

Going Solar

What you need to know

Presented By



Electrical • Solar • Low Voltage



Why Solar?

Savings!

Tax Credit

Resale Value

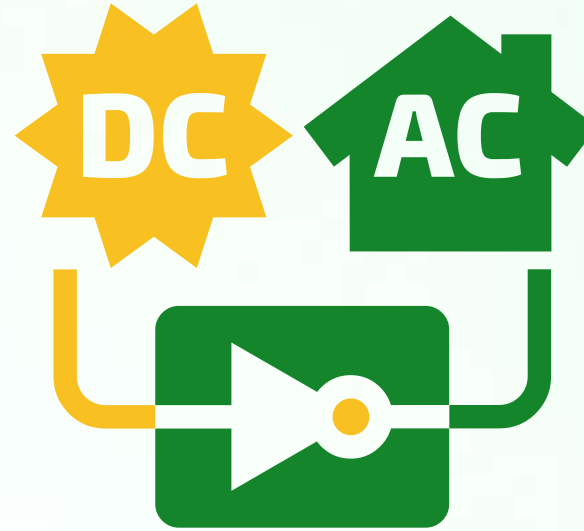
Clean Power Legacy

Independence & Cost Control

How Solar Works with the Grid



Your Solar array converts sunlight into electricity.



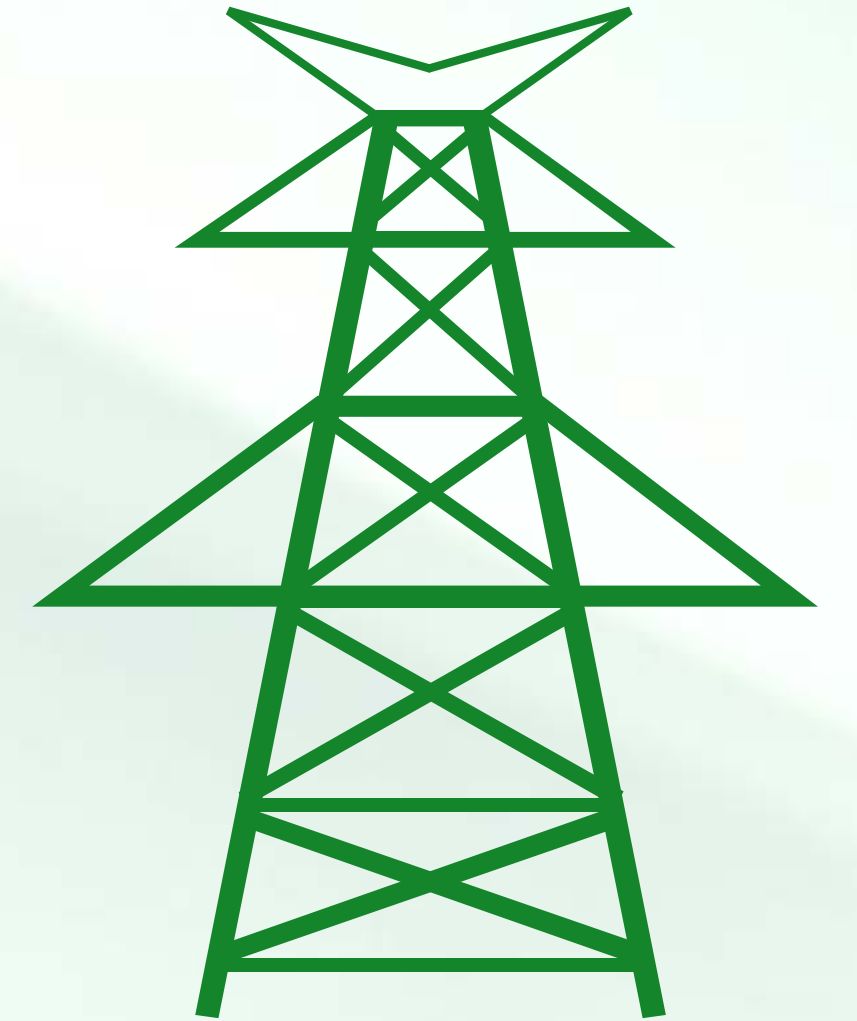
The inverter converts the electricity from Direct Current (DC) to Alternating Current (AC) for use.



The energy is used in your home.



The bidirectional meter measures your energy usage, and the excess energy produced that goes back to the grid.



All excess energy gets credited to your power bill at 75% of the retail price.


