




WHO IS SolectricNv Inc.

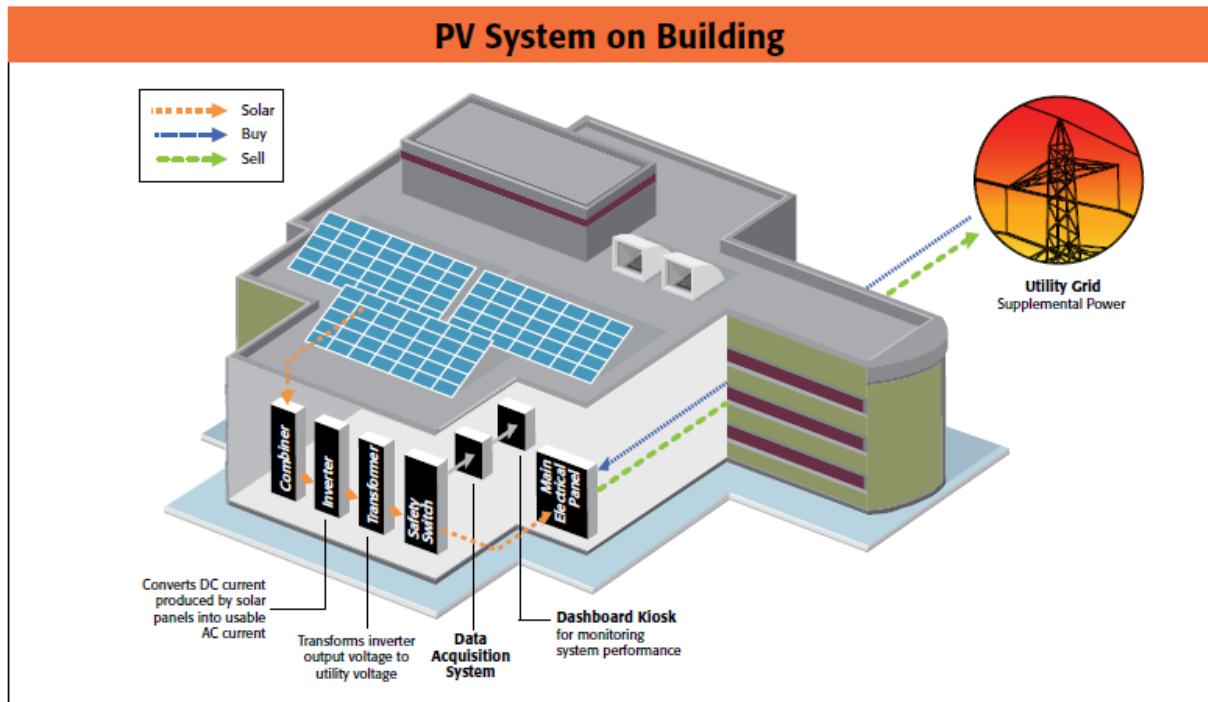
Through innovation, leadership and focus,  is on its way to become a leader in the solar industry. SolNV's founders consist of experienced accountants, attorneys, investment bankers and experienced corporate management. Our team has identified a variety products needed to solve problems and reduce costs in solar installations. We have put together the right partners to offer exclusive project financing, as well as provide efficient, quality, PV installations. This allows SolNV to quickly and efficiently design and develop solar systems for its residential, commercial and utility customers. Here's how; SolNV professionals will identify all available rebates and incentives, asses the site to determine the best location for solar energy production and evaluate your electricity demand. We will then propose a custom design system for maximum performance and utility savings with accountant ready financial projections. In addition SolNV will offer many convenient financing options for your project. We will then develop the systems electrical and structural engineered drawings to submit to the utility company and your local authority having jurisdiction. Once permitting is approved we will immediately schedule an installation date with a state certified contractor. SolNv and contractor will provide proper coordination for permitting, inspections, utility interconnection and net metering agreements. You will have peace of mind as all the required system documentation is provided by SolNV.

