

**HEARING ON THE NOMINATION OF JOSEPH  
GOFFMAN TO BE ASSISTANT ADMINISTRATOR  
FOR THE OFFICE OF AIR AND RADIATION, AT  
THE ENVIRONMENTAL PROTECTION AGENCY**

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**HEARING**  
BEFORE THE  
**COMMITTEE ON  
ENVIRONMENT AND PUBLIC WORKS**  
**UNITED STATES SENATE**  
ONE HUNDRED EIGHTEENTH CONGRESS  
FIRST SESSION  
MARCH 1, 2023

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COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

ONE HUNDRED EIGHTEENTH CONGRESS

FIRST SESSION

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**HEARING ON THE NOMINATION OF JOSEPH  
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TECTION AGENCY**

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**WEDNESDAY, MARCH 1, 2023**

U.S. SENATE,  
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS,  
*Washington, DC.*

The Committee met, pursuant to notice, at 10:04 a.m. in room 406, Dirksen Senate Office Building, Hon. Thomas R. Carper (Chairman of the Committee) presiding.

Present: Senators Carper, Capito, Cardin, Markey, Kelly, Padilla, Cramer, Lummis, Wicker, Sullivan, Mullin, and Ricketts.

**OPENING STATEMENT OF HON. THOMAS R. CARPER,  
U.S. SENATOR FROM THE STATE OF DELAWARE**

Senator CARPER. Good morning, everybody. I want to call this hearing to order.

We have gathered here today for a second time to consider Joe Goffman's nomination to serve as the Environmental Protection Agency's Assistant Administrator for the Office of Air and Radiation.

Joseph, we thank you for your previous service to our country and for your willingness to serve us again in this role.

I understand you are joined here by at least one member of your family. Over your left shoulder, I think I see three young women sitting there. One of them is your wife, the one in the middle.

We just say welcome. For you, I said this to Shelley before we started, for her, no purgatory, straight to heaven. Being married to people who do what we do or what you do, there is a special place in heaven for you, so thank you for that. I know he appreciates your being here with him today.

For those participating in and watching today's hearing, it may seem a little like we are reliving the plot of the movie, one of my favorite movies, Groundhog Day. Nine months ago, Mr. Goffman came before our Committee to field questions from our members. While a lot can change in 9 months, Joe's qualifications for this important leadership role, his commitment to fair outcomes, and his nomination's broad support from stakeholder groups all remain unchanged.

Let me first address Mr. Goffman's experience and his qualifications. As I said before, the Assistant Administrator for the Office

of Air and Radiation has an outsized impact on our lives. The American people deserve someone serving in this position who is committed to reducing planet warming climate pollution while also improving our vehicle emissions standards and protecting public health, all of which go hand in hand with economic growth and job creation.

From the earliest days of his career, when he helped develop the Clean Air Act Amendments of 1990 as a staff member on this very Committee, to his time at EPA under Presidents Obama and now Biden, Joe Goffman has dedicated his life's work to cleaning up the air we breathe and protecting our one and only planet.

Importantly, he follows the law in a way that also provides the predictability and certainty that industry wants and needs. I just led a congressional delegation, bipartisan and bicameral, last week to Honduras, Guatemala, and Mexico. We met a lot with the business community down there. One of the keys to slowing and stopping illegal immigration is making sure that people have jobs there and that they can support themselves and their families down there.

One of the things that is tantamount and really important to doing that is certainty and predictability. We heard that again and again and again from the business community in Latin America, and we hear it all the time from the business community here: Certainty and predictability.

Joe Goffman is committed to fair outcomes, even if that process takes longer than many of us who support stronger, common sense clean air regulations would like. Why is that the case? It is because he cares about doing things the right way and listening to the concerns of all who may be impacted by changes to our Nation's clean air standards.

Don't just take my word for it. Over 50 groups representing a broad coalition of interests have voiced their support for Joe Goffman's nomination to serve as Assistant Administrator.

As expected, these groups include some of our largest environmental organizations, such as Natural Resources Defense Council, NRDC, along with the Environmental Defense Fund, along with the National Wildlife Federation, the Sierra Club, and the League of Conservation Voters. That is just a couple of the environmental groups that have said they are for this nomination.

It is important to note, however, that a diverse array of industry groups also support Joe Goffman's nomination, from utility organizations like the Edison Electric Institute, EEI, to biofuel groups like the Renewable Fuels Association.

Finally, Joe Goffman's nomination has the support of some of our Nation's largest labor unions, including the AFL-CIO and the United Steel Workers. Even the United Mine Workers of America, our Nation's largest union of coal miners, have voiced their support for Mr. Goffman's nomination to lead the Office of Air and Radiation. That does not happen every day, and it bears testimony to Joe's character and commitment to doing what is right.

While much has changed since Mr. Goffman last appeared before this Committee 9 months ago, including the passage of the Inflation Reduction Act, the growth of clean energy manufacturing jobs

in our Nation, and the lowest unemployment rate since 1969, the strong and diverse support for his nomination has not wavered.

President Biden selected Joe Goffman to lead this office because he knows that Mr. Goffman is up to the task. Having worked with Mr. Goffman, I know he is well prepared for this role, and I look forward to doing my part to advance his nomination without undue delay. He has the heart of a public servant. And we look forward to hearing from him today.

Before we do that, I want to turn to our Ranking Member, Senator Capito, for her opening remarks.

Senator Capito.

