



**Comments to the U.S. Environmental Protection
Agency
Repeal of Carbon Pollution Emission Guidelines for
Existing Stationary Sources; Electric Utility
Generating Units or
Repeal of the Clean Power Plan (CPP)**

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**Submitted by Large Generator Environmental
Coalition of the Florida Municipal Electric
Association
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**Comments from the Large Generator Environmental Coalition of the
Florida Municipal Electric Association (FMEA)
Repeal of Carbon Pollution Emission Guidelines for Existing Stationary Source: Electric
Utility Generating Units or Repeal of the Clean Power Plan
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Executive Summary

The Large Generator Environmental Coalition of the Florida Municipal Electric Association (hereafter FMEA) agrees with U.S. Environmental Protection Agency's (EPA) proposed action to repeal the Clean Power Plan (CPP) regulation issued in 2015 but not yet implemented due to court actions staying the rule. FMEA offers commentary on legal, policy and human health/secondary effects analysis within EPA's Regulatory Impact Analysis (RIA) that is used for policy decisions. FMEA offers these comments in response to both EPA's call for comments, originally set for December 15, 2017, and under Executive Orders on Promoting Energy Independence and Economic Growth (March 28, 2017) and Executive Order 12866¹ given the positive economic impacts in repealing the CPP.

Introduction to Florida Municipal Electric Association

The Florida Municipal Electric Association (FMEA) represents the unified interests of 34 public power communities across Florida. FMEA was established in 1942 in response to WWII fuel shortages and is now the official meeting place for Florida's public power community. Municipal electric utilities provide low-cost, reliable electric service, and have been doing so for over a century.

Together, FMEA staff and utility members work to protect public power's legislative, regulatory and operational interests, and to strengthen our common bonds for the benefit

¹ Issued September 30, 1993

of Florida's communities. These comments reflect the views of the larger electric generators within FMEA's membership.

Public power utilities play an important role in Florida's electric industry:

- Serve 15 percent of the state's population – over 3 million Floridians;
- Provide an industry-wide yardstick for efficient operation and superior service;
- Promote increased wholesale competition to lower consumer power costs, and have been at the forefront of efforts to improve wholesale transmission access;
- Are community-owned and locally managed; and
- Support local government with transfer payments, which help communities pay for fire and police protection and other important local service.

FMEA provides its members with government relations, communications and education services. The association is at the forefront of energy industry trends and advances public power utilities toward enhancing services and continually innovating in all aspects of utility operations.

Overview

We strongly support EPA's proposal to repeal the Carbon Pollution Emissions Guidelines for Existing Stationary Sources: Electric Utility Generating Units, sometimes referred to as the Existing Source Performance Standard (ESPS) or the Clean Power Plan (CPP). In 2014 comments on the proposed rule, FMEA argued that the CPP was based on a "goal" (30% reduction in CO₂ emissions from 2005 levels by 2030) not derived from any provision of the Clean Air Act (CAA); was created using a regulatory design based on authorities not contained in the CAA; was unworkable and unattainable in the timeframe provided; would compromise electric reliability; and, would cause serious negative rate impacts for our customers and the states where we operate.

The statute dictates that Section 111(d) emissions standards be designed to be cost-effective, adequately demonstrated, and achievable at each specific source or electric generating unit (EGU).² Such a standard requires source specific analysis. In

² 42 USC Section 7411(1)(a)

implementing the CPP, EPA failed to undertake this level of analysis, instead relying on national modeling, averaging of data and making assumptions of achievability that were not grounded in unit specific assessments.

In the final rule, EPA established mandatory goals in the CPP for states based on assumptions of authorities that are not granted to EPA under the law. These assumptions resulted in reductions that are far more stringent than could be imposed if EPA followed the CAA statute, which has been interpreted by both the Agency and the courts to require source specific standards confined to fossil fuel sources.

