

Ladies & Gentleman

Solar 101

We have attached a 15KW Commercial and 5KW Residential Solar Analysis

- (1) with a NV Energy Rebate and (1) without a NV Energy Rebate

Assumptions, Clarifications and Facts:

- Nevada's Electric Rate Forecast is an easy 8.9% plus annually
- NV Energy Buy down Program; \$2.10 per PTC watt (2010 per NV Energy Website)
- **Crystalline** will produce approximately 75-77% of the System Stated output due to degradation inefficiency factors like, wire length runs, Shading, Panel orientation, heat, inverter loss, product specific output etc. **aSi Thin Film** Panels will produce approximately 85-89% of the System Stated Output because they start up earlier in the morning, stay on later in the day and are less affected by heat; however they require more space and are best suited for large rooftops or ground mount applications.
- Reno's average Solar Production Hours is 5.8 hours per day; Las Vegas is 6.4 hours per day
- Not all Panels and Inverters are created equal; some have higher efficiency rating, thus produce more than others (These are the only ones we use.)
- Solar Systems add value to the property they are on. Nobody knows for sure exactly how much but we have attached an article with regard to this. Quick Rule of thumb: For every \$1,000 saved annually the property value will increase \$20,000.
- REC Credits are purely speculative from NV Energy and cannot be guaranteed. However, we have included information with regard to how much NV Energy has paid for these credits in the past - \$25 per 1,000 credits (\$.025 each). Credits are accrued at 2.45 per kWh produced.
- Shading is the biggest issue on any installation; panels that get shaded from trees, Ac units etc can reduce the overall performance of the system by 50% or completely shut the system down until the shading is gone. If this is an issue the system can be designed with multiple inverters so that only a small portion of the system will be affected.
- The kWh production is an annual projection
- Solar Systems through the inverter can be linked to your computer and individuals can watch their production on a real time basis.
- kWh is the production of energy over time
 - Example: 15 KW System
 - $15,000(\text{Stated Output}) \times .75(\text{Expected Output w/ inefficiencies}) \times 5.8(\text{Hours per day}) \times 365(\text{Days in a year})$ divided by 1,000 = 23,816 kWh produced annually

Residential

- A typical Residential application to offset power will be approx. 7-8 KW (average bill of \$138.00); however the most common is a 5 Kw because of limited roof space & price.
- Most homeowners cannot use the full 30% ITC credit and have to carry forward the tax savings
- Biggest concern of homeowners is system acquisition cost; most are sold on the concept and want it but need financial help!
- **30% Fed ITC for Residential is in the form of a Tax Credit...it is not cash**

Commercial

- A 15 KW system is small for commercial; our average Commercial size is mostly 40-50 KW systems
- Biggest Concern for commercial is acquisition and payback (Terms of years.)
- Most look at ROI and Levelized Cost of Electric. Needs to be less than they are currently paying
- MACRS Depreciation Benefit is related directly to the Company Profitability and in some cases for small business less lucrative.
- **30% Fed ITC for Commercial is a Rebate/Grant. We have not seen the form but are told from the IRS it will be in the Form of a Grant (cash) to the Business. Our sources say 60 days but it is the Federal Gov?**

For anybody who is interested we would be happy to explain Solar in more detail.

Our Companies:

SolelectricNV Incorporated – Solar Integrator

Millennium Development Corporation – Installer Licensed in Nevada & California

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