**OPENING STATEMENT OF HON. SHELLEY MOORE CAPITO,  
U.S. SENATOR FROM THE STATE OF WEST VIRGINIA**

Senator CAPITO. Thank you, Mr. Chairman. Thank you. I value our partnership as we consider the nominees. Although we are not always voting the same way, I take this seriously, the processing of the nominations.

I want to thank Mr. Goffman for coming before us again today. Welcome back, and thank you for being here.

We have some new members on our Committee, as you see, who haven't had a chance to face to face with you, Mr. Goffman. I think that is important in light of the discussion today.

So, you have been at the Administration within the Office of Air and Radiation. According to the Chairman, you have done a lot of work throughout the course of your career, but your last hearing was in May 2022, and as the Chairman mentioned, a lot has changed, really, three major events that apply directly to the Air Office's responsibilities and authorities since we last saw you, the first being the Supreme Court landmark decision in *West Virginia v. EPA*, a case successfully led by my home State. There, the Supreme Court held that the Clean Power Plan was an illegal overreach of EPA's authority.

When Congress wishes to vest agencies with broad authorities, like the authority to fundamentally change our Nation's energy sector, Congress speaks clearly. Congress does not address major policy questions through silence or ambiguous grants of authority. There are no elephants hiding in mouse holes.

Given the significance of what the Supreme Court established there, I must say, I was a bit surprised when you told the *New York Times* in an interview not long after that decision, that "this case does not really take anything off the menu that we have been focused on." That concerns me, and I am sure it is no surprise to you that it did, especially that you have given personal calls for capacious readings of the Clean Air Act authority before the Supreme Court's ruling and prior defeats in our Nation's highest courts.

If nothing has changed, does that mean that you intend to continue to interpret the Clean Air Act in these overreaching ways? That will be the substance of part of my questioning.

Second, another significant event since your last hearing was the passage of the Inflation Reduction Act. As predicted, that bill has failed in achieving its titular purpose, as inflation remains stubbornly high, but then, in my view, it was never really about inflation, but about funding partisan priorities. What proponents have

said, accurately, is that it is designed to have a significant impact on our baseload power resources in this country, especially our coal resources.

In a recent presentation, the staff from the EPA Office of Air and Radiation discuss some of the initial findings that EPA has made about the effects of the IRA, Inflation Reduction Act, on coal power plants moving forward. The EPA staff confirmed that the legislation will drive down the deployment and use of coal and power plants at a significant rate.

The charts behind me, these are charts from the EPA presentation, shows exactly that. The blue line in the graph shows anticipated use of coal power without carbon capture, CCUS, between 2020 and 2040. The blue line shows, also, I have the other chart here right now, but the red line with the IRA is noticeably lower.

On the other chart it is the same on the capacity. This is capacity, and coal capacity means how much they are running, I think.

No, the second chart shows the capacity factor, so let us put that one back up. This is how many will be in production. The second shows that, in other words, how much will these be in service. Because of the IRA, not only will more coal plants retire, but the usage of those still in service will be much lower. You have the charts, I know, because our staffs have talked about this.

To translate what these charts mean in real world terms, your agency is predicting the IRA itself will drive significant decreases in coal usage. For West Virginia, what that means is further hits to communities devastated by policies that were previously put into place. You and I have talked about this. This leads to job loss, poor health, drug addiction, hopelessness, but the graphs we are looking at only consider the Inflation Reduction Act. That is not the end of the line of the Administration.

As we know from our presentation in February 2022, you have been a critical advisor in the development of the Administration's so called EGU strategy, a plan to dump a number of new regulations across the air, water, and waste categories to disproportionately affect our coal power. And the effects of these regulations, like the replacement to the Clean Power Plan, the new effluent limitation guidelines under the Clean Water Act, and the so called Good Neighbor rule, will further hit coal plants in our industrial heartland. So the Inflation Reduction Act is bad news for coal communities in West Virginia, and I think, devastates us.

I have mentioned *West Virginia v. EPA*. I mentioned the Inflation Reduction Act. The third item of concern are the warnings being sounded by the grid operators. We have a reliability problem in this country already, and it is going to be gravely exacerbated by policies that drive away critical baseload energy resources like coal and natural gas. These regulatory policies will likely render unachievable the Administration's goal to electrify certain industries that currently do not depend on the grid, such as automobiles or gas ranges, as grid operators struggle to fill current, never mind future, demand.

Earlier this week, the Wall Street Journal editorial board wrote about the types of policies that are driving power plant retirements and how those plants are shutting down without adequate replacement power. They cite a report released last week, excuse me, by

PJM, which serves more than 65 million people across 13 States, including the District of Columbia where we are, and also the State of West Virginia, where I live.

PJM is ringing the alarm about the effect that retirements will have and how most power plants retirements are policy driven. This is a quote from their report: "Policies like an EGU strategy could lead to energy shortages and blackouts." As the Journal observed, "The steep costs of complying with EPA agency regulations, including a proposed Good Neighbor rule that is expected to be finalized next month, will force the shuttering of 10,500 megawatts of fossil fuel generation."

So, I am going to request unanimous consent that the editorial, the PJM report referenced here, and the EPA presentation, which I have here, and I have the full presentation here, be put into the record.

Senator CARPER. Without objection.  
[The referenced information follows:]

WSJ | OPINION

## **S.O.S for the U.S. Electric Grid**

### **PJM Interconnection sounds the latest alarm that fossil-fuel plants are shutting down without adequate replacement power. The political class yawns.**

By [The Editorial Board](#)

Follow

Feb. 26, 2023 4:47 pm ET

The warnings keep coming that the force-fed energy transition to renewable fuels is destabilizing the U.S. electric grid, but is anyone in government paying attention? Another S.O.S. came Friday in an ominous report from PJM Interconnection, one of the nation's largest grid operators.

