

Senate Business and Commerce and Natural Resources Committee Hearing, February 15 2011

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There's still a lot of uncertainty surrounding the blackouts earlier this month, but we do know frigid temperatures caused electricity demand to spike – setting a record for winter demand. Those same freezing temperatures also crippled several large coal-fired plants, while the natural gas plants that were supposed to pick up the slack failed to do the job. At the peak of the crisis, more than 50 power plants – accounting for 7,000 megawatts, or nearly 10 percent of ERCOT's total generation capacity – were incapacitated.

Clean energy technologies helped keep the crisis from becoming worse. As Trip Doggett, the CEO of the ERCOT, the grid operator for much of the state, told the *Texas Tribune*, “wind was blowing, and we had often 3,500 megawatts of wind generation during that morning peak, which certainly helped us in this situation.” According to the American Wind Energy Association, wind energy delivered roughly as much energy as was anticipated the morning of the crisis.

And it wasn't just wind energy that rode to the rescue. Demand response programs – which compensate large industrial and commercial customers for agreeing to have electricity service curtailed during periods of high demand – also helped out. Just one such customer, the Spring Independent School District, supplied 3 megawatts of electric capacity to the grid at a critical moment during the crisis.

A few lessons were learned in the aftermath of the blackouts. The first is that, when it comes to the reliability of the grid, bigger power plants are not always better, and in fact are sometimes worse. When exceptional circumstances – such as the recent deep freeze – knock “baseload” power producers off line, the entire grid can be disrupted.

Secondly, renewable energy resources such as wind and solar – along with options such as demand response – are small and distributed, and therefore less susceptible to systemic failures. They are also blessedly free of reliance on fossil fuels such as natural gas, which was in high demand for both electricity and heating during the cold snap.

Finally, while some people claim out that the solution to a blackout caused by the failure of fossil fuel power plants is to build more fossil fuel power plants, we also need to look at the other side of the equation: demand. Much less strain would have been put on Texas' grid if strong steps were taken over the years to encourage the construction of more energy efficient homes with high-efficiency heating systems.

The solution to Texas' electricity challenges is not to double down on the dirty, fossil fuel-powered technologies that let us down in the pinch last week. Rather, it is to build a new electricity system using clean sources of energy, reduces demand through cost-saving energy efficiency improvements, and is linked by a grid smart enough to manage both supply and demand to avert problems. Texas' wind industry is one part of the solution, but we can go even farther by providing consumers with rebates for the installation of solar panels on homes and the purchase of Energy Star appliances, and increasing energy efficiency to reduce energy consumption, fossil fuel demand and cut consumers' energy bills.

Thank you Senator Carona, Senator Fraser and Senator Watson in recognizing Texas' need to include efficiency programs and renewable energy in our energy future. Now it's time to make them a priority in session this year.