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**EPN Comments on Effluent Limitations Guidelines and Standards for the Steam Electric Power Generating Point Source Category-Deadline Extensions**

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The Environmental Protection Network (EPN) harnesses the expertise of more than 700 former Environmental Protection Agency (EPA) career staff and confirmation-level appointees from Democratic and Republican administrations to provide the unique perspective of former regulators and scientists with decades of historical knowledge and subject matter expertise.

EPA has released a direct final rule and a proposed rule extending deadlines for compliance with the 2024 steam electric power generating effluent limitation guidelines (ELGs). Both rules require public comments to be submitted by November 3, 2025. The direct final rule extends the date by which a steam electric power plant must submit to EPA a Notice of Planned Participation (NOPP) committing to a permanent cessation of coal combustion by December 31, 2034 in order to be subject only to the less stringent permit limits of the 2020 steam electric effluent limitations. The direct final rule extends the NOPP submittal date from December 31, 2025 to December 31, 2031. The proposed rule includes this NOPP submittal deadline extension and also extends six other deadlines in the 2024 rule. The proposed rule extends the deadline for direct dischargers to comply with zero discharge limits for Flue Gas Desulfurization (FGD) wastewater, Bottom Ash (BA) transport water, and Combustion Residual Leachate (CRL) from December 31, 2029 to December 31, 2034 and extends the deadline for indirect dischargers of these same wastewaters from May 9, 2027 to three years or longer after the promulgation date of this final rule. EPA also states in the proposed rule that the agency is considering redoing the 2024 ELGs in a future rulemaking.

EPA states that these deadline extensions are needed because of a U.S. energy crisis and a lack of available technology to meet the zero discharge standards. In this proposed rule, EPA requests that commenters provide information on available technology and its costs because the agency plans to reconsider the zero discharge limits for both FGD and CRL in a future rulemaking.

EPN is providing comments on each major issue in the proposed rule in the following sections.

**Introduction**

EPA is wasting government resources to promulgate the fourth rule on steam electric power generating ELGs in 10 years, delaying yet again the requirement for steam electric power plants to treat their highly toxic wastewater which has been contaminating drinking water supplies and fisheries for decades. EPA is years behind the statutory requirement to review and update ELGs for many industry categories, allowing highly toxic wastewater discharges to go untreated for years, impairing public health and the environment. Instead of using EPA's limited staff and funding on higher priority industry dischargers, the agency instead is conducting a fourth rulemaking allowing steam electric power plants to avoid needed treatment for another 10 years. In 2023, the average operating coal-fired power plant was 45 years old and extremely costly to operate because of its age and inefficiency.

A new report, *Meeting Forecasted Growth in Electricity Demand,*[1] contradicts EPA's argument that the delay in treatment is needed because the nation's energy crisis requires these old plants to keep running. This report supports EPA's estimation in the 2024 rule that toxic discharge limitations would have a minor effect on household electricity costs and the nation's total electric capacity. In fact, the report explains that households will get lower electricity costs if these plants are replaced by more efficient, cost-effective plants.

EPN disputes EPA's rationale that there is an energy crisis requiring these five-year extensions in order to keep old, inefficient steam electric power plants online. EPA justifies these extensions because of an alleged energy emergency with an unclear landscape associated with energy markets, including projected electricity demand, resource adequacy, equipment supply chains (especially natural gas turbines and grid transformers), and reliability associated with extreme weather conditions. EPA relies on a North American Electric Reliability Corporation (NERC) long-term resource adequacy and reliability assessment (LTRA) and proposed utility cost savings for delaying the date by which utilities must decide whether to permanently close coal-fired power plants.