For these reasons and more, we strongly assert that the CPP would not withstand the scrutiny of the Courts and would be deemed to be illegal. It is both prudent and appropriate to withdraw the Rule. FMEA hopes that the 2015 CPP rule will be replaced, after notice and comment period consistent with the Administrative Procedure Act (APA), with a unit-based approach as is consistent with the historical and conventional version of Section 111(d). EPA should return to the regulatory process that is consistent with the historical understanding of its statutory authority. FMEA realizes that EPA's call for comments at this time solely seek commentary on the repeal and not what type of replacement or whether a replacement rulemaking process is needed.

The Clean Power Plan Was Fundamentally Legally and Operationally Flawed

FMEA supports EPA's proposal to withdraw the CPP and makes the following comments on the legal and operational flaws that justify the withdrawal. FMEA endorses the many legal arguments offered in the comments submitted by American Public Power Association (APPA) and Utility Air Regulatory Group (UARG).

Existing Unit Standards cannot be more Stringent than New Unit Standards

By going “outside the fence line” in setting mandatory state goals, EPA proposed requirements for existing units that had the effect of being more stringent than new unit

new source performance standards (NSPS), which both diverged from past practice and established a new policy with no basis in the statute or no precedent under regulatory guidance. EPA offered no justification for proposing source specific standards under Section 111(b) for new units and reconstructed and modified units but forcing states to find more significant reductions at existing units by setting a lower standard if applied only to those EGUs. Legislative and regulatory history demonstrate that Congress and the Agency's expectation and application of the law require new units to meet standards more stringent than existing units based on the feasibility of the application of the newest technologies. EPA's departure from this practice in the CPP is legally unsustainable.

EPA's Interpretation of BSER and "Outside the Fence" Regulation in the CPP was Incorrect

EPA, in setting state goals on actions outside the fence, exceeded its authority to propose standards for the states and state goals. EPA's legal authority is to provide guidance to the states so that the states can develop a state plan to meet state-established source specific standards, with the states provided great flexibility in terms of developing the means of meeting those source specific standards. EPA's decision to impose mandatory goals for the states to meet instead of providing procedural guidance to states to develop standards that the EGUs will be required to meet was contrary to the statutory design of Section 111.

Section 111 requires any regulation of emitting EGUs to be source specific. The statute requires the Administrator "shall prescribe regulations which shall establish a procedure ...under which each State shall submit to the Administrator a plan which (A) establishes standards of performance for any existing source..." EPA is not authorized under the statute to regulate "outside the fence" or to include non-emitting sources, reduced utilization, fuel switching or end use energy efficiency improvements or demand reductions as components of the Best System of Emissions Reduction (BSER). FMEA members endorse the rescission of the Legal Memorandum released in conjunction with the CPP as inconsistent with historic interpretation and unfounded by the statutory text.

EPA Lacks the Statutory Authority to Regulate Electricity Generation, Transmission or Distribution

Congress granted the authority to regulate electricity to the Federal Energy Regulatory Commission (FERC) and to the states under the Federal Power Act. EPA's statutory authorities under Title I of the CAA are limited to regulation of air pollutants. By establishing mandatory goals that presume the application of state authority over non-emitting electric generators, EPA has overstepped the bounds of the CAA and encroached upon legal authorities Congress has clearly left to FERC and the states. EPA is correct to reevaluate the CPP interpretation of its authority.

Section 111 of the Clean Air Act is Source Specific and Confined to Emitting Sources

EPA crossed the clear regulatory boundaries of the CAA in the CPP. Section 111 clearly establishes that controls under the Act are limited to those that are identifiable for the emitting source. Section 111(a)(2), defines the term "new source" to mean "any stationary source." Section 111(a)(3) describes the term "stationary source" as "any building, structure, facility, or installation *which emits or may emit any air pollutant.*" [Emphasis added]. By the plain meaning of the CAA, non-emitting facilities, such as nuclear power plants, renewable energy facilities or activities such as end-use demand reduction, are not an emitting "source" that is governed by Section 111.

