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Are You Better Off Under the Clean Power Plan than You Were 14 Months Ago?

An Apples-to-Apples Comparison of State Emission Goals Under the Proposed and Final Versions of the Clean Power Plan Rule

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In reviewing the final version of the Clean Power Plan rule just issued by the Environmental Protection Agency (EPA) one thing becomes immediately apparent: the interim and final (2030) emission goals for the states have changed substantially. The reason for these different goals is that EPA made very significant modifications to the "Best System of Emission Reduction" (BSER) methodology it used to set the goals.

Given these differences, many stakeholders are wondering just how much the modified BSER methodology changed the stringency of the goals for states contemplating a rate-based compliance plan. Below, we provide a preliminary analysis of this issue.

How Modifications to the Proposed Rule Affect Stringency for Purposes of Rate-Based Compliance

One way to approach the question of how much modifications to the BSER methodology affected the stringency of state goals for purposes of rate-based compliance plans is simply to compare the proposed and final numbers and assume that the difference equates to changes in the level of stringency. Under this reasoning, because the 2030 goal for South Dakota changed from 741 lb CO_2/MWh in the proposed rule to 1,167 lb CO_2/MWh in the final rule, the new BSER methodology must have made South Dakota's goal roughly 57 percent less stringent.

However, this approach to assessing the change in stringency is misleading. The reason is that that BSER modifications fall into two different categories, which have to be evaluated differently.

1. Less Stringent Goal – No Change in Permissible Compliance Measures

For the first category of modifications, EPA increased the state's lb CO_2/MWh goal (i.e., made it more lenient) and did not make a corresponding modification to the suite of permissible compliance measures. The treatment of "under construction" nuclear units is an example. The final rule removes zero-CO_2 MWh attributable to under construction nuclear units from state goals, thus increasing the lb CO_2/MWh ratio. However, since the zero-CO_2 MWh attributable to new or increased nuclear output remain fully creditable for purposes of a rate-based compliance plan under the final rule, this change in the BSER methodology represents a genuine decrease in stringency for certain states.

2. Less Stringent Goal – Offsetting Changing in Permissible Compliance Measures

For the second category of modifications, EPA increased the lb CO_2/MWh goal but *also* made *corresponding* modifications to the list of measures that could be used for compliance. This type of modification does *not* necessarily affect the relative stringency of the goals in the proposed and final rules (even though some state goals in the final rule may appear less stringent) because the increase in a state's goal in the final rule is more or less offset by the unavailability under the final rule of rate-based compliance measures that would have been available under the proposed rule.

Two modifications in the final rule – those that relate to "existing renewables" and "at-risk nuclear" – fall into this second category. First, in the proposed Clean Power Plan rule, Block 3 of the BSER methodology assumed that states could avail themselves of generation from renewable facilities already

existing in 2012 (the "existing-renewables" factor). The BSER methodology added MWh to the denominator of the state goals to reflect this assumption without increasing the lbs CO_2 numerator, thereby lowering the goal and making it more stringent. Correspondingly, the compliance provisions in the proposed rule also would have allowed states under a rate-based compliance plan to add these zero-CO_2 MWh to their denominator, thereby bringing the emission rate for affected power plants closer to the state's goal.

In addition, the proposed Block 3 included an element aimed at giving states an incentive to preserve the operation of already operating nuclear facilities EPA deemed to be at risk of closure (the "at-risk" factor). Under this at-risk factor, the proposed rule added zero-CO_2 MWh to the state goals in an amount equivalent to the continued generation from 5.8% of the capacity of existing nuclear plants (making the goals more stringent). As with the existing-renewable factor, however, it was also clear in the compliance provisions of the proposed rule that, if the nuclear facilities continued to operate, states could count a corresponding amount of MWh toward compliance with their goals, *i.e.*, by adding the MWh to the denominator of the state rate.

