



*LIFT Perspective*  
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**Energy, the Environment, and Economics:  
Continuing to Provide Reliable Electric Power**

Six years ago, California experienced power supply problems throughout 2000 and 2001, due largely to low generation capacity<sup>1</sup>. In late July, 2006, a heat wave caused consumption in California to strain the supply that an aging energy infrastructure could provide<sup>2</sup>, leaving 1.5 million at least temporarily without power across the state. At the same time, in the New York City borough of Queens, approximately 100,000 temporarily went without power thanks to antiquated supply network which was insufficient to meet the borough's demand<sup>3</sup>.

If Texas' supply doesn't grow with demand, Texas homes and businesses could be similarly left in the dark. And in the heat. With the right priorities, however, officials can strike an appropriate balance between energy, the environment, and the economy. A new, more heavy-handed permitting process for new power plants, however, could lead the state into a similar energy crisis.

To that end, Commissioner Larry Soward of the Texas Commission on Environmental Quality (TCEQ) recommended on July 13, 2006 before the Senate Natural Resources Committee that proposed new facilities be delayed so that new power plants' emissions could be studied for their cumulative impact on environmental concerns. In fact, the applications for proposed new power plants were referred to as one of many "impediments to meaningful [clean air] progress".

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<sup>1</sup> Federal Energy Regulatory Commission, "Addressing the 2000-2001 Western Energy Crisis"; <http://www.ferc.gov/industries/electric/indus-act/wec/chron/chronology.pdf>

<sup>2</sup> Harrison Sheppard, Long Beach Press Telegram, "State is Overdue for Energy Upgrades", July 30, 2006; [http://www.presstelegram.com/news/ci\\_4115790](http://www.presstelegram.com/news/ci_4115790)

<sup>3</sup> New York State Public Service Commission, "Queens Power Outage"; <http://www.dps.state.ny.us/06E0894.htm>

Commissioner Soward went on to explain alleged failings of the existing State Implementation Plan (SIP), the federally approved plan for meeting National Ambient Air Quality Standards. The Commissioner pointed out “disconnects between our permitting and our SIP work...” He explained that:

in our permitting processes, we do not look at the cumulative effects of major new emissions sources. We look at the individual source and its emissions as part of an individual permit application. Even if new sources are being located in attainment or near-non-attainment areas, it seems logical to me that some evaluation should be done as to any reasonable effects that such new sources could have cumulatively cause [sic] on attainment areas... or near-non-attainment areas...

This proposal would seemingly take the state into the realm of regulatory uncertainty by going outside (or expanding) the existing SIP process beyond that required by the U.S. Environmental Protection Agency. This is despite the fact that as soon as 2008, Texas’ supply of energy may not be sufficiently able to meet demand. Based on June 2006 estimates by the Electric Reliability Council of Texas (ERCOT), the organization charged with ensuring approximately 20 million Texans receive reliable and competitively priced power, peak energy demand for summer 2006 will be the highest ever<sup>4</sup>. The available resources, however, are expected to meet demand with a reserve margin (percentage difference between available generating capacity and forecasted peak system load) of 16.9%, well above the target margin of 12.5%. The ERCOT econometric model, which is based on population and economic growth, tells a different story for the near future. Texans can expect to have a reliable, constant power flow *this* summer, but beginning in 2008, demand will push the reserve margin below the target of 12.5% to as low as 4.9% in 2011. Bill Bojorquez, director of system planning at ERCOT, explains the problem: “We haven’t had as many signed generation agreements [to build new plants] as we would have hoped<sup>5</sup>.” Where California and New York City have been unable to meet energy demands this summer, Texas could join them as soon as 2008. Specifically, the power outages in California have two, interrelated causes: a two-week heat wave and supply and equipment failures<sup>6</sup>. Texas needs more electricity, and relatively quickly, and under the existing SIP procedures, more generation capacity can be in place to meet the increased demand.

Anticipating this need even prior to ERCOT’s June announcement, TXU began permitting on a \$10 billion expansion project to construct and operate 11 new clean coal technology power generation facilities in order to increase generation by nine gigawatts (enough to serve 6.5 million residents). TXU claims that their expansion will increase reliability by ten percent and provide adequate supply through the year 2015. With time

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<sup>4</sup> Electric Reliability Council of Texas, “Capacity, Demand and Reserves Report”, June 1, 2006; [http://www.ercot.com/news/press\\_releases/2006/nr06-01-2006.html](http://www.ercot.com/news/press_releases/2006/nr06-01-2006.html)

<sup>5</sup> Elizabeth Souder, Dallas Morning News, “Blackouts a Fluke Now, but in 2010?”, April 19, 2006; <http://www.dallasnews.com/sharedcontent/dws/bus/stories/041906dnbuselectricity.1234d358.html>

<sup>6</sup> Patrick Hoge, San Francisco Chronicle, “Cooler weather – but heat wave taxed power supply”, July 28, 2006; <http://sfgate.com/cgi-bin/article.cgi?f=c/a/2006/07/28/BAG7NK79HO1.DTL>

for permitting, an expedited time frame for administrative legal opinions (due to an October, 2005 Executive Order by the Governor<sup>7</sup>), and construction, the new TXU plants could go online as soon as Fall of 2008, hopefully in time to bolster supply before the reserve margin dips to unstable levels. ERCOT reports that with the 11 facilities proposed by TXU, the reserve margin remains well above the target of 12.5%, as high as 24% in 2010 and 23% in 2011<sup>8</sup>.

