# SUV vs. PV

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## IS SOLAR ENERGY TOO EXPENSIVE?...YOU DO THE MATH!

### JEEP GRAND CHEROKEE LAREDO

| Age | Value[1] | Emissions[2] | Cost[3] |
|---|---|---|---|
| New | $29,499 | 0.5 tons | $29,499 |
| 1 year | $21,710 | 12.5 tons | $33,099 |
| 5 years | $10,445 | 62.5 tons | $51,099 |
| 10 years | $4,075 | 125.0 tons | $65,500 |
| 20 years | $550 | 250.0 tons | $101,500 |

[1] Bluebook [2] 10 K Miles per year [3] Operating cost

### 5 KILOWATT GRID-TIED PV SYSTEM

| Age | Value[4] | Emissions[5] | Cost[6] |
|---|---|---|---|
| New | $29,499 | 0.5 tons | $29,499 |
| 1 year | $29,351 | -2.7 tons | $28,959 |
| 5 years | $28,759 | -13.5 tons | $26,571 |
| 10 years | $28,019 | -27.0 tons | $23,009 |
| 20 years | $26,539 | -54.0 tons | $13,401 |

[4] -5% per year [5] vs. Gas turbine [6] -Avoided cost

When I put this sign together for my booth in a local fair, it was an attempt to rebut the time-worn argument that we've all heard—solar-electricity is too expensive.

As a newbie solar contractor, I was appalled at the negative attitude of my more experienced peers regarding cost. As an experienced remodeling contractor, I knew that cost was not necessarily a factor. For example, my clients would spend US$1,500 on a bathroom faucet, or US$20 per square foot on tile.

The products of the auto industry are *never* subjected to the kind of scrutiny regarding cost effectiveness to the purchaser that renewable energy products must endure constantly. Let's get over it! PV gives a return on investment (ROI) of 4 percent over the life of the system (50 years) in Seattle, Washington, right now. Compare that to a passbook savings account that presently yields around 1 percent.

If you don't remember anything else about my sign, remember that *if you can afford a car, you can afford a solar-electric system.* Perhaps PV module manufacturers could take a hint from the auto industry and offer zero percent financing.

What if we selected our mode of transportation the way we are told that we must select our source of electricity? Those of us who live in cities would all be using public transportation or bicycles, unless we were hauling loads. (How often do you see an SUV on the road with only one or two occupants?)

In the comparison chart, the Jeep values are Blue Book prices, Jeep emissions were based on 10,000 miles per year, and Jeep cost is incremented by the cost per mile allowed by the IRS. The PV is devalued 0.5 percent per year, RETScreen (from Natural Resources Canada) was used to compute ROI and emissions saved compared to a modern gas turbine generator, and to decrement the PV cost based on a current utility rate of 8.7 cents per KWH. The installed cost of the PV system is US$6 per watt. We do 'em for as low as US$5.75, give the purchaser a 50 year product, and still make money, all without rebates.

So where is *your* money going—down the road or back in your pocket?

**Access**

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