Proposed Environmental Regulations and Future Electric Reliability

Environmental regulations and electricity production

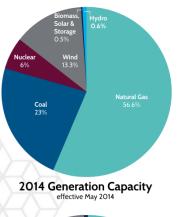
The Clean Power Plan currently under consideration by the U.S. Environmental Protection Agency is one of several pending environmental regulations that could affect how electricity is produced and consumed in the future. The Electric Reliability Council of Texas (ERCOT) is evaluating how proposed carbon regulations, along with other pending changes to air, water and waste regulations, may affect generation facilities in the ERCOT region. ERCOT and its members will monitor these developments closely to determine how future requirements could affect electric reliability — and what steps we need to take to prepare.

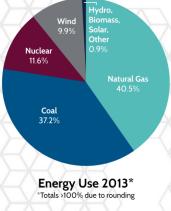
Issues and concerns

The proposed carbon emissions rules anticipate a multi-tiered "building block" approach to compliance that relies on energy efficiency on the user side, plant operational efficiency, market-based dispatch solutions, and increasing growth in renewable energy resources to achieve targets.

Within the ERCOT competitive market, Texas already does many of these things very well, so there likely are a limited number of stones left unturned using existing resources.

- The energy-only market drives generation providers to operate their plants efficiently.
- Texas continues to lead the nation in wind power generation. Current capacity is well ahead of the Renewable Portfolio Standard set by the Texas Legislature.
- ERCOT relies on a diverse fuel supply, although there are some opportunities for combined-cycle gas units to operate more frequently.





The target reductions for Texas are higher than those for other states. Under the proposed plan, Texas would need to limit carbon dioxide emissions to 791 pounds per megawatt-hour by 2030. This is a 38 percent reduction from 2012 levels. Although the proposed carbon emissions rules allow for state-specific or multi-state regional plans, it is unclear at this point how this might work for Texas. Compliance will be complicated further by the fact that multiple energy markets operate within Texas.

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The Clean Power Plan, in combination with other rules targeted at reducing air emissions from power plants, would affect coal-fired power plants most significantly, although it also could affect some natural gasfired units. The portion of energy that currently comes from potentially affected generating units varies based on market conditions, natural gas prices and other factors, such as emissions limits. It is likely that the combination of anticipated air, water and waste regulations would make it very difficult, if not impossible, for some coal-fired units that currently operate in the ERCOT market to continue operating without significant investment in additional controls or changes to their operations.

ERCOT presentations for the Public Utility Commission of Texas Aug. 15 workshop are available here:

www.ercot.com/content/news/presentations/2014/GHG_Combined_C. pdf