Written Opening Statement

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For

The Edison Electric Institute

Federal Energy Regulatory Commission

Technical Conference on Environmental Regulations and Electric Reliability, Wholesale Electricity Markets, and Energy Infrastructure

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Good morning, Commissioners. My name is Gerry Anderson. I am the Chairman and CEO of DTE Energy and am here today representing my company and the Edison Electric Institute (EEI). EEI is the trade association that represents all of the nation's investor-owned electric utilities. As generators of electricity and the operators of the nation's electric transmission and distribution system, EEI member companies operate in all 50 states and the District of Columbia and are committed to providing reliable, affordable and increasingly clean electricity to all customers.

Thank you for holding today's technical conference—and the upcoming regional conferences—on environmental regulations, electric reliability, wholesale electricity markets, and energy infrastructure as a result of the Environmental Protection Agency's (EPA's or the Agency's) proposed Clean Power Plan (CPP). Under the CPP, developed under section 111(d) of the Clean Air Act, EPA proposes complex guidelines for states to

reduce existing carbon dioxide (CO_2) emissions levels, focusing on existing electric generating units (EGUs). The level of required reductions is substantial. Thirty-nine of the states must reduce their emission rate by 50 percent or more by 2020.

EPA proposed both interim and final emission rate goals for states to reduce emissions from these units. These goals are very stringent. The interim goals start in 2020, while the final goals must be achieved in 2030 and beyond. At first glance, it may appear that the guidelines provide until 2030 for compliance but, in significant measure, this is not the case. Because of the way that EPA designed the interim goals, the majority of the states must achieve more than 50 percent of their 2030 emission reduction goals by 2020; and 11 of those states must achieve more than 75 percent of their 2030 goals by 2020. For example, my home state of Michigan must achieve more than 70 percent of its 2030 goals by 2020. Given the stringency of the goal, after state plans are finalized and approved in 2017-2018, industry and states effectively will have only two to three years to complete major compliance initiatives, many of which involve large-scale, complex infrastructure construction projects.

As I explain in more detail herein, it is critical that the Commission engage in helping EPA better understand the workings of the electrical system and the threat to reliability such compressed compliance timeframes represent. Three years simply is not enough time to accomplish the substantial changes in the generation resource mix, energy infrastructure, and market mechanisms required to make the proposed reductions by the

interim 2020 compliance date. The EPA proposal does not appear to contemplate that the speed and intensity of these changes require dramatic infrastructure expansion, and likely will lead to significant changes in the way wholesale electricity markets function, therefore threatening electric reliability. In 2005, Congress vested this Commission with jurisdiction under the Federal Power Act (FPA) over bulk power system reliability. Congress also broadened the Commission's traditional role in regulating wholesale sales of electricity. As a result, the Commission has developed considerable expertise on the operation of the electric system, wholesale markets, and the processes and time required to make substantial changes to either of these. We appreciate that the Commission is holding these technical conferences to develop a record that explains to EPA and other stakeholders the complexities of operating and maintaining a reliable electric grid and functioning wholesale markets, and brings the reliability implications of the CPP to light.

My comments today will focus on the technical aspects of the proposed CPP that create concerns about the achievability of the proposed state goals and their impact on consumer costs and electric reliability. In its comments to EPA, EEI raised significant legal questions surrounding EPA's authority to do what it has proposed, including the fact that many of the measures that will be necessary to achieve the required reductions are within the traditional purview of state regulators. It is not my intention to address any of these legal concerns today, other than to note that time required to resolve them could intensify the reliability concerns associated with the 2020 interim compliance requirement.

The record developed in this proceeding will clarify that the guidelines as currently proposed will threaten electric service reliability if the 2020 interim compliance period remains. Many of the reliability issues that will be identified in this record can be addressed if the Commission shares its expertise with EPA so that the Agency can issue final guidelines that include a more reasonable glide path to 2030 emission reduction goals that maintain reliability at a reasonable cost. EPA is slated to finalize the CPP by the end of this summer. We request that the Commission act quickly, before EPA issues the final guidelines, so that EPA better understands why the 2020 interim goals are a serious threat to reliability.

