

Warren Wilson College - PV Charging Station

With a grant from the North Carolina Department of Environment and Natural Resources Air Quality Division, Warren Wilson College (WWC) purchased the solar electric vehicle charging station.

Designed by Sundance Design and installed with the help of students in the WWC work program. Working as a model and educational demonstration, the station powers eleven electric golf carts that are used by the various work crews on campus.



PV Panels on Charging Station



Charging Golf Carts

Charging System

- Kyocera KC-120W Modules for 8640 watts at 48Volts
- Two Trace 5548 Inverters wired to provide 11000 continuous Watts at 120Volts
- One 1000 Amp-Hour Deka Industrial Battery at 48Volts



For more information:
www.warren-wilson.edu/~elc/

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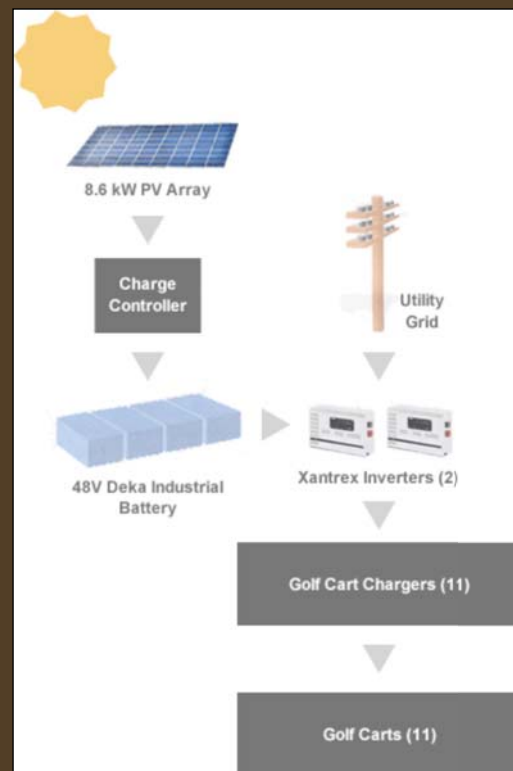
- The 9kW Solar Electric Vehicle (EV) Charging Station is the largest in Western NC.

- In periods of sunny weather the sun charges the battery bank, which stores energy produced by the solar array, and provides power to the golf cart chargers. If more power is being generated than is necessary to charge the vehicles, the excess is sold back to the utility. At night and in periods of inclement weather, power can be used from the utility grid to charge the vehicles.

- The solar charging system provides emissions free transportation that reduces the college's reliance on outside energy sources.



Golf Carts at Charging Station



Solar Diagram of Charging Station



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