

## Photovoltaic Proposal



# FRISCO PUBLIC WORKS BUILDING

102 SCHOOL RD, FRISCO, CO 80443

"You have a chance to help our future, TODAY!"

Active Energies Solar, LLC.  
PO BOX 7627  
Avon, CO 81620  
Phone: (970) 306-4233  
Fax: (866) 403-3485  
info@activeenergies.com  
www.activeenergies.com

**ACTIVE  
ENERGIES**  
SOLAR, LLC

# WHO WE ARE

Active Energies Solar, LLC was founded in 2006 with the vision to provide renewable energy solutions that positively impact our environment and have solid financial returns for our customers – both residential and commercial. By pursuing that vision, we have become one of the most experienced solar companies in the Colorado High Country. We are a locally owned small business, and are a proud member of our community. We have helped hundreds of families and businesses become more energy efficient and environmentally friendly

## Solar Design and Installation:

Active Energies Solar, LLC is dedicated to promoting energy efficiency in our communities. We provide complete, turn-key solar solutions with all aspects of system design, installation, project management, permitting, rebate assistance and warranty management included. Active Energies is committed to serving you, and our installation experts will be there every step of the way to provide you one-on-one service and answer all of your questions.

## Our Team:

Our team is made up of a group of individuals with a passion for sustainability and green technology. We have over a decade of experience in design, sales and installation of beautiful, clean solar projects. Our professional design team will maximize the production of your system, with a keen eye to the beauty and aesthetics of building the perfect system for your home. Our team of professional installers will make sure that the design vision is realized, and that the project site is safe, clean, and done right!



## MISSION

### STATEMENT

To be a complete Renewable Energy Company that helps residential and commercial customers reduce their energy consumption and environmental impact through advanced, turn-key solar energy systems.

## COMPANY VISION

We help our customers realize the benefits of renewable energy, such as solid financial returns and a positive impact on the environment, through our unique “Commitment to Solar, Commitment to You” approach. Which means our in-house installation and customer support teams make the process easy and convenient.