The PJM report forecasts power supply and demand through 2030 across the 13 eastern states in its territory covering 65 million people. Its top-line conclusion: Fossil-fuel power plants are retiring much faster than renewable sources are getting developed, which could lead to energy “imbalances.” That’s a delicate way of saying that you can expect shortages and blackouts.

PJM typically generates a surplus of power owing to its large fossil-fuel fleet, which it exports to neighboring grids in the Midwest and Northeast. When wind power plunged in the Midwest and central states late last week, PJM helped fill the gap between supply and demand and kept the lights on.

That’s why it’s especially worrisome that PJM is predicting a large decline in its power reserves as coal and natural-gas plants retire. The report forecasts that 40,000 megawatts (MW) of power generation—enough to light up 30 million households—are at risk of retiring by 2030, representing about 21% of PJM’s current generation capacity.

Most projected power-plant retirements are “policy-driven,” the report says. For example, the steep costs of complying with Environmental Protection Agency regulations, including a proposed “good neighbor rule” that is expected to be finalized next month, will force about 10,500 MW of fossil-fuel generation to shut down.

At the same time, utility-company ESG (environmental, social and governance) commitments are driving coal plants to close, the report notes. Illinois and New Jersey climate policies could reduce generation by 8,900 MW. Do these states plan to rely on their good neighbors for power?

Many states have established ambitious renewable goals, and the Inflation Reduction Act lavishes enormous subsidies on wind, solar and batteries. But the report says the

“historical rate of completion for renewable projects has been approximately 5%,” in part because of permitting challenges. In an optimistic case, the report estimates 21,000 MW of wind, solar and battery storage capacity will be added to the grid by 2030—about half as much as the expected fossil-fuel retirements.

There’s another problem: Demand for electric power will increase amid the growth in data centers and the government’s push for the electrification of vehicles, heating and everything else. Loudoun County, Va., boasts “the largest concentration of data centers in the world,” the report notes.

The report doesn’t say this, no doubt owing to political reticence, but the conclusion is clear. The left’s green-energy transition is incompatible with a growing economy and improving living standards. Renewables don’t provide reliable power 24 hours a day, 365 days a year, and the progressive campaign to shut down coal and gas plants that do will invariably result in outages.

During an arctic air blast this past December, PJM ordered some businesses to curtail power usage and urged households to do the same. PJM narrowly avoided rolling blackouts as some generators switched to burning oil. But what will happen when those power plants shut down? A power shortage at PJM has the potential to cascade across much of the U.S.

Government officials have been raising alarms about the risks of cyber and physical attacks on the grid. But what about the accelerating danger from climate policy?



People pass electrical power lines in Arlington, Va.

PHOTO: ANDREW CABALLERO-REYNOLDS/AGENCE FRANCE-PRESSE/GETTY IMAGES

*Appeared in the February 27, 2023, print edition as 'S.O.S for the U.S. Electric Grid'.*



## **Energy Transition in PJM:** Resource Retirements, Replacements & Risks

Feb. 24, 2023

For Public Use

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## Executive Summary

Driven by industry trends and their associated challenges, PJM developed the following strategic pillars to ensure an efficient and reliable energy transition: facilitating decarbonization policies reliably and cost-effectively; planning/operating the grid of the future; and fostering innovation.

PJM is committed to these strategic pillars, and has undertaken multiple initiatives in coordination with our stakeholders and state and federal governments to further this strategy, including interconnection queue reform, deployment of the State Agreement Approach to facilitate 7,500 MW offshore wind in New Jersey, and coordination with state and federal governments on maintaining system reliability while developing and implementing their specific energy policies.

In light of these trends and in support of these strategic objectives, PJM is continuing a multiphase effort to study the potential impacts of the energy transition. The first two phases of the study focused on energy and ancillary services and resource adequacy in 2035 and beyond. This third phase focuses on resource adequacy in the near term through 2030.<sup>1</sup>

Maintaining an adequate level of generation resources, with the right operational and physical characteristics<sup>2</sup>, is essential for PJM's ability to serve electrical demand through the energy transition.

Our research highlights four trends below that we believe, in combination, present increasing reliability risks during the transition, due to a potential timing mismatch between resource retirements, load growth and the pace of new generation entry under a possible "low new entry" scenario:

- The growth rate of electricity demand is likely to continue to increase from electrification coupled with the proliferation of high-demand data centers in the region.
- Thermal generators are retiring at a rapid pace due to government and private sector policies as well as economics.
- Retirements are at risk of outpacing the construction of new resources, due to a combination of industry forces, including siting and supply chain, whose long-term impacts are not fully known.
- PJM's interconnection queue is composed primarily of intermittent and limited-duration resources. Given the operating characteristics of these resources, we need multiple megawatts of these resources to replace 1 MW of thermal generation.

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<sup>1</sup> See [Energy Transition in PJM: Frameworks for Analysis | Addendum](#) (2021), and [Energy Transition in PJM: Emerging Characteristics of a Decarbonizing Grid | Addendum](#) (2022).

<sup>2</sup> See previous work on Reliability Products and Services, including [PJM's Evolving Resource Mix and System Reliability](#) (2017), [Reliability in PJM: Today and Tomorrow](#) (2021), [Energy Transition in PJM: Frameworks for Analysis | Addendum](#) (2021), and work completed through the RASTF and PJM Operating Committee (2022).