A Smaller Bill with Net Metering

With **Net Metering**, NV Energy credits your power bill for the excess energy produced. What you send back (KWhR) wipes out what you use (KWhD) at 100% - a 1-for-1 ratio.

Any **EXTRA** production for the month (KWhA) is banked at 75% of the retail price.

You'll use that credit to pay for any power you need from the grid (at night or during the summer).

It works just like rollover minutes used to work on cell phones. You will always pay the basic connection charge, taxes, and fees. These credits never expire and will automatically apply to your bill when needed.



Amount Due By: Jan 12, 2023


\$13.25

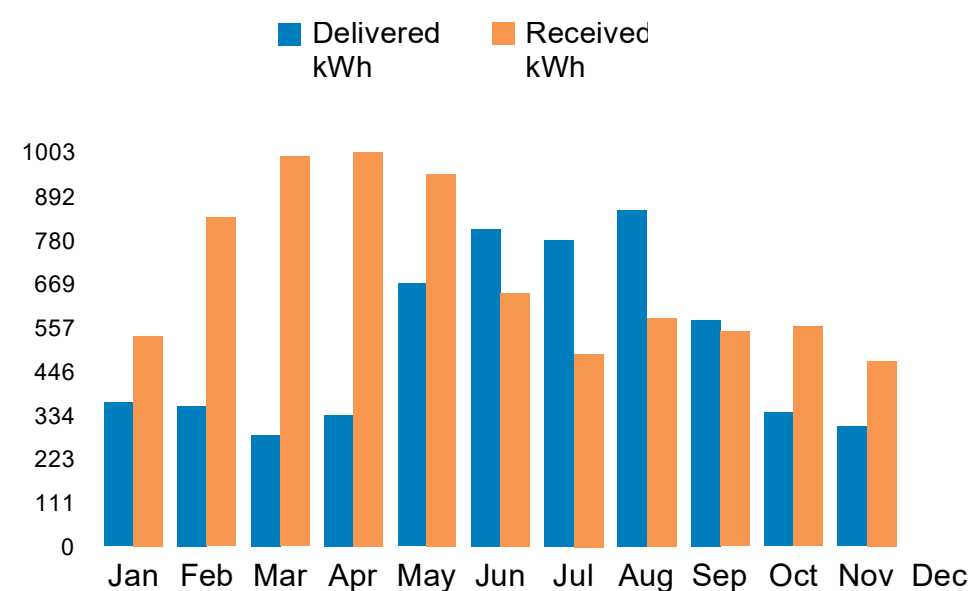
Amount will be withdrawn from your bank account on the due date.

Electric Usage: Res - NMR-405 Tranche 4

Average Daily Electric Usage

Average Daily Cost this month **\$0.41**

Your average daily electric consumption is **LESS** this month compared to last year. 



Month	Delivered kWh	Received kWh
Jan	334	557
Feb	334	810
Mar	223	1003
Apr	334	1003
May	669	920
Jun	780	669
Jul	780	446
Aug	892	557
Sep	557	557
Oct	334	557
Nov	334	446
Dec	334	446

\$114.04CR Excess Energy Credit carryover previous balance.
 \$17.36CR Excess Energy Credit earned this billing period.
 \$1.50CR Excess Energy Credit applied to the current applicable charges.
 \$129.90CR Excess Energy Credit carryover current balance.

Meter Information
 If NV Energy is unable to read your meter because of circumstances beyond control, you may be billed based on estimated usage for that billing period.

Meter#	Type	Service Period	Bill Days	Previous	Current	Multiplier	Usage
CC037923016	kWhD	Nov 17, 2022 to Dec 19, 2022	32	8,420	8,725	1	305
	kWhR	Nov 17, 2022 to Dec 19, 2022	32	9,642	10,115	1	473
	kWhA	Nov 17, 2022 to Dec 19, 2022	32	218	168	1	168
	kWhN	Nov 17, 2022 to Dec 19, 2022	32	1,660	1,660	1	0

Charge Details

Excess Energy Credit/carryover						1.50 CR
Temp. Green Power Financing	305.000	kWh	x	0.00070		0.21
Renewable Energy Program	305.000	kWh	x	0.00077		0.23
Energy Efficiency Charge	305.000	kWh	x	0.00206		0.63
Natural Disaster Protection Plan	305.000	kWh	x	0.00142		0.43
Basic Service Charge						12.50
Local Government Fee				5%		0.63

Account Summary

Previous Account Balance	13.26
Payment - Dec 8, 2022	13.26 CR
Electric Charges	13.25
Current Amount Due	\$13.25

Customer Number:
Premises Number:
Billing Date: Dec 22, 2022
Next Read Date: Jan 20, 2023

Thank you for choosing net metering. If you have any questions about your bill, our customer service representatives are here to help. Please call us at (702) 402-2330, Monday through Friday between 8am - 5pm or email CustomerService@nvenergy.com.

