The Honorable Frank Pallone, Jr.

1. **There have been claims that EPA's modeling of the proposed greenhouse gas standards for fossil fuel power plants is flawed because it does not fully align with data from EIA forms, and data on announced retirements. Is this accurate? Please explain why or why not.**

Mr. Jay Duffy: Witnesses claimed that EPA's modeling was flawed because it didn't match data planned retirements reported to the U.S. Energy Information Administration (EIA) as part of Form EIA-860. Specifically, EPA's modeling projects greater retirements than has already been announced and reported to EIA as of earlier this year. This is not a flaw, but a feature.

EPA's modeling represents a best-guess projection of what the future electricity system will look like given the best-available data on future technology costs and performance, future fuel prices, existing state and federal policy, reliability requirements, and transmission constraints. The model solves for a least-cost future energy system – retiring existing power plants and building new power plants based on economics (i.e., what results in the lowest costs for our electricity system and for American consumers) and grid needs (i.e., ensuring that projected energy load and demand is met, as well as any reliability and reserve margin requirements).

EIA Form-860 does actually underpin important parts of EPA's own modeling: it serves as a key input for EPA's NEEDS database, which is the source for the model's data on existing and planned units.[1] It takes this unit-level data – on capacity size, heat rates, operating costs, fuel types, installed equipment, planned conversions or retirement dates – but then builds upon this data to determine a likely, reasonable future based on expected costs, operating lifetimes, and the impact of market forces.

EPA's model goes out until the mid-2050s; a model that only accounts for planned retirements, known today, would be unreasonable. Few, if any, utilities are reporting retirement dates for plants that will reach the end of their useful life by the 2050s but are not yet planned for imminent retirement. EIA has no listed coal retirements after 2040, and 86% of coal capacity announced to retire in EIA's reporting retires within the next decade.[2] Plants with no planned retirement dates in EIA's reporting will be as old as 120 years by 2050 – or three times the assumed operating lifetime of 40 years. 107 plants with no planned retirement according to EIA will be over 80 years old. Even for those plants with planned retirement dates, these dates can often shift by years based on changing economics and other factors.[3] Utilities also announce and complete a retirement all in as little as 90 days. For example, Homer City Generating Station – one of the largest coal plants in the country – announced in April 2023 that it was closing in July 2023.[4]

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[1] The NEEDS database is available at https://www.epa.gov/power-sector-modeling/national-electric-energy-data-system-needs.
[2] See EIA's Preliminary Monthly Electric Generator Inventory at https://www.eia.gov/electricity/data/eia860m/.
[3] See "Talen to retire two units at Montana Colstrip coal plant early," *Reuters,* June 11, 2019, https://www.reuters.com/article/us-talen-energy-montana-colstrip/talen-to-retire-two-units-at-montana-colstrip-coal-plant-early-idUSKCN1TC2CT; Governor Doug Burgum, "Sale of Coal Creek to Rainbow Energy clears final regulatory hurdle with transmission line transfer," Press Release, Office of the Governor, North Dakota, https://www.governor.nd.gov/news/burgum-sale-coal-creek-rainbow-energy-clears-final-regulatory-hurdle-transmission-line.
[4] Reid Frazier, "Homer City — Pa.'s largest coal-fired power plant — will close in July," Allegheny Front, April 5, 2023, https://www.wesa.fm/environment-energy/2023-04-05/homer-city-coal-plant-closure.

EPA is projecting the future – developing a baseline that represents a best estimate of the likely future given expected future costs and laws and regulations on the books. Its objective is to develop a reasonable baseline to assess the incremental impacts of proposed regulations on the future energy system, above and beyond the changes expected to occur anyway due to economics and existing policy. EIA is surveying the electric fleet as it is today – how it is operating today and known changes to that operation – it is not a projection of the future. Its objective is to provide clear, up-to-date information about the electricity system historically and currently. EPA's modeling of the next three decades shouldn't look like EIA's lay of the land as of today. If it did that would be unreasonable and concerning.