The analysis also considers a "high new entry" scenario, where this timing mismatch is avoided. While this is certainly a potential outcome, given the significant policy support for new renewable resources, our analysis of these long-term trends reinforces the importance of PJM's ongoing stakeholder initiatives, including capacity market modifications, interconnection process reform and clean capacity procurement, and the urgency for continued, combined actions to de-risk the future of resource adequacy while striving to facilitate the energy policies in the PJM footprint.

The first two phases of the energy transition study assumed that PJM had adequate resources to meet load.

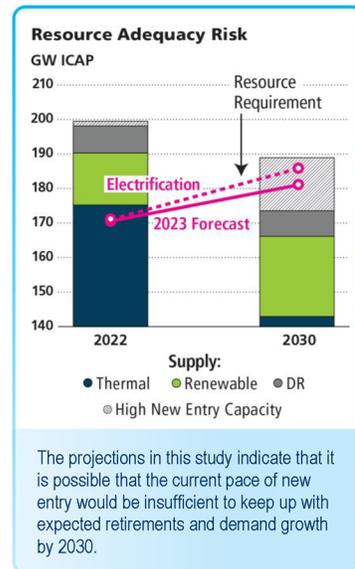
In this third phase of this living study, we explore a range of plausible scenarios up to the year 2030, focusing on the resource mix "balance sheet" as defined by generation retirements, demand growth and entry of new generation.

The analysis shows that 40 GW of existing generation are at risk of retirement by 2030. This figure is composed of: 6 GW of 2022 deactivations, 6 GW of announced retirements, 25 GW of potential policy-driven retirements and 3 GW of potential economic retirements. Combined, this represents 21% of PJM's current installed capacity<sup>3</sup>.

In addition to the retirements, PJM's long-term load forecast shows demand growth of 1.4% per year for the PJM footprint over the next 10 years. Due to the expansion of highly concentrated clusters of data centers, combined with overall electrification, certain individual zones exhibit more significant demand growth – as high as 7% annually.<sup>4</sup>

On the other side of the balance sheet, PJM's New Services Queue consists primarily of renewables (94%) and gas (6%). Despite the sizable nameplate capacity of renewables in the interconnection queue (290 GW), the historical rate of completion for renewable projects has been approximately 5%. The projections in this study indicate that the current pace of new entry would be insufficient to keep up with expected retirements and demand growth by 2030. The completion rate (from queue to steel in the ground) would have to increase significantly to maintain required reserve margins.

In the study, we also consider generation entry beyond the queue using projections from S&P Global. Those projections indicate that, despite eroding reserve margins, resource adequacy would be maintained if the influx of renewables materializes at a rapid rate and gas remains the transition fuel, adding 9 GW of capacity. The analysis performed at the Clean Attribute Procurement Senior Task Force (CAPSTF) also suggests that further gas expansion is economic and competitive.<sup>5</sup>



<sup>3</sup> Unless otherwise noted, thermal capacity values are expressed in ICAP, without adjustment for EFORD.

<sup>4</sup> [PJM Load Forecast Report, January 2023](#).

<sup>5</sup> [CAPSTF Analysis, Initial Results](#); Emmanuele Bobbio, Sr. Lead Economist – Advanced Analytics, PJM, Dec. 16, 2022.

Balance Sheet Summary (2022–2030)				
<b>Retirements</b> <b>40 GW</b> 60% Coal 30% Natural Gas 10% Other 	<b>New Entry Wind/Solar<sup>6</sup></b> Low = 48 GW-nameplate / 8 GW-capacity High = 94 GW-nameplate / 17 GW-capacity 	<b>New Entry Standalone Storage</b> Low = 3 GW High = 4 GW 	<b>New Entry Thermal</b> Low = 4 GW High = 9 GW 	<b>Load Growth</b> 2023 Forecast = 11 GW Electrification Forecast = 13 GW 
Unless otherwise noted, thermal capacity values are expressed in ICAP, without adjustment for EFORd.				

For the first time in recent history, PJM could face decreasing reserve margins should these trends continue. The amount of generation retirements appears to be more certain than the timely arrival of replacement generation resources and demand response, given that the quantity of retirements is codified in various policy objectives, while the impacts to the pace of new entry of the Inflation Reduction Act, post-pandemic supply chain issues, and other externalities are still not fully understood.

The findings of this study highlight the importance of PJM's ongoing stakeholder initiatives (Resource Adequacy Senior Task Force, Clean Attribute Procurement Senior Task Force, Interconnection Process Subcommittee), continued efforts between PJM and state and federal agencies to manage reliability impacts of policies and regulations, and the urgency for coordinated actions to shape the future of resource adequacy. The potential for an asymmetrical pace in the energy transition, in which resource retirements and load growth exceed the pace of new entry, underscores the need to enhance the accreditation, qualification and performance requirements of capacity resources.

The composition and performance characteristics of the resource mix will ultimately determine PJM's ability to maintain reliability. It is critical that all PJM markets effectively correct imbalances brought on by retirements or load growth by incentivizing investment in new or expanded resources.

<sup>6</sup> Includes hybrid projects with battery storage

## Background

Resource adequacy is the ability of the electric system to supply the aggregate energy requirements of electricity to consumers at all times, taking into account scheduled and reasonably expected unscheduled outages of generation and transmission facilities. To achieve the goal of resource adequacy, PJM maintains an Installed Reserve Margin in excess of the forecast peak load that achieves a loss-of-load expectation (LOLE) of one day in 10 years. This LOLE standard is consistent with that prescribed in the ReliabilityFirst Corporation standard for planning resource adequacy.<sup>7</sup>

Long-term reliability and resource adequacy are addressed through the combined operation of PJM's electricity markets, and in particular the capacity market, called the Reliability Pricing Model (RPM). Each PJM member that provides electricity to consumers must acquire enough power supply to meet demand, not only for today and tomorrow, but for the future. Members secure these capacity resources for future energy needs through a series of base and incremental capacity auctions, as well as Fixed Resource Requirement plans.