In the final rule, EPA removed both the existing-renewables factor and the at-risk-nuclear factor from the BSER methodology. The result is a measurable change in the goal numbers – generally making them higher and therefore making them appear more lenient. However, EPA *also* made corresponding modifications to the compliance provisions. States may no longer count MWh from existing renewables and existing nuclear facilities toward compliance with their goals. To be sure, changes in generation from existing renewables and nuclear facilities still could help or hinder a state's compliance efforts in various ways. However, because the final rule does not provide a formal MWh credit (or debit) for existing renewable and nuclear generation under a rate-based compliance plan, the offsetting modifications do not affect the stringency of the underlying obligations for states relying on such plans.

In other words, EPA removed the factors not only from the BSER side of the ledger, but also from the compliance side of the ledger. As a result, the impact of these BSER modifications on the numerical level of the goals does *not* precisely equate to their impact on the actual stringency of the goals.

Adjustment of State Goals to More Closely Measure Changes in Stringency

Accordingly, in order to get a more accurate picture of how the modifications to the BSER methodology *actually* affected the stringency of the goals for states relying on rate-based compliance plans, we have done a preliminary analysis based on our understanding of the final rule. (An analysis for purposes of mass-based compliance plans is more complicated, and beyond the scope of this effort.)

Our approach goes back and adjusts the proposed state 2030 goals, removing the effects attributable to the existing-renewables and at-risk-nuclear factors. To do this, we used data EPA provided with the proposed rule.

As the Table below shows, all of the adjusted proposed state goals are higher than the un-adjusted proposed goals. That is an expected change from removing the existing-renewable and at-risk-nuclear factors. The effect is particularly pronounced for states that had large amounts of renewable generation in 2012, including South Dakota, Maine, Idaho, and Iowa. For example, with the adjustment, South Dakota's final goal has gone from being 57% less stringent to being only 21% less stringent.

The calculation of adjusted proposed state 2030 goals allows for a more accurate, apples-to-apples stringency comparison with the final 2030 goals.

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Preliminary State-by-State Analysis of Relative Stringency of Proposed and Final Clean Power Plan Rule

STATE	PROPOSED CPP 2030 Final Goal		FINAL CPP 2030 Final Goal	Percent Change from Adjusted Proposed Rate to Final Rate (positive % is decrease in stringency)
	Rate (lb CO_2/MWh)	Adjusted Rate (lb CO_2/MWh) (positive % is decrease in stringency)	Rate (lb CO_2/MWh)	
Alabama	1,059	1,104 (+4.3%)	1,018	-7.8
Arizona	702	741 (+5.6%)	1,031	+39.1
Arkansas	910	952 (+4.6%)	1,130	+18.7
California	537	648 (20.7%)	828	+27.8
Colorado	1,108	1,234 (+11.4%)	1,174	-4.9
Connecticut	540	581 (+7.5%)	786	+35.3
Delaware	841	853 (+1.4%)	916	+7.4
Florida	740	759 (+2.6%)	919	+21.1
Georgia	834	870 (+4.4%)	1,049	+20.6
Idaho	228	386 (+69.0%)	771	+99.7
Illinois	1,271	1,422 (+11.9%)	1,245	-12.4
Indiana	1,531	1,577 (+3.0%)	1,242	-21.2
Iowa	1,301	1,840 (+41.4%)	1,283	-30.3
Kansas	1,499	1,732 (+15.5%)	1,293	-25.3
Kentucky	1,763	1,761 (+0.1%)	1,286	-27.0
Louisiana	883	923 (+4.5%)	1,121	+21.5
Maine	378	679 (+79.9%)	779	+14.7
Maryland	1,187	1,254 (+5.7%)	1,287	+2.6
Massachusetts	576	608 (+5.6%)	824	+35.5
Michigan	1,161	1,230 (+6.0%)	1,169	-5.0
Minnesota	873	1,142 (+30.9%)	1,213	+6.2
Mississippi	692	717 (+3.6%)	945	+31.8
Missouri	1,544	1,577 (+2.1%)	1,272	-19.3
Montana	1,771	1,897 (+7.1%)	1,305	-31.2
Nebraska	1,479	1,570 (+6.2%)	1,296	-17.5
Nevada	647	701 (+8.3%)	855	+22.0
New Hampshire	486	559 (+15.0%)	858	+53.5
New Jersey	531	570 (+7.3%)	812	+42.5
New Mexico	1,048	1,160 (+10.7%)	1,146	-1.2
New York	549	591 (+7.7%)	918	+55.3
North Carolina	992	1,043 (+5.1%)	1,136	+8.9
North Dakota	1,783	2,098 (+17.7%)	1,305	-37.8
Ohio	1,338	1,365 (+2.0%)	1,190	-12.8
Oklahoma	895	990 (+10.5%)	1,068	+7.9
Oregon	372	479 (+28.5%)	871	+81.8
Pennsylvania	1,052	1,101 (+4.7%)	1,095	-0.5
Rhode Island	782	791 (+1.1%)	771	-2.5
South Carolina	772	826 (+7.0%)	1,156	+40.0
South Dakota	741	1,489 (+101.1%)	1,167	-21.6
Tennessee	1,163	1,209 (+4.0%)	1,211	+0.2
Texas	791	857 (+8.4%)	1,042	+21.6
Utah	1,322	1,360 (+2.9%)	1,179	-13.3
Virginia	810	862 (+6.4%)	934	+8.4
Washington	215	274 (+27.9%)	983	+258.8
West Virginia	1,620	1,645 (+1.6%)	1,305	-20.7
Wisconsin	1,203	1,287 (+7.0%)	1,176	-8.6
Wyoming	1,714	1,857 (+8.3%)	1,299	-30.0

