http://www.npr.org/templates/story/story.php?storyId=13826548

Spain Runs Europe's First Commercial Solar Plant

NPR News, August 22, 2007

Today Jerome Socolovsky reports from Spain, where a company has started producing household electricity from a _____ near Seville. The technology is called_____ , which means it uses heat from the sun to run _____ .

It's noon time on the dusty plain outside Seville and not a cloud is in the sky. But in the distance, there's a glow from what looks like an upside-down funnel of light beams converging on a sleek, white _____. Those light beams come from giant _____ on the ground reflecting _____ . It's (the world's) *Europe's* first _____ solar thermal power plant — and it's called PS-10.

"PS-10 is an _____ electric power plant and will be providing electricity for a population of about 6,000 houses." Valerio Fernandez is the engineer in charge of the plant built by [the] Spanish _____ company, Abengoa. It's been operational since last March and is still being expanded. A bulldozer is clearing the ground for more banks of mirrors and solar towers that will bring _____ up to 300 megawatts.

"When all the solar platforms of Abengoa in Sanlucar la Mayor (will be) *are* erected by the year 2013, with 300 megawatts, we will be _____ to about 180,000 houses. That is about the population of a big city (as) *like* Seville."

Fernandez opens the door to the chamber housing the noisy _____ at the base of the tower. Up on an observation platform, he looks out over a vast plain that could easily be a prairie in the southwestern United States. But instead of cornfields, there are shimmering fields of heliostatic mirrors — mirrors that automatically _____ _____. "This is one of the most beautiful views in the plant," Fernandez says. "We are 30 meters high in this platform that is in the middle of the tower, and you can see the whole _____."

I'm standing under one one these giant mirror panels. There are 624 of them reflecting _____ up to the tower. You can actually see the light beams _____ on a point. And at that focal point there are flashes and little puffs of smoke — those are specks of drifting dust being vaporized. The solar energy concentrated _____ could easily melt metal, Fernandez says. But water pumped through them stops them from melting. That water _____ turns to steam and powers the turbines at the base.

Seville gets _____ of sunshine per year. Fernandez has a vision of solar towers dotting the landscape across southern Spain and even into northern Africa, generating power for rainy, northern Europe. His company is already setting up _____ in Morocco and Algeria, and is in discussions to build more in California, Nevada and New Mexico.

When the Seville plant is finished, it will have cost more than _____ dollars to build. It is only economically viable because of generous _____ from the Spanish government and the _____ . But Fernandez says the technology is already _____ .