EPA inappropriately interpreted a "source" to include a source's owner and operator as a source, thereby counting actions taken by the owner and operator outside the source as included in BSER. The definition of a new "source" in Section 111(a)(2) is "any stationary source." The definition of any stationary source in Section 111(a)(3) is "any building, structure, facility, or installation which emits or may emit any air pollutant." The definition of an "existing source" in Section 111(a)(6) is "any stationary source other than a new source." It is clear that a source's owner and operation is not included in the definition of a source in the statute. The Supreme Court, in its decision *UARG v. EPA*, addressed the issue of EPA seeking to interpret the statute to better fit EPA's regulatory agenda or in a manner contrary to the statute. The Court stated:

We reaffirm the core Administrative-law principle that an agency may not rewrite clear statutory terms to suit its own sense of how the statute should operate.³

The CPP expansion of EPA's jurisdiction “beyond the fence” and beyond the source clearly ignored the definitions in Section 111 that rule out this regulatory path.

The CPP included in its goals requiring states actions that were not within its statutory authority. The problems here are significant. Even FERC, which regulates interstate transmission lines and rates, does not have the authority that EPA presumed to exert by directing states to meet a state goal that could not be met through direct actions by emitting sources. Without direct Congressional authorization, EPA cannot exercise authority over state Public Utility Commissions and Public Service Commissions (PUC/PSC) or state energy offices or state energy policy. EPA does not have the authority to dictate fuel use, reduced utilization of units or re-dispatch as a compliance mechanism. The CPP cannot mandate goals that require the states to govern end use energy consumption or mandate renewable requirements. EPA’s authority is limited to authorities provided by the CAA over pollution control at source specific fossil fuel units that “may emit any air pollutant.”⁴

The CPP made CO₂ regulation the governing principle of national energy and environmental policy – something that is far outside EPA’s actual authorities under the CAA. In *UARG v. EPA*, the Supreme Court addressed this level of overreach when it stated:

When an agency claims to discover in a long-extant statute an unheralded power to regulate a significant portion of the American economy, we typically greet its announcement with a measure of skepticism. We expect Congress to speak clearly if it wishes to assign to an agency decisions of vast economic and political significance.⁵

³ *Utility Air Regulatory Group v Environmental Protection Agency, et. al.*, June 23, 2014, p. 23

⁴ 42 USC Section 7411(a)(3)

The Supreme Court further identified an EPA interpretation as unreasonable if it would “...bring about an enormous and transformative expansion of EPA’s authority without clear congressional authorization.”⁶ EPA’s attempt to expand its regulatory authority over state energy resource choices and the electric grid would, in effect, subjugate national energy policy and the electric system, from generation to end use, to EPA enforcement as well as to citizen suit enforcement under the CAA, with far reaching negative economic, cost and reliability consequences. Section 111 is considered one of the least stringent and most limited sections in the CAA and EPA’s interpretation to take regulation “beyond the fence” so as to regulate national energy policy is well outside the Agency’s legitimate CAA authority.

EPA Usurps the States’ Role in Developing State Plans

The CAA envisions a far greater role for the states in designing and implementing Section 111(d) existing unit standards than was afforded to the states by EPA in the CPP. Section 111(d)(1) directs EPA to “prescribe regulations which shall establish a *procedure* similar to that provided in Section 7410 under which each state shall submit to the Administrator a plan which a) establishes standards of performance for any existing source...”[emphasis added] EPA’s role is to establish a procedure, not a state or national goal.

The CPP went far beyond simply proposing guidance or a "procedure" for the states. To the contrary, the CPP imposed emissions performance goals that are mandatory, cannot be substantively changed during the course of the program, and required each state to develop a “federally enforceable” plan. EPA cannot enforce efficiency improvements in retail electric consumption. EPA cannot enforce renewable energy standards. EPA cannot enforce fuel switching. Yet these would be required for a state plan to be approvable under the CPP.

Consequences of Departing from Past Interpretations of Section 111 and Flaws with the Original CPP RIA

EPA has sought comment on whether the repeal of the CPP and the reinstatement of prior interpretation of existing law would prevent transformative economic consequences.⁷ In the CPP, EPA utilized several novel or newly asserted authorities that can have significant consequences for other provisions of the Act and will be problematic when passed through to the consumer. Flaws in the CPP's Regulatory Impact Assessment (RIA) understated costs of the CPP and overstated benefits.

