COMMENTS BY THE PUBLIC UTILITY COMMISSION OF TEXAS, RAILROAD COMMISSION OF TEXAS, AND THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY REGARDING THE ADVANCE NOTICE OF PROPOSED RULEMAKING ON STATE GUIDELINES FOR GREENHOUSE GAS EMISSIONS FROM EXISTING ELECTRIC UTILITY GENERATING UNITS; EPA DOCKET ID NO. EPA-HQ-OAR-2017-0545

I. Summary of Notice

On December 28, 2017, the United States Environmental Protection Agency (EPA) issued an advance notice of proposed rulemaking (ANPR) in the *Federal Register* concerning a possible rulemaking for state guidelines for greenhouse gas (GHG) emissions from existing electric utility generating units (EGU) under Federal Clean Air Act (FCAA), §111(d). While the EPA has not committed to initiate such a rulemaking, the rulemaking would serve as a replacement to the EPA's Clean Power Plan (CPP) rule that was finalized October 23, 2015. The ANPR solicits comment on a wide variety of topics related to establishing GHG emission guidelines for existing EGUs. The EPA has also proposed a repeal of the CPP rule, published in the *Federal Register* on October 16, 2017.

II. Comments

A. General Comments

1. The Public Utility Commission of Texas (PUCT), Railroad Commission of Texas (RRC), and Texas Commission on Environmental Quality (TCEQ) support the proposed repeal of the CPP rule but do not support replacement of the rule.

The legality of both the §111(b) NSPS and the §111(d) CPP rules have been challenged in petitions filed in the D.C. Circuit Court of Appeals and these cases currently remain abated by orders of the court. The State of Texas and its co-petitioners raised several flaws in the EPA's stated authority to regulate under §111 including the EPA's use of the endangerment finding previously made for the EGU source category; use of the §202 endangerment finding for GHG emissions from mobile sources as a 'rational' basis for regulating GHGs from the EGU stationary source sector; and the statutory language in §111(d) prohibiting the EPA from regulating existing sources that are also regulated under FCAA, §112. These are a few of the several legal problems with regulating GHGs under §111. If the EPA should decide to repeal the GHG emissions NSPS rule for new, modified, and reconstructed EGUs then the EPA would have no legal authority to adopt any rule to set GHG emission guidelines for existing EGUs under §111(d).

The PUCT, RRC, and TCEQ intend to submit comments in support of the proposed repeal of CPP rule. While the EPA did not solicit comment in the ANPR as to whether the CPP rule should be replaced, the PUCT, RRC, and TCEQ do not support rulemaking to replace the CPP rule. Until the EPA has fully reviewed the NSPS and its authority to regulate new or modified sources of GHGs under §111(b), as well as established a clear finding of endangerment from GHGs from this source category following the statutory text in §111(b)(1)(A), the EPA cannot, nor should not, begin the process of replacing or revising the CPP rule. However, while the PUCT, RRC, and TCEQ do not support

replacing the CPP rule, the following comments are provided for consideration should the EPA decide to propose a replacement rule.

2. Given the significant legal issues surrounding the EPA's authority to regulate GHG emissions from EGUs under §111, the PUCT, RRC, and TCEQ urge the EPA to carefully consider the timing of any future proposed action to replace the CPP rule under §111(d).

The EPA provided a concise history of the statutory and regulatory underpinnings of the previous administration's actions to regulate GHGs from the power sector - in particular, fossil fuel-fired EGUs. While the EPA makes clear it is not modifying the prior findings with respect to endangerment and the requirements under FCAA, §111 (see 82 FR 61509, footnote 3), previous announcements indicate that the EPA will review the FCAA, §111(b) New Source Performance Standards (NSPS) rule setting carbon dioxide (CO_2) emission standards for new, modified, and reconstructed EGUs (40 Code of Federal Regulations (CFR) Part 60, Subpart TTTT, Standards of Performance for Greenhouse Gas Emissions for Electric Generating Units) and may, "if appropriate," revise or rescind those rules. Any regulatory action to replace the CPP rule is premature while the EPA is still reviewing the FCAA, §111(b) NSPS rule for new, modified, and reconstructed EGUs. If the EPA moves forward with a replacement rule under §111(d), it should expressly recognize that the validity of that replacement rule is contingent on the existence of a valid rule under §111(b).

