Power Sector Roundtable Hosted by EPA-OAR

Answers and Comments to EPA's Selected Questions

By the National Tribal Air Association

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The NTAA serves as a communication liaison and information conduit between Tribes, EPA, and other federal agencies. The NTAA exists to assist Tribes in air quality policy work while respecting and supporting Tribal sovereignty and the Tribes' rights to a government-to-government relationship with the federal government.

EPA's Question #1: Strategies and technologies for CO2 emissions reduction from the power generation industry per the former CPP and ACE including fuel switching, co-firing; carbon capture, utilization, and sequestration; and improvements in operating efficiency.

a. Feasibility, advantages, and disadvantages of the above?

NTAA's Response:

(1) Carbon capture and utilization has great appeal. Is there currently any reason to believe that this is viable beyond very small applications?
(2) "Fuel switching", principally coal to natural gas, in general, is best accomplished through total EGU replacement. Regardless, it is important to assess GHG emissions from the total life cycle of each current of proposed fuel (mining, drilling, transportation, combustion, etc.) Does the CAA enable this regulatory approach?
(3) In addition, it's important to recognize that different Tribes will have different opinions on fuel switching depending on the structure of their economies and if they are coal producers, oil and gas producers or have viable opportunities for producing renewable energy. As a result, it is imperative that EPA consult directly with the impacted Tribes to obtain their feedback on the evolving options.
(4) Furthermore, multiple commenters added that biofuels should be considered as part of the fuel-switching mix, including biomass (solid and liquid), renewable gas, and other renewable bio-based fuel sources. This could create

an economic opportunity for Tribes that have such biomass resources or are interested in pursuing biomass technology opportunities.

(5) Carbon sequestration may be feasible and desirable on some Tribal lands. Assessment of this potential would be useful to those Tribes having such interest.

(6) As of now there are only 4 Tribes that have EGUs likely to be subject to any new emission limits and standards. Only one Tribe though, the Southern Ute Tribe in Colorado, appears to making any real progress towards using a net zero carbon emission technology for natural gas found here: https://www.southernute-nsn.gov/2021/04/15/for-immediate-release-8-rivers-capital-and-the-southern-ute-growth-fund-announce-joint-development-of-zero-emissions-net-power-plan/). The Southern Ute project, Coyote Energy, deploys a different technology to make natural gas power plants more efficient. Regardless, an emission limit set based on science and public health benefits should force the adoption of technologies that create operational efficiencies.

(7) According to most EGU owners and operators, few options for improved operating efficiencies remain for existing units. Is there a reason to believe that this could be a meaningful GHG emissions reduction strategy? As part of the white paper you discuss the hybrid power plants integrating non-emitting (renewable) technology with traditional combustion turbines. Would this be for sources covered under 111(b) (new or modifying sources or 111(b) existing sources?

b. Appropriate or inappropriate categories of EGUs?

NTAA Response:

(1) Most Tribal nations possessing fossil fuel resources desire to benefit from utilization of these resources. Strategies and enhanced technologies for carbon capture/utilization/sequestration or biomass co-firing technologies will be beneficial.

(2) Direct Consultation is essential to determine how many Tribes would want to develop EGU's subject to this rule.

(3) Tribes having the potential for carbon sequestration (largely unknown) would benefit from this awareness and potential applications.

(4) In addition, consideration for economic development opportunities through the development of tribal owned EGUs should be included in the EGUs solutions both on and off Tribal lands.

c. Climate, public health, environmental justice consideration?

NTAA Response:

(1) Certainly! All strategies impacting GHG emissions, and EGUs, in particular, have some potential for impacting Tribal communities. Tribes have been

negatively impacted by the development and generation of electricity, where sources are on or near reservations but Tribes sometime have not had access to that energy. In addition, global warming has a growing impact on the health of Tribal members, Tribal resources, cultural resources and resiliency.

(2) It is important in considering the power sector rules that EPA consider ways of addressing existing disparities caused by GHG emissions and global issues. Additional information can be found on the impacts of global warming on Tribes from the recent Status of Tribes and Climate Change Report published by the Institute for Tribal Environmental Professionals (ITEP).

(3) Fuel switching" has significant potential for impacting Tribes in many ways. Switching among fossil fuels has positive and negative consequences. Additionally, increased uranium extraction to support increased nuclear power generation has demonstrable impacts on public health, environmental justice and the environment. Consultation with individual Tribes is necessary to understand the differences throughout Indian Country.

d. Other systems to consider?

NTAA Response:

(1) Any strategy that impacts decisions on meeting U.S. demand for electricity has the potential to affect the climate, public health, environment, and economies of indigenous people. This includes incentives, disincentives, research, technology development, etc. Current shifts from fossil fuel-fired EGUs to solar and wind are important and largely beneficial.

EPA Question #2: Standards under section 111 have typically taken the form of a "rate-based" limit… What should EPA be considering regarding existing power plants?

NTAA Response:

(1) The continued use of units that quantify "emissions intensity" e.g., g/kwh, #/mmBTU is appropriate but insufficient with respect to GHGs. It is imperative also to express and manage emissions of CO2, CH4, etc. as mass per unit of time. That is, kg/sec, tons per hour, megatons/year, etc.

EPA Question #3: State responsibilities per CAA Sec. 111(d)

a. State flexibility? Time for plan submittals?

