

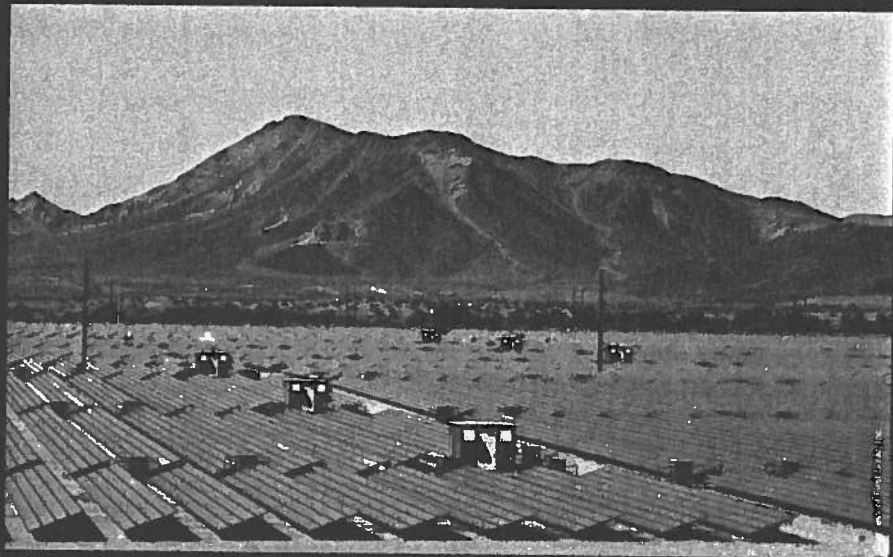
EXCELLENCE IN RENEWABLE ENERGY

Award Winners

Our annual awards program recognizes the outstanding people and projects that are moving the industry forward. Here's a brief summary of our winners.

Meg Cichon and Steve Leone, Editors,
RenewableEnergyWorld.com

Winners of the Excellence in Renewable Energy Awards are people, innovations and facilities that represent excellence in the industry. Each year, editors from the Renewable Energy World network select the winners from among hundreds of nominations that are submitted in each of 11 categories. Here we present our winners: projects and people that are helping to change the energy landscape. Longer and more detailed explanations of the winners, project videos and video interviews of these superstars can be found at RenewableEnergyWorld.com.



SOLAR PROJECT OF THE YEAR
Agua Caliente, Yuma County, Ariz.

Critics may be unable to separate the Department of Energy's Loan Guarantee Program from the Solyndra bankruptcy but a sweeping view of the sprawling Agua Caliente Solar Project on 2,400 acres in the southwest corner of Arizona may give them a different perspective of the program's legacy. Once completed, Agua Caliente will be a 290-MW solar park powered by First Solar thin-film panels. More than anything, though, it will come to represent the major shift currently underway in solar energy — that is, the move toward large-scale solar. With 39 MW online as of December, Agua Caliente already ranks among the biggest solar farms in the country.

WIND PROJECT OF THE YEAR

Laurel Mountain, Barbour and Randolph counties, West Virginia

Deep in the heart of coal country the AES Laurel Mountain wind farm that includes storage is a model for how renewable resources and power storage can work together to help utilities better manage an intermittent power source. The 98-MW project spans 13 miles along the mountain ridges and uses 61 GE wind turbines that feed into the PJM Interconnection. Its most noteworthy feature is the 32-MW of integrated battery-based energy storage from A123 Systems. The storage capacity, in effect, does what intermittent sources like sun and wind cannot — it matches supply to demand. It can also greatly reduce the amount of wind power that is curtailed — a practice in which turbines are shut down because the power they could produce is not needed at that exact moment. From a developers point of view, a project facing less likelihood of curtailment could be a whole lot more profitable and much more attractive to investors if costs for energy storage systems tied to wind developments continue to come down.

