



Issue Brief

Should Texas Be Included in the Cross-State Air Pollution Rule? The Debate over EPA's Final Rule

October 2011

Texas Governor and presidential candidate Rick Perry and several of his state agency appointees have criticized the final version of the U.S. Environmental Protection Agency's (EPA) **Cross-State Air Pollution Rule (CSAPR)**, published in July 2011, on the grounds that it will jeopardize the state's electric grid reliability and cause significant job loss during tough economic times. In September 2011, State Attorney General Greg Abbott and Luminant Generation Co. (Luminant) filed lawsuits against the EPA over the rule, claiming, in part, that Texas does not have time to comply with the sulfur dioxide (SO₂) limits which were sprung on them on short notice. But a closer look at the validity of these claims shows that they are misleading and based on inaccurate information.

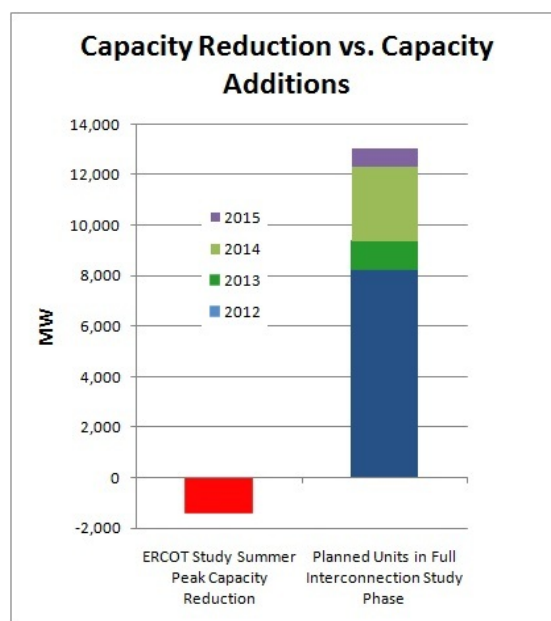
CLAIMS OF PLANT SHUTDOWNS

The electric grid operator for most of Texas is the **Electric Reliability Council of Texas (ERCOT)**. On September 1, 2011, it released a report claiming that the CSAPR could jeopardize its ability to meet electric demand, and cause blackouts.¹ However, it did not provide several details needed to verify the claim. There is no unit-specific information to support its estimate that 1,200-6,000 megawatts (MW) of reduced capacity would be a direct result of CSAPR compliance. ERCOT said its estimates were based on the compliance plans of utilities and generation companies that would be subject to the CSAPR.

Also in September, Luminant announced it will have to idle two of its coal-fired units and close its lignite coal mine in order to comply — a plan that would result in the loss of approximately 500 jobs.² Given the lack of information in the ERCOT report, one can only surmise that Luminant's plan helped to form the basis of ERCOT's estimate.

In a letter to Luminant CEO David Campbell, however, EPA Deputy Administrator Bob Perciasepe noted several compliance options are available that would avoid the need to close the two Luminant coal units, including an offer to give the company more allowances based on new technical information provided by Luminant:

In the course of our discussions, EPA has offered to make technical adjustments, based on technical information you have recently provided, that will give Texas and Luminant thousands of additional tons of pollution allowances to reduce required emissions reductions.³



Source: Environmental Defense Fund

Another issue with ERCOT’s report is that it failed to consider potential new capacity additions that would counteract coal capacity reductions if they occur. An analysis by the Environmental Defense Fund showed that new capacity additions would far offset the proposed mothballing of select coal plants.⁴

STAKEHOLDER NOTIFICATION

Another mischaracterization of the impact of CSAPR is that it was sprung on Texas coal plants. While it is true that the 2010 draft version of the CSAPR (then called the Clean Air Transport Rule, or CATR) included Texas only in the seasonal ozone (NOx) program, **the Proposed Rule specifically asked Texas stakeholders to comment on whether Texas should be included in the program for SO₂:**

Further analysis of the assessment tool indicates that these projected increases in the Texas SO₂ emissions would increase Texas’s contribution to an amount that would exceed the 0.15µ.m3 [micrograms per cubic meter] threshold for annual [particulate matter] PM 2.5. For this reason, EPA takes comment on whether Texas should be included in the program as a Group 2 state.⁵

In other words, the EPA’s estimates indicated that Texas SO₂ emissions would cross the threshold in 2012, and the proposed rule clearly indicated the agency was inclined to include them. Furthermore, the previous iteration of the CSAPR (Clean Air Interstate Rule, or CAIR, which was implemented in 2005), included Texas in the SO₂ and annual NOx programs. The final CSAPR includes deeper emission cuts as a result of a 2008 lawsuit in which the U.S. District Court of Appeals ruled that the CAIR was not adequate enough to meet the “good neighbor” provision in the Clean Air Act.⁶

