Energy-Producing States Summit

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FACILITATED SESSION CONSOLIDATED INDUSTRY POSITIONS

Acronyms

BSER - Best System of Emission Reduction
CCS – Carbon Capture and Storage
EGU – Electric Generating Unit
EPA – Environmental Protection Agency
GHG – Green House Gases
Mwh – Megawatt-hour
NSR - New Source Review

SIP – State Implementation Plan

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A. Guideline Compliance

- 1. Proposed rules or requirements should include load management programs, efficiency programs, ground source heat pumps, verifiable carbon sequestration programs in soils, and renewable and gas generation.
- 2. The standards should account for varying loads ranging from not running or minimal load to full load.
- 3. The baseline from which CO₂ emission reductions are measured should not penalize plants for extended outages that have been taken to comply with other EPA regulations.
- 4. Consider efficiencies for each plant, allow existing and future renewables and lower CO₂ emitting resources to offset existing emissions, co-firing or fuel switching, transmission and distribution system efficiencies, Sulfur Hexafluoride emission reductions, customer demand response and energy efficiency improvements, credits for non-electric sector credits or emission reductions from the non-electric sector. Emission reductions from plant retirements should be allowed for ongoing compliance.
- 5. Establish source subcategories to account for a wide range of EGU technologies
- 6. Focus the emission reduction target to achievable reductions from EGUs only, and only those reductions that could reasonable occur from improvement or controls that have been adequately demonstrated and available to EGUs.
- 7. EPA Guidelines should be limited to "inside the fence" and based on technology demonstrated to be achievable using BSER.
- 8. EPA guidelines should be based on cost-effective, achievable reductions at the affected power plants that do not advance retirements, strand assets, or curtail operations of the current fleet.
- 9. The guidelines should be based upon what efficiency improvements can be reasonably and economically achieved at an individual plant.
- 10. Credited reductions for energy efficiency projects or projects with unique environmental benefits associated with a "non-affected source" must be quantifiable and enforceable.
- 11. Measurable efficiencies in lieu of numeric reduction.
- 12. Allow for the use of offsets, especially agricultural. Allowing sectors of the economy to develop complementary programs and practices makes good sense.
- 13. In establishing BSER and GHG emission performance standards, it is important to for utilities to have flexible options to satisfy utility obligations by whatever means available, including reducing GHG emissions within the utility system and averaging or off-setting with others in the system.

- 14. If EPA defines BSER to include the entire utility system, which is well beyond the generating facility, it could theoretically extend to demand side management mandates.
- 15. EPA should explicitly allow state to achieve compliance through either "rate-based" (lb CO₂/Mwh of generation) or "mass based" (tons of CO₂) programs.

B. Guideline Development

- 1. Do not apply a national uniform emission standard or dictate the form of compliance level, whether rate-based or mass-based.
- 2. No model rule should be drafted as it will limit the flexibility of state and regional specific reduction strategies.
- 3. EPA is limited to establishing guidelines and states are the authorized entities to implement standards to achieve reductions.
- 4. Guidelines cannot merely reflect the overall performance of the entire system of power plants.
- 5. The guidelines should not specify percent reductions and/or specific CO₂ emission levels, as these parameters are properly determined by the State on a case-by-case basis for each source.
- 6. Standards must be based on plant characteristics, such as coal type, boiler size and type and geographical location. EPA's reduction target and state's standards should recognize the varying carbon intensity of different coals.
- 7. EPA must defer to the states the authority and flexibility to implement standards and compliance mechanisms that may extend "outside the fence."
- 8. Guidelines should not be based on measures like co-firing and fuel switching because of the economic impact to ratepayers.
- 9. EPA should look to setting the best system of emission reductions standard based upon what has been adequately demonstrated within the plant fence line.
- 10. CO₂ emission reductions for units must reflect what is achievable for that facility.
- 11. Emissions reduction standards must be applied to EGUs on a case-by-case basis to include consideration of coal type, boiler type, existing and applicable improvements and efficiencies, and remaining useful life of an EGU.
- 12. EPA guidelines must reflect the "best system of emission reduction" based solely on the application of "adequately demonstrated" technology at covered sources. Analysis should remain inside the fence and take into account unit specific characteristics (fuel type, technology, age, size, location, and potential operational challenges).

- 13. The guidelines should be understandable, efficient, with clear direction, steps and a viable timeline.
- 14. State-wide CO₂ tonnage caps, CO₂/Mwh rate caps or other emission reduction requirements must be tied to what is achievable at each facility; otherwise EPA exceeds their Section 111(d) authority.
- 15. If EPA regulates GHGs through Section 111(d), the emissions reductions should be set based on what is legally defensible and reasonable.

