



## What the Clean Power Plan Means for Texas

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*“On June 2, 2014, the EPA proposed a commonsense plan to cut carbon pollution from power plants. States, cities and businesses across the country are already taking action to address the risks of climate change. The EPA’s proposal builds on those actions and is flexible—reflecting that different states have a different mix of sources and opportunities, and reflecting the important role of states as full partners with the federal government in cutting pollution. This proposal will maintain an affordable, reliable energy system, while cutting pollution and protecting our health and environment now and for future generations” (U.S. EPA).*

### Key Points

- The Clean Power Plan will undermine Texas’ electricity market.
- The EPA’s state and federal plans would force states to adopt regulations that the EPA would have no power to preempt and regulate directly.
- The problem with the EPA’s plan can be seen clearly when it comes to the “energy-only” nature of the Texas market.
- Texas’ Legislature and executive branch should clearly and completely reject the U.S. EPA’s Clean Power Plan.

The U.S. Environmental Protection Agency’s (EPA), *Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units*, also known as the Clean Power Plan (CPP), claims that it will “maintain an affordable, reliable energy system.” Whatever the case might be for the rest of the country, this will certainly not be the case when it comes to Texas.

The various components of the CPP will fundamentally undermine Texas’s world-class electricity market, often known as ERCOT (Electric Reliability Council of Texas). The centralized, top-down regulations will make it impossible for the current market structure to remain in place. Replacing the market-based decisions that have led to lower prices and increased efficiency will be “enforceable measures” designed to result in “quantifiable and verifiable emissions reductions” that can be “corrected” if the outcome does not match with expectations.

The only possible outcome for the Texas market under the CPP is the end of the energy-only market that has supplied Texas with an affordable, reliable supply of electricity. Market-based economic decisions regarding new generation, dispatch, and just about every aspect of the electricity market will be replaced by environmentally-based decisions under a federally-controlled regulatory structure. Costs will skyrocket, efficiency and reliability will be harmed, and the Texas economy will suffer.

The CPP is not the first challenge Texas’ competitive market has faced. Since the move to competition began in the mid-nineties, multiple parties have made efforts to undermine it. One particular challenge to the market has been the green agenda that has sought to end the use of fossil fuels through a variety of ways, including mandatory renewable energy subsidies and energy-efficiency programs. Unfortunately, Texas policymakers have too often accepted the false promises of green energy as the gospel, at a heavy cost to Texas consumers. The costs may also ultimately include the loss of state sovereignty to the federal government, in particular federal employees in the EPA.

After years of leading the national effort to fight federal overreach, particularly when it comes to the EPA, Texas has become relatively quiet about the CPP. Texas did not take part in the lawsuit, now before the U.S. Court of Appeals for the District of Columbia, challenging the CPP. Few bills were filed, and none have been heard, in the current regular session of the 84th Texas Legislature giving direction to the state's executive branch how to move forward regarding the CPP. The lack of legislative direction on the CPP in Texas seems to be in line with the national trend, in part because major electricity and natural gas companies have engaged in significant lobby efforts to kill legislation that might reduce their ability to profit under the CPP.

With the current and future legal challenges to the CPP delaying—or even ending—its implementation far beyond 2016, determining how to deal with the heavy costs of the CPP may not seem like an urgent problem for state policymakers right now. But the truth is that the CPP will be the major issue facing the Texas electricity market, state environmental and utility regulators, and thus Texas policymakers for the next several years. It is not too early for Texas to once again assume the role of national leader in opposing proposed rules coming out of the EPA; first and foremost the Clean Power Plan.

### Cooperative Federalism

The CPP is a prime example what has become of the system of federalism established under the U.S. Constitution. Under the guise of what has become known as cooperative federalism, the EPA proclaims, “If [Texas] does not submit an approvable plan or initial submittal to implement and enforce the emission guidelines contained in [the CPP] by June 30, 2016, the EPA will implement and enforce a Federal plan” (U.S. EPA) that will shut down a large portion of Texas' electrical generating capacity. According to Foundation Senior Fellow Mario Loyola, both the State Plan and the Federal Plan would force states to adopt wide-ranging regulations in conformity with EPA dictates on matters the EPA would have no power to preempt and regulate directly. The Proposed Rule thus constitutes a particularly dangerous form of coercion. It threatens the health and safety of the states' ordinary citizens in order to force the states to regulate in areas entirely outside the EPA's competence and authority (Loyola).

According to Commissioner Tony Clark, of the Federal Energy Regulatory Commission (FERC)—which actually has some authority to regulate the electricity market—under the CPP “A state will [lose] its ability to chart its own course as to how it regulates public utilities and its energy sector as a whole” (Clark, 5).