The Commission Must Engage EPA on the Reliability Implications of the CPP Now and During State Implementation

EEI and its members, including my company, urge the Commission to engage EPA on the issue of reliability both before the finalization of the CPP and during the state implementation of their compliance plans. To this end, we recommend the following short-term actions to ensure reliability.

Short-Term Actions to Ensure Reliability

1. Drawing on the Commission's unique experience, expertise, and the record developed in this proceeding, the Commission should consult with EPA on the physical characteristics and processes related to development and operation of the integrated electric system, such as planning processes, operations, and electric/gas interdependencies. The Commission must explain the interrelationship of the different system elements. Most important, the Commission must explain that broad changes to development and operation of the electric system take significant time to address. This means that states cannot achieve significant emission reductions from existing EGUs by 2020 without significant risks to reliability.

- 2. Before the CPP is finalized, the Commission should advise EPA on the time required to design, plan, permit, and construct replacement generation and new or expanded electric transmission lines and natural gas pipelines to ensure reliability.
- 3. The Commission also should emphasize to EPA the importance of the existing nuclear fleet to maintaining reliability. The proposed CPP relies on the existing nuclear fleet to achieve emission reductions, but does not include any mechanism to incent its continued operation in the face of challenging economics, particularly in states with deregulated markets.

Long-Term Actions to Ensure Reliability

Even after the EPA guidelines are finalized, significant work will remain through the

2030 compliance deadline. In the longer term, the Commission should:

- 1. Continue to engage EPA to assess reliability, infrastructure needs, and market impacts as CPP implementation is underway;
- 2. Continue to gather insight and analysis from the other experts on reliability issues, including the North American Electric Reliability Corporation (NERC), the regional reliability entities, RTOs, state commissions, and the utilities responsible for the reliable operation of the electricity grid;
- 3. Continue to assess impacts of CPP implementation and continue to modify existing rules and processes as needed to support infrastructure, markets, and just and reasonable rates; and
- 4. Work with stakeholders to design, develop, and implement backstop mechanisms to address unforeseen events, regardless of whether the 2020 interim goals are removed from the proposed guidelines.

The Record Will Show That the Proposed Clean Power Plan's Interim Goals Threaten Reliability

The Commission has taken a critical first step in trying to ensure that the CPP is finalized and implemented in a way that is consistent with our common responsibility to safeguard electric reliability by holding this technical conference today. The witnesses you have

called will build a record that illustrates what EEI and its members have already

concluded after thoughtful and thorough analysis of the proposed section 111(d) guidelines: that EPA's carbon reduction guidelines, particularly EPA's proposed 2020 interim compliance goals, realistically cannot be achieved in the time EPA allowed. The complex engineering, public participation, and regulatory procedures required cannot be completed between plan approval and 2020. In addition, while not a reliability concern per se, we cannot ignore the potential costs that the rule will have on our customers. Affordable, reliable electricity is the backbone of our economy and our standard of living. Investments of the scale required prior to 2020 to meet the interim standards would sharply increase rates over the two- to three-year period of implementation.

The example of my home state, Michigan, illustrates the conflict between the proposed guidelines and reliability that the Commission needs to help EPA address. EPA did not consider the time required to implement compliance plans when setting Michigan's goals and the related deadlines.

The guidelines envision that reductions can be achieved through heat rate improvements at coal-based units, increased dispatch of existing natural gas combined cycle units (NGCCs) to a 70-percent utilization rate, increased deployment of renewable generation, and expansion of energy efficiency (collectively, the "building blocks"). However, practically speaking, the only way for Michigan to achieve more than 70 percent of the 2030 goals by 2020, is to retire additional coal-based units (beyond those slated to comply with other environmental regulations, including the Mercury and Air Toxics

Standards). In theory, it is relatively quick and easy to close coal-based units by 2020; however, replacing those plants with new generation is not a simple or fast task.

