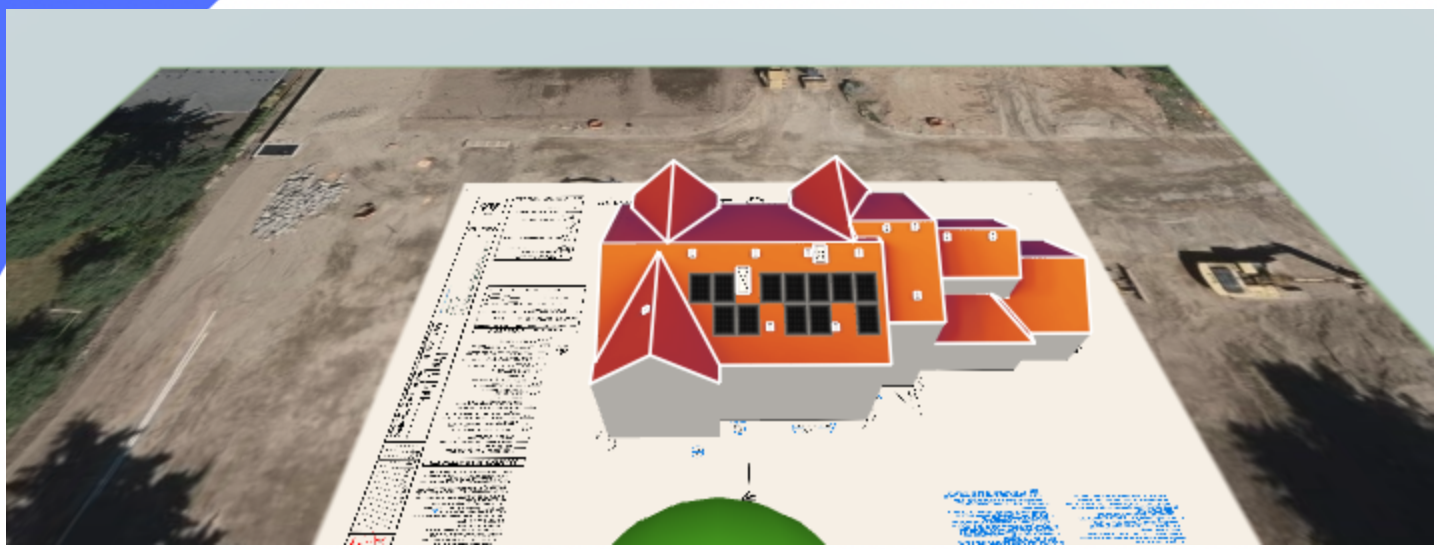
NWES Premium PV System

4.80kW System



System Components

Type	Manufacturer	Model	Quantity
Module	Solaria	PowerXT-400R-PM	12
DC Optimizer	SolarEdge Technologies Inc.	P400	12
Inverter	SolarEdge Technologies Inc.	SE11400H-US	1

IRONRIDGE

Our Premium package comes with IronRidge's XR100 Rail system. IronRidge is part of the largest racking company in the US and offers custom engineering for every project.

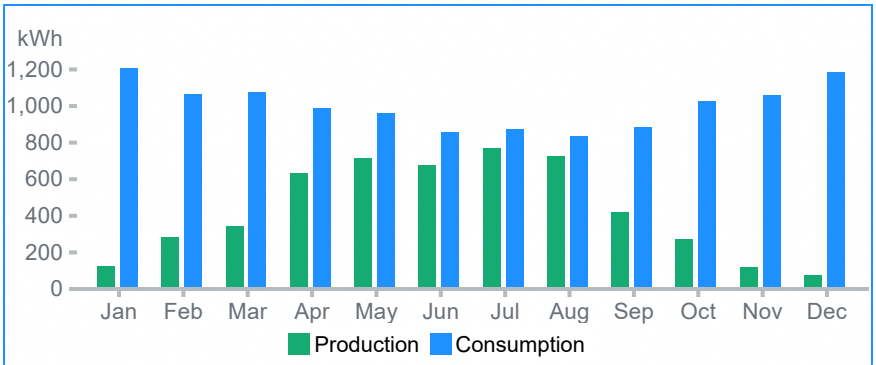
System Performance

System Size (kWDC): 4.80

First Year Power Output (kWh): 5,145

Specific Production (kWh/kW): 1,071

First Year Energy Offset (%): 43



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Purchasing Your Solar PV System

