PNM
Environmental Stewardship

PNM believes that the energy needed to support strong economic growth, customer affordability and reliability needs to come from diverse resources including coal, natural gas, nuclear, wind, solar and other renewables. The company has made significant investments in reducing the environmental impact of existing facilities while increasing investments in renewable energy and energy efficiency. Below are just a few of the environmental stewardship efforts made by PNM.

San Juan has completed numerous installations and upgrades related to pollution control throughout the lifetime of the plant that has resulted in significant emissions reductions.

San Juan Generating Station (SJGS)

- A major environmental upgrade project was completed in 2009. Overall, these recent upgrades have reduced nitrogen oxide (NOx) emissions by 44%, sulfur dioxide (SO2) emissions by 71%, and particulate matter emissions by 72% based on a comparison of the 2005 and 2010 actual emissions.
- This environmental upgrade has resulted in San Juan being an industry leader in mercury emissions control, achieving a 99% removal rate based on EPA-required stack testing and using new activated carbon injection technology.
- PNM has recently agreed to a voluntary lower SO2 limit calculated on a 30 day rolling average. This will decrease the permitted emission of SO2 (in tons per year) by 23%.
- In the late 1990s, a limestone forced oxidation SO2 removal system was installed, and the Wellman-Lord system was decommissioned. The limestone removed 25% more SO2 than the Wellman-Lord system had. (Based on actual 1996 emissions and actual 2010 emissions)
- The Wellman-Lord system for sulfur dioxide removal was installed in the 1970's. It removed approximately 55% of the SO2 in the gas stream (based on 2006 emissions).
- All four units at San Juan were built with electrostatic precipitators for particulate control. The precipitators removed approximately 99.5% of the ash from the gas stream.
- Units 1, 3, and 4 were built with low NOx burners. This decreased potential NOx emissions by approximately 35%.

Other SJGS environmental efforts:

- In 2010, San Juan recycled 2054 tons of material and disposed of 1604 tons in the landfill for an overall diversion rate of 56%.
- Recycled materials include 720 tons of fly ash, 950 tons of metal, and 384 tons of other materials including machinery, belting, wood pallets, used oil, wood pallets, furniture, cardboard, paper, electronic waste, belting, and office supplies.
- San Juan has one of the most active reduce, re-use, recycle programs in the company and has demonstrated continual improvement since 2003 when their Team Green (a group of employees committed to sustainability improvements) was formed.
- San Juan's program has grown significantly since it was founded in 2003. In 2004, San Juan recycled 2 types of material including 253 tons of metal and one ton of paper.
- Between 1979 and 1983, PNM installed a comprehensive water management system and became a zero discharge facility. The water management system reuses river water 8 to 14 times before it is placed in evaporation ponds onsite.

Other Environmental Stewardship Efforts:

Renewables:

- In 2003, PNM committed to adding renewable energy to its portfolio with the addition of a 204-megawatt wind facility, the New Mexico Wind Energy Center. PNM's Sky Blue program, in place since 2003, has allowed PNM customers to demonstrate their support of renewable energy. More than 15,000 customers voluntarily subscribe to the program, making PNM's program in the top 15 for energy sales in the nation and one of the most successful programs in the country by DOE standards.
- Solar is also a growing part of PNM's portfolio. PNM is completing a final large scale photovoltaic (PV) solar facility, one of five such facilities totaling 22 megawatts. PNM's customer solar program, in which customers are paid both for the excess energy they produce as well as for the environmental attributes of that energy, is expected to add another 25 megawatts of solar to the PNM system. Currently more than 1,800 PV customer interconnections provide 12 megawatts of capacity on our system.

- PNM was also the lead in the nation's first solar storage facility integrated into the power grid. Partially funded by the American Recovery and Reinvestment Act of 2009, the PNM Prosperity Energy Storage Project is the first ARRA-funded demonstration to go online. The project features one of the largest combinations of battery storage and photovoltaic energy in the nation and involves extensive research and development of smart grid concepts. The project can produce 500 kilowatts of power and uses high-tech batteries to create firm and dispatchable energy derived from a renewable energy source.
- In April of this year, PNM issued an all source Request for Proposal for renewable energy, receiving more than 300 proposals representing diverse types of renewables including solar, geothermal, wind, biomass and hydropower. Based on PNM's 20-year planning process, 34 percent of PNM's future energy resources needed to serve customers by 2030 will come from renewables.

Energy Efficiency

- Since 2007, PNM customers have taken advantage of a variety of PNM programs to help them save energy. From 2007 to 2011, customers have saved 135 million kWh annually – equivalent to the energy consumed annually by 18,600 homes. These steps reduce carbon dioxide emissions by an estimated 192 million pounds per year – the equivalent of taking 17,500 off the road for a year.

Alternative Fleet Vehicles

- In 2005, PNM began purchasing biodiesel fuel for fleet vehicles. PNM uses a 20 percent biodiesel blend (B20), which, according to the U.S. Department of Energy, reduce carbon dioxide emissions by 15 percent.