

Melton Hill



TVA retrofitted numerous environmentally beneficial technologies throughout the existing Melton Hill campground and recreation area to create the Melton Hill Dam Sustainable Recreation Area.

The Melton Hill Dam Sustainable Recreation Area initiative is designed to generate clean power, reduce energy and water use, minimize storm water impacts, and increase waste recycling. The demonstration will serve to educate members of the public on their personal sustainability choices and provide a research model to help TVA and other recreation management agencies meet their sustainability goals.

At the Melton Hill Dam Sustainable Recreation Area, TVA is demonstrating the following technologies:



• SOLAR POWER

- Entrance sign is powered by a solar array and battery storage unit that powers the light at night
- Solar collectors power the LED (light-emitting diode) lights on the street light poles from the entrance to the angler's restroom
- Two solar thermal water heating systems compared to electric water heaters
- Eight different solar collection devices, six on a pavilion, to compare performance of collectors and inverter technologies



• WIND POWER

- One 70-foot turbine generates up to 2,000 kilowatt-hours of clean and renewable energy annually



• ENERGY EFFICIENCY

- Motion light sensors in the public-use buildings
- LED lights have been retrofitted into existing street lighting and building fixtures
- New light poles are fitted with LED lights
- Fluorescent fixtures upgraded in other buildings
- Solar thermal water heating systems back up electric water heaters
- A General Electric heat pump water heater and a high-efficiency heat pump HVAC system retrofitted in the overlook building



• WATER CONSERVATION

- Dual-flush toilet fixtures and waterless and low-flow urinals installed
- Motion detectors and low-flow fixtures installed on the sinks
- Low-flow showerheads



• STORM WATER MANAGEMENT

- Riparian buffers are maintained to allow filtering of pollutants from rainwater runoff before it enters the lake and river
- Native grass plantings to assist with runoff filtration
- Pervious pavers are in use to assist in water filtration



• COAL COMBUSTION PRODUCTS REUSE

- Roofing shingles on new structures and retrofitted to existing buildings
- Pavers used in pathways, landscaping and stone veneer



• ELECTRIC VEHICLE CHARGING

- Four dedicated vehicle charging outlets
- Various electric maintenance vehicles tested on the site



• RECYCLING

- Solid waste recycling for campground and pavilion users



LEGEND



Pavilion



Picnic Area



Powerhouse



Restrooms



Swimming Beach



TVA Police



Coal Combustion Products Use



Electric Vehicle Charging



Energy Efficiency



Recycling



Solar Power



Storm Water Management



Water Conservation



Wind Power

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