ALL ABOUT SOLAR

HOW IT WORKS

Solar technology has more than 60 years of significant testing and use in the field. Solar electricity system components include modules, inverters, and "balance of system" parts (e.g., production meter, wiring, racking, and switches). The systems are relatively simple and quick to install compared to other renewable energy technologies, and they have few if any moving parts to maintain.

When sunlight hits PV modules, high voltage direct current (DC) electricity is generated. The DC flows into the system inverter which converts it to alternating current (AC) and steps down the voltage for use in the associated power panel. The amount of power being generated depends on the size and number of modules, their efficiency, their orientation to the sun, and the amount of sunlight falling on the module array (Figure 11).



SYSTEM COMPONENTS

MODULES

Types. Most solar modules in production today are made of silicon crystal cells. The three main types of silicon based modules are single-crystal, multi-crystal, and amorphous, a type of “thin film” module. There are also non-silicon-based thin film modules, which SolNv has decided is not yet viable for reliable commercial and utility installations. Single and multicrystalline modules are more efficient, sturdier, and heavier than thin film modules. Thin film modules are less expensive per watt and provide a lower kWh cost, but are less efficient and require more surface area to produce the same kWh output. This product is perfect for ground arrays where space is not an issue or for large commercial rooftop applications where space is plentiful. Thin Film also produces more kWh per watt installed; this is due to higher performance in overcast/cloudy/low light conditions, as well as better performance in high temperatures. Thin film on average produces 11% more kWh than crystalline panels. In contrast in residential or small commercial projects where roof space is at a premium, crystalline products although more expensive per watt will produce more kWh.

Capacity. The capacity is the maximum amount of energy the system can produce based on how many watts of PV are installed. The bottom line when comparing solar electricity equipment options is the

cost per watt, or ideally, cost per kWh over the lifetime of the PV system. Solar customers are ultimately purchasing kilowatt hours (kWhs).

Warranty. Most modules come with a 25-year manufacturer's warranty, meaning that after 25 years the modules should still be producing at least 80 percent of their rated capacity. As there are no moving parts, and the modules are built for long-term stability in all weather conditions, it is likely a PV system will continue producing at least 50 percent of its rated capacity beyond 30, possibly even 40 years.

Maintenance. PV modules require very little maintenance. In dry or very dusty environments, the system owner should hose off the modules to ensure maximum production throughout the year. SolNv will provide maintenance guidance for local weather conditions, and will even provide a maintenance agreement to insure maximum performance if desired.

Maximum production. Solar modules produce at peak efficiency in cool (but not cold) temperatures, with maximum sunlight exposure. Direct shading on even a small portion of the modules will greatly reduce the amount of power produced. Production will also vary significantly according to local climate conditions and the amount of sunlight hitting the solar modules. SolNv has developed complex algorithms to calculate precise kWh output in a specified location, using our proven equipment.

INVERTERS

Purpose. Grid-tied inverters condition the DC power produced by PV modules into "utility grade" AC power that flows through the electrical panel for use in the building, or back into the utility meter.

Efficiency. The inverter contains the "brains" of the PV system that monitor and control for peak performance and alert the system operator to any anomalies. Typical inverter efficiency is 88 to 95 percent, meaning that of 100 DC watts coming into the inverter from the modules, only 88 to 95 watts will be converted into usable AC power. SolNv has chosen inverters that offer up to 96% efficiencies offering the most kWh output possible, offering our solar customers more savings, and investors more kWh production.

Safety. If the utility grid goes offline (e.g., in a blackout), the inverter also goes offline and any electricity being produced by the PV modules is "dumped" through the grounding wires. This feature protects line workers or others when the lines are down.

Warranty. The inverter warranty is usually 10 years, with expected performance approximately 15 years. Therefore, the system owner should budget to replace the inverters at least once over the useful life of the PV system. The inverter should continue producing at least 50 percent of its rated capacity for more than 30 years. SolNv offers extended warranties for its inverters to guarantee operation for up to 20 years.