C. Technology Considerations

- 1. BSER for existing sources should be limited to those technologies and efficiency improvements that have been adequately demonstrated and can be implemented at the emission source.
- 2. Good combustion practices would apply a work practice standard for compliance as a best system of emissions reductions.
- 3. EPA must base emission guidelines on achievable, adequately demonstrated technology at individual sources.
- 4. EPA should establish performance standards based upon adequately demonstrated systems that are fuel and technology specific at affected power plants.
- 5. The Standard should be based only upon technologies that have been adequately demonstrated and are commercially available to reduce/limit CO₂ emissions from a facility.
- 6. Requirements must be achievable with adequately demonstrated technology.
- 7. Carbon capture and storage should not be required on existing units.
- 8. BSER should not be defined to include full or partial CCS.
- 9. CCS is not the best system of emission reductions.
- 10. No pollution technology is adequately demonstrated and available to install on EGUs that would result in any meaningful decrease in global CO₂ emissions.
- 11. No one size fits all approach. Is EPA allowed under 111(d) to define "best system of emission reduction"?
- 12. Guidelines should establish achievable targets based on proven and commercially available technologies.
- 13. EPA should not set standards for coal-based generation with the presumption that units will be able to utilize carbon capture and storage. Carbon capture technology for pulverized coal units is not yet adequately demonstrated or commercially viable, and the opportunity for storage is not available in many areas of the country.

- 14. Emission rates should be flexible for new facilities and take into account regional issues and opportunities.
- 15. The federal government should promote a new generation of nuclear energy as an alternative low-emission generation resource. This must include research and development for suitable types of reactors, as well as economic support and a real solution to spent fuel storage.

D. Early Action

- 1. Many EGU efficiency improvements have already been implemented and not all improvements can be assumed to be applicable to every EGU.
- States must have the authority to grant credit for early action, including the use of non-emitting resources such as federal hydropower. States should have the discretion to also allow for early action taken in other states to recognize the multistate nature of the utility industry.
- 3. Credit given for early actions taken to reduce emissions prior to rules being enacted.
- 4. Early action must be recognized including power plant efficiency projects already completed the addition of renewable energy to portfolios, and energy conservation projects.
- 5. Recognize early action. Any emissions reduction target as well as any standard developed should ensure credit is given to utilities for past reductions.
- 6. Facilities should not be penalized for efficiency improvements that have already been made.
- 7. EGUs should be given credit for reducing CO₂ emissions if they are undertaking improvements to response to Regional Haze rules.
- 8. Allow existing renewables and lower CO₂ emitting resources to offset existing emissions
- 9. Combined heat and power plants should be given credit for their efficiency
- 10. Consideration must be given to the significant investments that have already been made to comply with current EPA regulations.
- 11. Recognize all reductions occurring from a baseline period
- 12. Early action taken by utilities to reduce CO₂ emissions must be recognized. Also, any other area of the economy that has demonstrated effective early action should be included rather than penalized. Early action should include early development of renewable energy as well as other activities to reduce CO₂ emissions.

- 13. Credit for GHG reductions and offsets. Utilities should be credited for reductions in GHG emissions through coal-fired EGU retirements, additional renewable energy generation, investments in energy efficiency, and load management programs. Utilities should also be given the alternative to reduce carbon emissions through offsets such as forest or agricultural sequestration.
- 14. EPA and the states should credit early action (made since 2005 or earlier) toward emission reductions.

E. Timeline for Compliance

- 1. Baseline years should be 2003 to 2006
- 2. Realistic timeframes are critical. Utilities should be given a minimum of 5 years or longer to demonstrate compliance after the EPA approves a State Implementation Plan under 111(d).
- 3. States must be given adequate time to develop their individual SIPs. Three years is the minimum amount of time that States will need to respond to the final guidelines.
- 4. Compliance dates should align with the compliance timelines for additional control requirements under regional haze, coal combustion residues rule, 316(b) cooling water rule, and effluent limitations guidelines.
- 5. Compliance start should be after 2020-2025.
- 6. Plants should be allowed to run through a transition period allowing for retirement of debt.
- 7. Compliance and enforcement of carbon regulations should start no sooner than 2020.
- 8. EPA should adopt GHG regulations for base-load coal and natural gas plants that set realistic targets and recognize the timeframe in which compliance can realistic be accomplished along with associated costs implications.
- 9. Provide sufficient time for compliance.
- 10. Each state must be allowed to have sufficient latitude for determining the stringency of their individual plans including the ability to promulgate an appropriate timeline for compliance based upon, among other factors, the remaining useful life of an individual facility.
- 11. Allow time for development of commercially available technologies.
- 12. Establish realistic goals and long-term glide paths. The guidelines must take into account the nation's economic challenges, and provide clear goals laid out over a reasonable timespan.
- 13. Utilities need time to transition the fleet to lower-emitting resources.

