



Energy **Independence**

with Solar and Battery Storage



Real Energy Independence

Robco Electric, Inc., is a locally owned and operated C-2 Electrical Contractor with over 150 employees, proudly serving Southern Nevada for more than 25 years. Our Solar Division has completed over 3,500 residential and commercial installations, earning top ratings on Google, Yelp!, NextDoor, and more.

We handle everything — sales, design, installation, and service — without relying on subcontractors. Plus, we take care of all permitting and inspections for you.

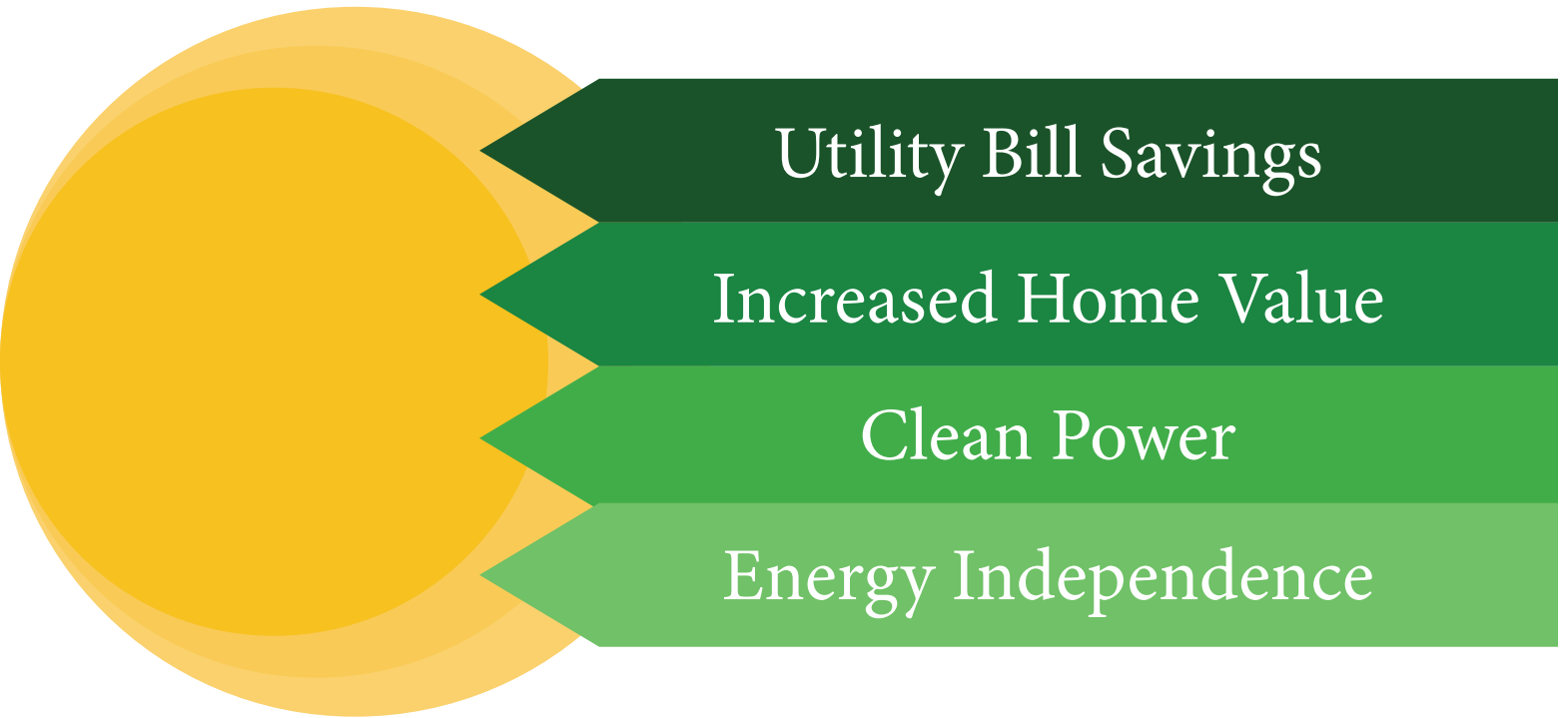
Your solar consultant is your personal guide throughout the entire process, from sales to installation to ongoing service. They're here to help with every step, including helping handle your HOA application.



Got questions? Call Or Visit
(702) 614-4900
www.robcoelectriclv.com



Why Go Solar?



How Solar and Storage 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.



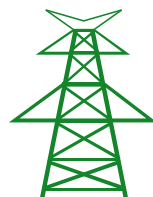
The bidirectional meter measures your energy usage, and the excess energy produced that day goes back to the grid.



Your solar array charges your batteries used to back up your home.



The energy is used in your home.



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

Energy Storage Systems

Enphase IQ Battery 10C

The IQ Battery 10C all-in-one AC-coupled system is compact, powerful, reliable, and safe. It has a total usable capacity¹ of 10.0 kWh and includes four embedded, grid-forming microinverters with a 7.08 kVA continuous power rating.



IQ Battery 10C



IQ Combiner 6C



IQ Meter Collar

Powerful

- Provides 56 A peak current for three seconds
- Includes four embedded
- IQ8B Microinverters
- Most powerful microinverter with up to 2.1 kVA continuous power

Reliable

- Cools passively with no moving parts or fans
- Uses wired communication for fast and consistent connection
- Updates software and firmware remotely

Simple

- Fully integrated AC Battery system with neutral forming capabilities
- Installs and commissions easily
- Offers homeowners remote monitoring and control from the Enphase App
- Field replaceable components

Safe

- Evaluated to UL 9540A, the highest industry standard for battery safety
- Uses LFP chemistry for maximum safety and longevity

Powerful



Reliable



Simple



Safe



What Energy Storage Looks Like

Our team at Robco is your go-to Battery Storage and Backup System experts to help you archive Energy Independence.

