

## **Attachment 1: Ohio EPA Comments on October 30, 2014 NODA**

On October 30, 2014, U.S. EPA provided a Notice of Data Availability (NODA) regarding the June 18, 2014 proposal for regulation of carbon dioxide (CO<sub>2</sub>) from existing EGU sources under Section 111(d). [79 FR 64543] While some of our comments on the June 18, 2014 proposal already address concerns, concepts and alternatives identified in the NODA, this supplement includes comments for consideration on the additional alternatives presented in this NODA specifically. Ohio EPA expects U.S. EPA will consider all of Ohio EPA's comments on both proposals together as Ohio EPA believes the major concerns we have raised apply equally to both proposals. Ohio EPA is discouraged that U.S. EPA has provided an additional proposal of multiple options with approximately 30 days left in the comment period to prepare additional comments. In combination with the June 18, 2014 proposal, there is just not enough time to thoroughly explore all of the ramifications of these proposals.

Nothing in the following comments should be taken by U.S. EPA that Ohio EPA in any way agrees that U.S. EPA has any authority under Section 111(d) to regulate CO<sub>2</sub> from existing electric generating units (EGU).

Ohio EPA wishes to point out this NODA provides very little additional "data" beyond U.S. EPA-manipulated eGRID data; this data could be compiled from existing EIA datasets and is of very little utility to entities as they prepare comments. Rather, this proposal presents a series of concepts or alternatives based presumably on stakeholder feedback without any supporting data and analysis, without any new goal computations, and without analysis of costs and feasibility associated with these alternatives. U.S. EPA acknowledges these potential changes "could increase or decrease the stringency of the goals or shift stringency levels between and among states" yet U.S. EPA has provided no additional goal computation or data for states to use in providing meaningful comments. Additionally, no additional IPM results were provided to assess, on a unit-by-unit basis, the implications of these alternatives and potential changes.

U.S. EPA is statutorily required to provide adequate notice and opportunity to comment under the Administrative Procedures Act (APA) and the Clean Air Act (CAA). 5 U.S.C. 553(b) and (c); CAA Section 307(d)(3) More specific than the APA's general notice and comment provisions, the CAA requires that a notice of proposed rulemaking be published in the Federal Register with a "statement of basis and purpose" that summarizes: "(A) the factual data on which the proposed rule is based; (B) the methodology used in obtaining the data and in analyzing the data; and (C) the major legal interpretations and policy considerations underlying the rule." CAA Section 307(d); see *Union Oil v. EPA*, 821 F.2d 678, 681-82 (D.C. Cir. 1987)

Public comment on the statement of basis and purpose is guaranteed under the APA: "After notice required by [5 U.S.C. 553], the agency shall give interested persons an opportunity to participate in the rule making through the submission of written data, views, or arguments with or without the opportunity for oral presentation." CAA Section 307(d)(1) requires that the public comment period be specified in the federal register

notice. If U.S. EPA fails to provide an opportunity for “meaningful” public comment prior to promulgation of the rule, “both the structure and spirit of section 307 would have been violated. The Congressional drafters, after all, intended to provide ‘thorough and careful procedural safeguards . . . (to) insure an effective opportunity for public participation in the rulemaking process.’” *Sierra Club v. Costle*, 657 F.2d 298, 398 (D.C. Cir. 1981) (citations omitted)

The notice and comment procedures place a premium on transparency, participation of interested parties, and fairness in a deliberative process designed to advance the public interest. *Int’l Union, United Mine Workers of Am. v. Mine Safety & Health Admin.*, 407 F.3d 1250, 1259-60 (D.C. Cir. 2005) Adequate notice and a meaningful opportunity to comment are imperative values in rulemaking premised on the “assumption that notice and comment rulemaking, by virtue of its accessibility to public scrutiny, will achieve rational results.” *Small Refiner Lead Phase-Down Task Force v. EPA*, 705 F.2d 506, 547 (D.C. Cir. 1983) (citations omitted) By requesting additional public comment on new “issues and ideas raised by stakeholders” [79 FR 64543, 64544] without an adequate statement of basis and so close to the comment due date under the ruse of issuing a notice of data availability that contains so little additional “data,” U.S. EPA violates the “structure and spirit of section 307” and the fundamental principles underlying notice and comment rulemaking.

Throughout the Section 111(d) proposal and NODA, it is apparent that the proposals have been designed as though the electric generation system and both short and long-term electricity demand can be predicted and controlled to a very small degree of variation. These additional proposals and alternatives do not consider the actual dynamic infrastructure that is needed to keep electricity reliable and affordable. The best energy forecasters at the Energy Information Agency consistently err in their forecasts despite their immense technical expertise; Ohio EPA has already pointed out the flaws in U.S. EPA’s IPM model; U.S. EPA has not demonstrated its predictions (in a field outside U.S. EPA’s primary area of expertise) will be any better than the experts in the field and therefore this overall proposal is flawed.

In U.S. EPA’s overview of the NODA, U.S. EPA acknowledges stakeholders have raised concerns that the June 18, 2014 proposal limits the opportunity to fully take advantage of the remaining asset value of existing coal-fired generation and would force retirements of coal plants that could make unexpected events, such as last winter’s polar vortex, more challenging to address. [79 FR 64544] In our comments on the June 18, 2014 proposal, we raise significant concerns regarding U.S. EPA’s lack of acknowledging a state’s right under Section 111(d) of the CAA to take into consideration remaining useful life. We also raise concerns regarding how the combination of building blocks will undoubtedly lead to reliability issues that were not considered in that proposal. We reiterate those concerns and firmly believe that many of the alternatives proposed in this NODA will only further exacerbate reliability issues evident in this proposed Section 111(d) regulation.