Thank you for maintaining an excellent payment record. We look forward to serving you in the future.

Sizing Your System

The Balancing Act

The goal is to match your energy production to your energy consumption.

What If I Want A Bigger System Now?
NV Energy has to approve.

What If I Need More Power In A Few Years?
Yes, you can add panels later.



The Solar Tax Credit

- The largest, non-income limited, tax credit you can get.
- It's not a deduction. Credits reduce how much you owe in taxes.
- As of August of 2022, the credit is 30% of the cost of your system.
- You can carry over unused credit to future tax years.



What Should Solar Cost?

Looking at the system price from different installers can be difficult. It can be hard to figure out if you are comparing apples-to-apples.

What to compare:

- Equipment Types
- Cost Per Watt
- Kwh Per Year
- Payback Time



Choosing A Good Contractor

When you go solar, you are purchasing a small construction project.

Check their license at
<https://nvcontractorsboard.com>

Read their reviews - Yelp! NextDoor, Facebook, Google, or any other review sites.

Look for answers to these questions:

- How long have they been in business?
- How many solar installs have they done in Las Vegas?
- Do they install their own systems or work through subcontractors?



Ways To Pay For Solar



Buy The Panels

Pay Cash, Use Your Home Equity,
or Finance It.

You Get the 30% Tax Credit

Lease The Panels

The solar company owns the panels
and sells you power monthly.

They Get the 30% Tax Credit

Leasing vs Buying

- Zero out of pocket
- Lower starting price
- Warranty & Maintenance
- Transferable at home sale



- You get the tax credit
- Price per kWh is set
- Warranty
- Increased Resale Value
- No hassle transfer
- Control over system
- System can be moved anywhere
- No early termination fees
- Many financing options

- No tax credit
- No control over system components
- You could pay more for power
- Can affect a home sale
- System cannot be moved out of NV Energy service territory
- No added resale value
- Early termination fee to remove panels



- If you cannot use the tax credit because you have no tax liability, a Fixed Rate Lease/PPA might be a better fit for you

The most significant consideration when deciding between buying or leasing is who gets the tax credit.

Understand Your Borrowing Costs

Banks make money on loans in one of two ways:

- Interest over the term of the loan
- Finance fee is charged upfront

What to avoid in solar financing:

- A Prepayment Penalty
- High upfront financing fees
- Long loan terms
- Split Loans with phrases such as “No payments, No interest” or “Same As Cash.”



Homeowners Associations & Solar

- Your HOA cannot say no to solar. NRS 278.0208 (the NV Solar access law) guarantees your right to install solar on your home as long as you own the roof.
- Your HOA cannot place “unreasonable restrictions” on your solar design.
- Most solar contractors will handle your HOA application process for you. You simply need to provide the ARC form and the solar packet to your HOA and pay any application fee.



What Does Rooftop Solar Look Like?

Most Robco solar installations feature in attic conduit for a cleaner look. We also include solid metal pigeon proofing for all flush mounted arrays.



Pigeon Guard

Your contractor should offer pigeon guard. Don't skip pigeon guard! Sometimes it's included in the cost, and other times it's an add-on.

Bird waste is acidic and can cause massive problems if the pigeons decide to nest under your arrays. Their waste can seep down to your tar paper and cause leaks.

Mesh net pigeon guard looks unsightly and is not adequate. The birds or high winds can pull it loose.

Robco installations come standard with solid metal pigeon guard on all sides of the array.



Shingle Roof Pigeon Guard



S Tile Roof Pigeon Guard



Mesh net Pigeon Guard



Flat Tile Roof Pigeon Guard

Picking An Inverter

Inverters are the “brain” of any solar system.



Central Inverter

One inverter for all panels. Single point of failure bringing whole system down.



Central Inverter with Optimizers

One inverter for all panels.
Single point of failure bringing whole system down.
Optimizers handles production if panel is shaded or fails.



Microinverters

One inverter per panel. Independent from each other. Failure only affects one inverter/panel.

