

# PNM 2015 Renewable Plan

## Balancing the Environment, Cost, and Reliability



By 2016, each year PNM's wind, solar and geothermal resources will produce the energy used by 150,000 average residential customers, save approximately 382 million gallons of water at power plants and reduce carbon emissions by the equivalent of taking 201,000 cars off the road.

### Plan Highlights

#### 2016

- 107 MW Solar in operation in 15 sites, which includes 1.5 MW dedicated to PNM Sky Blue
- 200 MW NM Wind Energy Center
- 100 MW Red Mesa Wind Center
- 8 MW Geothermal
- Customer Solar Purchase Program

**Annual Cost:** \$25 million, 2.78 percent of retail sales

#### 2015

- 40 MW Solar under construction
- 67 MW Solar in operation, 11 sites, includes 1.5 MW dedicated to PNM Sky Blue
- 200 MW NM Wind Energy Center
- 100 MW Red Mesa Wind Center
- 8 MW Geothermal
- Customer Solar Purchase Program
- Renewable Energy Certificates from wind generated in eastern New Mexico and the Santa Fe Canyon Road Water Treatment Plant

**Annual Cost:** \$21 million, 2.32 percent of retail sales

**Customer Cost:** \$0.0059 per kWh, or \$3.57 per month for the average (600 kWh/month) residential customer. (This is an increase of 81 cents on the current monthly charge of \$2.76.)

### About the New Solar

PNM is proposing to build four new solar centers with a total capacity of 40 megawatts, at a cost of \$79 million, bringing PNM's total commitment to solar energy to \$269 million through 2015. Using a competitive bidding process, PNM identified a joint venture between Albuquerque-based Affordable Solar, Inc and GranSolar, S.A. to build two of the centers and Juwi Solar, Inc., to build the remaining two centers.

The new solar centers will feature polycrystalline silicon solar panels mounted on single-axis tracking devices that follow the sun. Polycrystalline silicon (or single crystal silicon) panels feature silicon that is cut into wafers and used to make the modules. Other PNM solar installations use thin film technology created with thin layers of semiconducting material.

### Replacing Coal with Solar Energy

The new solar will help PNM meet the renewable requirements in 2016. However, new energy sources will also be needed in 2017 when two of four units at the coal-fired San Juan Generating Station are expected to be closed to meet federal haze requirements.

PNM analysis consistently showed that out of thousands of potential choices the most cost-effective and least carbon-intensive replacement mix includes natural gas, nuclear and 40 megawatts of new solar. This is the first time PNM's analysis has identified solar as a cost-effective resource without respect to renewable portfolio requirements.

**2015 Renewable Requirement:** A renewable portfolio that equals 15 percent of energy use; 30 percent wind, 20 percent solar, 5 percent non-wind/non-solar (geothermal), 3 percent DG at an annual cost of not more than 3 percent of retail sales.

Renewable Energy Certificates (RECs) are used to document that energy was produced by a renewable resource. RECs can be used to meet renewable requirements with or without the associated energy.



Talk to us.