**EPA has No Emergency Statutory Authority under the Clean Water Act**

EPA cites emergency energy executive orders as foundational authority for the deadline extensions. Yet these orders and the Department of Energy's (DOE) associated actions are being challenged as lacking legal sufficiency under the Federal Power Act and past judicial precedent.[2,3]

Administration actions to limit more energy resources are counter to a general claim that there is an energy emergency, e.g., numerous impediments to renewable energy projects, the stop-work order to the 80-percent completed Revolution Wind project, canceling the $4.9B Grain Belt Express transmission line.[4]

EPA has identified no emergency statutory authority in the Clean Water Act (CWA) that allows EPA to extend compliance deadlines for long overdue ELGs based on uncertainties related to future inadequacies in the electric system capacity. Other agencies, such as the DOE, have limited emergency powers to address electric energy emergencies (e.g., under the Federal Power Act), but EPA has no similar legal authority. While a March 12, 2025 memo discusses use of enforcement discretion for energy generation facilities, there is no citation to congressionally-granted authority for extending compliance deadlines.[5] EPA enforcement discretion has been used in other circumstances but with the clear understanding that such discretion was being exercised precisely because the underlying requirement had not changed (for example, multi-sector general permits (MSGPs) for stormwater or vessel general permits (VGPs)).

**There is No Energy Emergency Related to Regional Grids**

There is no specific energy emergency related to regional grids associated with this rulemaking deadline extension. There is a well-established state, regional, and national process to create a reliable and affordable electric system. Projected electric load growth varies significantly in different states, especially with large loads from more data centers and manufacturing facilities. States have the primary authorities to decide what state energy infrastructure gets built/supported. State legislatures, state utility commissions, and associated

[1] https://www.analysisgroup.com/globalassets/insights/publishing/2025_meeting_forecasted_growth_in_electricity_demand.pdf
[2] https://earthjustice.org/wp-content/uploads/2025/09/public-interest-organizations-request-for-rehearing-of-order-202-25-7-1.pdf
[3] https://agportal-s3bucket.s3.us-west-2.amazonaws.com/Energy%20EO%20Filed%20Complaint.pdf?VersionId=PdCfW6MPaD6WJTeP_6axULb0wTDmKDn1
[4] https://pv-magazine-usa.com/2025/10/10/trump-administration-cancels-largest-solar-project-in-united-states/
[5] https://www.epa.gov/system/files/documents/2025-03/necimemo-20250312.pdf

regional organizations (independent system operators (ISOs) and regional transmission organizations (RTOs)) are acting in their traditional role in planning and implementing various generation and demand response plans to create a reliable and affordable electric system.[6] EPA has advanced no support for the proposition that these state-centric authorities are incapable of providing a sufficient understanding for utilities to decide when certain assets like aged coal-fired plants are no longer economical or capable to perform within the state energy system.

General electricity capacity projections are often conservative and fail to integrate price-response and technology advances. Recent electric demand and peak projections follow past electric growth. From the 1970s through the early 2000s, similar electric capacity growth was driven by increased use of air conditioning, manufacturing growth, and technological innovation and computerization.[7]

EPA focuses on bulk coal-generated electric supply to justify the deadline extensions to meet projected demand. EPA has not considered the burgeoning new technologies being deployed to meet projected electric demand. Cost effective renewable generation and storage now account for around 90% of the new capacity being added to the electric grid.[8] In addition, digital and storage technologies are being used to reduce demand during peak power periods. EPA failed to consider the current and projected deployment trends of these technologies to meet projected electricity demand and electric system reliability.[9] States like California and Texas are showing electric system reliability with increased use of these new technologies in the face of increased electric demand and extreme weather.[10,11]

EPA has not analyzed the trend during the last few years for the large number of power projects seeking to connect with the Federal Energy Regulatory Commission (FERC)-associated electric grid system to meet future electricity demand. These projects are responding to market electric demand, as well as FERC orders expanding the types of generation and storage projects eligible to participate in the FERC regulated wholesale market.[12] ISO/RTOs are citing progress in implementing FERC Order No. 2023 to increase project approval in the interconnection queue,[13] for example, PJM.[14] EPA has not evaluated whether this trend is accelerating energy projects in the ISO/RTOs and their impact on the general electric demand concerns that EPA cited.