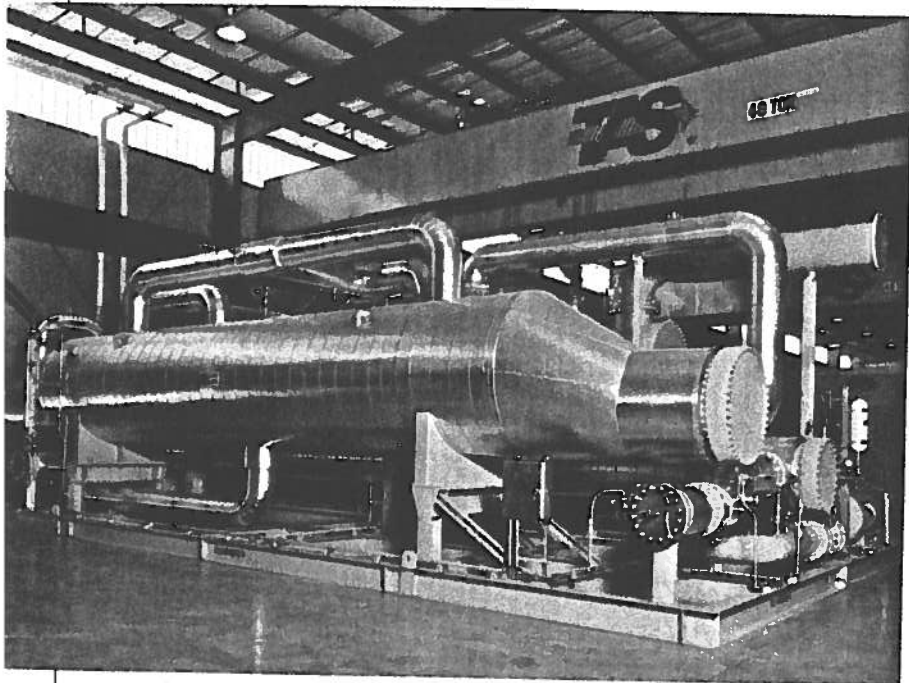


HYDRO PROJECT OF THE YEAR

Youngs Creek, Sultan, Wash.

The Youngs Creek Hydro Project, dedicated in October, became the first new hydroelectric project in Washington state in nearly two decades. The 7.5-MW project cost \$29 million to complete and answers some of the most pressing issues for hydropower. Intake occurs above a waterfall, which provides a natural barrier to migrating fish, such as salmon. A channel of water is diverted rapidly through a three-mile underground pipeline that drops 920 feet in elevation to the powerhouse. Turbines are powered by the force of the falling water, which is then returned to the creek downstream. The run-of-the-river project adjusts its power automatically depending on the flow and the condition of the river. According to the Snohomish County Public Utilities District, which planned and developed the project, the project gives the agency greater flexibility with its power supply because it's a locally generated, reliable resource that provides energy at times of the year when it's needed the most.





GEOHERMAL PROJECT OF THE YEAR — Beowawe Geothermal Facility, Beowawe, N.V.

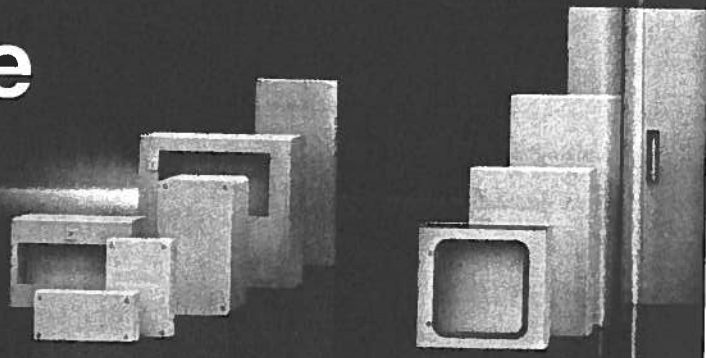
Despite a mostly quiet 2011, the Beowawe Geothermal Facility in Nevada managed to build a 2.5-MW addition to its existing 16.7-MW geothermal plant that went online in 1985. The project proves the technical and economic feasibility of electricity generation from geothermal resources of 205°F. Beowawe is the first commercial use of a low-temperature bottoming cycle at a geothermal flash power plant. Terra-Gen Power completed this 2.5-MW binary plant in conjunction with TAS Energy's technology. Said Jim Pagano, CEO of Terra-Gen Power, "An increase in the DOE's geothermal budget allowed this project to become a reality, which lead to additional jobs and promises more clean renewable energy for the future as this project paves the way for additional low temperature binary projects in Nevada and elsewhere."