The capacity market ensures long-term grid reliability by procuring the appropriate amount of power supply resources needed to meet predicted energy demand up to three years in the future. These capacity resources have an obligation to perform during system emergencies, and are subject to penalties if they underperform. By matching generation with future demand, the capacity market creates long-term price signals to attract needed investments to ensure adequate power supplies. This exchange provides consumers with an assurance of reliable power in the future, while capacity resources receive a dependable flow of income to help maintain their existing capability, attract investment in new resources, and encourage companies to develop new technologies and sources of electric power.

## Methodology

The size, composition and performance characteristics of the resource mix will determine PJM's ability to maintain reliability. This study explores a range of scenarios in the context of resource adequacy, focusing on the resource mix "balance sheet" as defined by demand growth, generation retirements and new entry of generation. Using the methodology described in this section, PJM evaluates the future of resource adequacy by estimating the amount of capacity required to cover load expectations versus expected capacity for the years 2023 through 2030.

The study's initial supply levels are 192.3 GW of installed capacity from generation resources and 7.8 GW of installed capacity from demand response capacity resources. The generation mix is approximately 178.9 GW of thermal resources and 13.3 GW of renewables and storage.<sup>8</sup>

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<sup>7</sup> RFC Standard BAL-502-RF-03: Planning Resource Adequacy Analysis, Assessment and Documentation

<sup>8</sup> This value includes the capacity value of run-of-river hydro, pumped storage hydro, solar, onshore wind, offshore wind and battery energy storage.

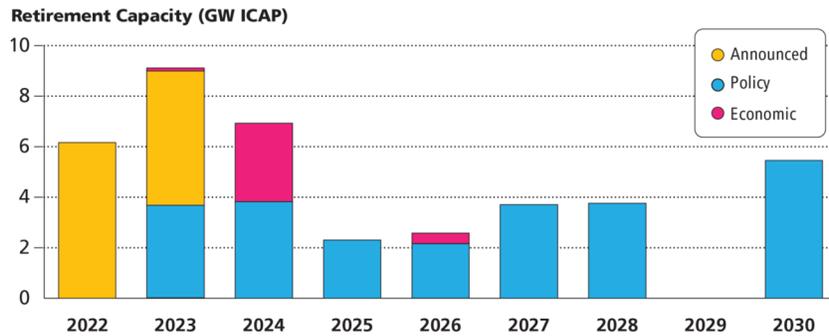
### Supply Exits

PJM is undergoing a major transition in the resources needed to maintain bulk power grid reliability.

Historically, thermal resources have provided the majority of the reliability services in PJM. Today, a confluence of conditions, including state and federal policy requirements, industry and corporate goals requiring clean energy, reduced costs and/or subsidies for clean resources, stringent environmental standards, age-related maintenance costs, and diminished energy revenues are hastening the decline in thermal resources.

This study estimates anticipated retirements through 2030 by adding announced retirements with retirements likely as a result of various state and federal policies, and then with those at risk for retirement due to deteriorating unit economics. Potential policy-driven retirements, in this context, reflect resources that are subject to current and proposed federal and state environmental policies, in which it is conservatively assumed that the costs of mitigation and compliance could economically disadvantage these resources to the point of retirement. **Figure 1** highlights the 40 GW of projected generation retirements by 2030, which is composed of: 12 GW of announced retirements<sup>9</sup>, 25 GW of potential policy-driven retirements<sup>10</sup> and 3 GW of potential economic retirements. Combined, this represents 21% of PJM's current installed capacity.<sup>11</sup> This section describes each category of potential retirements in more detail.

**Figure 1. Total Forecast Retirement by Year (2022–2030)**



<sup>9</sup> Includes 6 GW of 2022 retirements.

<sup>10</sup> Note that 7 GW of the 25 GW of supply with policy risk was also identified to have more immediate economic risk. The year that these 7 GW of potential policy retirements shown in **Figure 2** is based on timing identified in the economic analysis. In **Figure 4**, these 7 GW are shown in terms of the regulatory compliance timeline alone. The timeline of these potential quantities of resource retirements does not factor in any reliability “off-ramps” that may be included in established policies.

<sup>11</sup> In this study, PJM assumes that a resource that exits would not return to service in a future delivery year, even if operational conditions improve. Historically, a small percentage of retiring units would instead enter a “mothball” or standby state, in which the unit is put into a state where it may not operate for one or more years; however, in order to obtain an operating permit renewal, the mothballed unit would have to comply with the most recent environmental standards, likely requiring costly upgrades, making investing in newer, cleaner technologies more inviting.