Features. Each inverter option has costs and benefits that must be analyzed in the context of the entire project. The size of the inverter will depend on the number of PV modules and whether more modules are to be added later. Other considerations are the kWh monitoring and reporting features, such as whether the inverter can send production data through a wireless Internet connection, ask your SolNv Representative about system monitoring. The inverter must usually be replaced 10 to 15 years into the project. SolNv can factor in the cost of an extended warranty to last the life of the PPA contract as insurance for investors.

Location. Inverters work most efficiently in cool, clean conditions. SolNv Professionals will evaluate the site and determine the best location for the equipment.

KWH PRODUCTION FACTORS

Installation location and production. The U.S. generally has an excellent solar resource. Other countries, such as Germany, have a considerably weaker solar resource, but nonetheless produce much more solar energy than we do because of very generous solar policies and financial incentives. These guidelines, for those in the northern hemisphere, are useful in estimating what size PV system you will need to install:

- **Weight:** A common roof-mounted system with racking weighs 3 to 5 pounds per square foot.
- **Space:** 1,000 to 1,500 square feet per 10,000 watts of modules. Plan on 10,000 square feet for a 100kW roof mounted system.
- **Production:** 1400 to 1900kWh per year, per 1,000 watts of modules. Production will be higher in summer, lower in winter, and vary greatly by location. The PV modules should face southward and be tilted for maximum annual kWh production. Production is also boosted by adding tracking equipment that tilts the modules toward the sun.


Installation structure. PV modules may be installed on building roofs (flat or tilted), shade structures (e.g., parking lots, parks, pools, transit terminals), or mounted on standing poles, along hillsides, or in open fields. Any un-shaded solid structure that will last 10 or more years provides a good solar installation location. It is common to install the system in conjunction with a re-roofing project, or when creating a dual-benefit structure, such as a new parking lot shading system with integrated PV. The system may be mounted on a flat roof, using no-penetration ballast anchors, or on poles with dual tracking to maximize production.

FOR THE SOLAR CUSTOMER

IS SOLAR POWER RIGHT FOR YOU?

Introduction

Energy prices nationally have raised an average of 6.5% per year for the past 30 years, and are expected to rise even more dramatically in the future with growing demand. Because solar installation is a fixed cost, savings increase over time as utility rates rise. When you put a solar system on your home, you're building in a hedge against future rate increases. And rising utility rates are definitely something you can count on. In 2006, some states saw the highest tier residential rates jump as much as 55% in just one year.

A  System is a wise, recession-proof investment. You'll earn a rate of return better, and safer, than many investments while simultaneously helping the local economy. Now is the time to take advantage of the new **30%** Federal tax credit, as well as applicable state and local incentives, to dramatically discount the cost of your system. In some states such as Oregon, these incentives can subsidize **100%** of the system cost. And with our unique financing programs, we have made it easy for you to start saving with a solar system.

A solar electric system increases the value of your home, should you ever want to borrow against or sell it. Going solar also has positive environmental and sociological impacts in addition to its significant financial benefits. SolNv Solar Systems generate clean energy, reducing air pollution and the CO2 emissions that contribute to global climate change. They also reduce our dependence on fossil fuels and foreign oil while generating electricity from an abundant, renewable source: the sun. Going solar is just the right thing to do, on many levels.

Researching your projected electricity costs

Your local utility may help or hinder your plans to install solar energy. SolNv will investigate pertinent rules, tariffs, and incentives offered by your utility. State rules and utility policies vary dramatically throughout the nation, so it is important that we understand your local situation.

To calculate the value of your solar electricity system you should understand what you are paying now, and what you will be paying for kWh in the future. SolNV will use only historical data from state and surrounding areas for typical rate increases, **these projections will not include excessive increase due to RPS or Carbon Cap and Trade.**

INCENTIVES

Financial incentives for photovoltaic's are incentives offered to electricity consumers to install and operate solar-electric generating systems, also known as [photovoltaic's](#) (PV). Our government offers incentives in order to encourage the PV industry to achieve the needed price point to compete where the cost of PV-generated electricity is above the cost from the utility. Such policies are implemented to promote national [energy independence](#), promote and stimulate job creation and reduction of [carbon emissions](#). When [smart meters](#) are used to manage demand and peak usage coincides with hot summer days, PV power can compete more closely with fossil fuels.