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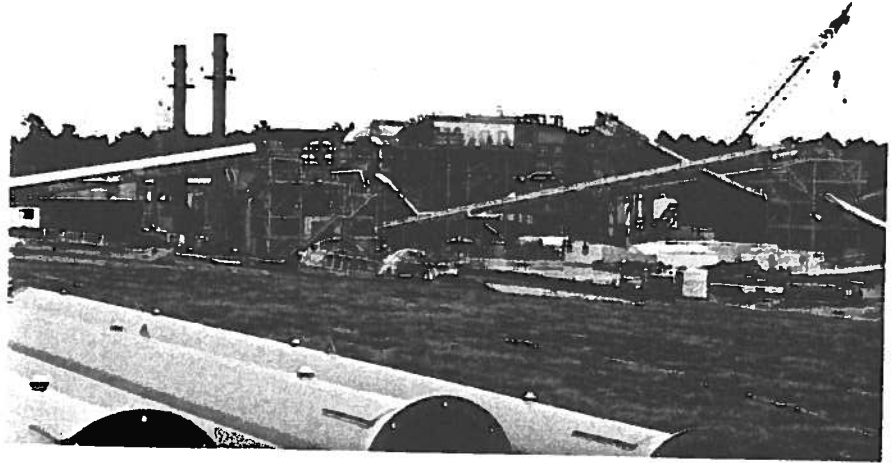
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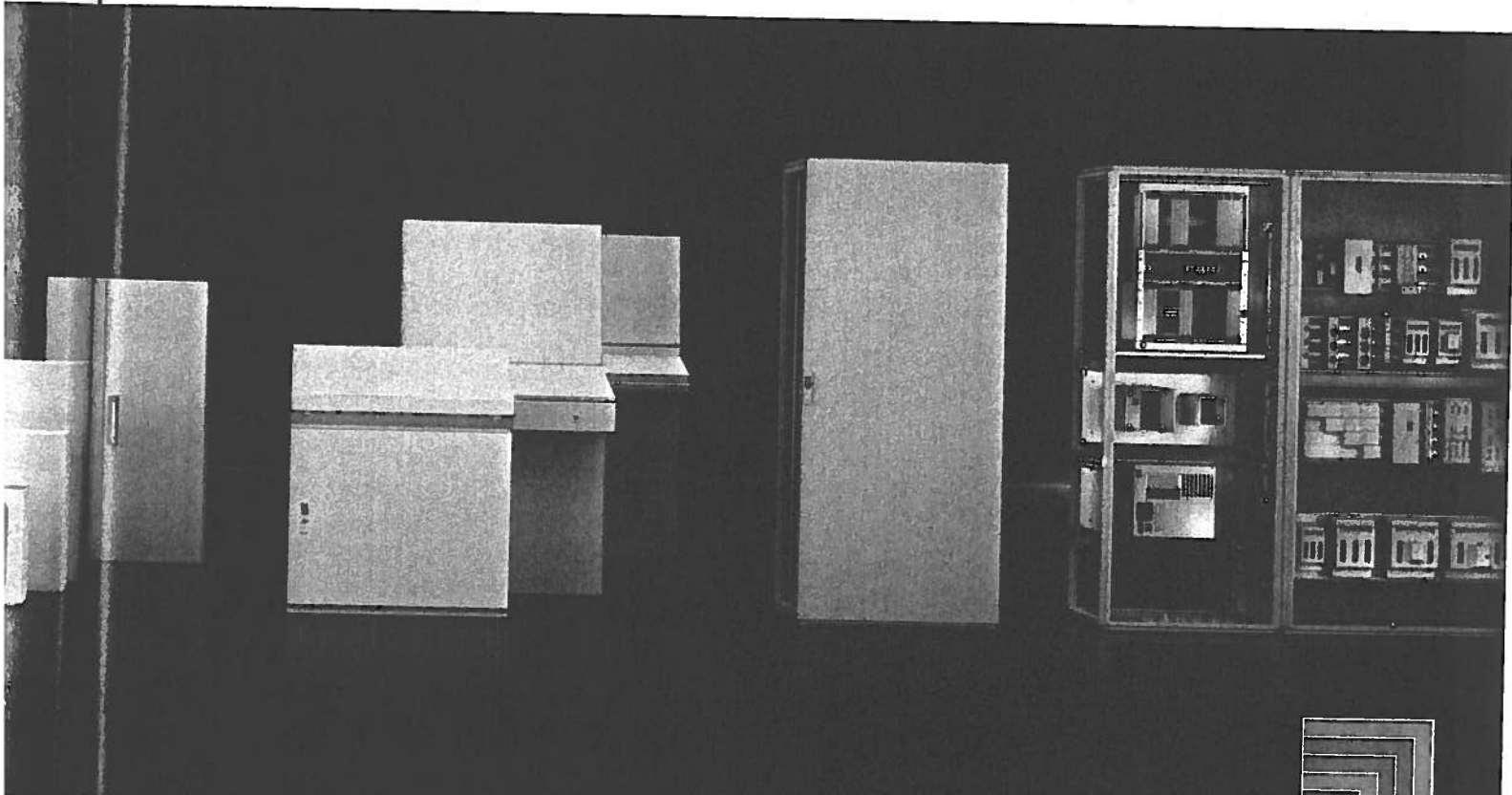
BIOENERGY PROJECT OF THE YEAR
Savannah River Site, Aiken, S.C.