U.S. EPA is soliciting additional comment on the following topics:

### **The 2020 to 2029 Glide Path**

U.S. EPA states the intent of the June 18, 2014 proposal was to provide states with a ten-year averaging period and other flexibility so states could have a reasonable glide path to compliance with final goals. [79 FR 64548] Ohio EPA raises several concerns in our comments on the June 18, 2014 proposal regarding this perceived flexibility, or lack thereof. U.S. EPA states there is flexibility to include certain pre-2020 reductions or states could implement goal requirements early to reduce the amount of reductions needed during the interim period. [79 FR 64545] Ohio EPA raises several concerns in our comments on the June 18, 2014 proposal regarding the use of pre-2020 reductions that include inconsistencies and confusion over which reductions are applicable and with respect to U.S. EPA's overestimation of the availability of early reductions to be achieved.

Stakeholders expressed concerns specifically with respect to the difficulty in creating significant shifts from coal to NGCC by 2020 [79 FR 64548] and that higher levels of utilization of existing NGCC units are not feasible in the early years of the 2020-2029 compliance period due to infrastructure constraints and recent significant capital investments at some existing coal-fired units [79 FR 64545]. Ohio EPA shares these concerns and has provided numerous comments under the June 18, 2014 proposal regarding this matter.

Therefore, U.S. EPA is seeking comment on two additional adjustments to the interim goal calculations to allow a more gradual phase-in of Building Block 2.

1. U.S. EPA is proposing a phase-in schedule on the basis of whether, and to what extent, any additional infrastructure improvements are needed to support more use of existing natural gas generation. Ohio EPA reiterates our comments on the June 18, 2014 proposal regarding concerns over infrastructure capabilities and reliability considerations. U.S. EPA proposes the methodology could be adjusted to account for how quickly additional infrastructure could be developed. U.S. EPA is proposing two parameters for consideration. Defining the amount of utilization shift that can occur by 2020 and defining how quickly that amount could grow until full utilization could be achieved. Yet, U.S. EPA did not provide any indication of who would determine an adjustment due to reliability concerns was warranted, how the adjustment would be determined, and when would this process occur. Such an analysis is beyond the scope of U.S. EPA or the state's ability. Further, while it is obvious that there is a necessity for such a consideration, this further reinforces the notion that U.S. EPA is attempting to control the entire electricity generation, transmission, and distribution system through a Section 111(d) proposal.

2. To address stakeholder concern regarding limited cost-effective options and stranded investments, U.S. EPA proposes to take into account the book life of the original generation asset, as well as the book life of any major upgrades to the asset, such as major pollution control retrofits. [79 FR 64549] Ohio EPA reiterates our comments on the June 18, 2014 proposal regarding consideration of remaining useful life and, likewise, the investments of various utilities. As we note in those comments, Ohio will have a well-controlled coal powered EGU fleet as a result of the Mercury Air Toxics Standard (MATS). It is illogical to expect these efficient and well-controlled units to not be utilized after significant investments have occurred.

U.S. EPA is seeking comment on how book life may be used to develop an alternative glide path to reaching the final goal. [79 FR 64549] As we outline in our comments on the June 18, 2014 proposal, when legally allowed, it is U.S. EPA's role under the CAA to establish the best system of emission reduction (BSER) for stationary sources and the states obligation to develop a plan based on BSER that sets a standard of performance considering remaining useful life of those sources. U.S. EPA is again inserting itself into areas that have been governed by the Public Utilities Commission of the states by trying to develop a formulation of book life for power plants. This is another example of U.S. EPA attempting to inject the federal government into the area that traditionally has been the states'. This approach only reinforces the concern of U.S. EPA attempting to use Section 111(d) to usurp state authority.

U.S. EPA also notes stakeholders have suggested a phase-in of Building Block 1 would be appropriate. [79 FR 64548] Ohio EPA reiterates our comments from the June 18, 2014 that U.S. EPA is overestimating both the feasibility and magnitude of heat rate improvements (HRI) available, and the ability of utilities to perform HRI in the time provided. Failure to incorporate a phase-in of HRIs in the proposed rule while at the same time considering a phase in of NGCC re-dispatch again represents U.S. EPA's lack of understanding of the true nature of the operation of coal-fired power plants, the electricity grid itself, and the amount of time, effort, and resources necessary to upgrade the nationwide coal-fired fleet. Again, it appears that U.S. EPA is choosing a winning fuel, natural gas, over a losing fuel, coal. If any regulation is legally allowed, states should be assessing each individual unit, its historical HRIs, potential for additional HRIs considering remaining useful life, and the timing such HRIs would necessitate in determining the standard of performance for each individual unit.

### **Building Block Methodology**

U.S. EPA proposes alternative approaches based on regional considerations or allocations, but states their intent is not to require regional plans. [79 FR 64549] As we discuss in our comments on the June 18, 2014 proposal, it is apparent U.S. EPA is proposing a Section 111(d) proposal that necessitates a regional plan in order for states

to achieve their goals, since many of the individual state goals are not achievable. U.S. EPA cannot force states into a regional coalition and the timeframe allotted for this formation and development of a regional structure is woefully inadequate.