**EPA Overly Relies on NERC's LTRA**

NERC has an important but limited role in addressing the adequacy of the electric system. NERC establishes long-term general electricity trends and reliability concerns/standards for the bulk power system. This is one part within a multi-entity process for electric system planning and implementing reliable electric markets and infrastructure. See also further below on local siting assets.

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[6] https://www.cesa.org/wp-content/uploads/Load-Growth.pdf
[7] https://www.energy.gov/gdo/clean-energy-resources-meet-data-center-electricity-demand and https://www.analysisgroup.com/news-and-events/news/analysis-group-authors-evaluate-historical-forecasted-us-electricity-demand/
[8] https://www.publicpower.org/system/files/documents/Americas-Electricity-Generation-Capacity-2025-Update.pdf
[9] https://www.utilitydive.com/news/electric-utility-survey-icf/743644/
[10] https://www.caiso.com/documents/2024-special-report-on-battery-storage-may-29-2025.pdf
[11] https://www.eia.gov/todayinenergy/detail.php?id=57240
[12] https://www.energy.gov/sites/default/files/2023-07/Rand_Queued%20Up_2022_Tx&Ix_Summit_061223.pdf
[13] https://www.ferc.gov/explainer-interconnection-final-rule-2023-A
[14] https://insidelines.pjm.com/pjm-completes-interconnection-reform-transition-cycle-1-studies/

The independent monitor for the Midcontinent Independent System Operator (MISO) has stated that NERC's LTRA understated demand response, behind-the-meter resources, and firm imports of power from other regions.[15] This analysis would apply to all RTO/ISOs.

EPA did not compare actual summer 2025 electric system performance data during demand peaks and the contribution from renewable resources, demand response, and distributed resources with NERC's pre-summer projections.

EPA cites NERC's recognition of the increasing growth of weather-dependent renewable resources yet did not evaluate the exploding growth of storage providing independent and dispatchable capacity. Storage, along with virtual power plants, hybrid power, and grid forming controls are increasingly providing grid flexibility and stability that weather-dependent wind and solar resources need to scale.[16]

EPA did not consider the growth of renewables and storage hybrid projects with higher capacity accreditation for addressing peak periods and performing as dispatchable resources.[17] In the 2024 interconnection queue, approximately 40-45 percent of all generation capacity were such projects. While all these projects may not be installed, the electric capacity is 4x larger than NERC's projected 10-year demand peak.[18]

FERC has issued multiple orders allowing alternative energy resources to take part in the wholesale market (e.g., storage and distributed energy resources (DERs)), and to use under-utilized capacity at existing interconnection points to avoid the interconnection queue.[19]

EPA did not discuss the recent impact of the recent One Big Beautiful Bill (OBBB) legislation in reducing the growth of weather-dependent renewable technologies.[20] Despite the slowing growth of more cost-effective technologies largely caused by the OBBB, states have the primary authority to avail themselves of the significant number of recent energy resource options that are cost-effective and support customer affordability.

EPA failed to consider how front and behind-the-meter energy storage and generation can moderate referenced supply chain shortages for grid updates.[21]

Innovative state energy commissions e.g., Ohio and Indiana, are passing rate-designs that accommodate data center cost participation and self-energy infrastructure that reduces stress on state energy systems and reduces ratepayer affordability issues.[22]

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[15] https://elibrary.ferc.gov/eLibrary/filelist?accession_number=20250528-4006&optimized=false&sid=ebe8beb6-c17d-4bf6-b150-69cad4a39a13

[16] https://www.eia.gov/todayinenergy/detail.php?id=64586

[17] https://www.ferc.gov/media/hybrid-resources-white-paper

[18] https://emp.lbl.gov/sites/default/files/2024-04/Queued%20Up%202024%20Edition_1.pdf

[19] See FERC Orders 841 (storage participation), 2222 (DERs), 845 (surplus interconnection), 2023 (streamlines interconnection), 872 (PURPA reform for small renewable projects).