He is not overstating the case. Agreeing to implement the CPP will essentially turn the employees of the Public Utility Commission of Texas, the Texas Commission on Environmental Quality, and ERCOT into federal employees paid by Texas taxpayers and consumers.

### The End of Texas' Competitive Electricity Market

Adoption of the CPP in Texas will also mark the end of Texas' world-class competitive electricity market. In the CPP, the EPA proposes “emission guidelines for states to follow in developing plans to address greenhouse gas emissions from existing fossil fuel-fired electric generating units” (U.S. EPA). The EPA adds that the CPP contains “state-specific rate-based goals for carbon dioxide emissions from the power sector, as well as guidelines for states to follow in developing plans to achieve the state-specific goals.”

The CPP provides for four alternatives under two main approaches for reducing a state's CO<sub>2</sub> emissions:

- Direct Emission Limits
  - Rate-based CO<sub>2</sub> emission limits
  - Mass-based CO<sub>2</sub> emission limits
- Portfolio Approach
  - State-based portfolio approach
  - Utility-driven portfolio approach (Gifford, 1)

Whichever approach a state may take, the EPA provides four major “building blocks” for states to use to achieve their goals:

- Reducing the carbon intensity of generation at individual affected EGUs through heat rate improvements.
- Reducing emissions from the most carbon-intensive affected EGUs in the amount that results from substituting generation at those EGUs with generation from less carbon-intensive affected EGUs.
- Reducing emissions from affected EGUs in the amount that results from substituting generation at those EGUs with expanded low- or zero-carbon generation.
- Reducing emissions from affected EGUs in the amount that results from the use of demand-side energy efficiency that reduces the amount of generation required. (U.S. EPA, 34836)

The EPA describes the rules as “flexible—reflecting that different states have a different mix of sources and opportunities, and reflecting the important role of states as full partners with the federal government in cutting pollution.” To the extent this might be the case, it would be true only in states that have a strict command and control structure for their electricity markets so that heavy-handed government regulation would be nothing new. When applied to ERCOT, however, the only possible way to characterize the CPP is a complete federal take-over of Texas’ competitive electricity market.

This aspect of the CPP is clearly seen in the rule’s Criteria for Approving State Plans. Under the criteria, a state implementation plan (SIP) must contain the following elements:

- Enforceable measures that reduce electric-generating unit (EGU) CO<sub>2</sub> emissions
- Projected achievement of emission performance equivalent to the goals established by the EPA
- Quantifiable and verifiable emissions reductions
- Plan for reporting progress toward and corrective actions available for achieving CO<sub>2</sub> goals (U.S. EPA, 34910)

The provisions of the criteria are antithetical to the operations of a competitive market. Activities in a competitive market are difficult to project, quantify, and verify. Often the information necessary for quantifying the outcomes of a market—when it is available at all—is proprietary. It is obvious that the outcomes of the market cannot be enforced by measures in a state plan, nor can they be corrected if they turn out to be different to what was expected.

The problem with the EPA’s enforcement criteria can be seen clearly when it comes to the “energy-only” nature of the Texas market. Energy only refers to the complete freedom of market participants to determine generation capacity without direction from the state. Unlike in every other state, Texas has no mechanism for intervening in the long-term market for generation. The result of this has greatly benefited consumers and provided Texas with an affordable, reliable supply of electricity. Much of this is based on the fact that generators, rather than consumers, bear the entire risk for building new generation; consumers are not billed for costly overbuilding of generation as they are in other states.

This type of market construct would be impossible under the CPP. One new aspect of the CPP absent from previous EPA regulations issued under the Clean Air Act is that it moves beyond permitting individual plants to providing total emission limits on an entire state. This would subject all new generation to approval under a state’s emission limit. In addition, proposed new generation facilities would almost have to be evaluated under a SIP based on need. There would be no way under these restrictions for the market to generate and respond to the signals needed to properly incentivize new generation. Texas would have to implement some form of capacity market—a market construct soundly rejected by legislators and the public last year—in order to ensure generation adequacy under an EPA-approved SIP.

## The Heavy Cost of the Clean Power Plan

The entire cost of the CPP on the Texas economy and Texas consumers is impossible to quantify. But there are aspects of the plan where the costs are more easily discernible. This is certainly the case when it comes to energy efficiency building block.

The mandates within the energy efficiency building block are flawed from the start; the costs simply manifest these flaws. Under this building block, public and private sector entities would be required to have enforceable energy efficiency obligations under a SIP: this might include transmission and distribution utilities (TDUs), state agencies, cooperatives and municipally operated utilities, and private third-party entities. The problem with this is that market-based energy efficiency gains can't be projected, enforced, or corrected. They happen—and happen all the time—through innovation. Yet none of these gains would count toward the mandates within the CPP.