### Stringency of Building Block 2

Stakeholders raised concerns with respect to states with large amounts of steam generation and the disparities between goals for states with little or no NGCC and those with more significant NGCC not being utilized. [79 FR 64549] Concern was raised that this disparity could lead to distortion in regional markets. As a result, U.S. EPA is soliciting comment on an approach that includes increasing the obligation of states with little or no NGCC beyond the June 18, 2014 proposal, including the construction of new NGCC and co-firing of natural gas at existing coal-fired facilities. Ohio EPA reiterates our comments regarding the June 18, 2014 proposal. How can U.S. EPA even consider *new* NGCC as a component of BSER when new NGCC would be regulated under the Section 111(b) proposal for new sources? Can U.S. EPA demonstrate any past Section 111 action where forcing a new plant to build was a very real possibility? U.S. EPA has no authority to regulate new NGCC under the existing Section 111(d) regulations. U.S. EPA is attempting to use Section 111(d) to control the entire electricity generation system rather than developing a traditional Section 111(d) plan that directly controls CO<sub>2</sub> emissions from the affected units.

U.S. EPA further acknowledges new NGCC or co-firing could result in changes in natural gas use by adding an upward pressure on natural gas prices and may also be affected by the ability to build new infrastructure. [79 FR 64549] U.S. EPA suggests there may be ways to incorporate new NGCC and co-firing into the BSER that might not result in an overall increase in the amount of natural gas usage. For example, if U.S. EPA adopts a more gradual glide path. Ohio EPA disagrees. A proposal such as this will undoubtedly affect fuel markets and U.S. EPA has provided no analysis to indicate that they have done any type of responsible technical analysis of these impacts. Further, Ohio EPA believes U.S. EPA does not have the expertise to determine fuel market impacts or the ability to determine if individual states need to, or can, expand infrastructure. U.S. EPA is treading into a domain, control of the electricity generating market, in which it has neither expertise nor authority to regulate in this manner.

U.S. EPA proposes a specific approach to address concerns regarding states with little or no existing NGCC capacity having a lower percentage of overall generation from NGCC after applying 70% re-dispatch than states with larger existing NGCC capacity. This approach would include an assumption in the state goal about some minimum level of generation shift from higher-emitting to lower-emitting sources for all states containing some fossil steam generation. [79 FR 64550] U.S. EPA is soliciting comment on a minimum “floor” level for generation shifting. U.S. EPA further requests comment on whether this floor level should be in addition to the goals established under the June 18, 2014 proposal or if there should be an adjustment to the level of NGCC utilization for higher capacity states by reducing their required amounts equal to the new floor levels. Ohio EPA has serious concerns with this methodology and how it relates to the

BSER from affected sources. Again, U.S. EPA cannot require new NGCC be built in order to reduce emissions from coal-fired EGUs under Section 111(d), nor can the state of Ohio compel any entity to construct a new NGCC unit. This area of the NODA reflects how U.S. EPA's proposal represents a total misunderstanding of the manner in which deregulated energy markets operate. Even U.S. EPA could only recognize new NGCC in their feasibility projections by imposing a shadow cost, or carbon tax, through IPM, which Ohio EPA fundamentally disagrees with. U.S. EPA has no authority to impose a carbon tax, whether "shadow" or real. This concept, and Building Block 2 in its entirety, must be abandoned.

Under this NODA, U.S. EPA is taking it a step further by now suggesting that co-firing of natural gas might be a practical option for consideration in goal setting. U.S. EPA bases this new consideration on stakeholder's identifying the co-benefits of: reducing NOx, SO2, particulate and hazardous air pollutant emissions; providing additional operational flexibility for coal-fired units regularly used at less than full load or that cycle; allowing quick ramp-up and down providing an opportunity to take advantage of low fuel prices; allowing additional time for implementation of other building blocks that take more time; and low capital investment. This suggestion faces the same problem as this entire proposal in that it is not practical, feasible or technically achievable to require coal-fired EGUs to use natural gas when there may not even be sufficient supply. This cannot be a serious consideration when U.S. EPA has not even performed an analysis of technical feasibility or subsequent impacts on system reliability and natural gas costs. U.S. EPA cannot use the co-benefit of reducing pollutants unrelated to the pollutant addressed by this proposed regulation, CO2, as justification for establishing a BSER. If U.S. EPA is going to seriously consider a co-firing approach, it must abide by the APA and conduct a detailed analysis and re-propose this element.

U.S. EPA is also taking comment on alternative regional structures for the alternative approach included in the June 18, 2014 proposal. [79 FR 64551] Ohio EPA reiterates our comment that U.S. EPA should not be proposing a Section 111(d) regulation that necessitates states use a regional approach. Further, Ohio EPA identified major flaws with U.S. EPA's regionalization methodology, wherein states with significant generation were grouped with states with little to no generation. Such flawed logic should be abandoned by U.S. EPA.

### *Building Block 3 Methodology and How Targets Relate to Compliance*

U.S. EPA is proposing a third methodological approach, a regional approach, to determining state goals for renewable energy (RE). [79 FR 64551] Specifically, this approach adjusts each state's RE target based on the RE potential available across a multi-state region. The state's goal would be informed by the opportunity to develop out-of state RE resources as part of its plan. U.S. EPA proposes to group states into regions, aggregate RE generation potential within the region, and then reapportion the aggregate to individual states based on criteria that assume regional RE development in which parties in multiple states participate.