[20] https://www.iea.org/news/global-renewable-capacity-is-set-to-grow-strongly-driven-by-solar-pv

[21] https://research-hub.nrel.gov/en/publications/behind-the-meter-energy-storage-and-generation-in-support-of-elec

[22] https://indianaeconomicdigest.net/Content/Default/Major-Indiana-News/Article/NIPSCO-s-data-center-subsidiary-comes-at-pivotal-time-when-energy-demand-expected-to-skyrocket/-3/5308/120044

**EPA's Cost Assessment is Incomplete**

EPA did not consider higher electricity prices associated with operational expenses (increased maintenance, lower plant capacity factors) associated with coal-fired power plants versus alternative supply or demand response alternatives.[23] By essentially subsidizing utilities with the deadline extension to continue operating, EPA failed to assess lost opportunity costs. Utilities that spend resources for deferred maintenance and higher costs to continue operating reduce their resource capacity to pursue more cost-effective alternative opportunities to enhance electric resources, e.g., strategically local energy assets.[24]

Concurrent DOE actions compelling extended operations at multiple coal plants beyond their scheduled retirement dates amounts to pressuring utilities to delay retirements, thus diverting resources (higher marginal costs, make-up for deferred maintenance, labor shortages) from alternative short-term projects (demand response, installing storage) and longer-term supply options.[25,26] Yet, even without DOE trying to force continued operation, some utilities might use the proposed deadline extensions for reasons other than operational necessity for future electric reliability. EPA has not addressed the additional utility/consumer costs associated with its overbroad deadline extension proposal. Furthermore, the net effect of the deadline extensions is increased customer bills in the near and long term (suppressing new cost-effective technology projects).

**EPA Did Not Complete a Reliability Assessment**

EPA failed to consider the poor reliability performance of coal-fired power plants during extreme weather conditions and slow ramping time when coal plants are used to provide power during peak demand periods. The decades-old energy system has centralized/bulk power plants and simple radial grid wires, but the current grid is challenged by population changes and decentralized energy resources. This decreases the electric-capacity related importance of bulk generation at existing centralized coal plants, and increases the importance and specific complexity of siting electricity assets to strengthen grid stability and reliability. Today, grid reliability depends not just on the total amount of generation available, but where that power is located within the transmission network. Congested corridors, constrained substations, or inadequate electric supply at newer locations can leave certain locations vulnerable to electric system inadequacy even when overall generation appears sufficient. As discussed further below, ISO/RTOs perform detailed engineering and economic studies that pinpoint where transmission bottlenecks and capacity shortages occur, enabling local utilities and states to prioritize upgrades and site new generation or storage where it is most important to enhance system reliability. State utility commissions and ISO/RTOs are central to strategically locating electric assets. EPA has advanced no support for the proposition that these state-centric authorities are incapable of providing a sufficient understanding for utilities to decide when certain assets like aged coal-fired plants are no longer economical or capable to perform within the state energy system.

States also have energy-specific roles derived from police powers and Congress. "[T]he regulation of utilities is one of the most important of the functions traditionally associated with the police power of the States."[27] In 1935, Congress enacted the Federal Power Act (FPA) that delineates roles for DOE, the independent

[23] https://www.lazard.com/media/uounhon4/lazards-lcoeplus-june-2025.pdf
[24] https://www.masscec.com/sites/default/files/documents/masscec_grid_services_roadmap.pdf
[25] https://earthjustice.org/wp-content/uploads/2025/09/public-interest-organizations-request-for-rehearing-of-order-202-25-7-1.pdf
[26] https://subscriber.politicopro.com/article/eenews/2025/08/01/coal-plant-ordered-to-stay-open-cost-29m-to-run-in-5-weeks-00487542
[27] Ark. Elec. Co-op. Corp. v. Ark. Pub. Serv. Comm'n, 461 U.S. 375, 377 (1983).