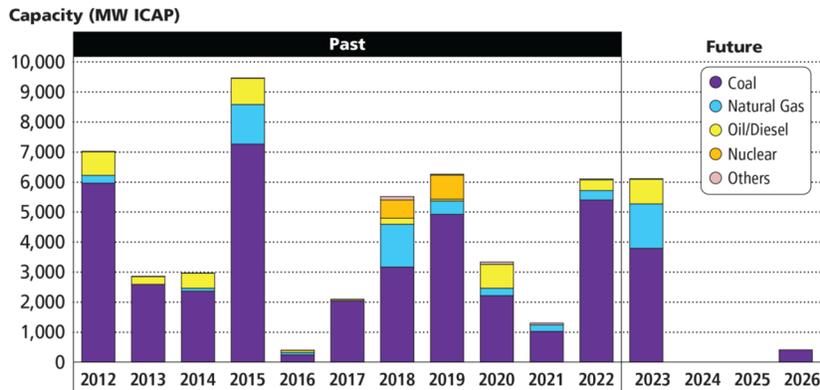
**Announced Retirements**

One of PJM’s responsibilities is to ensure the continued reliability of the high-voltage electric transmission system when a generation owner requests deactivation. Through its Generation Deactivation process,<sup>12</sup> PJM identifies transmission solutions that allow owners to retire generating plants as requested without threatening reliable power supplies to customers. PJM may order transmission upgrades or additions built by transmission owners to accommodate the generation loss. PJM has no authority to order plants to continue operating. However, in some instances, to maintain reliability, PJM may formally request that a plant owner continue operating, subject to rates authorized by the Federal Energy Regulatory Commission (FERC), while transmission upgrades are completed.

Plant owners considering retirement must notify PJM at least two quarters before the proposed deactivation date. PJM and the transmission owners complete a reliability analysis in the subsequent quarter after notification to PJM. Generator retirements and any required system upgrades to keep the grid running smoothly are included in the PJM [Regional Transmission Expansion Planning](#) process and are reviewed with PJM members and stakeholders at the PJM [Transmission Expansion Advisory Committee](#).

Between 2012 and 2022, 47.2 GW of generation retired in PJM, as detailed by fuel type in **Figure 2**. In 2022, approximately 6 GW of generation deactivated and an additional 5.8 GW announced (“future”) deactivations over the 2023–2026 time frame. The deactivations are slightly above the 10-year average of 4.3 GW, but well under the historical annual peak of 9.5 GW in 2015. Coal-fired resources account for approximately 89% of retired capacity in 2022.

**Figure 2. Past and Announced Future Retirements**



<sup>12</sup> See process details in PJM Manual 14-D, Section 9, and tracking of deactivation requests at <https://www.pjm.com/planning/services-requests/gen-deactivations>.

## Potential Policy Retirements

An analysis of federal and state policies and regulations with direct impacts on generation in the PJM region yielded the largest group of potential future retirements in this study.<sup>13</sup> As highlighted in **Figure 3**, the combined requirements of these regulations and their coincident compliance periods have the potential to result in a significant amount of generation retirements within a condensed time frame. These impacts will be reevaluated as these policies and regulations evolve. PJM will continue to work with both federal and state agencies on the development and implementation of environmental regulations and policies in order to address any reliability concerns.

Below are the policies and regulations included in the study:



[EPA Coal Combustion Residuals \(CCR\)](#): The U.S. Environmental Protection Agency (EPA) promulgated national minimum criteria for existing and new coal combustion residuals (CCR) landfills and existing and new CCR surface impoundments. This led to a number of facilities, approximately 2,700 MW in capacity, indicating their intent to comply with the rule by ceasing coal-firing operations, which is reflected in this study.



[EPA Effluent Limitation Guidelines \(ELG\)](#): The EPA updated these guidelines in 2020, which triggered the announcement by Keystone and Conemaugh facilities (about 3,400 MW) to retire their coal units by the end of 2028.<sup>14</sup> Importantly, but not included in this study, the EPA is planning to propose a rule to strengthen and possibly broaden the guidelines applicable to waste (in particular water) discharges from steam electric generating units. The EPA is expecting this to impact coal units by potentially requiring investments when plants renew their discharge permits, and extending the time that plants can operate if they agree to a retirement date.



[EPA Good Neighbor Rule \(GNR\)](#): This proposal requires units in certain states to meet stringent limits on emissions of nitrogen oxides (NOx), which, for certain units, will require investment in selective catalytic reduction to reduce NOx. For purposes of this study, it is assumed that unit owners will not make that investment and will retire approximately 4,400 MW of units instead. Please note that the EPA plans on finalizing the GNR in March, which may necessitate reevaluation of this assumption.



[Illinois Climate & Equitable Jobs Act \(CEJA\)](#): CEJA mandates the scheduled phase-out of coal and natural gas generation by specified target dates: January 2030, 2035, 2040 and 2045. To understand CEJA criteria impacts and establish the timing of affected generation units' expected deactivation, PJM analyzed each generating unit's publically available emissions data, published heat rate, and proximity to Illinois environmental justice communities and [Restore, Reinvest, Renew \(R3\)](#) zones. For this study, PJM focuses on the approximately 5,800 MW expected to retire in 2030.

<sup>13</sup> Policies impacting forward energy prices, such as the Regional Greenhouse Gas Initiative and Renewable Energy Credits, are implicitly included in economic analysis but are not explicitly included in analysis of policy-related retirements.

<sup>14</sup> [See State Impact PA, Nov. 22, 2021](#). These facilities have not filed formal Deactivation Notices with PJM.



**New Jersey Department of Environmental Protection CO<sub>2</sub> Rule:** New Jersey’s CO<sub>2</sub> rule seeks to reduce carbon dioxide (CO<sub>2</sub>) emissions of fossil fuel-fired electric generating units (EGUs) through the application of emissions limits for existing and new facilities greater than 25 MW. Units must meet a CO<sub>2</sub> output-based limit by tiered start dates. The dates and CO<sub>2</sub> limits are:

- June 1, 2024 – 1,700 lb/MWh
- June 1, 2027 – 1,300 lb/MWh
- June 1, 2035 – 1,000 lb/MWh

PJM used emissions data found in [EPA Clean Air Markets Program Data](#) to evaluate unit compliance. Where a unit’s average annual emissions rate was greater than the CO<sub>2</sub> limit on the compliance date, the unit was assumed to be retiring. In this study PJM, estimated retirements at approximately 400 MW in 2024 and approximately 2,700 MW in 2027.