F. State Primacy

- States have the authority to develop standards of performance and flexibility in choosing compliance mechanisms once EPA sets GHG-specific controls inside the fence.
- 2. EPA should respect the primacy of the states and provide states with maximum flexibility
- 3. States and regions will have the ability to further reduce emissions beyond EPA's target as they deem appropriate.
- 4. While the states need to have a clearly defined role in any national program, individual states should not be able to set goals for reductions that are dramatically misaligned with the national program. States should be constrained from using state implementation programs as a potential revenue windfall for the state.
- 5. States must be given the autonomy to consider plant specific factors, such as the remaining useful life of the facility, the fuel type, energy requirements, costs, non-air quality related health and environmental impacts, size of the unit, combustion technology, etc., when determining the potential reductions for a given unit.
- 6. States have the authority to develop standards of performance and flexibility in choosing compliance mechanisms once EPA sets GHG-specific controls inside the fence.
- 7. States should be given mass-based carbon emission budgets for each boiler as an alternative to comply with a carbon emission rate standard.
- 8. States should be allowed to apply "less stringent emission standards or longer compliance schedules."
- 9. Let states determine Best System of Emissions Reduction.
- 10. States retain their primary authority for setting performance standards for existing sources. EPA should respect state primacy in implementing 111(d) which is clearly delineated in the Clean Air Act.
- 11. EPA should defer to the states on issues such as application of emissions standards to the plants with in the state, and achievement of equivalent reductions through other measures.

G. State Flexibility

- 1. States should have broad flexibility in development programs inside and outside the fence.
- 2. Once the state has established the unit limit, utilities should be allowed to exercise flexible options to meet the limit.

- 3. States must be afforded the appropriate flexibility to develop equivalent emission reductions to what could be achieved at an individual source by other means that may be outside the individual source, should the state choose to do so.
- 4. States must be given the flexibility to rely on multiple compliance strategies both inside and outside the fence.
- Each state must be allowed to have sufficient latitude for determining the stringency
 of their individual plans including the ability to promulgate an appropriate timeline for
 compliance based upon, among other factors, the remaining useful life of an
 individual facility.
- 6. EPA should allow states the authority to develop flexible emission reduction strategies that are not constrained by the emission reduction target approach used by EPA.
- 7. Once a state has established standards based on what is achievable on-site at each individual source, and then the state may consider more flexible mechanisms to comply to include renewable energy and energy efficiency programs already in place.
- 8. States must be afforded the appropriate flexibility to develop equivalent emission reductions to what could be achieved at an individual source by other means that may be outside the individual source, should the state choose to do so.
- 9. Most utilities serve across multiple states so the standards must provide states with flexibility so regional compacts can be implemented for the most cost-effective manner. Plant efficiency standards coupled with state flexibility will be key to the success of this rule.
- 10. States should have broad flexibility to achieve compliance through any measures or state clean energy programs that reduce emissions from power plants. Emission reductions from renewables and efficiency programs and any plant retirements should be countable toward compliance.

H. Cost of Compliance

- The social cost of carbon regulations is a concern. Heat rate improvements aren't
 enough to meet the reductions, so coal plants will need to be shut down and new
 natural gas fired combustion turbines to replace the lost generation. Social cost will
 grow as power price increase as carbon regulations become more restrictive
- 2. EPA must consider the economic health of regions and its impact on vibrancy and security of the national economy in implementing the rules.
- 3. The disproportional impact on electric cooperatives and their rural consumers must be addressed.
- 4. EPA must minimize negative economic impacts

- 5. As EPA considers environmental dispatch in setting emission reduction targets, the agency must explore how competitive markets will be impacted.
- 6. States need the ability to develop a cost containment mechanism to ensure cost effectiveness of reductions under 111(d).
- 7. Account for the economic burden it will place on the state's economy and consumers of electricity.
- 8. EPA's regulation needs to be fair and equitable to electricity consumers.
- 9. Natural gas as a base load fuel. Although natural gas is currently an attractive resource, it has a history of price volatility and supply limitations. New technologies have led to a historically abundant supply and low prices, but these technologies are under intense scrutiny, increasing the financial risk of investing heavily in natural gas generation long term.
- 10. A best system of emission reduction must account for cost of controls.