Why Are Micros The Best Value For The Money?

- No Single Point of Failure
- No Performance Loss
- Ability to add panels in the future
- More Reliable & Longer Lasting with a 25-year warranty
- Panels can be monitored independently

Picking A Panel

Premium Monocrystalline Panels

- Black hue results from less light bouncing off smoother, single crystal surface
- Energy conversion efficiencies more than 19%
- Higher quality construction
- Lower Degradation Rates
- Perform well in high heat conditions
- Longer Warranty
- Produce more lifetime power using fewer panels
- Best Value For Your Money



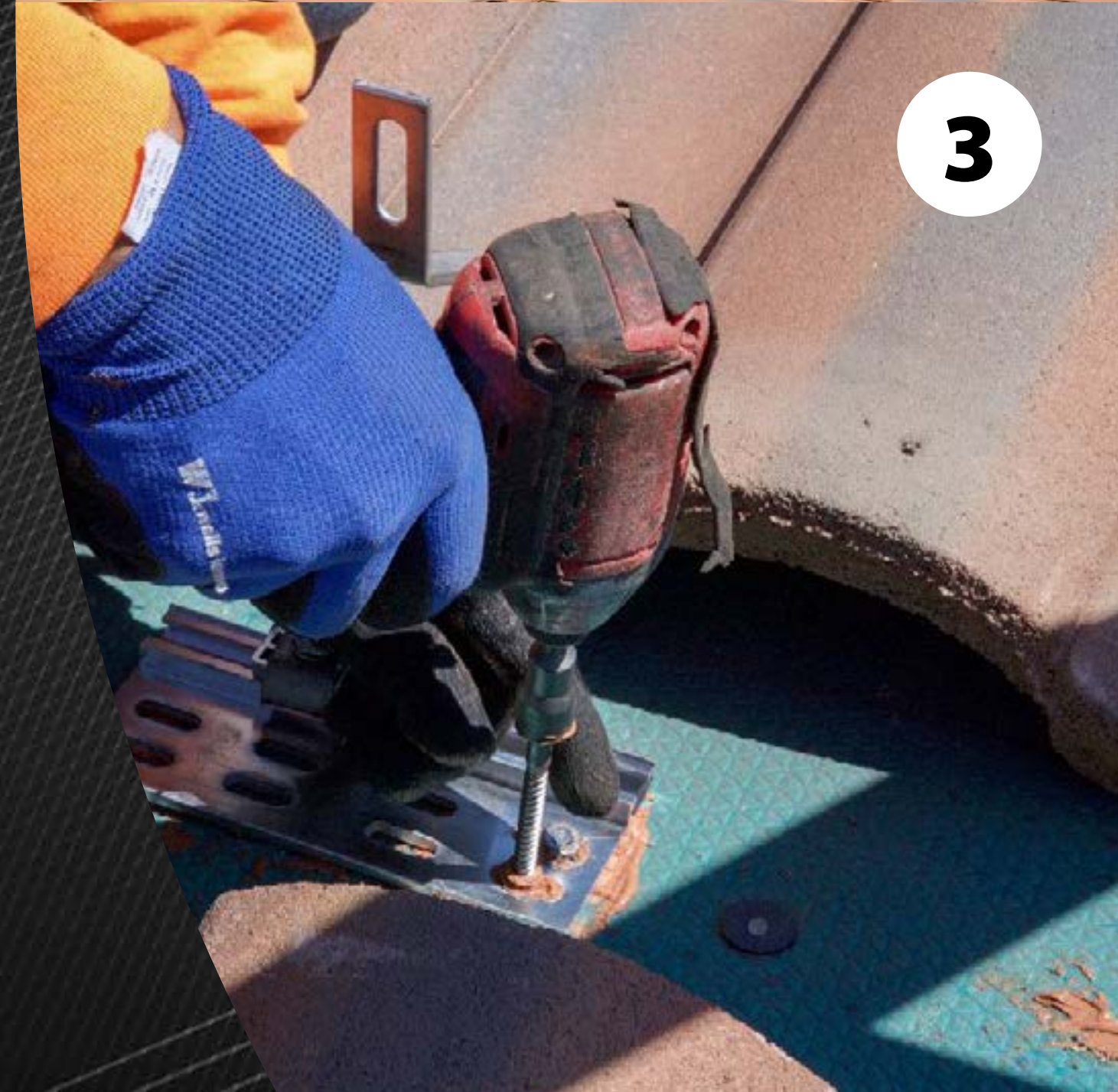
Standard Polycrystalline Panels

- Blue hue results from the light reflecting off rough surface made from many crystals
- Less expensive, commodity product. Favored by leasing companies due to cheaper cost.
- Energy conversion efficiencies between 14 and 18%
- Perform poorly in high heat conditions
- Shorter Warranty
- More panels needed to produce the same amount of power

How Solar Gets Installed

During installation, your contractor will make approximately 200 holes in your roof and install a new breaker in your main panel. All contractors in NV must warranty the roof against leaks for 10 years after install.

