202(c) Orders Blog Post Methodology September 14, 2026

All sources can be found in the “read me” tab of the project excel sheet.

Emissions & Operating Time

The Clean Air Markets Program Database (CAMPD) is a web-based repository of unit-level carbon dioxide (CO_2), nitrogen oxides (NOx), sulfur dioxide (SO_2), and mercury (Hg) emissions data for power plants. It is publicly available and maintained by the U.S. Environmental Protection Agency (EPA). As of the date of writing, the most recent CAMPD data is through June 30, 2026.

To estimate operating hours and emissions of CO_2, SO_2, and NOx from each unit during their operations under 202(c) orders, the CAMPD custom data download tool was used as follows:

1. Select data type: Emissions.
2. Select data subtype: Daily Emissions.
3. Select aggregation level: Unit (No Aggregation).
4. Enter date 202(c) order was issued.
5. Enter end date: 06/30/2026.
6. Enter the facility name.

The resulting data provides operating hours and CO_2, SO_2, and NOx emissions values for each unit at a given plant during the duration of their 202(c) orders. Because the most recent CAMPD data update is only through June 30, 2026, these data do not necessarily detail the full impacts associated with running a plant during the full ordered period. Additionally, if a plant received a 202c order after June 30, 2026, its emissions and operating hours are not yet in CAMPD.

To estimate emissions of Hg from each unit that has received a 202(c) order, the CAMPD custom data download tool was used as follows:

1. Select data type: Mercury and Air Toxics Emissions (MATS).
2. Enter date 202(c) order was issued.
3. Enter end date: 06/30/2026.
4. Enter the facility name.

The resulting data provides hourly Hg emissions for each unit at a given plant during their 202(c) order. To determine a unit’s total Hg emissions during this period, hourly values were summed.

$PM_{2.5}$ emissions were calculated for each *coal-fired* plant using SO_2 emissions as a proxy. This is a similar approach as done by Clean Air Task Force, as documented in their Toll From Coal methodology**.** $PM_{2.5}$ emissions were calculated for all running units together because a separated unit-level analysis could not be done due to data limitations. 2022 SO_2 emissions from the National Emissions Inventory (NEI) 2022v2 were downloaded for each facility and compared to 2026 SO_2 emissions during the 202(c) order period from CAMPD. Direct $PM_{2.5}$ emissions for the 202(c) order period for each facility were scaled based on the change in SO_2 emissions across the two periods.

A different approach was taken for the Eddystone plant which does not burn coal, but rather a combination of oil and natural gas. $PM_{2.5}$ emissions from oil and natural gas plants are not proportional to SO_2 emissions as they are for coal-fired plants, so we estimated $PM_{2.5}$ emissions based on heat input, in accordance with Emissions & Generation Resource Integrated Database (eGRID) methodologies. Without specific information about what fuel was burned at Eddystone during its 202(c) order period, we took the conservative approach (i.e., lower $PM_{2.5}$ emissions

factor) and assumed the Eddystone plant burned only natural gas—its primary fuel. It should be noted that the calculated $PM_{2.5}$ emissions from Eddystone would likely be higher if oil was modeled as a fuel.

According to 2021 $PM_{2.5}$ plant level eGRID data – the most recent $PM_{2.5}$ data available -- Eddystone's annual $PM_{2.5}$ total input emission rate was 0.014398373 lb/MMBtu. Eddystone's daily, plant-level gas heat input values were sourced from CAMPD and its daily $PM_{2.5}$ emissions were calculated using the following formula: $PM_{2.5}$ (tons) = [daily gas heat input (MMBtu) x 0.014398373 (lb/MMBtu)] / 2,000 (lbs/ton). These daily plant-level emissions were summed to calculate a plant-level estimate of $PM_{2.5}$ emissions during its 202(c) order period, in accordance with the other $PM_{2.5}$ estimates.

The calculated 202(c) order period $PM_{2.5}$ emissions were compared to each plants' 2022 NEI $PM_{2.5}$ emissions values on a g/kWh basis to see if our results were similar to other years' of plant data. $PM_{2.5}$ emission values were converted from tons to g/kWh as follows: $PM_{2.5}$ emissions (g/kWh) = [PM2.5 emissions (tons) x 907,185 (g/ton)] / [gross load (MWh) * 1,000 (kWh/Mwh)]. 2022 gross load values were sourced from NEI 2022v2 and 202(c) order period gross load values were sourced from CAMPD. We deemed the values similar enough to proceed.

These 2022 and 202(c) order period $PM_{2.5}$ emissions values were then compared to 2021 eGRID $PM_{2.5}$ emissions data for each plant on a g/kWh basis to see if our results were similar to those calculated by eGRID. eGRID data was converted from lb/MWh to g/kWh as follows: $PM_{2.5}$ emissions (g/kWh) = [PM2.5 emissions (lbs) x 453.592 (g/lbs)] / 1,000 (kWh/Mwh). We deemed the values similar enough to proceed.

Health Impacts

The web edition of the Co-Benefits Risk Assessment Health Screening and Mapping Tool (COBRA) is a model developed and maintained by EPA to estimate the public health benefits due to reductions in air pollutants, namely $PM_{2.5}$, NO_x, SO_2, and VOCs. The web version of COBRA uses 2023 data for its baseline emissions.

