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Surging Demand

Not enough watts across Texas?

TXU deal doesn't address likely power shortfalls that could cripple economy

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The recent agreement by two private equity firms to buy TXU contained an unprecedented armistice with two of the company's environmental adversaries. TXU agreed to withdraw plans to build eight of 11 new coal plants in return for their support of the deal. TXU claimed that the announcement "transformed" the company virtually overnight from a national environmental pariah to a role model for sustainable development.

While the deal establishes a new high-water mark in recognizing climate change, the agreement leaves important unanswered questions of how to meet the state's growing power demands.

We, as former regulators and policy-makers who have served in key roles at the Public Utility Commission of Texas and at the U.S. Department of Energy, believe that the agreement is only a modest beginning in reconciling the state's economic needs to new climate change imperatives.

We are concerned that the TXU deal does nothing to address a major near-term shortfall in generation capacity required to meet the state's surging demands for electricity.

In fact, we believe that nothing short of a major new effort that goes well beyond TXU's agreement is needed. We are also concerned that the politics of the deal may distract state policy leaders from focusing on these important questions.

Our concerns were heightened several weeks ago when the Electric Reliability Council of Texas (ERCOT), the agency that assures grid reliability, testified that by 2009 the state will fall below its 12.5 percent reserve benchmark. This reserve margin is the cushion of excess generation required to keep the lights on. ERCOT stated that the reserve margin could drop to less than 6 percent, or half of the target, in three years.

The report contained other troublesome numbers. If the state has extremely high summer temperatures, the reserve margin could fall as low as 8 percent this summer. Moreover, without new generation capacity, the state could lack sufficient generation capacity to meet summer needs by 2011.

These statistics are particularly worrisome because they may increase risk of a blackout. At low reserve levels, ERCOT's staff has estimated that the probability of such a loss is around 3 percent a year.

While the probability seems relatively low, the economic consequences of a blackout could be very high. Estimates for the costs of a blackout range between 80 and 120 times the retail cost of electricity. That means that a two-hour blackout similar to one on April 17, 2006, could cost the Texas economy between \$21 million and \$32 million.

The TXU announcement leaves this reserve margin gap unaddressed.

Others have claimed, as did Paul Hobby in last Sunday's Outlook section, that a "new" technology called Integrated Gas Combined Cycle (IGCC) is the panacea for Texas' needs. IGCC is in fact an old technology first used by Germany during World War II.

In fact, there is almost a naive faith in this technology. While IGCC has been tested in a number of pilot plants, it is expensive and will not be built without federal or state subsidies for a number of years. We will also continue to struggle with how best to sequester the massive amount of carbon generated by these plants. Carbon sequestration will also not be commercially feasible for a very long time, if ever.

As the Electric Power Research Institute, an industry think tank, recently concluded, there is no single technology "silver bullet" for our energy needs. IGCC is but one part of the solution toward a sustainable energy future.

Rather than focus on a particular technology, the state would be better served by developing a process to focus on the fundamental need to develop a balanced energy policy that supports both economic growth and environmental concerns. This is an achievable goal. Indeed, EPRI concluded that a multipronged strategy with aggressive goals could achieve a 40 percent reduction in carbon emissions by 2030. Texas should be the first state to implement the EPRI recommendations.

To implement this goal, we would need to focus on a set of policies that properly weigh both economic and environmental concerns, such as:

- Large commitments to energy efficiency and demand reductions: Since generation capacity cannot be built in time to cover the 2009 shortfall, major commitments to energy efficiency and demand side management programs will be required fill the gap for the short term.

- Retail innovation that can reduce demand: Texas is well positioned to use competition to provide price plans that create incentives for customers to cut peak demand, thereby avoiding the need for new plants. Such pricing plans require new technology and systems before retailers can implement them.

- Development of new environmentally friendly generation technologies: The state should develop a set of incentives to encourage environmentally friendly generation technologies by building new transmission to bring wind generation to market and

speeding the commercial development of clean coal and carbon sequestration technologies

All resources must be left on the table. Although politically unpopular in some circles, nuclear power must be kept under consideration since it is a large-scale, nonemitting source of power.

We must think outside the box:

States outside the Texas border have a glut of power that Texas can access without building new plants. Excess power in the Panhandle and in Louisiana can help fill our needs but would require new transmission investment and a new way of thinking about the Texas grid.

These are just some new thoughts that could be brought to bear in creating a new framework that will balance the state's needs for economic development and environmental concerns. A concerted effort to focus on these ideas could address the state's future power needs and position it to lead the country in addressing climate change.

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