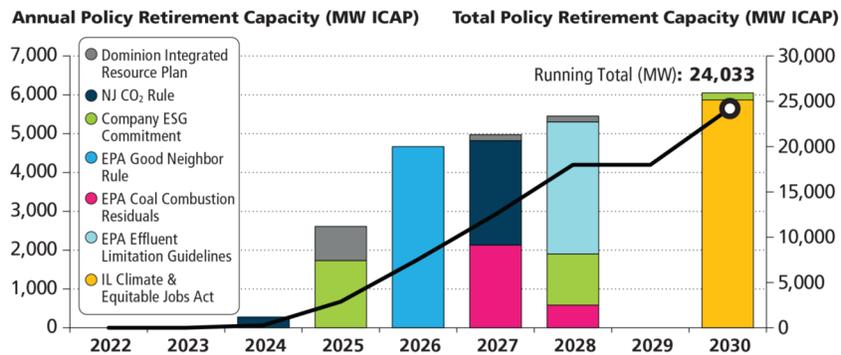


**Dominion Integrated Resource Plan (IRP)** commits to net zero carbon in its Virginia and North Carolina territory by 2050. PJM studied Dominion’s Alternative Plan B retirement schedule, approximately 1,533 MW, for this analysis. Alternative Plan B proposes “significant development of solar, wind and energy storage resource envisioned by the VCEA,” (Virginia Clean Economy Act of 2020), while maintaining natural gas generation for reliability, which is reflected in our analysis.



Company ESG (Environmental, Social, Governance) commitments are included where there is a commitment to retire resources per legal consent decree or other public statement. This includes the elimination of coal use and the retirement of the Brandon Shores, 1,273 MW, and Wagner, 305 MW, facilities in Maryland and the retirement of Rockport, 1,318 MW, in Indiana.

Figure 3. Potential Policy Retirements



### Potential Economic Retirements

The third category of retirements in this study, beyond those formally announced and made likely by policy implementation, were identified through an analysis of revenue adequacy, the ability to economically cover going-forward costs from the wholesale markets. A net profit value was calculated for each existing generation resource using an estimate of future revenues and historical costs.

$$\text{Net Profit} = ( \text{Gross Energy \& Ancillary Service Revenue} - \text{Production Costs} ) \\ + ( \text{Capacity Revenue} ) - ( \text{Fixed Avoidable Costs} )$$

The results reveal that a portion of the thermal fleet is at risk of becoming unprofitable in the coming years.

The capacity market's Variable Resource Requirement (VRR) represents the set of prices for which load is willing to procure additional supply beyond the minimum reliability requirement. There are three points in the sloped demand curve, the first of which is anchored at a price 1.5 times the Net Cost of New Entry (Net CONE). Should the auction clear at this price level, the auction result signals that demand is willing to pay for the construction of new supply, minus the expected energy revenues the resource should expect to earn in the energy markets. As such, it is important to align the revenue expectations for the marginal resources with forward revenues, especially under PJM's continually changing landscape of business rules.

### Energy & Ancillary Services Revenue and Production Cost

This study used a scaling approach to estimate forward unit-specific energy and ancillary services (E&AS) revenues from historical energy and ancillary service revenues by applying the following:

$$\text{Fwd Unit E\&AS Revenue} = \text{Hist Unit E\&AS Revenue} * \frac{\text{Fwd Reference E\&AS Revenue}^{15}}{\text{Hist Reference E\&AS Revenue}} * \frac{\text{Reference Avg Heat Rate}}{\text{Unit Avg Heat Rate}}$$

For a given reference resource type, unit dispatch was simulated using both historical and forward energy hub-adjusted energy prices. For the equivalent production cost model, the relative ratio of revenues and heat rates indicate the net effects of both rising fuel costs and energy price revenue. A unit on the margin in the energy markets, typically a natural gas unit, would set a locational price near its short-run marginal costs. Infra-marginal units, potentially coal units, would receive higher revenues as price-taking resources, and thus may see increased profitability. This is reflected in the analysis, in which a reference coal unit's forward revenues increased an average of 139% over previous revenue estimates.

<sup>15</sup> The forward energy and ancillary services revenue calculation used in this study is the method that was developed for use in the Forward Net Energy & Ancillary Services Offset calculation originally developed in 2020, and filed as part of the most recent Quadrennial Review.

**Capacity Revenues and Fixed Avoidable Costs**

Unit-specific capacity revenues were calculated from prices and cleared quantities in the 2023/2024 Base Residual Auction (BRA). The study used the published 2023/2024 BRA [Default Gross Avoidable Cost Rate](#) (ACR) values as representative total fixed costs (\$/MW-day) required to keep the generating plant available to produce energy. In other words, these are projected costs that could be avoided by the retirement of the plant. Avoidable costs represent operational factors like operations and maintenance labor, fuel storage costs, taxes and fees, carrying charges, and other costs not directly related to the production of energy. When available, unit-specific ACR values from the 2023/2024 BRA supply offer mitigation process were used, otherwise the class average Gross ACR was used.