3. The PUCT, RRC, and TCEQ support the EPA's proposed interpretation of best system of emission reduction (BSER) issued with the proposed repeal of the CPP rule because that interpretation is consistent with other requirements of §111(d).

The EPA's proposed interpretation that BSER is statutorily limited to measures that apply to and at individual sources on the unit-specific level also provides for a more cohesive interpretation of other requirements contained within §111(d), namely, that states were given the authority by Congress to establish less stringent standards for a particular source where the state deems it appropriate, considering relevant factors. Establishing BSER on a broader basis, as was done in the CPP rule, necessarily inhibits the full application of this statutory discretion by states, effectively nullifying such discretion.

4. Carbon capture and storage (CCS) should not be considered as BSER.

CCS should not be considered BSER due to its limited effectiveness and excessive cost. The EPA has already determined that CCS technology is not BSER (80 FR 64756) because it is more expensive than other control measures. Beyond the technology costs, CCS also requires cost in land purchasing and transport to the storage site. While it is true that CCS can be used for enhanced oil recovery (EOR), this may not be a viable option for all units subject to a possible future rule. Therefore, the PUCT, RRC, and TCEQ concur with the EPA that neither CCS nor partial CCS can be considered as BSER for existing EGUs.

B. State Plan Process

1. The FCAA requires the EPA to allow states to consider the remaining useful life of existing sources. States should be given wide flexibility to evaluate the remaining useful life of sources when developing state plans.

In adopting the CPP rule, the EPA denied states the flexibility granted by the FCAA in §111(d) to consider the remaining useful life of units subject to the state plan requirements. The EPA attempted to justify this action by claiming that "inherent flexibilities" the EPA incorporated into the CPP rule made considering the remaining useful life unnecessary. However, regardless of the flexibilities that may or may not have been included in the CPP rule, and what might be included in a replacement rule, the EPA does not have the legal authority to deny the state the ability to consider the remaining useful life of an existing source when developing a state plan under §111(d). Section 111(d)(1) clearly states that regulations established under §111(d) "shall permit the State in applying a standard of performance to any particular source under a plan submitted under this paragraph to take into consideration, among other factors, the remaining useful life of the existing source to which such standard applies." The consideration of remaining useful life by the states in a §111(d) state plan is not a discretionary action that the EPA can choose to withhold. The FCAA requires the EPA to allow states to take remaining useful life into consideration. Furthermore, given the numerous units potentially affected by any possible future §111(d) rule and the variation in unit-specific details, states will need wide flexibility to consider the remaining useful life when establishing standards for a state plan, including establishing less stringent standards when appropriate should the EPA decide to set presumptively approvable standards.

2. States should have longer than the nine months prescribed in the implementation regulations in 40 CFR §60.23(a)(1) for the development and submittal of a state plan under FCAA, §111(d). At a minimum, states should have three years for the development and submittal of such a plan, as is given under the statutory and regulatory framework of FCAA, §110 for a state implementation plan (SIP).

The scope of a potential GHG rule for existing EGUs is not clear in this ANPR. Texas has a significant number of existing EGUs that could be within the scope of such a rulemaking. Under 40 CFR §60.23(a)(1), the EPA has established nine months as the deadline for states to submit plans under the framework of §111(d). Given the complexity of issues likely to arise from a proposed GHG rule for existing EGUs, the nine months prescribed under §60.23(a)(1) for a state to submit a state plan is inadequate. If the state were required to develop a state plan under §111(d) consistent with the requirements for SIPs under §110, including public notice and availability of a comment period, the nine-month timeframe currently prescribed under §60.23(a)(1) would be insufficient. In addition to the time needed for procedural requirements, nine months is simply not an appropriate amount of time for the development and submittal of a state plan for GHGs from existing EGUs given the potential magnitude of affected units in the state of Texas. For example, states may need the additional time to fully assess whether less stringent standards are appropriate.

Section 111(d) specifies that plans developed under this section should be procedurally similar to SIPs developed under §110. Similar to the time allowed for states to submit SIPs under §110, the EPA should allow states at least three years to develop state plans in response to any potential GHG rule for EGUs under §111(d) that provides for implementation, maintenance, and enforcement of affected units. The implementation regulations in 40 CFR §60.23(a)(1) state that the nine-month deadline for submitting a state plan does not apply if the applicable subpart specifies otherwise. Therefore, a change to the implementation regulation is not necessary if the EPA specifies a longer time to submit the state plan in the specific GHG state guidelines regulations. However, provisions to provide additional time upon request should also be available for states that have large numbers of applicable sources that require evaluation in the specified category.

