

**Pennsylvania Department of Environmental Protection**

**Listening Session on U.S. EPA's Clean Power Plan**

**Clean Air Act Section 111(d)**

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Thank you for the opportunity to offer FirstEnergy's perspective on the U.S. Environmental Protection Agency's (EPA's) proposed Clean Power Plan rule. My name is Ray Evans, and I am the vice president, Environmental and Technologies at FirstEnergy. FirstEnergy is a diversified energy company dedicated to safety, reliability and operational excellence. FirstEnergy includes one of the nation's largest investor-owned electric systems. Our diverse generating fleet has a capacity of nearly 18,000 megawatts from non-emitting nuclear, scrubbed coal, natural gas and renewables. With nearly 500 megawatts of wind power under long-term contracts, the company is one of the largest providers of renewable energy in the region.

FirstEnergy has demonstrated a longstanding commitment to investments that keep our plants in compliance with environmental laws and regulations, spending \$10 billion in equipment upgrades since the Clean Air Act was passed in 1970. FirstEnergy expects to have reduced our fleet's carbon dioxide (CO<sub>2</sub>) emissions 25 percent below 2005 levels by 2015. However, due to the way EPA's proposed Clean Power Plan is written, it is unclear what, if any, credit we will receive for those reductions.

As you know, EPA published its proposed Clean Power Plan rule on June 18 of this year, with comments now due on December 1. Unlike previous rules that sought to reduce emissions from existing power plants through requirements at the plant, EPA is now seeking to re-engineer the entire energy system of individual states. The proposed rule requirements will not simply reduce emissions, but will restructure how we generate, dispatch and use electricity. EPA established each proposed state goal by determining the "best system of emission reduction" (BSER) for the state. Specifically, EPA established four "building blocks" and applied these

building blocks to calculate each state's target emission rate based on 2012 actual data.

As currently written, the proposed rule has generated a number of unanswered questions on issues that have serious national implications for the future of energy reliability and affordability. Today I will share with you some of FirstEnergy's questions and concerns regarding the scope of EPA's regulatory authority, the implementation timeframe set forth in the proposed rule, EPA's methodology for emission rate calculations, and how non-emitting nuclear generation will be counted towards meeting state emissions goals.

The most important unanswered question is the extent of EPA's authority under the Clean Air Act. While there is little doubt that EPA has authority to regulate the source of air pollutants, there are important questions regarding EPA's regulatory authority over three of the four building blocks in its proposed regulation. These building blocks fall primarily under the jurisdiction of individual states, the Federal Energy Regulatory Commission (FERC) – through the Regional Transmission Organization, and the Nuclear Regulatory Commission (NRC).

In fact, EPA has clearly stated that it currently has no authority to enforce any existing renewable portfolio standards, energy efficiency requirements or dispatch orders. Therefore, if a state includes these building blocks in its state plan, is the state essentially creating and transferring enforcement authority to EPA? In cases where EPA is required to create a federal implementation plan for a state, under what authority can it develop, implement and enforce a plan that is comprehensive enough to meet its own proposed compliance goals? EPA has not yet provided a clear answer to these questions.

The implementation timeframe of this rule also presents a number of questions and concerns. Under the proposed rule, each state will have one year to develop and submit a plan that effectively re-engineers its energy system. It is important to note that any state plan that meets EPA's rule will likely require the state legislature to pass new laws authorizing aspects of the plan that exceed the state's current regulatory authority. It is unrealistic to require a state to develop a plan to overhaul its entire energy system – and pass new laws authorizing that plan – within one year. Even if the state applies for and receives a one-year extension, it is difficult to imagine such a short time frame will be enough to thoroughly develop and vet such a comprehensive change to the energy system without risking the reliability and affordability of electricity.

It is also important to note that because the terms of Clean Air Act section 111(d) require states, not EPA, to set performance standards for sources, states should have ultimate flexibility in building their state plans, determining what activities can be included for compliance, and a trajectory toward final compliance.

Next I would like to highlight a few of the specific flaws in EPA's emission rate calculations. First, the 6 percent heat rate improvement target within Building Block 1 is faulty, resulting in an unrealistic target. This heat rate target is based on assumptions drawn from an extremely limited data set and a study that is being inappropriately applied. EPA largely ignores the fact that in order to remain competitive, generators have already implemented any heat rate improvements that make technical and economic sense. In fact, FirstEnergy has already performed a number of the heat rate improvements incorporated in EPA's target. Mandating

changes beyond what is technically and economically reasonable puts coal-fired power plants at risk of shutting down, further threatening grid reliability and affordability.

Building Block 2, which encourages increased utilization of natural gas combined cycles (NGCC), may be technically feasible, but it is unrealistic based on operational experience. An Edison Electric Institute (EEI) analysis indicates that the average utilization rate of NGCC unit capacity in 2012 was 46 percent. Only 10 percent of these units operated at an annual utilization rate of 70 percent or higher. It is also worth noting that Blocks 1 & 2 are contradictory. There is no incentive for a coal-fired plant operator to invest in heat rate improvements in a plant that will be dispatched less often in favor of natural gas units.

In Building Block 4, EPA makes a 1.5 percent annual energy efficiency gains assumption that is also flawed and sets an unrealistic target. EPA concluded that three states have already reached the highest level of performance, achieving more than 1.5 percent in annual savings. As a result, EPA applied an annual incremental energy efficiency savings rate of 1.5 percent to all states, even though the average state energy efficiency savings rate was 0.58 percent in 2012. Missing in the proposed rule is the basis and rationale of how and why the efficiency standard can be applied by the rest of the country. Using a limited group of states to determine a nationwide annual incremental savings rate for all energy efficiency programs is inappropriate, and EPA has acknowledged that its proposed energy efficiency savings are well above the average savings that most states have been able to achieve.

Another of FirstEnergy's concerns is how nuclear generation is treated in EPA's proposed rule. EPA determined that 5.8 percent of all existing nuclear units is at risk of economic shutdown. This figure when applied to individual states is neither credible nor accurate. EPA also assumed the re-licensing of all existing nuclear units up to a final life span of 60 years. Re-licensing of nuclear plants is overseen by the NRC in an extremely thorough, multi-year process, with the outcome being far from certain. It is unreasonable for EPA to assume both the initiation and outcome of any federal or state permitting process over which it has no authority.

FirstEnergy is further concerned that for the purposes of compliance with the proposed rule, EPA largely excludes the critical role of existing nuclear plants. Nuclear generating facilities provide 20 percent of the country's electricity while generating zero CO2 emissions, operating at a 90 percent capacity factor, and maintaining stable prices. In order to avoid and reduce CO2 emissions without compromising grid reliability, it is essential that nuclear generation facilities remain a feasible and cost-effective source of electricity to meet current and future energy needs.

In closing, I would like to reiterate that FirstEnergy has a longstanding commitment to environmental protection and continually looks for ways to reduce the impact of our operations. While we are confident this proposed rule was written with the best of intentions, it is a complicated and unprecedented rulemaking that FirstEnergy is still trying to fully understand. The concerns I have highlighted here today represent only some of the questions that remain regarding the rule and its ultimate implications. As Pennsylvania determines its course of action,

I encourage the state to carefully consider the far-reaching implications of any significant changes to the highly reliable and affordable electric system we have all come to rely on. Thank you for your time and for your invitation.