U.S. EPA suggests this approach could entail using the same regions identified in the June 18, 2014 proposal, summing the RE target generation and then reallocating to each state based on a chosen criterion, such as each state's share of total electricity sales or generation within that region for 2012. [79 FR 64551] U.S. EPA is requesting comment on what the regional structure should be (along with justification), what the criteria should be for reapportioning (along with justification) and what components of the state RE should be regionalized.

First, Ohio EPA raises serious concerns in our comments on the June 18, 2014 proposal regarding U.S. EPA's methodology for setting regions, and specifically with respect to U.S. EPA's region selections. Most importantly, Ohio EPA does not agree that any regulation of RE is even legal under Section 111(d). Nonetheless, Ohio EPA does not agree with any regional approach. If it is found that U.S. EPA has legal authority to specific RE, U.S. EPA must establish RE goals based upon the unique potential for RE in each individual state. Any other method will continue to lead to disparities between states and lead to goals that are not achievable.

Second, Ohio EPA reiterates that U.S. EPA cannot mandate a regional approach. Setting a goal in a manner that allocates regional RE to individual states without consideration for state-specific RE potential will undoubtedly lead to the necessity for regional plans.

Third, U.S. EPA is suggesting the regional allocation approach may or may not apply to all RE generation in a state. [79 FR 64551] For example, it may or may not include existing generation (beyond 2012) or all types of RE generation (e.g., solar or wind). U.S. EPA further requests comment on whether it should or should not reallocate existing hydropower generation across states (even if all other types of RE generation are reallocated). Using this regional approach that does not take into consideration state-specific potential and state-specific in- and out-of-state use of various RE sources will lead to states receiving disproportionate allocations compared to real world actuality. And this can be exacerbated over time as RE potential changes and more RE is developed. U.S. EPA persists in the flawed logic present throughout the June 18, 2014 proposal that states that already have RE programs in place are better situated to add more RE in the future. In reality, the proposed rule essentially penalizes early adopters of RE and energy efficiency (EE) measures via more stringent goals, while at the same time ignoring the fact that most early RE and EE measures were based on what was most economically and technically feasible, as determined by that particular state. The proposed rule would force some states to pursue less economically viable measures well before other states. This part of the NODA continues the line of previously flawed concepts pointed out by Ohio EPA and cannot be salvaged without a complete re-analysis and re-proposal.

Lastly, it should not be the states obligation under comments regarding this proposal to provide recommendations to U.S. EPA and provide justification in lieu of U.S. EPA conducting the required analysis and proposing a specific approach. U.S. EPA has obviously not done the proper research, nor expended the necessary effort to propose a

technically sound, justified and vetted regulation. U.S. EPA is now relying on states to provide fundamental feasibility analysis, research and recommendations for the final rule that should have been completed by U.S. EPA prior to proposing the rule. U.S. EPA must re-propose a rule that has a clear legal foundation and allows stakeholders an opportunity to comment on a well-designed, technically sound, and justified proposal.

## **Goal Setting**

### **Goal Setting Equation**

U.S. EPA identifies that stakeholders raised concerns that the proposed numeric formula for calculating state goals is not consistent in its application of the BSER for incremental generation for existing NGCC units compared to the incremental generation and avoidance of RE/EE. [79 FR 64552]

The formula for existing NGCC re-dispatch subtracts generation on a 1:1 basis from 2012 baseline levels, assuming incremental NGCC generation will supplant historical fossil steam generation levels. For EE/RE, incremental avoidance/generation is added to 2012 baseline generation levels but does not reduce the 2012 generation by that increment of EE/RE, or remove the corresponding emissions. [79 FR 64552] U.S. EPA states this may fail to reflect the full potential, under the BSER, for incremental EE/RE to replace fossil steam generation. Therefore, U.S. EPA proposes the following two alternatives:

#### *Replace all Historical Fossil Generation on a Pro Rata Basis*

The state goal formula assumes a constant level of fossil generation equivalent to 2012 levels. Instead of adding incremental EE/RE to the denominator, U.S. EPA proposes to assume it directly replaces 2012 fossil generation and the corresponding emissions on a pro rata basis across all generation types. [79 FR 64552] U.S. EPA acknowledges this does not change the incremental generation levels for Building Blocks 3 and 4 but it will yield a more stringent state goal by replacing fossil steam and NGCC generation in proportion. Ohio EPA disagrees with this approach.

First, U.S. EPA acknowledges that the approach under the June 18, 2014 proposal and this alternative both replace generation. However in the June 18, 2014 proposal, new generation is replaced while under this alternative, existing generation is replaced. [79 FR 64552] Ohio EPA stresses this approach would assume generation remains constant with 2012 levels indefinitely into the future and that will not be the case. This acts to artificially lower state goals based upon a false presumption. U.S. EPA states the June 18, 2014 proposal scenario implicitly assumes *significant* increases in existing fossil generation beyond 2012 levels absent Building Block 3 and 4. [79 FR 64552 (emphasis added)] Ohio EPA disagrees with the basic premise.