3. The EPA should establish clear and specific criteria for how state plans will be evaluated and provide for automatic approval if the EPA fails to act timely on submitted state plans.

The EPA should also propose specific criteria for the evaluation of state plans that clarify that its evaluation may not impinge on the statutory discretion granted by Congress. The EPA's evaluation, if restricted to an appropriate administrative completeness review, should be able to be accomplished within a relatively short time and should not need expansion. The EPA should propose and adopt criteria that would provide for automatic approval of state plans to ensure that states and sources have timely certainty regarding their obligations.

4. The EPA should consider revising the progress report requirements under 40 CFR §60.25(f) to make them less burdensome for states.

Some states, including Texas, contain a significant number of potentially affected sources under a replacement GHG rule for existing EGUs. The requirements for progress reports under 40 CFR §60.25(f) include the submission of large amounts of emissions inventory data, process data, and performance testing reports to the EPA. It would be burdensome for states to submit, and for EPA to review, these large amounts of data and reports on an annual basis. Should the CPP rule be repealed and a replacement rule finalized, the EPA should consider the number of affected sources in the replacement rule, the specific necessity of progress report data, and develop appropriate requirements for any expected state progress reports.

5. The EPA should not assume the state's authority to set performance standards. Rather, §111(d) requires the EPA to prescribe regulations establishing a procedure under which states submit plans that establish standards of performance for existing sources and that provide for the implementation and enforcement of such standards.

The EPA's interpretation of its role and responsibilities and that of states under §111(d) in this ANPR (82 FR 61512) is consistent with the plain language of §111 and prior §111(d) regulatory actions by the EPA. The TCEQ agrees with the EPA that states possess unique challenges when evaluating air regulations targeting that state's

electric power generating sector, especially those aspects of market design, generation resource planning, operation and dispatch, renewable energy portfolio standards, as well as transmission planning, siting, and certification. Regardless of whether the EPA affords states the flexibility to establish their own unit-by-unit emission performance standards or issues presumptively approvable emission limits through the emission guidelines states with affected sources must be able to retain the flexibility afforded to them through §111 to establish their own standards of performance for existing EGUs, should the final CPP rule be repealed and a replacement rule finalized.

Consequently, states should have the flexibility to develop either rate-based or mass-based emission standards and provide for the implementation and enforcement of other forms of compliance, such as emissions averaging approaches or emissions trading programs. However, if the EPA were to issue guidelines dictating the form of the performance standard and thus presumptively approvable limits, the TCEQ strongly urges the EPA to consider issuing emission guidelines that are rate-based (e.g., pound per megawatt-hour). Given the extreme variability in unit performance, size, and dispatch, there is no practical way that the EPA could establish mass-based standards. Furthermore, mass-based standards could create reliability issues by creating *de facto* generation limits. Any approach to establish mass-based standards should be limited to the states, which can tailor standards to account for the unique design and site-operating characteristics of affected sources.

6. The provision in 40 CFR §60.24(f)(3) allowing states to apply a less stringent standard than would otherwise be required by a presumptively approvable emission guideline is subjective and left open to interpretation.

It is currently unclear how much latitude states will be allowed to set alternative standards given the unique factors and circumstances of sources within each state. The EPA should establish a methodology or criteria for consideration by a state when choosing to set an alternative emission standard in lieu of a presumptively approvable emission guideline to provide states stability and consistency. Without such guidance, states are left guessing at the justification and support considered adequate to demonstrate a deviation from a presumptive emission standard. To avoid the need to clarify expectations during the EPA's review of state plans, the EPA should consider producing sample state rule text that provides an example as to what would be presumptively approvable while not being overly prescriptive to allow for state flexibility.

7. Emission guidelines should be based on gross generation to demonstrate compliance with the standards established by the state.