Cost Analysis

The traditional methodology used for an existing source standard (ESPS) is to conduct a bottom-up analysis to determine what emissions reductions are “achievable” and “adequately demonstrated” at the source at affordable costs for existing units throughout the country. For the CPP, EPA inappropriately analyzed costs at the national level, and the regional level for renewable energy, and not for what is affordable and achievable at the source. EPA's application of “outside the fence” BSER to the state programs has opened the door to unnecessarily high cost upgrades, plant closings and, in the case of many states, a generally unworkable approach to regulation that is far from Congressional intent concerning Section 111(d) units. The reduction goals in the CPP appeared to be the result of pre-determined Presidential GHG reductions goals, not the product of a bottom-up source specific economic and technical analysis as required by Section 111. National cost analysis ignores local impacts creating the opportunity for significant arbitrary localized outcomes that cannot be sustained as a matter of Administrative law.

The Social Cost of Carbon is Used to Justify the Costs of the CCP

EPA used the Social Cost of Carbon (SCC) to justify the CPP despite warnings by the Interagency Working Group (IWG) that reliance on the metric should be undertaken with caution. The IWG warned EPA of this concern, stating:

⁷ Fed. Reg., Vol. 82, No. 198, p. 48042, Column 2.

When attempting to assess the incremental economic impacts of carbon dioxide emissions... any effort to quantify and monetize the harms associated with climate change will raise serious questions of science, economics, and ethics and should be viewed as provisional.⁸

The IWG was clear that using the SCC would be considered as appropriate when calculating marginal impacts that have "small, or marginal, impacts"⁹ but for actions with large CO₂ impacts, there is a "question as to whether the SCC is an appropriate tool for calculating the benefits of reduced emissions." Even Resources for the Future has expressed doubt about how the SCC should be applied stating that "application of this tool can be problematic to achieving optimum outcomes for society."¹⁰ Further legal analysis suggests the underlying assumptions that make up the SCC and the underlying models that were used to develop the CPP are so full of "arbitrarily chosen damage functions... [that] the IWG relies on too many unwarranted assumptions and cannot be relied on."¹¹

In other words, as with any economic model, the outcome is only as reliable as the input. The IWG made a number of assumptions that are questionable and worthy of a broader policy review inclusive of public participation and public comment prior to finalization and application in the regulatory development process:

- **300 Year Timeframe:** The IWG estimated benefits of reductions hundreds of years into the future, well beyond any reasonably predictable time horizon. Any rational assessment of future climate activity must ascribe an increasingly discounted view of future economic harm as the level of uncertainty regarding the probable outcome becomes correspondingly uncertain.
- **Discount Rate:** In violation of the Information Quality Act (IQA) October 2002 OMB Bulletin, the IWG failed to run (or report) discount analysis using OMB guidelines, instead choosing to inflate estimated benefits by using a lower discount rate for calculations. The IWG has the flexibility to run modelling at whatever rate it chooses so long as the models include both 3% and 7%. The failure to run a 7% analysis has the consequence of skewing the average SCC to a far higher level than if OMB policy were correctly followed.

⁸ Technical Support Document: Social Cost of Carbon for Regulatory Impact Analysis Under Executive Order 12866, Interagency Work Group, pg. 2

⁹ Id at 2

¹⁰ Resources for the Future, *More than Meets the Eye. The Social Cost of Carbon in U.S. Climate Policy in Plain English*, p. 1. June 2013 Ruth Greenspan Bell and Dianne Callen

¹¹ California Law Review, *Climate Regulation and the Limits of Cost-Benefit Analysis*, Maser & Posner, Vol. 99 at 1598