I. Remaining Useful Life

- 1. Financial impacts of coal plant retirements need to be mitigated to avoid stranded assets.
- 2. Take into account the remaining useful life of existing sources and avoid stranded investments.
- 3. Utilities must not be subjected to stranded investments from compliance with other EPA rulemakings.
- 4. Each state must be allowed to have sufficient latitude for determining the stringency of their individual plans including the ability to promulgate an appropriate timeline for compliance based upon, among other factors, the remaining useful life of an individual facility.
- 5. States need to assess reliability needs, costs, and remaining useful life of plants to prevent stranding of assets.
- Guidelines must allow states to consider the economic life of power plants. Failure
 to account for a plant's useful life will result in billions of dollars of stranded
 investment. Moreover, rules should be written to encourage the utilities to install
 more efficient components that improve generation efficiencies without being
 penalized.
- 7. Section 111(d) requires the EPA Administrator to allow states to consider the remaining useful life of the existing source in establishing the standard of performance for each facility. Utilities should be held harmless financially for the premature force closure of plants by EPA rules by way of a federal "buy down" of stranded costs or other financial assistance.

8. A best system of emission reduction must account for remaining useful life. Any Section 111(d) mandates must avoid reductions in utilization of EGUs that generate revenue for outstanding debt service.

J. New Source Review

- Reliance on efficiency improvements could trigger New Source Review. EPA should clarify that NSR will not be triggered as a result of projects designed to improve efficiency.
- 2. EPA guidelines should clearly state that efficiency improvements accomplished at a source in accordance with a State approved plan are not Major Modifications, and thus not subject to NSR, regardless of an increase in annual emissions or an extension of a unit's life.
- 3. Modifications required under 111(d) should be exempt from New Source Review.
- 4. Generators need certainty that New Source Review (NSR) provisions will not be used in the future to penalize existing facilities for reducing CO₂ emissions through efficiency improvements.
- 5. Modified and reconstructed sources must not be regulated under the 111(b) standard.
- 6. Exempt New Source Review for marked efficiency improvements. When triggered, NSR would force utilities to implement what most likely would be expensive Best Available Control Technology. Allowing utilities to make measurable improvements to facilities that result in more electricity produced using less fuel is a win-win situation for states, utilities and the nation.
- 7. Utilities need flexibility to maintain and update efficiency and environmental controls at existing power plants without triggering New Source Review requirements.

K. Reliability

- 1. Reliable and affordable electricity requires dependence on coal in the future.
- 2. Reliability and flexibility are key components of any regulations.
- 3. Maintain fuel diversity and grid reliability.
- 4. EPA's implementation timeline must ensure that the reliability of the nation's electricity supply is sustained at a minimum, at its present level.
- 5. Maintain reliable and affordable energy supply that protects both consumers and the economy.
- 6. 111(d) rules must not significantly affect the affordability of electricity or decrease reliability or adversely impact energy markets.
- 7. A best system of emission reduction must account for energy impacts.

L. Regional Issues

- 1. There are significant regional and state difference in generation mix, potential for emissions reductions (mass-based or emission rate), utility industry structure, and participation in RTOs.
- 2. Recognition of regional state differences. States must have the flexibility to develop regional programs taking into account that generating sources can be located in states remote from the load they serve.
- 3. Regional trading programs are essential for public power utilities.
- 4. States and regions will have the ability to further reduce emissions beyond EPA's target as they deem appropriate.
- 5. Market solutions should be permitted to allow the most efficient coal pants to continue to operate.
- 6. Although utilities are planned and regulated at a state level, they often serve regions encompassing more than one state. Section 111(d) may raise state and regional issues, but these issues are neither new nor unique. States can satisfactorily resolve these issues through existing state public utility commissions and environmental regulatory institutions.

M. Account for Growth

- Areas of high growth that will require continued use of existing or new EGUs to meet that growth. States must consider that as significant economic growth occurs, there will be a need for additional generation from existing sources not currently operating at their maximum output.
- 2. Utilities in regions experiencing load growth must be allowed to fully utilize their generation fleet to deliver electricity to new consumers. Rules to address CO₂ emissions from power plants should not threaten the future of our growing energy independence.