Federal ITC Tax Credit

Section 48 of the Internal Revenue Code provides an investment tax credit (ITC) for certain Types of energy projects, including "equipment which uses solar energy to generate electricity." Historically, through 2005, the size of the solar credit was equal to 10% of the project's "tax Credit basis" – i.e., the portion of system costs to which the ITC applies. The Energy Policy Act Of 2005 temporarily increased the solar credit to 30% of a project's tax credit basis, for projects placed in service between January 1, 2006 and January 1, 2008. In late-December 2006, the Tax Relief and Healthcare Act of 2006 extended the in-service deadline to December 31, 2008, and in October 2008, the Energy Improvement and Extension Act of 2008 extended it once again for a full eight years, through December 31, 2016. Unless extended again or otherwise altered over the next eight years, the Section 48 solar credit will revert back to 10% on January 1, 2017.

The credit is realized in the year in which the PV project begins commercial operations, but vests linearly over a 5-year period (i.e., 20% of the 30% credit vests each year over a 5-year period). Thus, if the project owner sells the project before the end of the fifth year since the start of commercial operations, the unvested portion of the credit will be recaptured by the IRS. This period is sometimes referred to as the 5-year "claw back" period.

Certain limitations exist on use of the ITC in combination with other incentives. Specifically, if a non-residential entity receives a rebate, buy-down, grant, or other incentive related to the project that is not considered to be taxable income (i.e., the entity is not required to pay income tax on the incentive), then the tax credit basis must be reduced by the amount of the incentive received. Similarly, if the system is financed in part or in whole using “subsidized energy financing,” then the portion of the project cost financed in this way is not eligible for the ITC.

Accelerated Tax Depreciation

Section 168 of the Internal Revenue Code provides a Modified Accelerated Cost Recovery System through which certain investments in solar power (and other types of) projects can be recovered through accelerated income tax deductions for depreciation. Under this provision, this has no expiration date, “equipment which uses solar energy to generate electricity” qualifies for 5-year, 200 percent (i.e., double) declining-balance depreciation. In most cases, 100% of a PV project’s cost will qualify for this accelerated schedule. However, the project’s “depreciable basis” (i.e., the dollar amount to be depreciated) must be reduced by the amount of any non-taxable cash incentives received (again, this is not likely to be a common occurrence, since most cash incentives provided to non-residential PV systems will be taxable). Moreover, Section 50 of the Code requires that the depreciable basis also be reduced by one-half the value of the Section 48 investment tax credit. Thus, a commercial PV project taking the ITC will, in most cases, be able to depreciate 85% ($=100\% - 0.5 * 30\%$) of the project’s installed cost for tax purposes, using a 5-year MACRS schedule.

Assuming a 40% combined effective state and federal tax bracket and a 10% nominal discount rate, on a present value basis this 5-year MACRS depreciation schedule provides a tax benefit equal to about 26% of system costs (only 12% of which is attributable to the acceleration of the depreciation schedule; the remaining 14% would be realized even if commercial PV were instead depreciated using a less-advantageous 20-year straight-line schedule). Taken together, then, the 30% ITC and accelerated depreciation provide a combined Tax Benefit equal to about 56% of the installed cost of a commercial PV system. Moreover, these Tax Benefits are fully realized within a 6-year period, which is significantly shorter than, for example, the 10 years that it takes commercial wind power projects to fully realize their Tax Benefits (which, in the case of wind, include the 10-year production tax credit, or PTC, rather than the ITC). Depreciation deductions (as well as the ITC) in excess of net income generated by a project can be carried forward to future years under certain circumstances. However, due to the time value of money and the fact that a significant share of overall project returns come from Tax Benefits, it is important for an investor to be able to utilize such Tax Benefits in the years in which they are generated.