- **International Benefits:** The IWG chose to model the global benefits of GHG reductions and then to assign those benefits to U.S. reductions. The inclusion of costs of international harm is unprecedented and illegal. Administration authority to regulate international action or regulate for the international community is non-existent. By choosing to include international benefits the IWG has mixed apples with oranges in the development of an appropriate SCC.
- **Emissions Exports:** The IWG fails to account for the export of emissions; as one country's efforts to reduce GHG emissions makes manufacturing more expensive, the economic activity shifts to other countries that have less rigorous environmental standards resulting in a net increase in emissions.
- **Benefits from GHG Emissions:** The IWG failed to account for various direct benefits such as increased growing seasons in some regions as well as indirect benefits arising from the positive attributes of GHG producing activities. Lower energy costs allow more individuals to access services that might otherwise be unavailable due to the increased cost of compliance with carbon reductions.
- **Averaging Model Results:** The IWG provides an estimated benefit that fails to capture model uncertainty. For example, a \$43/ton average benefit in 2020 is ascribed to model outcomes that range from \$-22/ton (i.e. \$22 in societal cost) to \$727 in benefits. The variability associated with model run outcomes is sufficiently significant that an informed analytical evaluation would conclude that determining a single number for the purpose of developing regulations is unwarranted, unwise and imprudent.

Counting Co-benefits below the NAAQS

The EPA estimated health co-benefits are based almost entirely (more than 97%) on reducing PM_{2.5} emissions. EPA acknowledged in the CPP RIA that it assumes benefits occur below the National Ambient Air Quality Standard (NAAQS) in the same manner as above the NAAQS, including counting benefits down to zero. However, since the average PM_{2.5} levels in the United States are 25% below NAAQS, there should be no health benefits due to reduced ambient levels of PM_{2.5} when conducting national analysis. States that are not attaining PM_{2.5} NAAQS are already required (independent of the CO₂ proposal) to attain health-based NAAQS in a timely manner. Also, health-based NAAQS are established by statute with a margin of safety and EPA will continue to regulate PM_{2.5} when updating NAAQS. These factors raised serious doubts about EPA's claimed monetized benefits of tens of billions of dollars annually. EPA must come up with a reasonable way to assess co-benefits. A starting point would be to conclude that it is inappropriate to account for health benefits of reductions below the NAAQS as the NAAQS is already set to protect human health with an adequate safety margin.

Stranding Assets at the Consumer Owned- Electric Utilities

The CPP put in place a policy which, prior to the stay issued by the Supreme Court, could easily create substantial stranded assets by requiring electric utilities that could not meet the CPP emission reduction obligation to close regardless of age and realistic remaining useful life. Regardless of assertions to the contrary of maximum flexibility in the final rule, an EGU owner that could not make reductions at the plant would be forced to seek alternative electric suppliers, putting in place a fatal economic situation that would require premature closure of existing, economically viable plants in a manner inconsistent with the statute. Further, it is not clear that the stranding of assets would be focused only upon coal-fired generation equipment and investments. Natural gas-fired generation with higher CO₂ emissions than newer, more efficient natural-gas fired generation might be stranded in the future as the older gas units age and lose efficiency in the combined cycle. Stranded assets, whether on coal plants, natural gas fired power plants or other types of generation, would be paid for by the consumer—the local citizens within those communities. **Public power or community owned power plants do not provide profits to shareholders. Further, economic losses at the power plants where premature retirements or stranded assets occur means that more stresses are placed on local fire, police and other government services where the electric utility's Payment in Lieu of Taxes (PILOT) is reduced.** FMEA reminds EPA that this is an impact to be considered under Executive Order 12866. Further, FMEA asks that these comments also be considered in the context of the Trump Executive Order Promoting Energy Independence and Economic Growth (issued March 28, 2017).

Increased Transparency in the Regulatory Impact Analysis Process

FMEA supports EPA's increased transparency in the Regulatory Impact Analysis (RIA) for the CPP repeal rule. However, additional steps are necessary to assure public confidence in the rulemaking process. As consumer-owned or public power utilities, FMEA utilities are committed to operate generating facilities in compliance with all rules and regulations while still providing reliable and economic power to our customers, who are also the citizens of our communities. There are several areas that increased transparency in the RIA process is warranted and necessary.