SO2 EMISSION LEVELS

The Perry lawsuit makes the further claim that the basis for inclusion in the SO₂ program was based on modelling estimates of one air quality monitoring station in Madison County, IL, near St. Louis. The estimates showed that Texas coal plants’ contribution to air quality degradation for that region will be just above the threshold for inclusion in the CSAPR in 2012.⁷ The petitioners further claimed that 2010 emissions data from that monitoring station show that the area was in attainment for that year, and that the EPA should have not included Texas in the SO₂ program based on that — not on future estimates.⁸

However, SO₂ emissions data provided to the EPA show that the coal units in Texas operating without SO₂ pollution control equipment (scrubbers) generally emitted less SO₂ in 2009 and 2010 compared to previous years.⁹ For example, the two Monticello units that Luminant announced it would have to idle to comply with the CSAPR emitted 41,439 tons of SO₂ in 2009 and 39,032 tons in 2010. From 2003 through 2008, the two units cumulatively emitted an average of 56,673 tons per year — 17,641 tons, or 45 percent, more than in 2010. (The EPA’s SO₂ emission allowances were based on the average of the three highest SO₂ emission years). Had they, and other units operating without scrubbers, run at higher capacity in 2010, operating at higher emission levels, the impact on downwind communities would have been greater, pushing Texas over the threshold. Thus, the emission history of Luminant’s coal units demonstrate that **2010 is not an accurate year on which to base inclusion of Texas coal plants for SO₂ in CSAPR.** Furthermore, heat waves like the record one experienced in Texas in the summer of 2011 cause spikes in peak electricity demand that may require these units to run more often than in 2010.

Annual SO₂ emissions (tons) by year¹⁰

Plant Name	2003	2004	2005	2006	2007	2008	2009	2010
Monticello (Boiler 1)	30,515	27,275	26,706	29,434	27,618	26,450	20,509	19,160
Monticello (Boiler 2)	29,906	28,674	29,580	27,305	28,573	27,999	20,930	19,872
Total	60,421	55,949	56,286	56,739	56,191	54,449	41,439	39,032

DEADLINES AND OPTIONS FOR COMPLIANCE

Governor Perry¹¹ and Luminant¹² have charged that the compliance period is too short, implying changes will need to be made by January 2012. In fact, **Texas emitters, who have been subject to the 2005 CAIR, have until March 2013 to fully comply**, according to Gina McCarthy, Assistant Administrator for the EPA's Office of Air and Radiation.^{13,14} The first compliance period begins in January 2012. Companies have until the end of 2012 to install new equipment or make changes to their operations. In March 2013, they must demonstrate they've made changes, or purchased offsets.¹⁵

An additional key detail on Texas compliance with CSAPR is that **many coal-fired power plants already have the emission control technology to meet the new regulations**. An analysis by Bernstein Research found that many units that have scrubbers for SO₂ leave them off when not needed to meet existing SO₂ pollution limits.¹⁶ The reason for this is that the control technology requires a small percentage of the unit's power output (sometimes called parasitic load). Not turning on the scrubbers allows them to reduce variable operations and maintenance costs. However, the much larger capital expense of installing the control equipment has already been made for 30 of the 48 Texas electric generating coal units.¹⁷ All they need to do is turn them on to comply with the new SO₂ limit.

Other options exist, of course, like switching from burning high-sulfur lignite coal to sub-bituminous coal, most of which comes from the Powder River Basin in Wyoming. ERCOT's report noted that this fuel switching represents another roadblock to compliance — based on the assumption that the increase in demand for low-sulfur coal, and the ability to transport it, will make it harder for Texas coal plants that have used lignite up until now. Some version of this scenario may indeed play out. Another option would be to purchase offsets either to fully comply or partially meet compliance. It is worth noting, however, that, given the multi-year lead up to this final rule, **several coal plant owners have taken action in anticipation of compliance with it and are prepared**. In a September 12, 2011 letter to the House Committee on Science, Space and Technology, Houston-based Dynegy CEO Robert C. Flexon wrote:

[W]e have made substantial capital investments in state-of-the-art air pollution control devices. Any efforts to delay or derail CSAPR would undermine the reasonable, investment-backed expectations of Dynegy... Of course, it goes without saying that control of interstate air pollution serves important public policy objectives, including protection of human health and the environment as well as the preservation of opportunities for economic development in downwind communities.¹⁸

CONCLUSION

The state agencies involved with the EPA lawsuit, and Governor Perry, appear to be making this fight about unfair and unnecessary government mandates — unfair in that the EPA gave Texas no indication that it would be part of the SO₂ program, and unnecessary because the estimates of Texas' contribution to the Madison County, IL, monitoring station would be insignificant. Evidence and context reveal that the CSAPR is fair and necessary because:

- Texas was included in the 2005 CAIR for SO₂ and NO_x;
- January 2012 is not the date by which Texas emitters have to be in compliance;
- Most coal plants already have the control technology installed to meet the new pollution limits; many invested in anticipation of the rule while providing market certainty for their planning;
- The EPA has offered Texas coal units additional flexibility; and
- The recent historical average emissions are higher than the one year, 2010, petitioners claim should be the basis for determining inclusion.