The EPA should consider issuing emission guidelines for emission standards based on gross generation of affected sources. In the final CPP rule and in the proposed rule for a federal plan and model rules, the EPA required affected sources to use net generation as the basis for demonstrating compliance with the standards of performance set by the EPA. The EPA justified this requirement by stating that improvements in the efficiency of auxiliary equipment and pollution control equipment would not be captured in measurements of gross generation. These efficiency improvements represented opportunities to reduce carbon intensity at existing EGUs. The use of net

generation for compliance with the standards penalizes those EGUs that have had to install controls for compliance with other EPA regulations because the installation and operation of the pollution control equipment results in increased parasitic load. The EPA's reliance on net generation ignores source-specific performance variability and the fact that some affected sources, suffering from increased parasitic load due to other EPA regulations, must increase gross generation output to maintain the same level of net generation to not only meet electric grid demand, but also to remain financially viable against other market competitors. This increase in gross generation ultimately results in increased CO_2 emissions for those sources. By expressing potentially new emission guidelines in terms of gross generation, this would allow for a more equitable treatment of all affected sources by observing the ratio of CO_2 emissions to electric generation for all sources before parasitic load, thus normalizing for other EPA regulations that target certain affected sources also covered by the emission guidelines.

8. While there may be no simple way for the EPA to identify heat rate improvements or set presumptively approvable standards, the approach used in the final CPP rule of averaging data from the three electric power grid interconnections was inappropriate and flawed.

The analysis used by the EPA for the CPP rule to set state goals relied on the EPA simply summing the CO_2 emissions and electric generation of all affected sources within a source subcategory in a state and further summing all states located within an interconnection region, except for the Electric Reliability Council of Texas (ERCOT), to estimate the CO_2 performance standard on a pound per megawatt-hour basis. The EPA should abandon this flawed approach, in addition to assuming authority to set standards for the states under a §111(d) rule, because it ignores the inherent variability associated with the design, performance, and operation of fossil fuel-fired EGUs, not only across the country, but also within a state. The EPA even expresses this concept in the ANPR, stating that the EPA "recognizes that the fleet of U.S. fossil fuel-fired EGUs is varied in terms of size, age, fuel type, fuel usage (e.g. baseload, cycling, etc.) boiler type, etc." (82 FR 61513) Too much variance exists not only between but also within the interconnection regions, and even similar subcategories of EGUs operate differently across the country in different climates as well as within a state and under different market conditions.

C. Interactions with New Source Review (NSR) Permitting

1. Changes to an EGU based on improving the unit's heat rate may require a change to the NSR permit.

The EPA requested comment as to what §111(d) scenarios would cause EGUs to be potentially subject to NSR requirements. Any physical or operational change requires NSR applicability review. Due to current dispatch protocols, more efficient units are dispatched first. This means that heat rate (efficiency) projects could lead to more operating hours than previously seen by the unit, which would lead to greater emissions of criteria pollutants. This increase in emissions could trigger minor NSR requirements, including a Best Available Control Technology Review. If the net increase is above significance levels it could also trigger major NSR permitting requirements

(Prevention of Significant Deterioration or Nonattainment NSR). Unlike rules established under §111, NSR permitting applicability does not distinguish between the size or class of an EGU, how the EGU operates (e.g., baseload, intermediate, load following), fuel(s) the EGU burns, or the EGU's existing level of pollution control.

2. The EPA has limited options regarding rule and policy changes to the NSR program to address issues that will result from a §111(d) GHG emission guidelines regulation for EGUs that targets heat rate improvements.

GHGs are currently considered a pollutant under the FCAA along with criteria pollutants and are not treated preferentially. If a project to control GHGs causes an emission increase greater than the significant emission rate for any other criteria pollutant, the FCAA is clear that a major modification has occurred.

The TCEQ does not have a minor NSR program for GHGs. Therefore, a site may not establish a plantwide applicability limit (PAL) for GHGs, because there is no enforcement mechanism for minor changes. However, if a regulated entity establishes a PAL for the criteria pollutants and thus avoids major NSR for these pollutants resulting from changes needed to comply with §111(d) requirements, it would also be able to avoid PSD review for GHGs. However, criteria pollutants will continue to be subject to minor NSR permitting unless otherwise exempt under state rules.

Major shifts in generation require substantial planning by the grid operator, and usually cannot be achieved quickly. Co-firing an EGU with lower-emitting fuel does not mean that all regulated pollutants are reduced. Generally, a reduction in emissions of one pollutant such as GHG could increase emissions of another pollutant such as carbon monoxide or nitrogen oxides.