truesouth solar

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Your Solar Electric System Proposal

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Prepared For:

Rogue Valley Genealogical Society (541) 621-4984 vicepresident@rvgslibrary.org

Project Site: 3405 South Pacific Highway Medford, OR 97501

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Rogue Valley Genealogical Society | Proj #6226, Solution A

Introduction

Problem: Costly, Based on your recent history of electricity use, we estimate that over the next 25 yrs, you will:

- PURCHASE & CONSUME 606,000 kWhs of electricity
- PAY \$166,576 to Pacific Power¹
- EMIT 511,464 lbs of climate changing CO2²

Our Proposed Solution...

Polluting

Energy

Install a 20.825 DC kW (STC) Solar PV system.

Cleanly generate 113 % of the electricity you consume. Directly consume a portion of the electricity you generate and receive bill credits for the rest.

See following pages for solution details.

About Us

truesouth

True South Solar designs and

installs solar and energy storage systems for residential and commercial clients in Jackson & Josephine County. True South Solar started in Southern Oregon in 2010, and we remain true to our local community. We're committed to ridiculously great customer service, open and honest communications, and outstanding craftsmanship.

Estimated Solution Results

- As a result of the proposed project, we estimate that over the next 25 yrs you will:
- PURCHASE & CONSUME 0 kWh per year from Pacific Power
- SAVE \$157,803 in electric utility costs.
- ELIMINATE 475,459 lbs of climate changing CO2 emissions

Your utility savings will pay for the project AND provide long term investment returns.



This proposal is valid for 10 days. The next step is signing the necessary agreements so we can begin the engineering and permitting processes. Contact me with any questions you may have about this proposal or the process ahead. As your personal representative, your complete satisfaction is my only goal. Sincerely,

Jamie Cavener 541-941-4879 | jamie@truesouthsolar.net

¹ Estimate based on your reported electric use and current utility rates, with an assumed annual bill inflation rate of 4.0 % applied.

² EPA's Home Electricity Use

SOLAR



Your Custom Solar Electric System

True South Solar will install a complete, turn-key solar electric (PV) system at your site. All engineering, materials, and installation labor are included. True South Solar will coordinate and procure all necessary building permits, and administer the system's interconnection to the utility grid. We back our work with a 10 year warranty on workmanship. We've selected high quality equipment from reputable manufacturers who provide both material and performance warranties. Your system also comes with monitoring, allowing you to see how your system is performing.

PV System Specifications



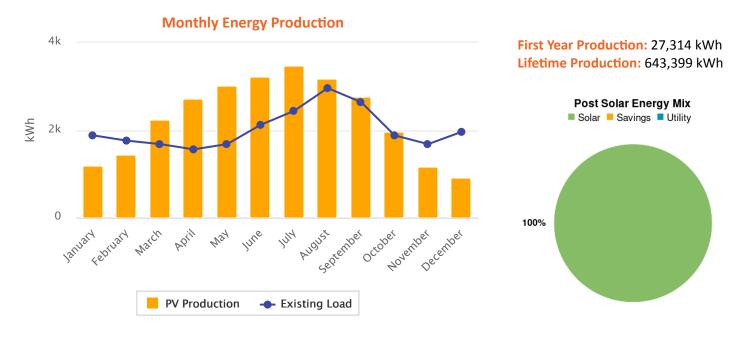
Primary System Components

- PV Modules: (35) Hanwha Q-Cells Q.PEAK DUO XL-G11S 595
 595 W, 156 half-cut cell double glass bifacial monocrystalline module, 1500V max system Vdc
- Distributed MPPT String Inverter Grid-tie: (1) SolarEdge Technologies SE17.3KUS (208V)

Rated Size of Proposed System

Nameplate: 20.825 DC kW (STC) AC Rating: 19.135 AC kW (CEC)

Estimated Energy Production





Project Costs and Projected Savings

The table below details the costs, incentives, and projected savings for each of the proposed payment scenario(s). Utility bill savings are the primary benefit of the proposed solar PV system. Owning your electricity generation fixes your costs, and entitles you to generous incentives. Your first year savings (shown below) will grow each year that utility rates escalate.

