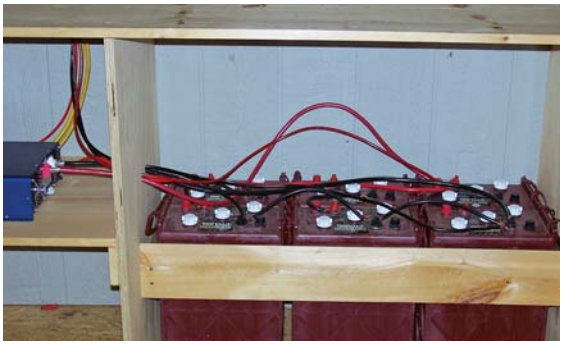
Backfill

Clean, Portable Power

New York contractor Dick Gammell's "power shed" taps the sun and wind to run his job sites. He believes he may be the first in the nation to build without using any fossil fuel.



Inside the shed, a bank of six deep-cycle batteries — wired in parallel and in series — receives a continuous charge from solar roof panels and a site-assembled wind turbine.

Over the last 16 years, Springwater, N.Y., framing contractor Dick Gammell has spent at least $19,000 on portable job-site generators. And that doesn't include the cost of the gasoline to run them. At a certain point, after most of them had bit the dust, he became convinced there had to be a better way. His 4,500-pound Solar/Wind 650 job-site power shed, he believes, is it.

The semiportable shed (he hauls it from site to site on a trailer) houses a deep-cycle battery array that's continuously recharged by a 350-watt wind turbine and a 750-watt photovoltaic panel. Two power inverters convert the juice from 12 to 120 volts. For the six months that Gammell's been using the system, it has reliably powered his nine-carpenter crew plus all the trade contractors on site with no compromise in production or power usage. On cloudy days, PV output drops from 40 to 10 amps; Gammell figures that battery storage alone can tide him over for two working days without sun or wind.

The next generation (pun intended) will be permanently trailer-mounted, and Gammell plans to offer it to contractors at a starting price of $16,000. System upgrades — like a 750-watt turbine and more-durable batteries — will cost more. Given fuel prices of $4 per gallon, Gammell estimates a payback of five years or less, depending on job-site consumption. — *Dave Holbrook*