- 1** Tiles are removed and nail holes are sealed
- 2** Rafter is located. Mastic is applied to the base of the tile hook.
- 3** Tile hook is anchored with lag bolts
- 4** Mastic is applied to VersaFlash. VersaFlash is pressed in place to cause mastic to seal roof penetrations from lag bolts.



How Solar Gets Installed

(CONTINUED)

- 5** VersaFlash is sealed with Mastic and tile is replaced.
- 6** Rails are set and cabling is run.
- 7** Panels set on rails and clamped in place.
- 8** Finished array before pigeon proofing



Compare Conduit Runs

TOP: A conduit run through the attic looks much neater and cleaner than an installation with an external conduit.

BOTTOM: Notice the roof boot over the eaves and unpainted conduit. The contractor could have run the attic conduit, thinking about how it would look from the street. Ask the contractor runs and installs conduit.



ELECTRICAL CONDUIT

Run through the attic and painted to match your house

METER

Your old 1-way meter gets replaced by a new 2-way meter.

COMBINER BOX

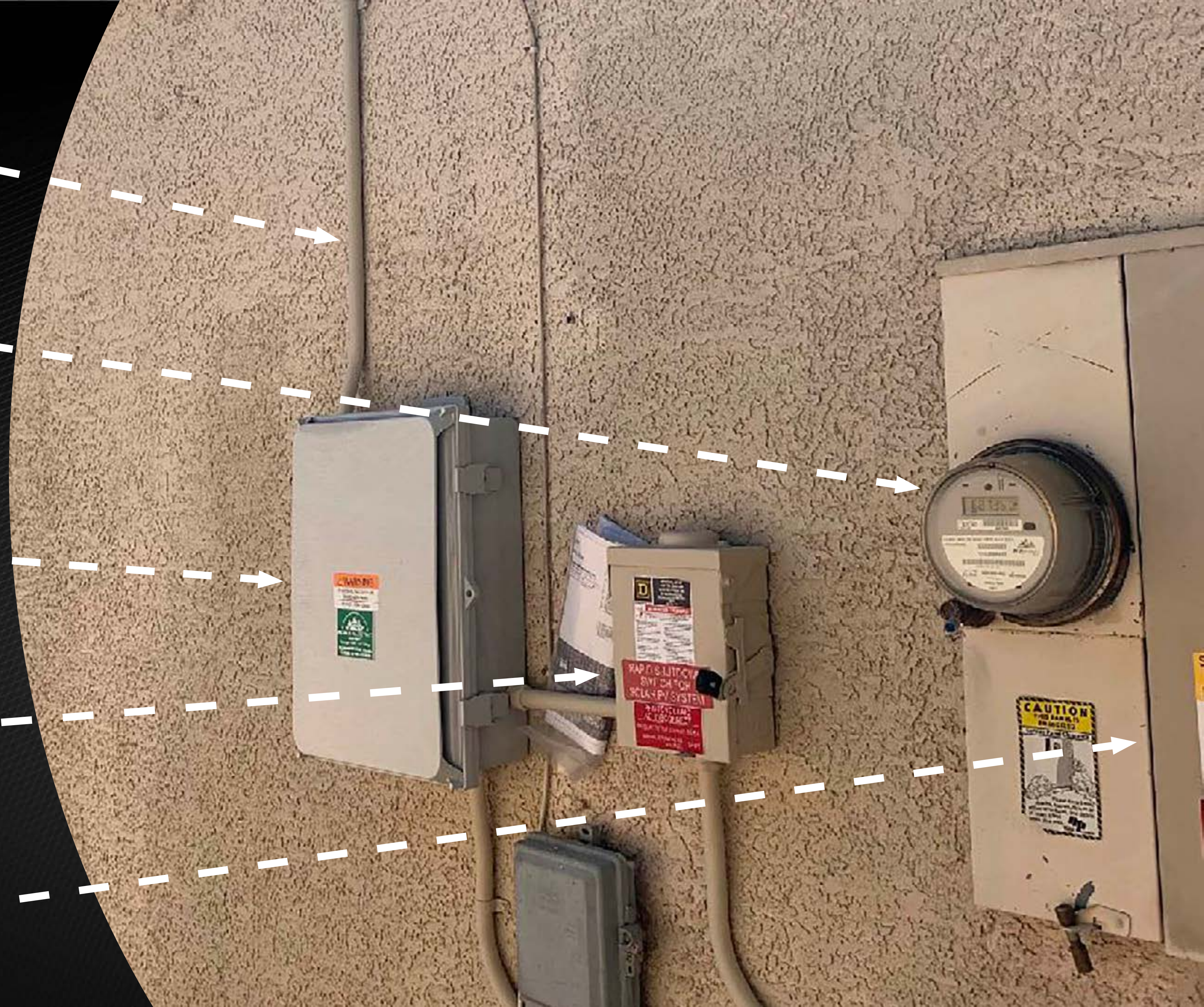
Communications equipment for monitoring your production and consumption.