NTAA Response:

(1) Sec. 111(d) provides for state flexibility. The statutory complexities of regulating GHG emissions in many states often include environmental authorities and public utility regulators. Emissions of GHGs from stationary sources should be regulated through minimum technology and performance standards and via aggregate state emissions by individual pollutant expressed in mass per unit time. (See response to Q.2.) For example, each state should

be given a state-wide emissions budget for CO2 from stationary sources or source categories. This emissions budget will include milestones for "reasonable progress" until the policy goals are achieved. States have a great deal of experience and history in GHG emissions inventories, policy alternatives, economic impact analyses, etc. None are starting from zero. Given the regulatory complexities in many states, however, a timeline for requiring initial plan submittal should be a maximum of two years from date of EPA promulgation.

(2) In addition, to clarify for the power plants in Indian Country (at least two) the state's do not have jurisdiction. There is support for the Tribes to develop their own regulatory programs and/or develop source specific FIPs for these sources which should be done in conjunction with a regulatory process for 111(b), this will help reduce the disparity in impacts from sources in Indian Country.

(3) Although, EPA cannot require states to consult/partner with Tribes, EPA's emissions guidelines to implement the 111(d) requirements, should strongly encourage the states to work with Tribes as they develop State Implementation Plans, particularly in areas near Indian Country. This will be particularly important if the state develops a trading program to implement 111(d) so that a Tribe's participation as a renewable energy generator can be built into their program. This can not only benefit a state and a Tribe with environmental and public health benefits but also in providing an economic benefit to a Tribe and help reduce existing disparities.

(4) Given the Oklahoma v. Castro-Huerta decision, the EPA must reaffirm its legal position that states lack jurisdiction over Indian Country.

(5) Just as the EPA's Office of Water is considering whether state water quality plans should take into consideration off-reservation reserved rights (treaty rights, water rights), so too should the Office of Air and Radiation require states to consider these off-reservation rights when states develop and implement their SIPs.

b. State alternative emission limits?

NTAA Response:

(1) No. It is imperative that minimum emissions standards for specific sources be applied nationally. This is a fundamental policy established in the CAA. State-wide emissions budgets for specific GHGs should also be developed to assure collective reductions to desired/achievable levels.

c. What EPA requirements, guidance, tools, resources…environmental justice concerns?

NTAA Response:

(1) This sweeping question is best answered "all of the above"! For many well-known and somewhat acknowledged reasons, the "air quality concerns" of indigenous communities are many. It is imperative that EPA aggressively move to mitigate the climate impacts of GHG emissions and other air pollutant impacts on our public health and environments.
(2) EPA should look to its own "EJ Legal Tool Kit" in considering the development of these regulations and the emission guidelines 111(d). That document encourages EPA to look to flexibilities in the language of the Act to allow consideration of EJ concerns. In addition, EPA should look to it's Tribal Treaty Rights Policy in developing these regulations to understand the impact on Tribal Nations not just in areas of Indian country but also where they have existing treaty rights. These two policies should be used in considering more stringent options and when considering "cost" between options.

d. "Remaining useful life" per Sec. 111 for existing EGUs?

NTAA Response:

(1) Most coal-fired and oil-fired EGUs in the U.S. have exceeded their "useful life" as defined by obsolete technologies, amortization schedules, and other common metrics. EPA should require a rapid and orderly retirement of all such units that began operation prior to 1992. An owner/operator could seek a limited-time exception for a special circumstance e.g. carbon capture.
(2) The EPA should emphasize and promote the new Inflation Reduction Act provisions that give a bonus tax credit for clean energy technology projects located in "energy communities" – generally defined as those affected by plant or mine closures – and promote clean energy deployment by rural electric cooperatives and public power authorities (the predominate owners/users of coal fired EGUs).

EPA Question #4: Recent announcements relevant to transitioning the electric sector?

NTAA Response:

(1) The NTAA is in the process of analyzing the many potential impacts of the Inflation Reduction Act (IRA) on the NTAA Member Tribes and their communities. Clearly this new law will influence the nation's energy future including the electricity generation sector and electricity policies more broadly.
(2) Some consideration in this transition is limitation of some areas of Indian country where renewable energy development is viable but access to the grid access is limited. In addition, looking at the viability of mini grid development for rural communities may be appropriate (particularly in rural communities and Alaskan Native Villages).

(3) The IRA will also create substantial support for beneficial electrification, distributed energy deployment, and tribal investment in clean energy technologies. These should all be considered when consulting with Tribes.

EPA Question #5: GHG control technologies for combustion turbines?

NTAA Response:

(1) The white paper was very helpful in understanding the range of options being considered. It is unclear which options are being considered under 111(b) new and modifying sources, and 111(b) existing sources, it would be useful to have a webinar open to all interested Tribes to help understand these control options and the pros and cons of each.
(2) The transition of electricity generation in the U.S. to combustion turbines (and more recently solar and wind generation) continues to be important in reducing emissions of GHGs and other air pollutants from this source sector. Concurrently it is important for EPA to consider emerging turbine and control technologies as well as alternative fuels. With respect to GHG emissions, this technology-specific approach, as presumably envisioned in Section 111, is inadequate. When considering GHG emissions from any source of electricity, including combustion turbines, it is imperative to examine all related GHG emissions such as those from fuel extraction and transport.

Please note: Earlier this year, NTAA comments on the power sector were made to EPA leadership and were posted on NTAA's website here.