



A Profile in Using Green Remediation Strategies

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British Petroleum Site
Paulsboro, NJ

NJ Voluntary Cleanup

Cleanup Objectives: Remove petroleum products and chlorinated compounds from surface and ground water near Delaware River port

Green Remediation Strategy: Uses a solar field to power pump-and-treat (P&T) system extracting 300 gallons of ground water per minute

- Installed a 275-kW solar field encompassing 5,880 photovoltaic (PV) panels in 2003
- Uses solar energy to operate six recovery wells, including pump motors, aerators, and blowers
- Transfers extracted ground water into a biologically activated carbon treatment system

Results:

- Obtains 350,000 kWh of electricity each year from a renewable energy source, which meets 20-25% of the P&T system's energy demand
- Eliminates 571,000 pounds of CO₂ emissions annually through avoided consumption of grid electricity during P&T processes
- Prevents emission of 1,600 pounds of SO₂ and 1,100 pounds of NO₂ each year
- Provides opportunity for re-use and expansion of the PV system, with potential capital cost recovery if integrated into site reuse

Property End Use: Port operations

More detail is available about this site in the May 2008 issue of EPA's [Technology News and Trends](#) newsletter.

Point of Contact: [Sasa Jazic](#), Atlantic Richfield Company



Integrated cleanup and reuse planning allowed installation of a solar field without disruption to tank and building demolition and large-scale ground water P&T and soil vapor extraction

operations.

British Petroleum Site

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http://www.cluin.org/greenremediation/profiles/subtab_d2.cfm



**United States Environmental Protection Agency
Office of Solid Waste and Emergency Response (5202P)**

For more information:
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