Michigan, which currently generates more than 50 percent of its electricity with coalbased EGUs, currently faces a near-term electric capacity shortfall of approximately 2 gigaWatts (GW). In addition, to meet the interim goal, we estimate that Michigan will need to add as much as 3 GW of new NGCC and other gas-based capacity and a significant amount of new renewable generating capacity by 2020. In order to achieve an online date of 2020 for new NGCC units, all development activity, including siting and permitting, would have to have been completed by 2017. However, Michigan will likely not submit its plan for EPA approval until 2017 or 2018. And the process for seeking state approval of the large scale investments associated with the approved plan will be time consuming as well.

EPA's basic "resource adequacy" assessment, which focuses on generating capacity, assumed that replacement generation capacity is all that is needed to maintain reliability. But, this ignores other critical infrastructure issues. For example, in order to get the natural gas needed to fuel this new generating capacity, major pipelines are required to be built. Natural gas pipelines often require five years—or longer—from conception to completion. And as we have seen recently, even when there is general agreement that new pipeline capacity is needed, it is far easier said than done. Moving on large-scale

generation replacement could create gas deliverability concerns, particularly in winter, when there is increased demand for natural gas for power generation and home heating.

If gas infrastructure projects have not already been initiated, these needed pipeline expansions are unlikely to be completed by 2020. As the Commission—which has authority for siting interstate natural gas pipelines under the Natural Gas Act—knows, planning, permitting, and constructing new gas infrastructure can take many years to complete. Interstate pipelines that require additional approvals because they cross federal lands require even longer timeframes. These gas pipeline development timeframes are inconsistent with the proposed 2020 interim compliance deadlines.

Similarly, transmission system investments will be needed to interconnect the new NGCC capacity to the system and to accommodate potentially sharply different power flows. Michigan is part of MISO, which will have to analyze any system impacts that result from these capacity retirements and additions, and determine what modifications are required to ensure the continued reliable operation of the system. MISO also will assess whether the closure of coal units has implications for essential reliability services, such as reactive power, inertia, and voltage control, among others. Additional system changes may be required to ensure the provision of these services. EPA's "reliability assessment" did not take these critical services into account. MISO has a stakeholder process to develop regional transmission plans, which take time and require due process.

These required assessments and processes, and the response they may require, all take far more time than EPA recognizes.

Transmission system planning, siting, permitting, and construction can take 10-15 years, as recently noted by NERC. Unlike interstate natural gas pipelines, electric transmission lines are sited and permitted under state authority. Local opposition to new power lines can significantly increase the time it takes to get permits and approvals and, ultimately, rate recovery, which is an essential prerequisite for investments; and, as with gas infrastructure, getting federal approvals when needed can add even more time to the process. The transmission expansions necessitated by either plant closures or the addition of new plants cannot realistically be completed by 2020. Failing to deliver power to customers is a fundamental reliability problem.

It is important to note that bringing on new generating capacity and natural gas and electric transmission infrastructure are all highly dependent on functioning supply chains. When all states and companies move to retire generation and construct new pipelines and transmission lines simultaneously, it is likely that these supply chains will be stressed and slowed, as will all required approvals.

A regulatory program, such as the one proposed by EPA, cannot be divorced from a consideration of costs. A high degree of reliability can be achieved and maintained, given enough time and money. That there is not enough time by 2020 is clear. The cost

implications also are clear and cannot be ignored. Affordable, reliable electricity is the backbone of our economy and our standard of living. Closing coal-based units prematurely or suddenly will impact communities' ability to plan for and adjust to job losses and decreased tax revenue.

Compressing compliance into a short timeframe also will result in potentially sharp increases in retail rates. Investments to rapidly transform DTE's fleet to help Michigan achieve the proposed interim and final goals may cost upwards of \$7 billion. Exact impacts on retail rates are hard to predict, but it is clear that achieving more than 70 percent of the Michigan's reduction goal by 2020 will result in significant increases in costs to consumers in the near-term, even in the face of increased end-use efficiency. In Michigan, we are particularly concerned about the impacts of significant rate increases on the competitiveness of our still-recovering manufacturing sector.