Second, U.S. EPA is proposing under Building Block 2 that existing NGCC must be utilized at 70%. It is improper to then require EE/RE displace that NGCC capacity. As discussed in our comments on the June 18, 2014 proposal, U.S. EPA cannot create a system that will put owners of NGCC at risk for non-compliance and possible citizen suit because they cannot or do not operate at 70% capacity. This alternative presumes that owners of existing NGCC would be placed in that exact situation. By lowering the rate with this type of assumption, the only method states will have to meet the overly stringent state goal rate would be to decrease utilization of coal power plants even further as well as NGCC. U.S. EPA should not be discouraging the use of existing or new NGCC and this alternative will do just that. In addition, the issues Ohio EPA and other stakeholders raised with respect to stranded assets and the ability for states to consider remaining useful life will be further compounded with such an alternative.

#### *Prioritize Replacement of Historical Fossil Steam Generation*

As a second alternative, U.S. EPA proposes to first replace fossil steam generation with EE/RE below 2012 levels rather than all fossil generation on a pro rata basis. After all fossil steam generation is replaced, any remaining incremental EE/RE would replace gas turbine generation levels. [79 FR 64553] U.S. EPA cannot assume EE/RE will replace generation in a manner which U.S. EPA proposes in this alternative. Ohio EPA cannot even contemplate the method in which compliance with such a requirement would be accomplished and U.S. EPA has offered no information regarding how it would be implemented in a plan. U.S. EPA is attempting to control the electricity generation system in a manner that will lead to severe reliability issues. We reiterate our comments on the June 18, 2014 proposal regarding the need for a diversified and reliable generation system. While theoretically this may appear to have merit, practically this approach cannot work. U.S. EPA cannot have evaluated the ramifications of such an irrational alternative. We also reiterate, as expanded above, U.S. EPA cannot propose such an alternative when Building Block 2 relies on NGCC to be utilized at 70%. Further, stranded assets and the ability for states to consider remaining useful life will be even further compounded under this proposal as it appears in some cases, all coal-fired generation will become obsolete quickly under this proposal.

U.S. EPA's language detailing these alternate EE/RE approaches, wherein higher intensity generation would be displaced by incremental RE and EE generation or demand reduction, is incredibly vague. [79 FR 64552-64553] Based on this vague language, Ohio EPA was able to assemble at least four separate alternative goal-setting scenarios based on particular interpretations of this language. Depending on the interpretation, state goals in Ohio ranged from situations similar to the June 2014 proposal, to situations in which all fossil fuel-fired generation in the state of Ohio was eliminated by 2026. This truly draconian proposal is not practical and U.S. EPA cannot

possibly demonstrate that this concept is feasible. Such results clearly call for more detailed language regarding these alternate approaches, accompanied by detailed calculations from U.S. EPA demonstrating how these alternate goals might be applied in each state. Absent that, the language provided is far too vague for Ohio EPA to make meaningful comment, except to point out the impracticality of meeting the goal.

U.S. EPA believes that states have the power, authority, and knowledge to dictate which fossil fuel plants should shut down in accordance with a certain schedule when certain amounts of EE/RE come on-line. Ohio does not have that authority and the CAA does not provide for it. U.S. EPA must recognize that other federal statutes such as the Federal Power Act control electric generation and U.S. EPA has not been granted the authority to nullify those federal requirements through Section 111(d) of the CAA.

U.S. EPA readily admits that certain elements proposed in the NODA could alter the stringency of the BSER. [79 FR 64544] Ohio EPA contends that proposed approaches that could (and from Ohio EPA's analysis do) potentially impact the final BSER goal for each state must undergo the same treatment given the BSER put forth in the June 2014 proposal. This would include, but not be limited to, technical support documents detailing how each state could apply these alternatives, additional parsed IPM results enabling states to understand the unit-by-unit impact of these alternatives, revised regulatory impact analyses, substantial demonstration of the technical and economic feasibility of these alternatives as part of BSER, and a complete and transparent demonstration of how renewable generation and EE measures can displace large amounts of base-load fossil generation on a relatively short time frame without impacting the reliability of power grid. Absent this, Ohio EPA contends that the additional approaches put forth in the NODA represent only vague and nebulous concepts that have not been fully developed and analyzed by U.S. EPA. The burden of analyzing these vague and poorly developed alternatives should not be shouldered by the states; a burden which is exacerbated given the paucity of supporting data and technical information provided by U.S. EPA. Going forward on these concepts does not provide the adequate statement of basis as required by the APA.

#### *Alternatives to the 2012 Data Year*

U.S. EPA acknowledges stakeholder concerns regarding the use of the 2012 base year or the use of a single year for goal computation. [79 FR 64553] Further, stakeholders, including Ohio EPA, identified anomalies with generation in their state or at their companies for 2012. [79 FR 64548] Therefore, U.S. EPA has provided eGRID data for 2010 and 2011 and is requesting comment on whether a different single data year or average of a combination of years should be used. U.S. EPA is also seeking comment on whether a state-specific year or set of years is warranted. Ohio EPA raised several concerns regarding the 2012 base year for goal computation in our comments on the June 18, 2014 proposal. Ohio EPA does not believe, given the scope of this proposal, there is a one-size-fits-all base year that would be appropriate for all states.

Furthermore, Ohio EPA believes U.S. EPA's simplified approach to determining an appropriate base year that applies to all building blocks raises issues. A proposal of this magnitude warrants significant analysis by individual states to determine the appropriate base line for each individual building block given their individual state characteristics for generation, changes in diversity of the fleet, RPS programs, EE programs, etc. If U.S. EPA moves forward with this illegal proposal, in the spirit of "flexibility," U.S. EPA must find a more workable method to engage states in determining appropriate baselines to mitigate the impracticality of this proposal.