Payment Scenarios	Pay Cash
Price Energy Trust of Oregon- Commercial	\$49,843.00 -\$3123.750
Contract Price	\$46,719.25
Federal Tax Credit ¹ Tax Savings from Depreciation (lifetime)	-\$14,015.78 -\$0.00
Net Cost (lifetime)	\$32,703.47
Estimated Monthly Payments After Installation	None
At Next Tax Filing	Pocket tax credits
Monthly Savings, First Year: ² Avg. Electric Bill without Solar Minus Avg. Elec. Bill with Solar Minus Monthly Solar Payment Avg. Monthly Savings	\$333.33 -\$17.33 \$0 \$315.97
Total First Year Savings (est.)	\$3,792

Assumptions and Notes:

¹ Tax credit amounts are estimated. As the purchaser and owner of a solar photovoltaic system, you may qualify for certain federal, state, local or other rebates, tax credits or incentives (collectively, "Incentives"). If you have any questions as to whether and when you qualify for any Incentives and the amount of such Incentives, please consult and discuss with your personal tax or financial advisor. True South Solar makes no representation, warranty or guaranty as to the availability or amount of such Incentives.

² Electric utility bill projections assume energy purchased from Pacific Power using rate General Service - Small Non-Residential (23) (current rate) for the "without project" case and rate General Service - Small Non-Residential (23) for the post-project case.



Investment Analysis

The utility bill savings from your solar system can produce attractive long-term investment returns. To assess the value of your investment, we projected your total energy costs with and without the proposed solar system over the expected system's lifetime of 25 yrs. The analysis factors in expected changes in utility rates and solar production over time.

Scenario	Continue with Utility	Go Solar Pay Cash
Lifetime Costs and Savings for the expected solar system lifetime of 25 yrs		Savings: 75 %
	\$166,576	\$125,099.00
		\$41,477.00
	Utility Cost	Solar + Utility
Levelized Cost of Energy	\$0.25 / kWh	\$0.10 / kWh
Net Present Value (NPV) ¹	\$0	\$51,972.70
Internal Rate of Return (IRR) Pre-tax IRR ²	N/A	13.88 % 13.88 %
Upfront Project Payment Payback ³	N/A	\$46,719.25 7.6 yrs

Assumptions and Notes:

Analysis assumes annual electric bill inflation of 4.0 %. Actual savings may vary. True South Solar is not responsible for substantial changes to savings as a result of your utility making significant changes to rates or rate structures (tiers, seasons, time-of-use).

¹ Net present value is the total value of the investment to you in today's dollars. Future cash flows are discounted 5.0 % annually and summed.

² Pre-tax IRR converts all expenses to pre-tax dollars in an effort to compare solar rates of return to other forms of investments that quote rates of return before they are taxed, such as for stocks. Pre-tax IRR is merely illustrative. If no upfront investment is made, there is no return.

³ Payback refers to the period of time required for the benefits of an investment to "repay" the sum of the original investment. If no upfront investment is made, there is nothing to payback. Payback does not consider the value of benefits beyond the initial payback period, which are significant as utility energy prices escalate.



Environmental Benefits

Solar electric systems provide significant environmental benefits over their lifetimes. Depending on location and system specifics, the energy produced by the system in the first 0.5 -1.5 years will fully offset the energy used to produce and install that system. The energy produced by the system over its remaining 25 yrs lifespan will offset the negative effects of fossil fuel energy. The examples here illustrate some comparisons.

Sources:

- <u>CleanTechnica, payback time charts</u>
- EPA.gov Greenhouse Gas Equivalencies Calculator



Equivalent to sequestering as much carbon as 15.43 forested acres / yr.



Equivalent to eliminating the burning of 20,240 coal lbs / yr!



Equivalent to eliminating 44,850 vehicle miles / yr.