PM_{2.5} Health Impacts and Need for a Speciated NAAQS

EPA has made monetized estimates of positive health benefits when reducing particulate matter (PM)_{2.5} ambient concentrations for three scenarios in the RIA for the CPP Repeal Rule: reducing ambient PM_{2.5} concentrations to zero; reducing ambient PM_{2.5} concentrations to the range of past health studies; and reducing PM_{2.5} to the current NAAQS. Monetized benefit differences in the three scenarios are significant and do add to the transparency for calculating monetizing benefits. However, over the last 15 to 20 years health studies in the United States, Europe and Asia have repeatedly shown that all PM_{2.5} particles do not have the same health impacts on people. These studies all reach the conclusion that certain species of PM_{2.5} cause the majority of the health impacts on people. This fact was well enough established that on February 7, 2005, the EPA Office of Inspector General issued an evaluation report that noted:

Current NAAQS for PM are supported by findings from epidemiological studies that have demonstrated associations between ambient PM mass measurements and observed health impacts. As a result, the current PM NAAQS uses particle mass as the indicator for the standard. However, there are questions about the relative toxicity of various PM species and PM from various sources, as well as whether a NAAQS that is based on a metric other than mass is needed.¹²

EPA's response to the Inspector General's report made by Jeff Holmstead, former Assistant Administrator for Air Programs indicates that EPA understood the importance of speciation in addressing risk from PM:

We can identify the major sources (power plants, cars, etc.) and address a big part of the PM problem, but once again the question is, are they the right sources to reduce the risk from PM? This leads to the need for speciation data to improve our understanding of the relative toxicity (and resulting risk) from various PM sources.¹³

In their 2004 "Research Priorities for Airborne Particulate Matter" the National Research Council noted:

The current NAAQS for PM is both size and mass and implicitly assumes that all particles of a given size have the same toxicity per unit mass, irrespective of chemical composition. In the committee's judgment, this

¹² EPA Office of Inspector General, Evaluation Report No. 2005 P> 0004, Feb. 7, 2005.

¹³ Ibid

mass-based NAAQS greatly oversimplifies complex biological phenomena... A better understanding of the characteristics that modulate toxicity could lead to targeted control strategies specially addressing those sources having the significant adverse effects on public health...

Research to date has provided some new insights concerning particle characteristics and toxicity. For example, as discussed in Chapter 3, there are studies suggesting that health impacts of sulfate per se may not be proportional to their contribution to PM mass. From the regulatory point of view, that is an important finding, because ammonium sulfate represents a significant fraction of PM, especially in the eastern United States, where it is the dominant component of secondary PM_{2.5} and is largely attributed to a small range of source types (for example coal combustion).¹⁴

There is serious concern that the current form of the PM_{2.5} NAAQS without incorporating the relative toxicity of the various species will continue a PM_{2.5} standard that may not provide the advertised health improvements. **Several peer reviewed published papers in “Inhalation Toxicology” confirm that as little as 2% (primarily "heavy" metal sulfates) of ambient PM_{2.5} in the Northeast is responsible for the majority of measured health impacts while 65% (secondary inorganic sulfates) had minimal health impact.**¹⁵

EPA’s continued assumption that the health-based benefits of the PM_{2.5} NAAQS is a direct function of PM_{2.5} mass ambient air levels may provide significantly erroneous estimates of monetized health benefits. As noted in the referenced peer reviewed studies above, a relatively small fraction of certain PM_{2.5} species can account for the preponderance of human health effects including exposure related human mortality. However, EPA assumes that PM_{2.5} mass concentrations are directly responsible for premature human deaths without regard to PM_{2.5} composition. **Since EPA attributes over 90% of its monetized health benefits to the reduction of premature deaths from**

¹⁴ National Research Council. Research priorities for airborne particulate matter: IV: Continuing research progress, 2004, Washington, DC: National Academy Press.

¹⁵ Maciejczyk, P., and Chen, L.C. 2005 Effects of Subchronic Exposures to Concentrated Ambient Particles (CAPs) in Mice: VIII. Source-Related Daily Variations in In Vitro Responses to CAPs. *Inhalation Toxicology*. 17:243-253; and Lippmann M., Gordon T., and Chen, L.C. 2005 Effects of Subchronic Exposures to Concentrated Ambient Particles in Mice: IX. Integral Assessment and Human Health Implications of sub chronic Exposures of Mice to CAPs. *Inhalation Toxicology*, 17: 255-261.

a lowering of PM_{2.5} mass, great uncertainty exists with EPA's projected monetized health benefits.