The COBRA tool allows for the modeling of health impacts over time, based on emissions over a particular year, and allows a user to specify particular scenarios of emission controls. COBRA produces a location-specific and facility-specific estimate. Essentially, the tool measures the health impacts that are related to local meteorological conditions and the population distribution downwind from all generation units at a facility. COBRA's calculated impacts aren't simply a function of tons of air pollutants emitted; they're a function of tons emitted from the particular facility, into the location-specific airshed, across specified times of a year, and affecting the particular population that resides in the neighboring areas.

To estimate the health impacts of running a plant during the pendency of its 202(c) emergency order, COBRA was used as follows:

1. Select the county the facility is located within.
2. Select the sector: Fuel Combustion: Electric Utility
3. Select the subsector applicable to the facility: either coal or natural gas
4. Enter the $PM_{2.5}$, SO_2 and NO_x emissions associated with the plant
5. Select a 2% discount rate

Together, these parameters reflect the health impacts of the air pollutants thus far emitted under a plant's 202(c) order. Because the most recent CAMPD data update is only through June 30, 2026, these health impacts do not necessarily detail the full health impacts associated with

running a plant during the full ordered period. Additionally, if a plant received a 202(c) order after June 30, 2026, its emissions are not yet in CAMPD, and thus its associated health impacts cannot be quantified.

Costs

For each of the seven plants, EDF drew from a variety of data sources to estimate a range of values that would encapsulate the net costs incurred by ratepayers because of the Trump administration's Section 202(c) emergency orders. For six of the seven plants, excluding C. H. Stanton, Grid Strategies provided annual estimates of the net cost to ratepayers based on an estimated cost of $89,315/MW-year, which was calculated based off of their analysis of existing Reliability Must-Run (RMR) contracts of plants.[1] For reference, a recent settlement by Talen Energy, PJM, and other parties agreed upon a RMR contract of $137/MW-day, or $50,005/MW-year, to run the H.A. Wagner Oil plant covered by an emergency 202(c) order.[2] For all plants except for Eddystone, Resource Media estimated costs by using Energy Innovation's analysis of publicly available EIA data to estimate the cost of running coal plants based on their $/MWh and MWh generation in 2024. EDF divided these annual estimates by 365 to find the estimated daily net cost. Grid Strategies' comprehensive methodology can be found here.

Sierra Club also estimated the net cost per day of multiple plants by subtracting the estimated revenues that could be recuperated via energy and capacity sales from the estimated gross daily cost of operating facilities. For the J.H. Campbell and Centralia plants, they drew from FERC and/or SEC filings through the most recent filings. For the R.M. Schahfer Generating Station and F.B. Culley plant, they drew from a Synapse report. The R.M. Schahfer estimate also drew from a draft transmittal cost recovery filing to FERC. Finally, for Stanton, they used S&P modeled data. Their comprehensive methodology can be found here.

EDF drew other estimates from a variety of sources. For instance, EDF drew additional Synapse estimates of the net costs to run F.B. Culley and R.M Schahfer from the Synapse report. For the Eddystone plant, EDF drew from NRDC estimates cited by Sierra Club. For the C.H. Stanton plant, EDF calculated a lower bound of estimated costs based on EIA-923 2025 generation data using the Grid Strategies annual cost factor of $89,315/MW-year. For the J.H. Campbell plant, EDF drew from the parent company's 10-Q SEC Form filing for the quarterly period ending March 31, 2026. For the Centralia plant, EDF drew from the parent company's FERC filing application for the emergency order from December 16, 2025 to March 16, 2026 and for March 17, 2026 to June 14, 2026. For both these plants, EDF divided the number of days for which the cost recovery applied by the cost recovery amount.

Finally, to estimate the cost-to-date of each emergency order, EDF multiplied the estimated

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[1] https:/earthjustice.org/wp-content/uploads/2025/08/grid-strategies_cost-of-federal-mandates-to-retain-fossil-burning-power-plants

[2] Talen Energy, Other Parties Reach Reliability Must Run Settlement Agreement for Brandon Shores and H.A. Wagner Power Plants | Mon, 01/27/2025 - 16:26

median net daily cost times the number of days since the first order for each plant to the present day. These numbers are currently updated to reflect the cost-to-date as of September 14, 2026.

Plant	# Est.	Sources
C. H. Stanton #1	3	Sierra Club, EIA-923 x Grid Strategies Factor, Resource Media and Energy Innovation (RM + EI)
F. B. Culley #2	3	Grid Strategies, Synapse, RM + EI
Centralia #BW22	4	Grid Strategies, Sierra Club, FERC filing, RM +EI
Craig #C1	2	Grid Strategies, RM + EI
R. M. Schahfer #17 & #18	5	Grid Strategies, Sierra Club, Synapse, FERC filing draft transmittal letter, RM + EI
Eddystone #3 & #4	2	Grid Strategies, NRDC
J. H. Campbell #1-3	4	Grid Strategies, Sierra Club, SEC filing, RM + EI

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