FERC, and states. States regulate energy production, consumer electricity sales, local grid and generation investments or procurement, intrastate grid connection criteria, grid siting, and other programs (e.g., energy efficiency, demand reduction systems) to ensure lights stay on for electric users.[28]

EPA's overstated reliability concerns on generic megawatt generation fail to consider the importance of local siting assets to secure electric system reliability. Regional RTO/ISOs provide the analysis and pricing for locationally-based assets.[29] The seven domestic ISO/RTO regional/Texas organizations produce recurring capacity and adequacy studies. The labels and governance differ, but each provides knowledge of whether resources are in the right locations and quantities to meet reliability criteria. Additionally, EPA referred to the long-time frame associated with utilities proposing integrated resource plans for addressing electricity capacity, yet did not consider the many states that provide interim stand-alone filings.

**EPN's Recommendation**

Rather than EPA's overly broad deadline extensions, utilities should follow existing procedures with responsible energy authorities, primarily state utility commissions, to consult and agree that a deadline extension is justified for their specific electric system's reliability. This would follow existing procedures with entities responsible for balancing system reliability and consumer affordability. With a determination that continued operation is justified under current energy circumstances, the utility could petition the EPA under CWA authorities to defer these proposed compliance deadlines.

**NOPP Submission of Data Extension**

In both the direct final rule and the proposed rule, EPA is requesting comment on extending the 2024 rule deadline for ceasing coal combustion from 2032 to 2034 and delaying submittal of a NOPP committing to the cessation of coal combustion from 2025 to 2031 in order to be subject only to the 2020 limits for FGD wastewater and BA transport water. Since the 2020 rule set no limits on CRL, CRL controls would be based on best possible judgement (BPJ) limits set by the permit writer while the plant was operating and chemical precipitation limits on mercury and arsenic once the plant ceases operation.

The 2024 rule retained the 2020 rule requirement that all coal-fired power plants not ceasing coal combustion by 2028 must meet the 2020 rule limits by December 31, 2025. The 2024 rule provided an exemption from the 2024 limits if a plant was planning to cease coal combustion by 2032. Recognizing that plants needed at least 2 years to upgrade their treatment to meet the more stringent 2024 limits, EPA required plants to submit a NOPP by December 31, 2025, two years in advance of the compliance date for indirect dischargers and 4 years in advance of the compliance date for direct dischargers to meet the 2024 limits. EPA now claims that these dates need to be extended because there is an energy crisis in the U.S. that was not recognized one year ago when the 2024 rule was finalized. EPA lists the following issues justifying this interim final rule extending the date to cease coal combustion and avoid more stringent limits: increased energy demand; decreased energy reserves; transmission difficulties; decreased energy reliability; and data centers using semiconductors and other components needed to meet the 2024 limits. As noted in the above section, the record does not support these justifications.

EPN does not agree that any of the factors cited by EPA in the interim final rule justify the deadline extensions for coal cessation or NOPP submittal. In the Introduction to our comments, we provide detailed

[28] See, Federal Power Act, Sec. 201(b).

[29] https://www.pjm.com/-/media/DotCom/documents/manuals/m18.ashx

comments on why these factors do not justify deadline extensions. Plants have known since 2015 that they need to treat their toxic FGD wastewater and dry dispose of their bottom ash and have had 10 years to make the decision to do this or cease coal combustion. The 2024 rule further clarified that December 31, 2025 was the date to meet the 2020 rule limits. It is outrageous that EPA now, just 2 months before these limits must be met and the public notified whether a plant will cease coal combustion, is delaying public notice of this decision until 2031. All of these coal-fired power plants are decades old, highly inefficient, and much more expensive to run than other types of plants. There is no credible excuse why they need another 6 years to decide if they will continue coal combustion.