Utility Rebate Programs

Many states and utilities offer rebates of from \$5 to \$1/watt installed, as well as feed-in tariffs of up to \$1.50/kWh. Check with your Sol NV representative for details.

REC’s Renewable Energy Credits/Set Asides a.k.a. (SREC’s or PEC’s)

Renewable Energy Credits are tradable, environmental commodities in the United States which represent proof that 1 Kilowatt-hour (KWh) of electricity was renewable (generated from an eligible renewable energy resource). These certificates can be sold and traded and the owner of the REC can claim to have purchased renewable energy. While traditional carbon emissions trading programs promote low-carbon technologies by increasing the cost of emitting carbon, RECs can incentivize


carbon-neutral renewable energy by providing a production subsidy to electricity generated from renewable sources. It is important to understand that the energy associated with a REC is sold separately and is used by another party. The consumer of a REC receives only a certificate. A certifying agency gives each REC a unique identification number to make sure it doesn't get double-counted. The green energy is then fed into the electrical grid (by mandate), and the accompanying REC can then be sold on the open market. Currently Sol NV is seeing Rec's sell anywhere from .025 to .05 cents per kwh.

Navigating Incentives

Sol NV's customer service will determine which incentives are available to you, provide applications, and detailed financial modeling showcasing incentives specifically for you. Call a Sol NV customer service representative to answer any questions regarding available incentives.

*** For a comprehensive review of available incentives visit the [Database of State Incentives for Renewable Energy \(DSIRE\) website at DSIRE.com](https://www.dsire.com)

Permitting and Utility SUPPORT

Once started on your project,  will coordinate with your (LAHJ) local authority having jurisdiction and power company in filing all necessary Permitting, interconnection and net metering agreements. This section describes how solar systems are connected to the utility grid, how the excess solar electricity is credited, and how to value the renewable energy certificate (REC), which is a financial tool that captures the "green" values of the solar power.

Permitting

SolNv will apply for all the required permits and submit structural and electrical plans for review to the local authority having jurisdiction. Permitting assessments will be a pass thru to the customer as the price for building permits will be determined by (LAHJ). A Certified installation contractor will coordinate all inspections with local authority thru system commissioning.

Interconnection

It is federal policy that utilities accept interconnection of a solar power system to their grid. The contract between the system owner and the utility is called an interconnection agreement. This agreement includes the conditions, equipment requirements, and process for connecting to the grid. SolNv will provide direct assistance with the utility company and customer for all interconnection agreements.

Net metering

In addition to allowing interconnection to the grid, many utilities will credit you for the electricity you do not use from your solar project. This arrangement is called net metering. Net-metering regulations include provisions for:

- The amount of electricity that can be sold to the utility
- The rates at which the utility will buy it
- An ending date for the agreement (in some cases) or True-UP

Your utility may have a cap on the total amount of net-metered electricity that it will purchase from you. Or the utility may credit you at a very low rate for the excess solar electricity. Solar is most valuable when the net-metering agreement allows for at least retail compensation (the price customers pay), and gives you the opportunity to earn enough credit to entirely offset your energy bill over the course of a year. Understanding your net metering options is key to measuring the financial benefits from an on-site generation project that will “make the meter spin backward.” If your project is sized such that you will never export power to the utility, net metering is less important. Nearly all the states have some form of net metering rules. Depending on their consumer-friendliness, the rules can provide you with a significant credit toward your energy bill. Net-metering is so named because it refers to the number of kwh’s bought from the utility minus the amount you export to the grid. You pay for the difference or the “net” amount.

FINANCING OPTIONS FOR THE SOLAR CUSTOMER

INTRODUCTION



Clean Solar technologies offer practical money saving solutions for homeowners and commercial businesses. SolNv is dedicated to making solar affordable to the mass market. Regardless of your position on global warming, foreign policy or utility companies, everyone can agree that saving money is a smart choice. SolNv has partnered with leading solar financing companies, as well as private and institutional investors in order to eliminate large up-front costs for solar systems, and to insure monthly and long term savings for your energy needs.