DISCONNECT

ON/OFF switch for your solar array.

MAIN PANEL

A new breaker will be installed for solar.



How To Maintain Solar Panels

Solar panels have no moving parts, but dust or pigeon poop can impact performance. They need minimal maintenance, only occasional washing. Rain is great for washing off panels. No rain in sight? Wash Them Yourself with a hose, no cleaners, wiping or squeegee needed. Only wash your panels when the outside temperature is under 80°F.

Have Them Washed

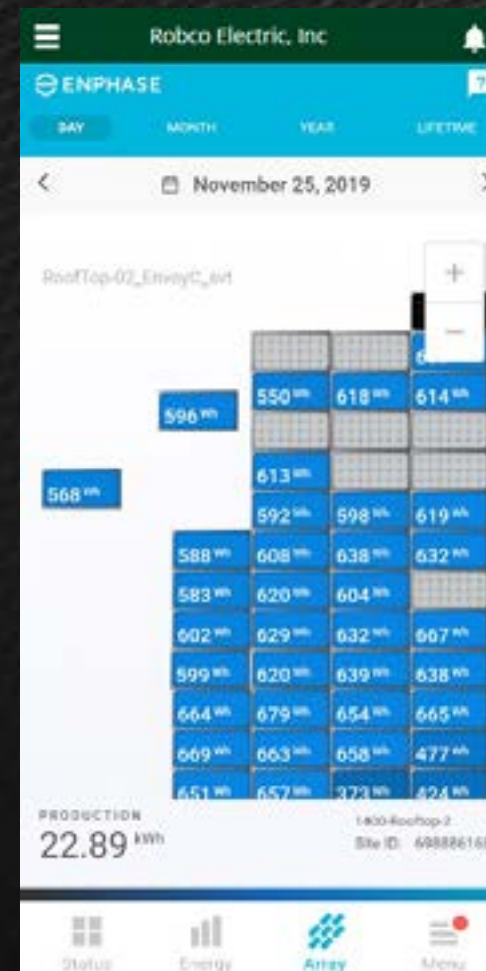


We've Got An App

Robco Electric has a free app available for download. The app is used to earn rewards for referrals to monitor your system. Download the App, select the sales consultant, and register. Once registered, you can begin sending referrals right away.

The monitoring experience is built specifically for the system owner. Delivering at-a-glance verification, Monitoring assures you that your Enphase system is performing as expected. Verify system health and performance. View energy production by month, day, or hour. Analyze performance against historical weather data.

- Track Installation Progress
- Monitor Your System
- Request Cleaning & Maintenance
- Earn Referral Rewards



About Us

We're not just a solar company, we're an Electrical Contractor with more than 120 employees and 25 years in business. Robco Electric has helped thousands of Las Vegas Valley residents tap into the power of clean solar energy. We've earned placement on the Solar Power World Top 500 contractor list six years in a row, making us one of the best solar companies in Las Vegas.

We are the highest rated solar installer in the city with great reviews on Yelp!, Google, Nextdoor and Facebook.

We have never had a complaint with the Contractor's Board.

No pushy sales tactics and no pressure.

No day laborers or sub contractors. We do it all ourselves — sales, design, install and service.

Solar Built On Trust

THANK YOU!

Got questions? Call

(702) 614-4900