Interested in battery backup, we recommend creating a list of appliances and devices you want backed up by the Battery Storage System during a power outage, ranked by importance.

For example: medical equipment, security system, lights, air conditioning, refrigerators/freezers, routers, modems, and computers.

Just ask, we are happy to walk you through it!



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:

- First year production guarantee
- Equipment Types
- Cost Per Watt
- Kwh Per Year
- Payback Time
- Additional Items Included (Pigeon Guard, Consumption Monitoring)

Choosing The Right Company

When you go solar, you are purchasing a small construction project. Check the company's contractor 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?





Sizing Your System

The Balancing Act

The goal is to match your energy production to your energy consumption. Systems are built from historical usage (at least 12 months) or square footage. Every system is custom designed for your house and your needs.

- If you want a bigger system than historical usage or square footage allow, then NV Energy has to approve it.
- If you need more power in a few years, you can add panels if there is available space on your roof and in your main electrical panel.

Solar Savings

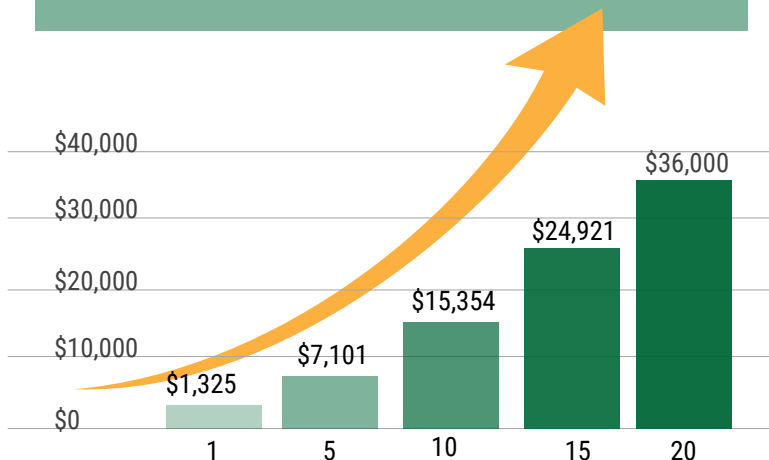
Using “Sun Savings”

When you invest in solar, you’re essentially banking the power of the sun. Every time your solar panels produce more energy than your home needs, that extra electricity is sent back to the grid, earning you energy credits through a process called net metering. These credits work like deposits in a savings account, letting you draw on them later when your panels aren’t producing as much—like at night or on cloudy days. Instead of paying your utility company full price for that power, you’re using the “sun savings” you’ve already built up.

BANKING THE SUN



CUMULATIVE UTILITY BILL SAVINGS



SOLAR SYSTEM SIZE

8.8 kW SYSTEM

14,062 kWh ANNUAL PRODUCTION

FIRST YEAR'S BILL

OLD YEARLY BILL: \$1,558.00

NEW YEARLY BILL: \$232.00

YEARLY SAVINGS: \$1,326.00

COST AND SAVINGS

SYSTEM COST: \$24,000

UTILITY BILL SAVINGS: \$36,000

ESTIMATED NET SAVINGS: \$12,374

ENVIRONMENTAL BENEFITS

CAR MILES AVOIDED - 92,882

TREES - 962

LONG HAUL FLIGHTS AVOIDED - 107



Know 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.”

Homeowner 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 should help you handle the process with your HOA. You simply need to provide the ARC form and the solar packet to your HOA and pay any application fee.



Buying vs Leasing/PPA

How to Pay for a Solar System

Buy

Pay Cash, Use Your Home Equity,
or Finance It

- ✓ Price per kWh is set
- ✓ Warranty
- ✓ Increased home resale value
- ✓ No hassle transfer
- ✓ Control over system components
- ✓ No early termination fees
- ✓ Many financing options

Lease / PPA

The solar company owns the
panels and sells you the power

- ✓ Zero out of pocket
- ✓ Lower starting price
- ✓ Warranty & Maintenance
- ✗ No control over system components
- ✗ You could pay more for power
- ✗ Can affect a home sale
- ✗ Must transfer at home sale
- ✗ No added resale value
- ✗ Early termination fee to remove panels

Picking An Inverter

Inverters are the “brains” 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 Microinverters 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





What Rooftop Solar Looks Like

Robco Electric installs all conduits in the attic whenever possible and paints any exterior conduits to match your house for a better looking installation. We also include a solid metal pigeon guard 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 roofing and cause leaks.

Mesh net pigeon guard looks unsightly and may not be the most effective solution. The birds or high winds can pull it loose.

Robco installations come standard with solid metal pigeon guard on all sides of the array (For all pitched roof surfaces.)



Shingle Roof Pigeon Guard



Mesh Net Pigeon Guard



S Tile Roof Pigeon Guard



Flat Tile Roof Pigeon Guard

How Solar

During installation, your contractor will make approximately 200 holes in your roof and install a new breaker in your main panel.

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 and is placed to seal roof penetrations from lag bolts.



Gets Installed

All contractors in NV must warranty the roof against leaks for 10 years after install. Choosing a contractor who has been in business for 10 years or more can provide peace of mind.

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

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

RIGHT: Notice the roof boot over the eaves and unpainted conduit. The contractor could have run the conduit through the attic.

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.



METER

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



ELECTRICAL CONDUIT

Run through the attic and painted to match your house.



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.



Scan QR code to download our app

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

