



Solar Powered EV Charging

Building West Virginia's Alternative Fuel Refueling Infrastructure

Solar PV provides electricity at the point of use.



APUS 407kW solar array West Virginia's largest



1600 - 250 watt American made solar panels



The more Charging Stations, the more EV's we'll see on the road.





Businesses providing free EV charging for employees & customers.



How much Solar per Charging Station?



Sizing residential Solar EV refueling systems

- EV will travel 3.5 4 miles per kilowatt hour (kWh)
- 1 kilowatt (kW) of solar will produce 1200 kWh/ year
- 3.6 kW solar array will produce 4,320 kWh/ year
- Enough electricity to travel 15,000 miles



EV Cost Analysis

| 15000 Miles Annually | Cost per Mile | Annual Cost | Miles per Dollar |
|-----------------------|----------------|-------------|------------------|
| SUV (15 MPG) | \$ 0.23 | \$ 3,450.00 | 4.3 miles |
| Truck (20 mpg) | \$ 0.17 | \$ 2,625.00 | 5.7 miles |
| Sedan (30 mpg) | \$ 0.11 | \$ 1,750.00 | 8.5 miles |
| Compact (40 mpg) | \$ 0.09 | \$ 1,312.00 | 11.4 miles |
| EV (3.5 Miles per kW) | \$ 0.03 | \$ 428.00 | 35 miles |



System with Battery Back-up