**EPA Fails to Demonstrate a Lack of Available Technology for Zero Discharge Limitations**
For direct dischargers, EPA is extending the end date for compliance with zero discharge limits from 2029 to 2034. EPA's 2024 rule gave direct dischargers an entire 5 year permit term to come into compliance, but EPA is now proposing to extend that by another 5 year permit term.

For indirect dischargers who are required under the CWA to meet ELGs within 3 years of a final rule, EPA is asking for comments on a new "tiered approach" to give them a longer period of time to comply. The first tier extends their deadline to meet zero discharge limits from May 9, 2027 to October 2, 2028. The second tier extends their deadline to meet zero discharge limits to December 31, 2034 if they certify they will switch to direct discharge by then.

EPA asserts that the deadline delays for direct and indirect dischargers are needed for three reasons, the first being the lack of available technology. EPA presents no data demonstrating a lack of available technology nor how this has changed since the 2020 rulemaking. Treatment technology vendors have been aware since the 2020 rule that coal-fired power plants would be interested in membrane technology since it is less expensive than biological treatment and much more effective in removing toxics. In fact, it is the only treatment that removes the drinking water pollutant bromide that drinking water utilities urged EPA to regulate during the 2015 and 2020 rulemakings. Membrane technology is so cost-effective that the 2020 rule promulgated that as a voluntary treatment option with a compliance deadline of 2028. In the 2024 rule, EPA convincingly documented that membrane treatment technology was technologically available, economically achievable, and posed acceptable non-water quality environmental impacts. To further help direct discharging plants achieve the zero discharge limits, EPA gave them a year beyond the voluntary option 2028 compliance period of the 2020 rule. When the 2024 rule was promulgated, 36 currently-operating coal-fired power plants were already achieving zero discharge of FGD wastewater and more than 75% of the plants were already meeting zero discharge of BA transport water. Other than vague statements about data centers causing semi-conductor shortages, EPA presents no data indicating that in just one year membrane technology is no longer available.

EPA's second reason for delaying these compliance deadlines is the need for a longer amortization period to lower the costs of meeting the 2020 rule limits. Operating steam electric power plants have known since the 2015 rule was promulgated that they would need to provide chemical precipitation and biological treatment of their FGD wastewater. The 2020 rule only modified that treatment train to allow a shorter detention time for biological treatment. As a result, coal-fired power plants have been able to install the required treatment train and amortize the costs of meeting the 2020 limits since the 2015 rule was promulgated.

EPA's third reason for delaying these compliance deadlines is to make it easier for coal-fired power plants to opt out of ceasing coal combustion by 2034. As we noted previously, the report, *Meeting Forecasted Growth in*

*Electricity Demand*,[30] undermines EPA's argument that the nation's energy crisis requires these old plants to keep running. In 2023, the average age of operating coal-fired power plants was 45 years, making them extremely inefficient and costly to run. In fact, most of the coal-fired plants that retired between 2002 and 2021 were 50 years old. They retired either when the cost of operating the plant exceeded the expected revenue or when operating costs exceeded the plant's value to the power system, such as its value in providing reliability to the electric grid. If EPA succeeds in keeping these old plants operating by exempting them from enforcement of existing regulations and delaying needed treatment, electricity consumers will be forced to bear the cost of sustaining coal-fired generating sources that are clearly uneconomic and higher cost than the generating units that would have replaced them; drinking water systems will continue to charge their customers more to remove coal-fired power plant toxics from their tap water; and fisheries will continue to be contaminated at levels posing serious health risks to consumers.

There is no justification for delaying the compliance dates for direct or indirect dischargers. There are very few indirect dischargers for one or more of the regulated wastewaters, and EPA presents no justification for developing a two-tiered system for compliance dates that exceed the statutory-required 3 years after promulgation. Indirect dischargers do not need an EPA regulation to give them the option of changing to direct discharge in order to get the longer compliance date.