In closing, it is apparent U.S. EPA is trying to micro-manage the electricity generating system through states and has taken it to such a minute detail under this NODA that the serious reliability concerns from the June 28, 2014 proposal become more evident. U.S. EPA is willing to consider even more dramatic closures of the electric generation capacity without even conducting a reliability analysis of the consequences. U.S. EPA is not the overseer of the electric grid, this function was never envisioned by the CAA, and the concept should be abandoned. Additionally, as part of this NODA, U.S. EPA is providing insufficient additional "data" for states to be able to provide meaningful comments on the alternatives to the June 18, 2014 proposal, let alone any analysis of feasibility or costs. If U.S. EPA is to consider finalizing any of these alternatives as part of the Section 111(d) requirements, U.S. EPA must provide states with a full proposal with all supporting data, analysis, legal support, and adjusted goals so that states may provide meaningful comments.

## **Attachment 2: Ohio EPA Comments on November 13, 2014 NODA and Technical Support Document**

On November 13, 2014, U.S. EPA provided a Notice of Data Availability (NODA) regarding the June 18, 2014 proposal for regulation of carbon dioxide (CO<sub>2</sub>) from existing EGU sources under Section 111(d). [79 FR 67406] While some of our comments on the June 18, 2014 proposal already address concerns identified in the NODA, this supplement includes comments for consideration on the approaches for translating the emission rate-based CO<sub>2</sub> goals to an equivalent mass-based metric as presented in this notice, and accompanying technical support document<sup>1</sup> (TSD), specifically. Ohio EPA expects U.S. EPA will consider all of Ohio EPA's comments on all of the proposals together as Ohio EPA believes the concerns we have raised apply equally.

Nothing in the following comments should be taken by U.S. EPA that Ohio EPA in any way agrees that U.S. EPA has any authority under Section 111(d) to regulate CO<sub>2</sub> from existing electric generating units (EGU).

U.S. EPA acknowledges in this NODA that states have emphasized the importance of having more information and clarity on how the proposed rate-based goals could be translated to a mass-based equivalent metric and that some states have even requested a presumptive mass-based equivalent for the specific states be provided by U.S. EPA. [79 FR 67407] Ohio EPA is discouraged that U.S. EPA has provided an additional proposal on such an important element of Clean Power Plan with less than 2-1/2 weeks left in the comment period to prepare additional comments. In combination with the June 18, 2014 proposal and the October 30, 2014 NODA, there is just not enough time to thoroughly explore all of the ramifications of these proposals and engage in discussions with U.S. EPA to obtain additional clarification regarding the mass-based approach in this NODA. Regardless, Ohio EPA conducted as complete a review of this new information as possible in this narrow timeframe.

U.S. EPA is statutorily required to provide adequate notice and opportunity to comment under the Administrative Procedures Act (APA) and the Clean Air Act (CAA). 5 U.S.C. 553(b) and (c); CAA Section 307(d)(3) More specific than the APA's general notice and comment provisions, the CAA requires that a notice of proposed rulemaking be published in the Federal Register with a "statement of basis and purpose" that summarizes: "(A) the factual data on which the proposed rule is based; (B) the methodology used in obtaining the data and in analyzing the data; and (C) the major legal interpretations and policy considerations underlying the rule." CAA Section 307(d); see *Union Oil v. EPA*, 821 F.2d 678, 681-82 (D.C. Cir. 1987)

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<sup>1</sup> Translation of the Clean Power Plan Emission Rate-Based CO<sub>2</sub> Goals to Mass-Based Equivalents, November 2014, U.S. EPA

Public comment on the statement of basis and purpose is guaranteed under the APA: “After notice required by [5 U.S.C. 553], the agency shall give interested persons an opportunity to participate in the rule making through the submission of written data, views, or arguments with or without the opportunity for oral presentation.” CAA Section 307(d)(1) requires that the public comment period be specified in the federal register notice. If U.S. EPA fails to provide an opportunity for “meaningful” public comment prior to promulgation of the rule, “both the structure and spirit of section 307 would have been violated. The Congressional drafters, after all, intended to provide ‘thorough and careful procedural safeguards . . . (to) insure an effective opportunity for public participation in the rulemaking process.’” *Sierra Club v. Costle*, 657 F.2d 298, 398 (D.C. Cir. 1981) (citations omitted)

The notice and comment procedures place a premium on transparency, participation of interested parties, and fairness in a deliberative process designed to advance the public interest. *Int’l Union, United Mine Workers of Am. v. Mine Safety & Health Admin.*, 407 F.3d 1250, 1259-60 (D.C. Cir. 2005). Adequate notice and a meaningful opportunity to comment are imperative values in rulemaking premised on the “assumption that notice and comment rulemaking, by virtue of its accessibility to public scrutiny, will achieve rational results.” *Small Refiner Lead Phase-Down Task Force v. EPA*, 705 F.2d 506, 547 (D.C. Cir. 1983) (citations omitted) Ohio and other stakeholders have been regularly asking U.S. EPA for more information on the rate to mass-based conversion ever since the proposal was published on June 18, 2014 but this NODA only came out on November 13, 2014. By requesting additional public comment, on such an important feature of the overall 111(d) proposal so close to the comment due date U.S. EPA violates the “structure and spirit of section 307” and the fundamental principles underlying notice and comment rulemaking.