# How it Works

## Grid-Tied Solar

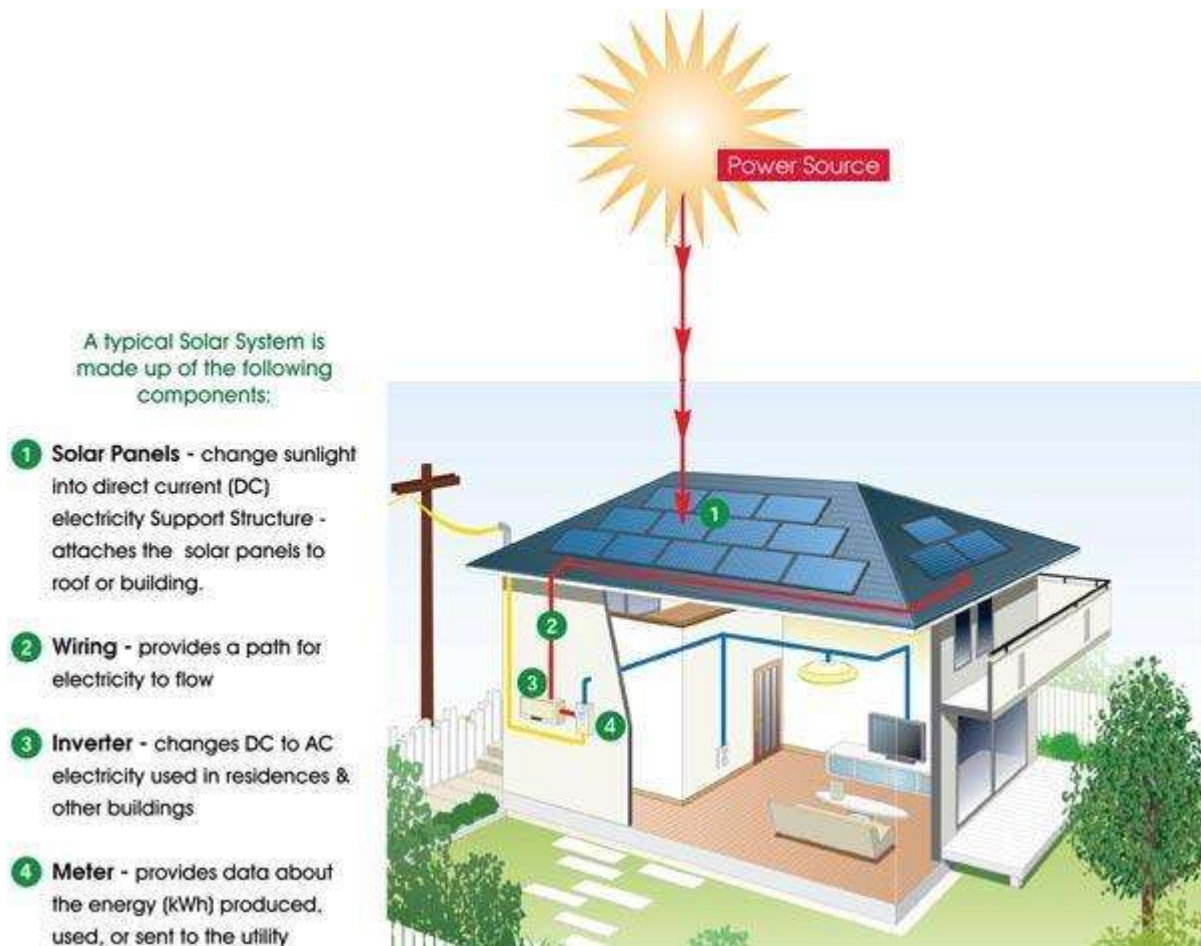


FIGURE 1: SOURCE: SANYO

A grid-tied solar PV system consists of an array of photovoltaic panels connected via an inverter (or micro-inverters) to provide power for your home. During the day, any excess production feeds into the grid, spinning the meter backwards. At night when the solar modules are not producing electricity, the electricity comes from the grid. If enough energy is exported during the day, it will balance or exceed the amount you draw from the grid at night. Grid-tied solar does not have a backup energy source in the event of a grid outage, unless batteries are added to the system.

# Photovoltaic Proposal #1

The following quotation is for the design and installation of a roof mounted, grid-tied, photovoltaic (PV) system to be located on the south, east, and west facing roof of the Residence at the home address.

**System Size:** 92.52kW  
**Estimated Production:** 127,398kWh/year (based on PV Watts / not including shading)  
**Estimated Offset:** 115% of recoded annual kWh usage  
**System Layout:** Single Panel: 5.41ft tall X 3.25ft wide

**Equipment:** Panels: 257 Axitec 360 @ 360watts (or equivalent)  
Inverter: 257 SolarEdge P370 optimizers + 1 SE 50k-US-208 + 1 SE14.4kW-US-208 + 2 SolarEdge SE 6000  
Mounting Equipment: RM10 Ballast block system + 352 Ballast Blocks  
Monitoring: SolarEdge Remote Energy Monitoring System