One quarter (\$2.5 billion) of TXU's \$10 billion new facilities budget is dedicated to environmental controls on new and existing facilities. The end result: once TXU's new facilities are brought online, the company will have addressed future needs highlighted by ERCOT while reducing its *total* emissions by twenty percent from *current* levels.

In fact, any suggested micromanagement is an unnecessary expansion of government, as proven by TXU's plan that total (read "cumulative") emissions from its plants in Texas will be *reduced* by 20% even with 11 new facilities. That type of proposal would add delays and uncertainty with computer modeling that is unnecessary and not required by the Federal Clean Air Act. Furthermore, the timing of any proposed new, heavier-handed permitting process could not be worse: Texas could be headed toward an energy crisis in the very near future.

In reality, the 11 new power generation facilities should have no direct impact on non-attainment areas. The 11 proposed facilities are spread out between eight counties ranging from Rusk in East Texas to Mitchell in West Texas. The emissions from these plants, however limited, will not be concentrated in one area. Importantly, TCEQ Chairman Kathleen Hartnett-White testified before Senate Natural Resources that very little of DFW's non-attainment problems come from electric generation units (EGUs) such as those proposed. Of the 80 to 100 parts per billion daily ozone contribution in DFW, EGUs account for approximately 2 parts per billion. Furthermore, winds would have to transport the emissions from the proposed TXU plants to the Dallas-Fort Worth area to have an appreciable effect on its non-attainment determination. However ozone formation only occurs in the absence of wind, meaning that on a day with winds over 10mph a violation of the ozone standard is highly unlikely. The very winds necessary to transport emissions into a non-attainment area (such as DFW) will prevent ozone from forming that would be a detriment of the environment.

Furthermore, in gross output, measured in tons, Texas leads the nation in pollutants. However tonnage measurements fail to account for the size of the state and the amount of energy we generate – 80% more electricity than the second ranked state. For example, Texas' emissions of carbon dioxide and sulfur dioxide, measured in tonnage, are significantly *less* than the total emissions of 13 Northeast states (including Washington

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<sup>7</sup> Governor of the State of Texas, Executive Order RP49 - October 27, 2005 (see *Diversity of Energy Supply*); <http://www.governor.state.tx.us/divisions/press/exorders/rp49>

<sup>8</sup> Electric Reliability Council of Texas, "Capacity, Demand and Reserves Report", June 1, 2006 (see the "Official Reserve Margin Plus Public Announcements"); [http://www.ercot.com/news/press\\_releases/2006/nr06-01-2006.html](http://www.ercot.com/news/press_releases/2006/nr06-01-2006.html)

D.C.) that have *less* land area (cumulatively) than does Texas<sup>9</sup>. Texas, relative to other states, is not a grave offender in terms of air pollution and has some of the cleanest emission rates of any state, another reason why more extensive, new state regulation on power plants is unnecessary.

Importantly, arguments for the tax plan passed in the 79<sup>th</sup> Third Called Session included the benefits from increased economic activity. In fact, Governor Perry argued in March of 2006 that the tax plan which would eventually pass “encourages investments in jobs and workers<sup>10</sup>.” The intent of the new tax plan, however, could be negated by the looming threat of energy demands outpacing supplies and regulatory uncertainty.

Under the existing SIP process, the 11 proposed TXU facilities can be on line in time to head off a state energy crisis. However, any wish list of additional impact modeling for proposed facilities could delay them, launching the state into a situation that Texans have only seen in nightly news reports.

A balance between environment and energy is necessary and feasible under the existing SIP model, as illustrated in part by the TXU plan. In terms of electricity, the line between Texas and California (or New York) is slowly being blurred, meaning that Texas’ public leaders should make every effort to keep Texans well-lit and air conditioned for many summers to come.

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<sup>9</sup> CO<sub>2</sub>, NO<sub>x</sub>, SO<sub>2</sub>: 2002 Acid Rain Database; and Land Area: US Census Bureau, 2000. May 2004

<sup>10</sup> Governor Rick Perry, “Perry Praises Plan for Record Property Tax Cuts”, March 29, 2006 press release; <http://www.governor.state.tx.us/divisions/press/pressreleases/PressRelease.2006-03-29.0402>