The case of Michigan is not unique. EPA's proposed interim goals and the compliance schedule that flows from these goals threaten the reliability and affordability of electric service across the United States. EEI identified these reliability concerns in comments to EPA filed in December. EEI also identified a solution. Eliminating or substantially modifying the interim compliance goals and allowing states to determine their own glide paths and milestones to achieve the 2030 goals as part of their compliance plans would provide states with real flexibility to preserve reliability and minimize costs to customers.

Reliability Is a Collective Responsibility

The Commission is well aware that electric reliability is based on federal and state laws and is a collective responsibility. First, as discussed in more detail in these comments, this Commission is charged under section 215 of the FPA with ensuring the reliability of the bulk power system. FERC designated NERC as the Electric Reliability Organization that is charged with setting reliability standards, conducts compliance and enforcement oversight of those standards, and assessing the reliability of the bulk power system. Second, under their respective statutes, state and local governmental entities, including, primarily, state PUCs are responsible for the reliability of the distribution system as well as resource adequacy. Finally, the owners and operators of the bulk power system and distribution network—like my company, DTE Energy—and the RTOs and ISOs have reliability obligations under both state and federal law. We are "public utilities" and must serve customers reliably under state law, and we must comply with reliability standards or face penalties that are imposed by NERC and approved by the Commission under federal law. Together, consistent with state and federal law, all of us work to ensure that the nation's integrated power system is operated safely and reliably. The Commission must play its reliability role in both the short- and long-term ways discussed earlier.

FERC Has the Tools to Address Reliability Concerns Raised by the Clean Power Plan

By holding this technical conference today, the Commission has taken a critical first step in advising EPA that the CPP should be finalized and implemented in a way that notably reduces CO_2 emissions, but also maintains reliability at a reasonable cost.

The Commission has the authority and a number of tools available to it to address reliability concerns. The Commission's principal authority is pursuant to section 215 of the FPA, to develop and enforce mandatory standards, in partnership with NERC, to ensure the reliable operation of the bulk-power system. In addition to section 215, the Commission also has authorities under section 207 of the FPA and section 206 of the Public Utility Regulatory Policies Act to address supply shortages and adequacy of service, as well as broad authorities to gather information and conduct investigations concerning the power sector.

In the context of the CPP, these tools are useful to the Commission as it addresses reliability and related market concerns that arise from the implementation of state plans, likely on a case-by-case basis. Removal or modification of the 2020 interim compliance deadline would provide additional time so that the Commission can thoughtfully and responsibly assess and address matters within the Commission's jurisdiction related to:

- determining needs for, and permitting and siting pipeline infrastructure;
- assessing operational and wholesale market impacts, including adequate ancillary services;

- assessing wholesale rate impacts related to achieving the CPP goals, particularly the interim goals; and
- addressing market mechanisms to ensure the continued operation of nuclear power plants, a critical element of meeting CPP goals.

The Commission's most effective tool, however, is engaging with EPA now to shape the CPP before it is finalized. The public interest requires that the final CPP recognize reliability impacts and the practicalities of planning, constructing, and operating a reconfigured integrated power system.

Conclusion

In conclusion, this technical conference, coupled with the reports and analyses conducted to date by NERC, the RTOs, ISOs, and others, will develop a record that makes clear the CPP, as proposed, poses serious electric reliability concerns by requiring the majority of reductions to be achieved by 2020. At the conclusion of the technical conferences, the Commission must take the next step: work with EPA to explain how the interconnected power system operates and what is required to ensure its reliable operations, including how long necessary changes will take. Final guidelines that respect how the system works and provide adequate time to make the necessary changes to achieve CO_2 reductions reliably will avoid many of the reliability concerns that EEI, its members, and other stakeholders have identified. An ounce of prevention is worth a pound of cure.

Thank you again for holding today's technical conference and the opportunity to participate on the panel addressing reliability. EEI and its members look forward to working with the Commission and EPA to address the issues that I have raised.