It is recommended that EPA initiate a causality determination as part of an Integrated Science Assessment for the major constituents of PM_{2.5} that have been identified by EPA's speciated PM_{2.5} monitoring network. Special emphasis should be given to constituents that have been identified as having high toxicity potential. While creating a speciated PM_{2.5} NAAQS will be more complicated than the current PM_{2.5} mass NAAQS, the public cannot be confident in the protection of their health and welfare without a speciated PM_{2.5} NAAQS.

Monetizing Premature Deaths Avoided

EPA has stated that well over 90% of the benefits of the CPP of 2015 were directly attributed to Premature Deaths Avoided (PDA) from lowering PM_{2.5} ambient levels. To increase transparency EPA should explain its calculation of a \$9.8 million value for a PDA that calculates the Value of Statistical Life (VSL) by using a Willingness to Pay (WTP) methodology. In addition, those values should be compared to other methodologies for evaluating a PDA such as the Human Life Value (HLV) method which produces a significantly lower value for a PDA.¹⁶ EPA should also calculate its PDA based on the actual time that a premature death is avoided. Previously the EPA inspector general recommended that EPA employ the Value of a Statistical Life year (VSLY) to better reflect the actual monetized value that would accrue with the reduction of ambient PM_{2.5} levels

Social Cost of Carbon

As mentioned earlier in our comments, we support EPA's use of a domestic SCC for monetizing the benefits of the CPP. However, we believe additional transparency is required to fully inform the public as to the assumptions used in developing a monetized value of the SCC. Specifically, the value of the SCC is dependent on climate models

¹⁶ For example, HVL methodology would value a forty-year extension of life for a person earning \$53,000 a year (Average USA annual income) at \$1,700,000. <http://www.insuranceqna.com/calculators/human-life-value.html>

utilizing certain assumptions related to equilibrium climate sensitivity (ECS).¹⁷ In its latest Assessment Review (AR – 5) the United Nations International Panel on Climate Change (UNIPCC) estimated a range for ECS from 1.5°C to 4.5°C¹⁸. It is noted that this range of ECSs encompasses slightly above the natural rate of climate change with minor anthropogenic climate impacts to very significant anthropogenic climate impacts. EPA should develop a range of SCC values based on the IPCC range of ECSs (1.5°C to 4.5°C) along with their best estimate.

We believe that these three areas of increased transparency in the RIA process will allow utilities and regulators to more confidently inform our customers of the environmental benefits that will accrue from new environmental requirements and related increased electricity costs to those customers.

Conclusion

In finalizing the CPP, EPA proposed a legally vulnerable, massive expansion of CAA authority that gave it purview over energy decisions and energy markets in a manner contrary to the statute and inconsistent with existing EPA regulatory guidance and prior statutory interpretations. EPA’s accelerated timeframe and ambitious goals set forth in the CPP put at risk the reliability of the electric grid and affordability of electric power. The decision to rescind the CPP and to issue an Advanced Notice of Proposed Rulemaking to consider alternative paths forward is not only prudent but legally necessary. FMEA looks forward to working with EPA to determine the wisest way to replace the Clean Power Plan with a unit or “within the fence line” regulation that considers many important factors unique to Florida’s electric generators.

¹⁷ The Equilibrium Climate Sensitivity (ECS) is an estimate of the impact on global temperature with a doubling of ambient CO₂ concentrations by the year 2100. The greater the ECS, the greater the climate impact.

¹⁸ As estimated by the IPCC Fifth Assessment Report (AR5) "there is *high confidence* that ECS is *extremely unlikely* less than 1°C and *medium confidence* that the ECS is *likely* between 1.5°C and 4.5°C and *very unlikely* greater than 6°C." see <https://www.ipcc.ch/report/ar5/> This is a change from the [IPCC Fourth Assessment Report \(AR4\)](https://www.ipcc.ch/report/ar4/), which said it was "*likely to be in the range 2 to 4.5 °C with a best estimate of about 3 °C, and is very unlikely to be less than 1.5 °C. Values substantially higher than 4.5 °C cannot be excluded, but agreement of models with observations is not as good for those values*" see <https://www.ipcc.ch/report/ar4/>

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