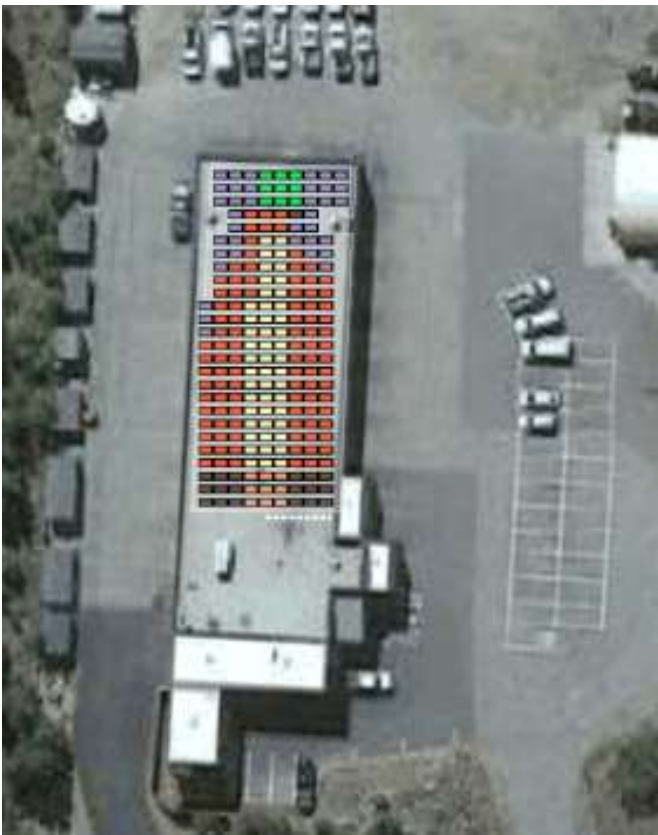


Figure 2: Proposed Layout

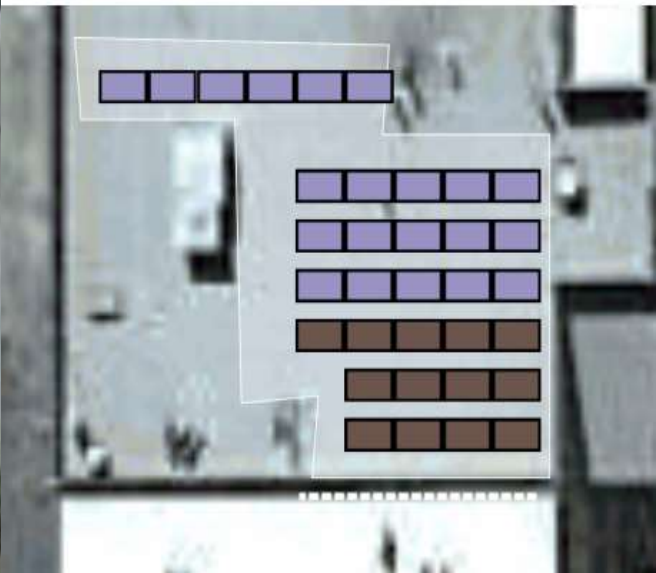


Figure 3: Proposed Layout

## Financials:

### Proposal #1

| Payment Schedule         | 92.52kW System   |
|--------------------------|------------------|
| Down Payment             | \$142,018        |
| Final Payment            | \$142,018        |
| <b>Total Amount Owed</b> | <b>\$284,036</b> |

*\*Please confirm pricing and panel availability prior to contracting\**

**MACRS Yearly Value for 5 Years: \$12,513.52**

**Included in your Photovoltaic System Design:**

- Design and full installation of functional, code compliant system, including all required equipment and labor
- Full system documentation including permitting, invoices, instructions and warranty information provided during system installation
- All AC electrical connections, including system interconnection by a Colorado Certified Master Electrician
- All DC electrical work overseen by NABCEP certified staff
- All applicable local, county and state taxes
- Permit procurement and payment
- Facilitation of applicable rebate processes
- Remote Monitoring System
- Financing options are available

**Logistics:** Upon acceptance of this proposal, Active Energies Solar LLC requires the completion of an installation agreement with a down payment due at signing. This will begin product procurement, permitting and rebate processes. When equipment has been received Active Energies will then install your system according to all applicable codes and complete the AC connection to the grid. At this point the final payment is to be made. The final steps include inspection and approval, net meter installation by the utility company, and final rebate processing. Now, your system is operational and you can start feeding the grid!

**\*\*\*Federal Incentives:** This quote assumes that applicable rebates will be taken as non-taxable income. A taxpayer may use IRS form 5695, Residential Energy Credits, to claim a credit of 26% of qualified expenditures, less rebates, for a system that serves a dwelling unit located in the United States. If the federal tax credit exceeds tax liability, the excess amount may be carried forward to the succeeding taxable year. Consult your tax professional on the applicability of this benefit.

**Net Metering:** Xcel offers net metering; when more electricity is being produced by your PV system, power is fed to the electrical grid. Your bill is then netted; the electricity you consumed and the electricity feed back into the grid, so you only pay the net amount. If there is a positive yearend balance, Xcel Energy will write you a check for the kilowatt-hour balance times the average hourly incremental cost for the prior 12-month period or you can make a onetime election to carry the balance forward indefinitely. Xcel Energy will require approval of an Interconnection Agreement document to receive their rebate and connect to the grid.

**Warranty & Insurance:** There is a 5-year warranty on installation and workmanship, 12-year warranty on inverters and 25-year warranty on the panels and optimizers. A more complete warranty statement is available during contracting. Active Energies Solar LLC carries liability insurance on all work and employees.

**Assumptions:**

- Site visit or plans review required to ensure pricing is accurate
- No vents or chimneys have been planned for the area designated for the solar array
- Grid-tie connection: A master electrician analysis is required by Active Energies; no charge. All electrical connection costs have been included
- Conduit Location: Some exposed conduit will be required to be run on the roof and exterior wall. Customer input is encouraged to limit aesthetic impact.





## Non-Financial Benefits of Solar:

A 92.52kW PV system each year ([www.solarenergy.org](http://www.solarenergy.org)):



- prevents **83.3** tons of coal from being mined
- prevents **166.5** tons of CO<sub>2</sub> from entering the atmosphere
- keeps **116,575** gallons of water from being consumed
- offsets **245,456** miles from being driven
- is equivalent to planting **555** trees
- keeps NO and SO<sub>2</sub> from being released into the environment
- Knowing that you are taking another step in protecting the environment!
- Help free yourself from the utility company by limiting your exposure to increasing energy costs. Own your electricity instead of renting it.

By 2090, the EPA estimates some Colorado ski areas will see seasons shortened by as much as 80 percent from present-day levels.! This snowpack is essential for our drinking water and recreational snow. We all can do our part to stop the global warming trends. You have the power to reduce your electrical usage, reducing stress on our electrical grid and emitting fewer greenhouse gases.

Thank you again for choosing Active Energies Solar LLC. Our goal is to save you money on your utility bills, while lessening impacts on our fragile environment. With this in mind, please let us know if there is any way we can better serve you.

Best Regards,

**Richard Clubine**

Owner

Active Energies Solar, LLC

[rich@activeenergies.com](mailto:rich@activeenergies.com)

[www.activeenergies.com](http://www.activeenergies.com)

