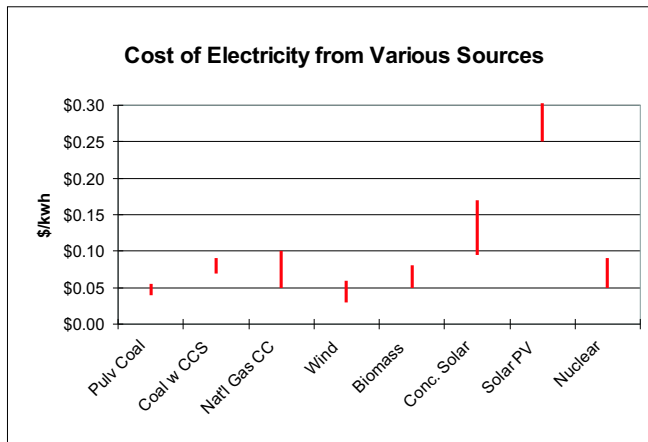


## Background:

The overwhelming consensus of scientists who study climate is that human activities are having an increasingly adverse impact on global climate patterns. Emissions of carbon dioxide and other greenhouse gases prevent a portion of the sun's heat from reflecting off the Earth and radiating back into space. Scientific data shows that because of greenhouse gas (GHG) emissions, our planet's overall average temperatures is increasing, and weather patterns are changing. The long-term economic impacts may be most severe for coastal cities facing flooding as ice-pack melts and sea levels rise, but regions like ours will also suffer from the loss of agricultural and outdoor recreation industries and through a diminution in our quality of life:

*"The western United States, in particular the southwestern United States from Southern California to Texas, will probably be one of the hardest-hit and soonest-hit parts of the United States"*<sup>1</sup>

In order to avoid the most devastating effects of climate change, we have to immediately begin reducing the carbon dioxide emissions that come from burning fossil fuels in our transportation, manufacturing, and electricity production sectors. In the U.S., 39 % of carbon dioxide emissions come from the production of electricity, almost all of which comes from coal-fired power plants.<sup>2</sup> Coal is the cheapest fuel for electricity generation, but it emits twice as much CO<sub>2</sub> per kilowatt-hour of electricity as natural gas, the other major fossil-fuel used to generate electricity. Natural gas supplies are already tight in North America, making it impossible to simply shift over from coal to gas. The most promising medium and long-term technical solutions are advanced coal technology, with carbon capture and sequestration, and renewables such as solar, wind, and biomass. Renewables have zero GHG emissions, but solutions to cost and dispatch-ability issues still need to be proven in very large scale deployments.



1. Jonathan Overpeck, Univ. of Arizona Scientist and a lead author of the Intergovernmental Panel on Climate Change report, as quoted in the Albuquerque Journal, February 3, 2007. 2. U.S. Energy Information Agency, 2005.

## PRC Policy Initiatives:

The PRC is developing New Mexico solutions to the looming crises of climate change, by promoting renewable energy and energy efficiency, and by requiring utilities to plan for a carbon-constrained world. The PRC has also linked-up with utility commissions from California, Oregon, and Washington on a **Joint Action Framework on Climate Change**.

**Renewable Energy:** The PRC administers the New Mexico Renewable Energy Portfolio Standard (RPS) for electric generation and sales. As of 2007, 6% of all electricity sold by investor-owned utilities must come from renewable sources, increasing to 10% in 2011. Earlier this year, Commissioner Marks helped craft a bill that passed the Legislature, extending the RPS for investor-owned utilities to 15% by 2015 and 20% by 2020, and setting an RPS for electric co-ops.

Right now, the RPS is being met almost entirely by wind, which has proven cost-effective, but is limited by being intermittent. It will require a diverse portfolio of renewables to create an energy supply that is immune from the environmental and cost risks of traditional fossil fuels. Solar energy may have the most long-term potential in New Mexico, because of its abundance and the availability of storage technologies. In August 2007, the PRC adopted rules sponsored by Commissioner Marks setting **diversity targets that include 20% of the RPS from solar** and 3% from distributed generation. These rules include rate-payer cost-caps to ensure that our transition to a new energy economy is done cost-effectively and without unduly burdening utility customers.

**Net-Metering:** Commissioners Marks and Lujan initiated a rule making procedure that increased New Mexico's net-metering limit for customer owned renewable generation from 10 kilowatts to 82 megawatts (the highest in the nation). Commissioner Marks sponsored an amendment to PNM's customer-owned PV program that locked-in price certainty for program participants. The PRC also approved removing the annual cap on participation.

**Energy Efficiency:** The 2005 legislature passed a bill requiring electric and gas utilities to create demand-side management programs, funded in rates. Efficiency programs are the most cost-effect means of reducing GHG emissions. The PRC has approved (with modifications) PNM gas and electricity efficiency programs. Other utilities are in the process of filing programs.

**Carbon Pricing Docket:** At Commissioner Marks' request, the PRC opened a docket to set prices for carbon dioxide emissions that utilities will be required to use in their long-range resource planning. The final order in this docket requires the analysis of generation alternatives at \$8, \$20, and \$40 per ton of CO<sub>2</sub>, increasing 2.5% per year.