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Other Modifications to the BSER Methodology

The differences between each state's adjusted and final 2030 goals reflect the numerous other modifications to the BSER methodology that did not have offsetting modifications to the compliance provisions. The impacts of these other modifications are complicated and often interacting. On net, these changes have made the 2030 goals of certain states more stringent, while making the 2030 goals for other states less stringent.

These other changes to the BSER methodology affect the goals in a number of different ways. For example, as noted above, EPA introduced more leniency into the BSER methodology by removing assumptions about "under construction" nuclear units and end-user energy efficiency measures while allowing states to use such measures for compliance. At the same time, EPA's new Building Block 3 anticipates that significantly more *new* renewable generation is possible than was projected in the proposed rule, resulting in greater stringency. And, by assuming that affected power plants can avail themselves of the interconnected electricity grid, EPA's goals now incorporate the emission reduction potential of increasing natural gas capacity factors and of expanding renewable generation across broader regions. For example, a state with no gas generation within its borders now is assumed to be able to get the benefit of gas generation in a state to which it is interconnected.

We have not attempted to quantify just how much the difference between the adjusted proposed 2030 goals and the final 2030 goals is attributable to any of these various other BSER modifications on an individual basis. However, it is our view that our approach provides the right launching point for such an analysis.

Take-Aways

While our analysis of the aggregate difference in stringency between the adjusted and final goals does not fully capture the "winners" and "losers" from EPA's final Clean Power Plan – nor it necessarily reflect how costly or significant the requirements will be for any given state – we nonetheless recommend that any state looking to assess how much the final Clean Power Plan requires when compared to the proposal should not compare its final 2030 goal to the proposed goals as set forth in the text of the 2014 text. Rather, the state should compare its final 2030 goal to its *adjusted* proposed 2030 goal.

For more information

Van Ness Feldman will be preparing a comprehensive analysis of these rules that will be available on a cost-share basis. Our professionals are also available to provide counsel to companies and others as they assess the implications of the rule and prepare to submit comments to EPA. Please contact Kyle Danish, Stephen Fotis, or any other professionals in Van Ness Feldman's Environmental Practice for additional information on the analysis or on other matters related to these rules.

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