Under EPA's fourth building block, state's will be required to achieve an incremental savings as a percentage of retail sales through demand-side management (DSM) of 1 to 2 percent. The savings goal of 1.5 percent in Option 1 was developed from survey of states. The savings in the top four states were, Vermont: 2.19 percent, Maine: 1.96 percent, Arizona: 1.61 percent, and California: 1.24 percent. It is assumed that if the top three states have achieved the goals mandated in block four, other states can follow.

However, this assumption relies on false assumptions. For instance, 90 percent of California's flat residential electricity consumption was due not to energy efficiency programs but to climate and demographics. The benefits attributed to other programs are also overestimated: For instance, the Ohio program, with utility-only energy efficiency costs of \$1 billion since 2008, fails to pass the Ratepayer Impact Method (RIM) that attempts to confirm whether a program's benefits are worth its cost. The CPP's assumptions about market failure wrong. Additionally, government mandated energy efficiency doesn't benefit those who pay for it. Finally, the main effect of these programs is usually that they increase cost of electricity.

**TABLE 1: CPP Requires an Eightfold Increase in Texas' Incremental Energy Efficiency Savings**

YEAR	EPA Incremental Target	EPA Cumulative Target	EPA Cumulative Mandate	Texas Mandate (BAU)
2012	0.18%			25%
2013				30%/0.4%
2017	0.18%	0.18%		30%/0.4%
2018	0.38%	0.55%		30%/0.4%
2019	0.58%	1.08%		30%/0.4%
2020	0.78%	1.78%	1.78%	30%/0.4%
2021	0.98%	2.62%		30%/0.4%
2022	1.18%	3.59%		30%/0.4%
2023	1.38%	4.68%		30%/0.4%
2024	1.50%	5.78%		30%/0.4%
2025	1.50%	6.79%		30%/0.4%
2026	1.50%	7.70%		30%/0.4%
2027	1.50%	8.52%		30%/0.4%
2028	1.50%	9.26%		30%/0.4%
2029	1.50%	10.48%	9.91%	30%/0.4%

Source: U.S. EPA Clean Power Plan

There are many problems with the CPP's energy efficiency goals for Texas. To start with, many existing Texas programs on a much smaller scale having difficulty making current goals. Additionally, the goals would shift Texas grid operators from a focus on system capacity or reliability to "meeting state objectives for reducing CO<sub>2</sub> emissions." Also, Texas' relative inexpensive load management programs may not meet the EPA's criteria for DSM. The much less expensive existing market-based energy efficiency/demand response gains would be lessened. Finally, the required increase in incremental savings would dramatically increase per unit and total costs of energy efficiency in Texas at great expense to Texas consumers.

It is not as if the current energy efficiency programs mandated by the Texas Legislature are not high enough. As Chart 2 shows, the cost of Texas' current energy efficiency program mandated by the Texas Legislature were \$1.38 billion from 2006 through 2015.

**TABLE 2: Cost and Texas State and Local Efficiency Plans**

Year	State Cost	Total Cost
2006	\$60,768,013	\$60,874,278
2007	\$80,289,664	\$81,242,492
2008	\$96,582,000	\$102,871,763
2009	\$105,810,292	\$118,632,668
2010	\$105,318,747	\$124,296,375
2011	\$113,817,338	\$141,396,155
2012	\$120,214,787	\$170,809,632
2013	\$132,910,193	\$194,253,359
2014	\$139,811,799	\$204,340,322
2015	\$125,876,701	\$183,973,640
<b>Total</b>	<b>\$1,081,399,534</b>	<b>\$1,382,690,684</b>

*Source: Public Utility Commission of Texas*

The costs would rapidly increase if the CPP's energy efficiency mandates under Block Four were implemented in Texas. Not only would the cost increase because of the overall higher goals, the costs would also increase because of higher incremental costs for every unit of energy saved. Table 3 documents the cost per KWH of savings increased from 17 cents to 25 cents from 2006 through 2012 as Texas' program goals increased.

**TABLE 3: Incremental Cost Increases in Texas Energy Efficiency Programs**

Year	Program Cost	Energy Savings	Cost/KWh
2006	\$60,768,013	365,703	\$0.17
2007	\$80,289,664	427,862	\$0.19
2008	\$96,582,000	581,626	\$0.17
2009	\$105,810,292	559,544	\$0.19
2010	\$105,318,747	533,457	\$0.20
2011	\$113,817,338	529,334	\$0.22
2012	\$120,214,787	483,193	\$0.25

*Source: Public Utility Commission of Texas*



The EPA provides substantial documentation of the goals and costs of Block Four. They are summarized in Tables 4 and 5. Depending on whether the PEA finally adopts a goal of 1 percent or 2 percent, the costs of the mandated energy efficiency programs in Texas will run from \$14.5 billion to \$20.6 billion from 2017 through 2029. Of course, these costs are only a portion of the total costs the CPP would impose on Texas consumers.