If Texas coal plants comply with the final CSAPR, states downwind would not be the only ones to benefit through improved public health and a cleaner environment. Texas communities would benefit as well. By 2014, stricter pollution limits would reduce cases of premature death by 13,000-34,000, aggravated asthma by 400,000, and missed work days by 1.8 million, according to EPA estimates.¹⁹ With newer, cleaner electric generation coming online this year and over the next several years, the EPA rule also would not negatively affect grid reliability.

Author: Matthew Johnson

Editor: Carol Werner

Environmental and Energy Study Institute

1112 16th Street, NW, Suite 300

Washington, DC 20036

(202) 628-1400

www.eesi.org

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¹ "ERCOT'S Report on the Impacts of the U.S. Environmental Protection Agency's Cross-State Air Pollution Rule on the ERCOT System." 2011. Electric Reliability Council of Texas, Inc. (ERCOT). http://interchange.puc.state.tx.us/WebApp/Interchange/Documents/37897_49_705954.PDF. (Retrieved September 29, 2011.)

² "Luminant Announces Facility Closures, Job Reductions in Response to EPA Rule." 2011. Luminant. <http://www.luminant.com/news/newsrel/detail.aspx?prid=1218>. (Retrieved September 29, 2011.)

³ Perciasepe, Robert. 2011. "Letter to David Campbell, Luminant Headquarters CEO." Environmental Protection Agency. http://www.epa.gov/region6/6xa/pdf/david_campbell_letter_091111.pdf. (Retrieved September 29, 2011.)

⁴ Meehan, Colin. "Playing Politics with Power." 2011. Environmental Defense Fund. <http://blogs.edf.org/energyexchange/2011/09/15/playing-politics-with-power/>. (Retrieved September 29, 2011.)

⁵ United States Government Printing Office. 2010. Proposed Rules. *Federal Register*, Vol. 75, No. 147, Monday, August 2, 2010. Page 45284.

⁶ U.S. Court of Appeals. *State of North Carolina v. Environmental Protection Agency*. 2008.

<http://www.epa.gov/airmarkets/progsregs/cair/docs/CAIRRemandOrder.pdf>. (Retrieved September 29, 2011.)

⁷ Environmental Protection Agency. 2011. *Petition for Reconsideration and Stay*. August 8, 2011. The *Petition for Reconsideration and Stay* stated that the EPA's modelling predicted Texas' contribution to annual PM 2.5 in 2012 would be 0.18 μ /m³, which would be 0.03 μ /m³ in exceedence of the significance threshold. http://www.puc.state.tx.us/agency/topic_files/CSAPR_EPA_petition.pdf. (Retrieved September 29, 2011.) p.3

⁸ Ibid. p.8

⁹ Environmental Protection Agency. *Final CSAPR Unit Level Allocations under the FIP and Underlying Data*. <http://www.epa.gov/airtransport/techinfo.html>. (Retrieved September 28, 2011.)

¹⁰ Environmental Protection Agency <http://www.epa.gov/airtransport/techinfo.html> (Retrieved September 28, 2011.)

¹¹ Perry, Rick. 2011. *Letter to President Barack Obama*. <http://www.scribd.com/doc/66553501/9-26-Perry-Letter-to-Obama>. (Retrieved September 29, 2011.)

¹² "Luminant Announces Facility Closures, Job Reductions in Response to EPA Rule." 2011. Luminant. <http://www.luminant.com/news/newsrel/detail.aspx?prid=1218>. (Retrieved September 29, 2011.)

¹³ Fowler, Tom. Kollipara, Puneet. *Houston Chronicle*. "Texas Sues EPA to Block New Pollution Rule."

<http://www.chron.com/business/energy/article/Texas-sues-EPA-to-block-new-pollution-rule-2182573.php>. (Retrieved September 29, 2011.)

¹⁴ Fowler, Tom. 2011. "Is it really do-or-die for Texas power plants on Jan. 1?" Fuel Fix. <http://fuelfix.com/blog/2011/09/16/is-it-really-do-or-die-for-texas-power-plants-on-jan-1/>. (Retrieved September 29, 2011.)

¹⁵ Fowler, Tom. 2011. "Is it really do-or-die for Texas power plants on Jan. 1?" Fuel Fix. <http://fuelfix.com/blog/2011/09/16/is-it-really-do-or-die-for-texas-power-plants-on-jan-1/>. (Retrieved October 3, 2011.)

¹⁶ Wynn, Hugh. 2011. *U.S. Utilities: Can Texas Comply with the Cross-State Air Pollution Rule? Yes, If Existing Scrubbers are Turned On*. Berstein Research. <http://blogs.edf.org/texascleanairmatters/files/2011/07/CSAPR-Texas.pdf>. (Retrieved September 29, 2011.)

¹⁷ Ibid.

¹⁸ Letter to Chairman Ralph T. Hall et al., from Robert C. Flexon, September 12, 2011.

¹⁹ Environmental Protection Agency. 2011. "Cross-State Air Pollution Rule." <http://www.epa.gov/airtransport/>. (Retrieved September 29, 2011.)