Ohio EPA, among other interested parties, requested clarification on the rate-to-mass conversion process in response to the vague and inadequately developed guidance provided by U.S. EPA in the “Projecting EGU CO<sub>2</sub> Emission Performance in State Plans” TSD which was released with the June 18, 2014 proposal. The aforementioned TSD described a methodology in which states would develop various reference and future projection scenarios, accounting for load growth, transmission expansion, fuel supply and delivery, among other variables. Many questions were left unanswered, such as how states could account for and credit pending unit retirements, what would be considered an adequate load-growth model, and what would the reporting requirements be under a mass-based goal. U.S. EPA, in the name of flexibility, unencumbered itself of the responsibility of providing firm guidance that would enable states to adequately assess the pros and cons of a mass-based compliance path, and instead placed the burden of developing a mass-based conversion on the states.

U.S. EPA is now soliciting comment on two additional approaches for determining a mass-based equivalent metric. [79 FR 67408] First, U.S. EPA is proposing an approach based on historical data that produces a mass-based equivalent that applies to existing affected EGUs only. This option simply assumes that the proposed rule will reduce generation demand via elements of the proposed best system of emission reduction

(BSER), and that a mass-based goal can be obtained simply by the multiplication of the rate-based goal by this new, reduced generation value. Second, U.S. EPA is proposing an approach based on a combination of historical data and a projection of future electric demand that produces a mass-based equivalent that is inclusive of new fossil fuel-fired sources. This second approach takes into consideration U.S. EPA's proposal of an option for state plans to include an approach where new fossil fuel-fired sources are incorporated as a component. However, even this method falls far short of the sophistication and level of detail put forth in the original proposal.

Neither option presented in the recently released TSD sufficiently addressed stakeholder questions. Indeed, the recent rate-to-mass TSD bears little resemblance to, nor sheds any new light on, the proposed scenario-based approach in the June 18, 2014 TSD. There is no guidance on the development of the various projection and reference scenarios, a complete lack of accounting for pending shutdowns (including a fair methodology to credit them), and no recommendations as to the appropriate tools to develop long-term projections of generation. Ohio EPA believes that, given the far-reaching impacts of the proposed rule, the burden falls on U.S. EPA to fully develop a rate-to-mass conversion methodology along with supporting information that demonstrates the feasibility and legality of such an approach. Further, U.S. EPA must demonstrate that grid reliability will be maintained whether a state chooses a rate-based or mass-based compliance plan, which U.S. EPA has failed to do.

U.S. EPA acknowledges these are illustrative examples, the mass-based emission limits presented in the TSD are not required to be met, other methods may also be appropriate, and the metric for compliance is independent from the approaches that implementing authorities may adopt to achieve them (e.g., a mass-based program can achieve a rate-based goal). However, U.S. EPA acknowledges the data, assumptions and methodological choices used for estimation of generation by affected entities are of central importance for translation to a mass-based metric; uncertainties about future demand, the future inventory of EGUs, and the relative amounts of generation among EGUs in light of, for example, fuel costs can influence the translation to a mass-based equivalent.

In the accompanying TSD, U.S. EPA provides an overview of the basic concepts that apply to these approaches. Ohio EPA is providing the following comments on these concepts.

### **Quantifying a Generation Level for Existing Affected Sources**

First, a level of generation for use in the translation is established, recognizing that the deployment of the BSER measures (such as energy efficiency (EE), renewable energy (RE), and new nuclear capacity) will reduce generation from affected fossil fuel-fired sources. [TSD, Page 3] Continued operation of existing RE and at-risk nuclear are not assumed to affect historical generation levels. [TSD, Page 5] Both approaches include generation from whatever set of CO<sub>2</sub> emitting sources are covered under the mass

equivalent and BSER is applied to generation from the historical affected fossil fuel-fired fleet, rather than to a projection of the future of the affected fossil-fuel-fired fleet. [TSD, Page 4]

Essentially, U.S. EPA describes a calculation procedure that sums 2012 fossil generation (coal, natural gas combined cycled (NGCC), under construction NGCC, oil/gas steam and other), then subtracts from that the generation expected in 2029 from RE, EE and under construction nuclear, and then adds to that total 2029 generation from Building Block 3 (RE, nuclear) and Building Block 4 (EE). [TSD, Page 5, 6] This approach does not account for growth of any kind (with the exception of U.S. EPA's overly ambitious RE and EE mandates). It is apparent that this approach ignores the multitude of projections by experts in the field, including the Energy Information Administration (EIA), the North American Electric Reliability Corporation (NERC), and the various Regional Transmission Organizations (RTO); electricity demand will increase, and generation will necessarily increase to meet this growing demand. This TSD suggests that U.S. EPA is placing a limit on generation. Indeed, the document itself states, "the first concept is to recognize that the deployment of BSER measures will reduce generation from affected fossil fuel fired sources." U.S. EPA cannot legally limit electricity generation and usage under a Section 111(d) regulation.

U.S. EPA, Ohio EPA, nor any other entity has the authority to limit generation. It is naïve to believe that demand will not be met with additional generation. Furthermore, this most recent TSD would seem to suggest that the reductions in generation envisioned by U.S. EPA under the proposed rule will occur even if states choose a mass-based compliance approach. This is simply not the case; Ohio EPA firmly believes that any state choosing a mass-based compliance approach would do so to avoid implementing costly and technically unreasonable EE measures and exposing electricity rate payers to ever-increasing costs as a result. By assuming that demand reductions will occur via certain components of U.S. EPA's proposed BSER, all flexibility that might be afforded under a mass-based compliance approach is eliminated.