**TABLE 4: Projected Texas Energy Efficiency Costs with 1 Percent Goal**

Goal: 1%	2017	2018	2019	2020	2021	2022	2023
EPA Savings (MWh)	686,554	1,264,469	1,847,981	2,434,945	3,023,386	3,611,513	3,883,263
EPA Program Costs	\$188,802,350	\$347,729,076	\$508,194,892	\$803,531,977	\$997,717,396	\$1,191,799,449	\$1,495,056,157
	2024	2025	2026	2027	2028	2029	Total
EPA Savings (MWh)	686,554	1,455,487	2,231,082	3,009,387	3,786,767	4,559,937	5,325,994
EPA Program Costs	\$1,496,406,233	\$1,498,651,419	\$1,501,784,558	\$1,505,799,044	\$1,510,688,813	\$1,516,448,337	\$14,562,609,700

Source: U.S. EPA Clean Power Plan

**TABLE 5: Projected Texas Energy Efficiency Costs with 1.5 Percent Goal**

Goal: 1.5%	2017	2018	2019	2020	2021	2022	2023
EPA Savings (MWh)	686,554	1,455,487	2,231,082	3,009,387	3,786,767	4,559,937	5,325,994
EPA Program Costs	\$188,802,350	\$400,259,025	\$736,257,046	\$993,097,716	\$1,249,632,984	\$1,755,575,553	\$2,050,507,852
	2024	2025	2026	2027	2028	2029	Total
EPA Savings (MWh)	5,770,886	5,754,769	5,743,928	5,738,276	5,737,730	5,742,214	55,543,012
EPA Program Costs	\$2,221,791,166	\$2,215,586,086	\$2,211,412,361	\$2,209,236,260	\$2,209,026,176	\$2,210,752,567	\$20,651,937,142

Source: U.S. EPA Clean Power Plan

### Conclusion

Texas’ state implementation plan (SIP) required under the CPP must be enforceable as a prerequisite for EPA acceptance. Therefore, if Texas decides to adopt a SIP, decisions now made in the market under economic criteria will be made or mandated by a federally-driven regulatory apparatus using environmental criteria. This would include decisions involving new generation, dispatch, renewable energy, and energy efficiency. In addition, EPA approval would likely be required for future changes to many/most “market” protocols. Texas’ competitive market would be competitive no more.

Adoption of a SIP will require legislation to restructure the market and the jurisdictional relationships of the PUC, TCEQ, and ERCOT. Texas would also have to grant the EPA authority to enforce obligations under a SIP. Currently, the EPA does not have this authority under federal or state law. The bottom line is that by passing legislation to authorize a SIP, the state is effectively delegating its authority to the EPA. This could lead to

a situation where the EPA denies Texas' SIP and then attempts to regulate the state through a FIP, based on Texas legislation.

Texas must share part of the blame for the CPP. Its embrace of government mandates for energy efficiency and renewable energy have helped legitimize these programs. Fortunately, there is no indication today that Texas wants to continue down this path by submitting a SIP under the CPP. As FERC Commissioner Tony Clark noted, Texas' attempt to comply would cede authority over operation of entire market to EPA. But this issue is much bigger than just the impact on the Texas electricity market. Implementation and compliance with the CPP would comprehensively reorder jurisdictional relationship between federal government and the states. Texas' Legislature and executive branch should clearly and completely reject the U.S. EPA's Clean Power Plan. ★

## References

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## About the Author



**Bill Peacock** is the vice president of research and director of the Texas Public Policy Foundation's Center for Economic Freedom. He has been with the Foundation since February 2005. Bill has extensive experience in Texas government and policy on a variety of issues including, economic and regulatory policy, natural resources, public finance, and public education. His work has focused on identifying and reducing the harmful effects of regulations on the economy, businesses, and consumers.

Prior to joining the Foundation, Bill served as the Deputy Commissioner for Coastal Resources for Commissioner Jerry Patterson at the Texas General Land Office. Before he worked at the GLO, he was a legislative and media consultant, working with groups like Citizens for a Sound Economy and Putting Children First. Bill also served as the Deputy Assistant Commissioner for Intergovernmental Affairs for Commissioner Rick Perry at the Texas Department of Agriculture, as a legislative aide to Rep. John Culberson in the Texas House of Representatives, and as an analyst for the Texas Senate Committee on Education.

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