CHOOSE RENEWABLE ENERGY

- Gain energy independence and free yourself from the utility monopoly
- Be part of a clean community and reduce your carbon footprint
- Hedge against increasing power costs and reduce dependence on foreign energy
- Invest in your future by creating a cleaner world


The Advantage

- Personal and professional service from solar and renewable energy financing specialists
- Hundreds of loan products with the best rates and lowest fees
- The ability to assist with all credit types and customize payment plans
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We develop a financing plan that allows residential and small business owners to take advantage of federal and state incentives while owning their system. Sol NV ensures residential and small business owners loan products tailored to their situation, helping to finance a system that maximizes their utility savings and yields the best cash flow.

SOLAR ECONOMICS

There are many contributing factors to the demand for a solar investment many of which we have already addressed. The federal government is a driving force in the incentives for solar power systems. The largest contributing factor of solar awareness is simply the cost of energy. How much are you paying per Kwh? Historically the nation has had an annual energy increase of 6.5% and northern California a 10% inflation rate for the past twenty years. The rate increases are compounding and until recently almost unnoticed, as they were fractions of a penny. Cost will continually increase and we will see two and three cent increases annually. But will these costs continue rising at such an exponential rate? In addition to inflation and normal operating expenses incurred by the utility they now have a new more stringent rules and regulations to abide by; they are called RPS or renewable portfolio standards. These standards will require that a pre determined percentage of the energy, produced by the utility companies, be originated from renewable energy sources. This is a proactive measure for the environment and is well overdue. However, as we are dependent on fossil fuels sources, this will implement a large financial burden on all utility companies, large and small a financial burden that will be shared by all utility customers. In addition to portfolio standards that will be required by law, power providers and consumers alike will be penalized for excessive use of fossil fuels called “Carbon cap and trade.”

Our goal at  is that we can help to create awareness about what to expect so our customers can better prepare themselves.

Renewable portfolio standards

Many states require utilities to provide a certain amount of renewable power in their electricity mix which is known as a Renewable Portfolio Standard (RPS). It is expected that the federal government will eventually adopt a minimum standard that all states will have to meet. A few states specifically require that solar energy make up part of the renewable energy mix. This is known as a solar set aside. Some of these states allow utilities to meet this requirement through a solar incentive mechanism known as solar renew-able energy certificates (SRECs).

Carbon Cap and Trade

Emissions trading (or **emission trading**) is an [administrative](#) approach used to control [pollution](#) by providing [economic incentives](#) for achieving reductions in the emissions of [pollutants](#). It is sometimes called **cap and trade**.



A coal power plant in Germany. Due to emissions trading, [coal](#) may become less competitive as a fuel.

A central authority (usually a [government](#) or international body) sets a limit or *cap* on the amount of a pollutant that can be emitted. Companies or other groups are issued emission permits and are required to hold an equivalent number of *allowances* (or *credits*) which represent the right to emit a specific amount. The total amount of allowances and credits cannot exceed the cap, limiting total emissions to that level. Companies that need to increase their emission allowance must buy credits (REC's) from those who pollute less. The transfer of allowances is referred to as a [trade](#). In effect, the buyer is paying a charge for polluting, while the seller is being rewarded for having reduced emissions by more than was needed. Thus, in theory, those that can easily reduce emissions most cheaply will do so, achieving the pollution reduction at the lowest possible cost to society because emissions' trading uses [markets](#) to determine how to deal with the problem of pollution, it is often touted as an example of effective [free market environmentalism](#). While the cap is usually set by a political process, individual companies are free to choose how or if they will reduce their emissions. In theory, firms will choose the least-costly way to comply with the pollution regulation, creating incentives that reduce the cost of achieving a pollution reduction goal.



would like to thank you for the opportunity to assist in becoming an independent energy provider. We hope that you find this informative helpful in understanding your solar investment and all the tools available in making renewable energy systems more affordable and using the system and all its resources to your advantage.

LET THE SUN WORK FOR YOU