### **Quantifying a Generation Level for Existing Affected and New Fossil Fuel-Fired Sources**

Under this approach, it is assumed new sources contribute an amount of incremental generation that is equivalent to projected demand growth. [TSD, Page 6] Note that it is assumed under both approaches that incremental resources under Building Blocks 3 and 4 replace historical generation from affected fossil fuel-fired sources so those incremental resources are unavailable to meet new demand. To calculate future demand, U.S. EPA uses the EIA 2013 Annual Energy Outlook (AEO2013) growth rates based on regional demand projections. [TSD, Page 6] U.S. EPA calculates projected sales for future years by multiplying 2012 historical sales by the regional annual growth rate for that year. Projected sales are then converted to incremental generation, giving consideration to under construction NGCC and transmission losses. [TSD, Page 6] This

generation is then added to the generation level for existing affected sources quantified as discussed above. While Ohio EPA believes that accounting for demand growth will be a critical factor in developing mass-based compliance approaches, this co-proposed approach is flawed. Ohio EPA does not agree with the application of regional average growth rates. As expressed multiple times throughout Ohio EPA's comments on the June 18, 2014 proposal, U.S. EPA must allow states the flexibility to determine their individual state's potential growth. Furthermore, U.S. EPA must include the flexibility for states to alter their goals if circumstances warrant.

### **Establishing Mass-Based Equivalents**

The final mass-based goal is computed by multiplying the rate-based goal by the mass equivalent generation calculated as discussed above for each of the two approaches. Under the first approach (existing EGUs only), Ohio's illustrative mass-based goals (in thousand metric tons) are 74,614 (interim) and 68,751 (final). [TSD, Page 14] Under the second approach (existing EGUs and future demand), Ohio's illustrative mass-based goals (in thousand metric tons) are 79,112 (interim) and 75,116 (final). [TSD, Page 16]

Ohio EPA analyzed both methodologies proposed by U.S. EPA. Ohio EPA contends that both approaches are flawed, first and foremost, by the reliance of setting mass-based targets using CO<sub>2</sub> intensity goals from the June 18, 2014 proposal. As detailed in Ohio EPA's comments on the June 18, 2014 proposal, those CO<sub>2</sub> intensity goals were derived using flawed datasets, incorrect capacity data, unreasonable regional averaging in the development of RE and EE goals, amongst other errors and flawed assumptions. These concerns overlay and exacerbate any and all other issues identified with U.S. EPA's rate-to-mass conversion methodologies.

Ohio EPA's primary concern with the first methodology is the static nature of fossil generation coupled with the annually decreasing intensity targets. Under this approach, states would still need to implement demand-side EE measures and other components of U.S. EPA's BSER to achieve the interim and final goals. Thus, states would gain almost no flexibility in choosing a mass-based compliance plan following this methodology. Ohio EPA also identified that under-construction natural gas generation was included in U.S. EPA's calculations, but dispatched at a 55% capacity factor. This is markedly different than the approach taken under the original rate-based methodology, wherein under-construction NGCC units were dispatch at 70% capacity factor; 15% as re-dispatched NGCC, and 55% as "other" generation. This would imply that U.S. EPA's mass target under this approach is not equivalent to a comparable rate-based target. Additionally, Ohio EPA notes that U.S. EPA accounted for existing 2012 renewable generation, but did not do so for existing 2012 EE measures. This was not described in U.S. EPA's most recent TSD. Ohio EPA can only speculate that existing EE measures were not accounted for in U.S. EPA's calculations due to the significant difficulty in measuring and verifying EE measures. It should be noted here that Ohio

EPA raises significant concerns with the multiple difficulties and obstacles encountered when accounting for EE measures in our comments on the June 18, 2014 proposal.

The second methodology proposed by U.S. EPA is similar to the first approach, but includes an incremental demand-growth factor that informs both the interim and final mass-based targets. While it is encouraging that U.S. EPA recognizes the need to account for demand growth in the development of a mass-based compliance path, Ohio EPA does not believe, as stated previously, that a regional growth-rate should be applied. Ohio EPA also identified that Ohio's 2012 MW-h sales in the TSD, 153,780,262 MW-h, is not the same value used in the original June 18, 2014 proposal. Ohio EPA could find no additional information to verify this new 2012 sales figure.

Additionally, Ohio EPA notes that the adjusted fossil generation value used as part of the second methodology suffers from the same flaws identified by Ohio EPA for the first proposed methodology. It appears from U.S. EPA's calculations that after 2030, any additional demand growth would need to be met by zero-carbon sources.

By attempting to shoehorn a laundry list of outside-the-fenceline reduction measures into a Section 111(d) proposal, U.S. EPA has irreconcilably tied CO2 emission reductions with generation. States have little to no experience projecting electricity demand far into the future. Inaccuracies in such projections will lead to decreased grid reliability, exorbitant and unnecessary costs, and unworkable state plans.

In closing, U.S. EPA has yet to provide stakeholders with a legitimate and workable approach that stakeholders can provide meaningful comment on regarding a rate-to-mass conversion. U.S. EPA must re-propose an approach that addresses stakeholder concerns and questions including the legality of the entire approach. Ohio EPA looks forward to providing additional comment on this important aspect of the proposal in the future.