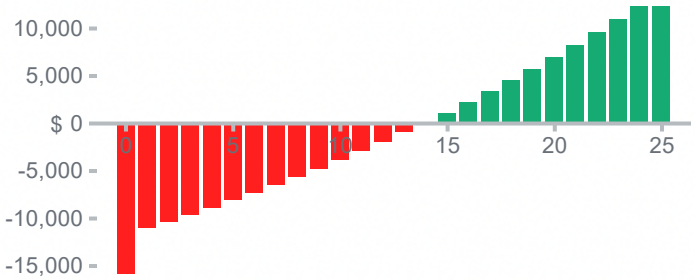
Price Per Watt ($/W): 3.30
Total System Cost ($): 15,840
First Year Energy Savings ($): 682
Federal Tax Credit ($): 4,118
System Cost After One Year ($): 11,040

Cash

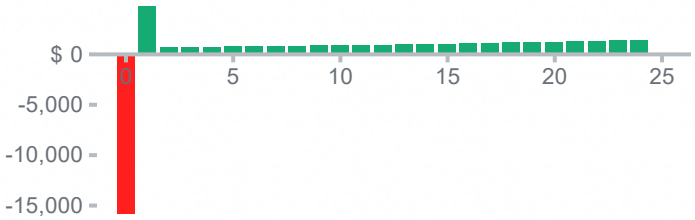
25 Year Lifetime Savings ($):12,370

Payback Period (Years):13.9

Cumulative Cash Flow



Annual Cash Flow



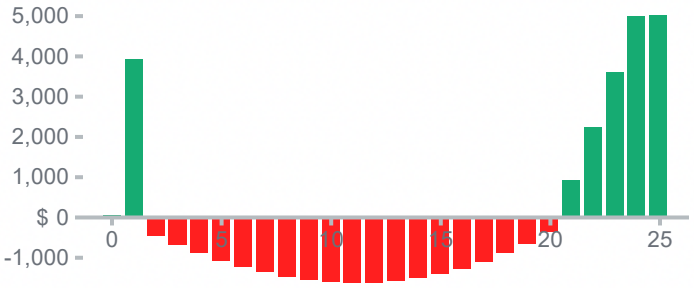
Loan

Estimated Interest Rate (%):4.99% for 20 years

Estimated Monthly Payments ($):80

25 Year Lifetime Savings ($):5,028

Cumulative Cash Flow



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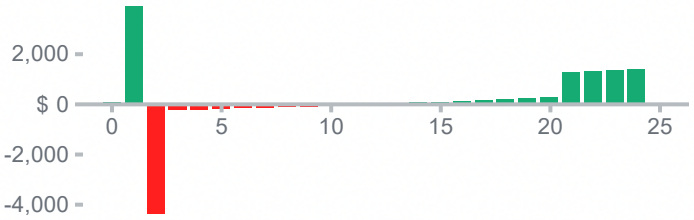

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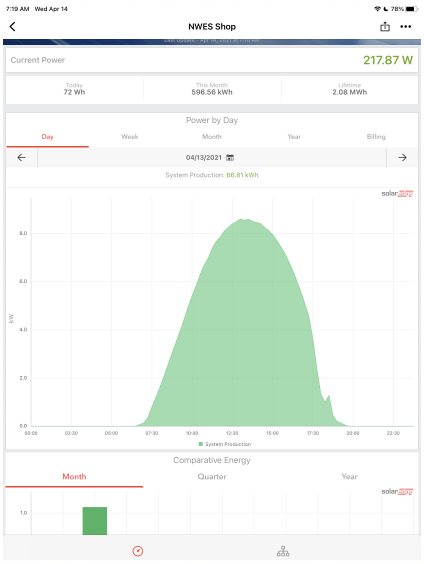

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Energy Storage Systems - Battery Backup

What happens when the lights go out?

A common misconception with solar is that getting a PV system alone is enough to keep your power on during a utility outage. If only it was that easy! In order to keep your power on during an outage you need a system to regulate the energy usage in your home, and store excess energy. So while solar can help reduce your utility bills, you won't be fully independent of the grid without a battery backup solution.

The primary option that we offer for battery backup is the Tesla Powerwall 2 AC. Below you'll see some of our standard offerings for these systems. When paired with a PV system these offerings are eligible for the 26% Federal Tax Credit!

Please note that all pricing here is preliminary, and does not include sales tax. While your PV system is exempt from sales tax, your batteries will not be.

If you're interested in becoming truly energy independent ask your point of contact for more details!

PARTIAL HOME BACKUP

Backup up the smaller more essential loads in your home.

One Tesla Powerwall and one Tesla Backup Gateway

$13,000

WHOLE HOME BACKUP

For most homes this will be enough to backup every load in your home!

Two Tesla Powerwall and one Tesla Backup Gateway

$23,000