The Savannah River Site in Aiken, South Carolina, replaced a coal- and oil-fired power plant with a biomass-fueled steam cogeneration plant and two smaller biomass-fueled plants. The 20-MW facilities are expected to convert 325,000 tons of fuel per year, including local forest residue and wood chips, into clean power. Financing for the project was conducted with a system of "smart contracting" called an Energy Saving Performance Contract (ESPC),



which allows the federal government to pay for the project only after energy savings have been realized. Ameresco financed, designed, constructed, operates, maintains and fuels the \$795 million facility and the 19-year agreement could save the government up to \$944 million in energy, water, operations and maintenance costs. The

project is the federal government's largest single source of performance-based renewable energy savings. Adding to its numerous benefits, since construction began in 2009, the project is estimated to have sustained and created approximately 800 jobs spanning the mechanical, construction, engineering and supplier sectors.



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Driving the Renewable Industry Forward: Our Innovation Winners



TECHNOLOGY INNOVATION OF THE YEAR: Wind Float

In the clean energy industry, innovation plays a key role in bringing about new technologies, policies and financial vehicles that increase the adoption of renewable energy. Our innovation winners this year are pioneering efforts to help the renewable energy stand on its own — replacing incumbent fossil energy with energy generated by the sun and wind.

In North America, offshore wind represents massive potential yet little project momentum. The nascent industry may be gaining a foothold in the shallow waters off Europe, but that has yet to translate into the first installed development off the coast of North America.

The solution, as many see it, is to push these farms further out to sea, where the wind is stronger, the resource is more consistent and the objections are more muted. For this to ever happen, the geographic push must coincide with technological gains that answer the question of how to anchor these mammoth wind turbines without fixed foundations. Seattle-based Principle Power is charting the course into previously inaccessible waters with the deployment of its full-scale 2 MW WindFloat off the coast of Aguçadoura, Portugal. According to the company, this is the first offshore wind turbine in open Atlantic waters, and the first deployment of a semi-submersible structure supporting a multi-megawatt wind turbine. If floating technology proves to be a cost-effective option, it will undoubtedly open up new markets in the U.S. Right now, offshore wind plans are concentrated along the East Coast, where the wider continental shelf allows for more shallow water options. The West Coast, with its deep offshore waters and large population centers, could have the most to gain with deep offshore wind.



FINANCE INNOVATION OF THE YEAR: Project Amp

The financing model introduced by Bank of America Merrill Lynch brought solar distributed generation funding to the forefront. Under Project Amp, which received a partial \$1.4 billion loan guarantee by DOE in Sept., more than 750 MW of PV will be installed across about 750 ProLogis-managed rooftops. The legacy of the project, though, may be in the financing template it has created. According to BofAML, before Project Amp the market for solar distributed generation was underserved by the financial markets, and projects were generally financed with equity alone. This model will be the first to sell all of its power back to the grid, to raise long-term, fixed-rate debt financing and to obtain a credit rating on the debt. The result is a scaling and stable tool that could be replicated. The Project Amp template was used by SolarCity's Solar Strong program, which will bring rooftop solar to military bases across the country.

Left: A ProLogis-managed rooftop with solar in California.

POLICY INNOVATION OF THE YEAR: Colorado's 'Fair Permit Act'

The Colorado chapter of the Solar Energy Industries Association saw a bottleneck in the form of permitting costs that was stifling solar development. In the U.S., permits for an average residential customer could exceed \$2,500 and costs for large-scale projects could push upwards of \$100,000. To solve this, the organization developed a vision for a bill, enlisted the support of key state legislators and was able to pass Colorado's "Fair Permit Act," by nearly unanimous vote. The bill caps fees at the local government's costs to issue the permit. This means fees for residential installations won't exceed \$500 and commercial projects up to 2 MW won't have to pay more than \$1,000. The legislation also requires local governments to identify all the imposed fees and taxes in an invoice. At a time of rigid political division, the measure passed both the Colorado House and Senate with near unanimous support. For supporters of clean energy, the bill removes a hurdle for those who want to make the leap to rooftop solar. For supporters of smaller government, it reins in costs and provides more transparency to the customer.

READERS' CHOICE — LONG ISLAND SOLAR FARM, UPTON, N.Y.

After the editors select finalists in each of the innovation and project of the year categories, readers' choice voting opens up. This year, more than 6,000 people voted for their favorite project and the winner they selected is unique in the solar industry not for its technology but for its location. The Northeast, with its less favorable climate and harder-to-come-by open space, isn't known for its large scale potential. So it was a bit of a surprise when one of the year's largest solar developments popped up in Long Island. Located on federal land at the DOE's Brookhaven National Laboratory, the largest solar project in the northeast overcame several siting challenges because of its proximity to World War II artifacts, environmentally sensitive habitat, radiological contamination and the presence of the endangered tiger salamander. The 32-MW project will sell all of its power to the Long Island Power Authority under a 20-year power purchase agreement.

