



# Issue Brief

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

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After the original publication of this brief, the U.S. Court of Appeals for the D.C. Circuit issued a stay of the final Cross-State Air Pollution Rule (CSAPR) rule in late December 2011 – a win for Texas, Luminant, and the many others that had sued EPA over the rule. The same court then struck down the rule in August 2012 in a 2-1 decision, finding that CSAPR violated federal law. EPA appealed the decision, citing the dissent by Judge Judith Rogers that the decision represented a “trampling on this court’s precedent on which the [EPA] was entitled to rely in developing the Transport Rule rather than be blindsided by arguments raised for the first time in this court.”<sup>1</sup> The U.S. Supreme Court will hear oral arguments on December 10, 2013 for the consolidated case, *Environmental Protection Agency v. EME Homer City Generation L.P.*<sup>2</sup> The Supreme Court case will consider broader questions than only those presented in this brief, but it remains a source of useful background material. Only minor updates have been made to the original version.

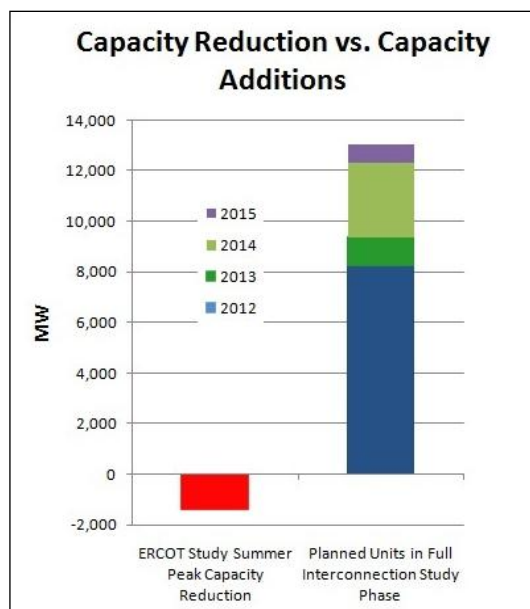
Texas Governor Rick Perry and several of his state agency appointees have criticized the final version of the U.S. Environmental Protection Agency’s (EPA) **Cross-State Air Pollution Rule (CSAPR)**, published in July 2011, on the grounds that it will jeopardize the state’s electric grid reliability and 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 (SO<sub>2</sub>) 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.<sup>3</sup> 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 2011, Luminant announced that it intended 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.<sup>4</sup> 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 were



Source: Environmental Defense Fund

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.<sup>5</sup>*

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.<sup>6</sup>

## 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 SO<sub>2</sub>:**

*Further analysis of the assessment tool indicates that these projected increases in the Texas SO<sub>2</sub> 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.<sup>7</sup>*

In other words, the EPA’s estimates indicated that Texas SO<sub>2</sub> 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 SO<sub>2</sub> 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.<sup>8</sup>

## SO<sub>2</sub> EMISSION LEVELS

The Perry lawsuit makes the further claim that the basis for inclusion in the SO<sub>2</sub> 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 would be just above the threshold for inclusion in the CSAPR in 2012.<sup>9</sup> The petitioners further claimed that 2010 emissions data show that the area was in attainment for that year, and that the EPA should have not included Texas in the SO<sub>2</sub> program based on that — not on future estimates.<sup>10</sup>

However, SO<sub>2</sub> emissions data provided to the EPA show that the coal units in Texas operating without SO<sub>2</sub> pollution control equipment (scrubbers) generally emitted less SO<sub>2</sub> in 2009 and 2010 compared to previous years.<sup>11</sup> For example, the two Monticello units that Luminant announced it would have to idle to comply with the CSAPR emitted 41,439 tons of SO<sub>2</sub> 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 SO<sub>2</sub> emission allowances were based on the average of the three highest SO<sub>2</sub> 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 SO<sub>2</sub> in CSAPR.** Furthermore, heat waves like the record one in 2011 cause spikes in peak electricity demand that may require these units to run more often.

Annual SO<sub>2</sub> emissions (tons) by year<sup>12</sup>

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
<b>Total</b>	<b>60,421</b>	<b>55,949</b>	<b>56,286</b>	<b>56,739</b>	<b>56,191</b>	<b>54,449</b>	<b>41,439</b>	<b>39,032</b>

## DEADLINES AND OPTIONS FOR COMPLIANCE

Governor Perry<sup>13</sup> and Luminant<sup>14</sup> have charged that the compliance period is too short, implying changes would have needed to be made by January 2012. In fact, **Texas emitters, who have been subject to the 2005 CAIR, had until March 2013 to fully comply.**<sup>15,16</sup> Under the original plan, the first compliance period was to begin in January 2012. Companies had until the end of 2012 to install new equipment or make changes to their operations. In March 2013, they were to demonstrate that they had made changes, or purchased offsets.<sup>17</sup>

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 SO<sub>2</sub> leave them off when not needed to meet existing SO<sub>2</sub> pollution limits.<sup>18</sup> 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 had already been made by 2011 for 30 of the 48 Texas electric generating coal units.<sup>19</sup> All they need to do is turn them on to comply with the new SO<sub>2</sub> 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 CSAPR final rule, **several coal plant owners had taken action in anticipation of compliance needs and were 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.<sup>20</sup>*

## 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 SO<sub>2</sub> 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 SO<sub>2</sub> and NO<sub>x</sub>;
- January 2012 was not the date by which Texas emitters were to have been 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 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. Stricter pollution limits would reduce annual 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.<sup>21</sup> With newer, cleaner electric generation coming online, the EPA rule also would not negatively affect grid reliability.

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- <sup>10</sup> Ibid. p.8
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