

Embedded Energy/Cost Buy Back

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|--|--------|--|--|------------------------------|--------------|
| Hypothetical Solar Panel Buy Back | | Our system is: 2 100W panels, with 2.05 hrs/day of full sun, 0.8 efficiency, and an estimated \$0.16/kWh | | | |
| | | | | # of Panels | 2 |
| Daily Energy: | 0.328 | kwh/day | | Panel Size | 100 Watts |
| Yearly Energy: | 119.72 | kwh/year | | Price/Watt | 1.5 \$/W |
| Yearly Electricity Price: | 19.155 | \$/year | | Electric Rate | 0.16 \$/kWh |
| Yearly Electricity Price/4: | 4.79 | \$/yr for each component | | Full Sun Hours Yearly Averag | 2.05 hrs/day |
| Panel Cost | 300 | \$ | | Efficiency of System | 0.8 |
| Buy Back | 15.66 | years | | Days in a Year | 365 |
| | | | | W-KW | 0.001 |
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| Solar Panel Embedded Energy | | | | Energy Embedded in Panel | 5500 kwh/kw |
| Embedded Energy | 1100 | kwh | | | |
| Pay Back | 9.19 | years | | | |
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| Buy Back From Other System Components | | Cost: | | Buy back time: | |
| Battery | 80 | \$ | | 16.71 | yrs Rachael |
| Charge controller (estimate) | 12 | \$ | | 2.51 | yrs John |
| Inverter | 65 | \$ | | 13.57 | yrs Annette |
| USB Split chords | 25 | \$ | | 5.22 | yrs Kevin |
| | | | | | |
| | | | | Total buyback: | |
| Total system cost: | 400 | \$ | | 20.88 | yrs |
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