**EPA Fails to Document Challenges Resulting from Geopolitical Competition for AI and Other Technologies**

In Section VI.D of the Federal Register notice for the proposed rule, Extended Best Available Technology (BAT) Applicability Timing for Zero-Discharge Limitations, the EPA states: "Geopolitical competition for AI and other technologies of the future has also influenced rising demand-driven delays for fulfillment of specific components, like semiconductor chips and other electrical components, which create challenges for facilities to timely meet the 2024 rule where these components are also used in the wastewater treatment system." EPA has not provided a record documenting these challenges. EPA should delete this assertion or provide a record basis specific to the technologies that are the basis for the BAT effluent limitations. EPA's statement is also controverted by the data requests in Section VII, in which the EPA estimates that facilities have conducted more than 30 successful pilot studies, received "many" engineering cost estimates or quotes for zero-discharge systems, and EPA's awareness that facilities have "continued to contract for, fabricate and install zero-discharge systems."

Further, EPA cites the growth of large data centers as a major contributor for the expected electricity demand yet did not analyze the difficulty for large data centers to interconnect with the grid. This is prompting the recent trend for co-locating energy resources, including behind-the-meter self-generation, flexible load capacity, and BYOB (bring your own battery) business strategies to build data centers without straining the existing electric system.[31]

**EPA Should Not Allow Additional Alternatives to ELG Compliance Timing**

EPA proposes allowing permitting authorities to extend the NOPP submission date and the compliance date of any 2020 or 2024 rule deadlines for site specific, unexpected circumstances. EPA asks for public comment on whether there should be minimum or maximum durations for these alternative, site-specific

[30] https://www.analysisgroup.com/globalassets/insights/publishing/2025_meeting_forecasted_growth_in_electricity_demand.pdf
[31] https://emp.lbl.gov/sites/default/files/2024-09/Hybrid_Plant_Tracking_2024_v3.pdf

deadlines; what the circumstances should be to qualify for these alternative dates; and whether and how this provision should be integrated with the other provisions being proposed.

It is ridiculous for this steam electric ELG to authorize permitting authorities to extend compliance dates for the 2020 rule since compliance is due by December 31, 2025. The 2020 rule already extended the 2015 rule's 2023 compliance date to 2025, so steam electric power plants have had 10 years to install biological treatment of FGD wastewater and dry disposal of BA, which was required by both the 2015 and 2020 rules. The 2020 rule even had adequate data to conclude that steam electric power plants had the capability to meet much more stringent toxic limits by installing a membrane treatment system instead of a biological treatment system. The 2020 rule promulgated this membrane treatment as a voluntary option with compliance due in 2028. The 2024 rule required this same membrane treatment option and gave plants until 2029 (an additional year) to comply. EPA presents no new data indicating plants cannot meet the 2024 limits until 2034. EPA does not explain why it is proposing to add alternative compliance dates for case specific situations when the CWA already authorizes EPA and state permitting authorities to adjust national ELG requirements for unique site specific circumstances (see CWA Section 301(n)).

A facility can request a variance from ELG requirements if it can demonstrate that its situation is different from the national standard. EPA or the state permitting agency must review the evidence and make a written finding on whether or not the factors at that facility are "fundamentally different." Fundamentally different factors are the specific characteristics of a facility that are unique enough to warrant an adjustment to national ELGs. The CWA explains that these factors are distinct from those the EPA considered when developing the national standards and can include the age of equipment, processes, engineering aspects, and non-water quality impacts like energy requirements and costs. The core difference is that the national standard was based on a different set of assumptions, and these new factors make the ELG requirements impractical or economically unfeasible for a specific facility. If the variance is approved, EPA or the state permitting agency can establish new, adjusted effluent limitations that are either more or less stringent than the national standard, as dictated by the factors.

**A 5-Year Delay in Compliance will Undermine the Significant Economic Benefits from the 2024 Rule**

EPA requests comments on the cost savings of these 5 to 6 year deadline delays.

EPA's 2024 rule estimated that household electricity costs would only increase between $1.61 and $3.14 per year on average and that the total electric capacity from steam electric plants would decrease by only 3%. Those findings undermine EPA's current statement that 5 more years of delay in achieving the 2024 standards is necessary to provide adequate, affordable electricity nationwide. This proposed new rule does not mention that the 2024 rule would prevent over 660 million pounds of pollutants from being dumped into U.S. waterways each year and that over 30 million people drink water downstream of steam electric power plants. Despite the fact that EPA lacks the methods to monetize many of the benefits of the 2024 rule, the agency was able to monetize $3.2 billion in annualized benefits, an amount 3 to 6 times greater than the costs to industry to comply with this ELG.

While the major driver for these benefits came from the indirect improvements to air quality from greenhouse gases (GHGs), nitrous oxides (NOx), and sulfur oxides (SOx), the benefits included reduced water treatment costs, reduced cancer from trihalomethanes (THMs) in drinking water, reduced child IQ loss from lead and mercury, reduced cardiovascular effects, improved recreational opportunities, and

protection of threatened and endangered species. EPA estimated that every year after industry complied with the 2024 rule: a) 1,555,558 children from birth to 7 years of age would be protected from loss of IQ points when eating fish downstream from these plants due to the reduction in lead discharges and b) 201,850 infants would be protected from loss of IQ points in utero from their mother eating fish downstream of these plants due to the reduction in mercury discharges.

**Reliance Interests Prefer to Maintain the 2024 Steam Electric ELG**

The proposed ELG revisions discussed in the Federal Register notice for the proposed rule (sections VI. A, C, D, E, F and G) all include a statement ". . . The Agency also solicits comment on whether there are any significant reliance interests related to [the proposed revision] and, if so, how the Agency should take this into account when considering whether to take final action on the proposal." Later, in Section VII, Data Request, EPA notes: "the EPA estimates that there may be a dozen or more successful pilots with thermal and/or crystallization technologies and perhaps twice as many successful new pilot studies on membrane filtration technologies." The EPA also states: "The EPA has learned that many facilities have asked for, and received, formal engineering cost estimates or quotes for zero-discharge systems from engineering, procurement, and construction firms, consultants, and/or vendors. In some cases, facilities have also received firm bids in response to requests for proposal or, alternatively, have received cost-escalation figures for previous bids or quotes." EPA also states: "The EPA is aware that facilities have continued to contract for, fabricate, and install zero-discharge systems in furtherance of State requirements and/or the Steam Electric ELGs."

EPN notes that each of these engineering, procurement and construction firms, consultants and/or vendors has a reliance interest in maintaining the 2024 Steam Electric ELG. Should EPA finalize its proposal, these entities and their supply-chain partners will lose or have delayed market opportunities. These entities may have made investments that will be stranded or they will see a considerable delay in recouping sunk costs. EPA should investigate whether any of these firms are small businesses and quantify the impacts of delaying compliance deadlines on those firms. The agency should then consider reversing its finding of no significant impact on a substantial number of small entities under the Regulatory Flexibility Act and convening a Small Business Advocacy Review panel for this proposal under the Small Business Regulatory Enforcement and Fairness Act.

**EPA Ignores Impacts on Tribes and Tribal Waters**

In Section VIII.G of its Federal Register notice, EPA states that it did not consult with Indian Tribes in accordance with Executive Order 13175 because the proposal will not have substantial direct effects on Tribal governments.

Indian Tribes are disproportionately affected by this action due to the fishing and fish consumption rates of Tribal members, many of whom consume locally-caught fish at rates far higher than the general public, as EPA has long recognized.[32] EPA should consult with Indian Tribes regarding the proposed rule's delay in reducing fish contamination caused by the discharge of pollutants like mercury that will disproportionately affect Indian Tribes.

[32] United States. Environmental Protection Agency. Office of Health, & Environmental Assessment. Exposure Assessment Group. (2011). Exposure factors handbook. US Environmental Protection Agency.