**Results and Estimated Impact**

This study assumes that a simulated economic loss would result in a retirement of the resource at the next available delivery year in which the unit is not committed for capacity. As such, a unit with a revenue loss that did not clear in the 2023/2024 BRA would exit in 2023, while a unit with a revenue loss that cleared in the 2023/2024 BRA would exit in 2024. While units that do not clear a single BRA may remain energy-only resources, this conservative assumption was used to provide awareness.

The economic analysis identified approximately 10 GW of supply in immediate economic risk, of which 7 GW of supply is also affected by policy risk, and 3 GW of supply is economic risk only. In aggregate, 6 GW are steam resources, and 4 GW represent combustion turbines and internal combustion resources. Several of the units identified were older steam boilers that had once converted from coal-fired to natural gas fuel; these resources are less efficient than a modern heat-recovery steam generator in a combined cycle unit. Fifty-three percent of the resources identified for economic risk did not have a PJM capacity obligation in Delivery Year 2023/2024, either through the FRR process or market clearing.

**Supply Entry**

The composition of the PJM Interconnection Queue has evolved significantly in recent years, primarily increasing in the amount of renewables, storage, and hybrid resources and decreasing in the amount of natural gas-fired resources entering the queue. The PJM New Services Queue stands at approximately 290 ICAP GW of generation interconnection requests, of which almost 94% (271 ICAP GW) is composed of renewable and storage-hybrid resources.

**Natural Gas Headwinds**

In the last decade, resources in the PJM region have benefitted from the proximity to the Marcellus Shale, an area that extends along the Appalachian Mountains from southern West Virginia to central New York. Beginning around 2010, gas extraction from hydraulic fracturing transformed this region into the largest source of recoverable natural gas in the United States. This local fuel supply decreased the prices for spot market natural gas in much of the PJM region, and prices in the PJM region often trade at negative basis to the Henry Hub spot price.

The entry of natural gas resources in the PJM region peaked in 2018, with 11.1 GW of generation commercializing that single year. From 2019 to 2022, a total of 8.1 GW of natural gas generation began service, or about a third of the 23 GW observed from 2015–2018. Queue proposals have also declined; over the last three years, only 4.1 GW of new natural gas projects entered the queue, while 15.1 GW of existing queue projects withdrew.<sup>16</sup>

Recent movement in the natural gas spot markets across the U.S. and Europe add another degree of uncertainty to future operations. In 2022, European natural gas supply faced many challenges resulting from the war in Ukraine and subsequent sanctions against Russia. Liquefied natural gas (LNG) imports into the EU and the U.K. in the first half of 2022 increased 66% over the 2021 annual average,<sup>17</sup> primarily from U.S. exporters with operational flexibility. This international natural gas demand is a new competitor for domestic spot-market consumers, resulting in significantly higher fuel costs for PJM's natural gas fleet.

This study assumes that, of the approximately 17.6 GW of natural gas generation in the queue, only those that are proposed uprates of existing generation, or currently under construction, will complete.<sup>18</sup> This results in 3.8 GW of entry from under-construction natural gas resources to be completed for the 2023/2024 Delivery Year. While 12 GW of natural gas have reached a signed Interconnection Service Agreement (ISA) stage, it is unclear what percentage of this capacity may move forward. If significantly more natural gas capacity achieved commercial operation, it could help avoid reliability issues.

### Renewable Transition

PJM's projected resource mix continues to evolve toward lower-carbon intermittent resources. Entry into the queue from renewable and storage resources has been growing at an annualized rate of 72% per year since 2018, or 199 GW of capacity entry versus 2.8 GW commercializing and 42.1 GW withdrawn. This influx of renewable projects has led to a joint effort between PJM and its stakeholders to enact queue reforms intended to clear the backlog of projects, improve procedures around permitting and site control, simplify analysis by clustering projects, and accelerate projects that don't require network upgrades. FERC approved the proposed package in November 2022, with expected implementation in 2023.

### Commercial Probability and Expanding Beyond the Queue

PJM staff developed several forecasts of the rate by which projects successfully exit the queue (the "commercial probability" of reaching an *In-Service* state). Since 1997, the PJM New Services Queue has tracked proposed generation interconnection projects from their submittal and study stages to completion of an ISA and Wholesale Market Participation Agreement (WMPA) and construction. At any point in the process, a resource may withdraw from the queue, effectively ending its commercial viability.

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<sup>16</sup> This capacity represents natural gas projects that were submitted prior to 2020 and withdrawn in the 2020–2022 time frame.

<sup>17</sup> [Europe imported record amounts of liquefied natural gas in 2022](#), U.S. Energy Information Administration, June 14, 2022.

<sup>18</sup> Under construction includes the New Service Queue *Partially in Service – Under Construction* and *Under Construction* statuses.

The study utilized a logistical regression classification algorithm to predict the probability of a project reaching an *In-Service* entry (or *Withdrawn* exit) based on several properties of the project. A logistical regression searches for patterns within training datasets, resulting in a model that can forecast a probability of a result. After applying the logistical regression model for 10 years of historical project completion (Y-queue to present) without project stage, approximately 15.3 GW-nameplate/8.7 GW-capacity were deemed commercially probable out of 178 GW of projects examined.

The model results for thermal resources were reasonably in line with expectations. However, the model produced extremely low entry from onshore wind, offshore wind, solar, solar-hybrid and storage resources. The uncertainty of completion rates of newer resource types, like offshore wind, likely plays a role in these model outcomes. After adjusting the new renewable capacity by Effective Load Carrying Capability (ELCC) derations, this commercial probability analysis estimates net 13.2 GW-nameplate / 6.7 GW-capacity to the system by 2030, as shown in **Figure 4**.

Given that this process may not capture recent policy changes and fiscal incentives toward renewable and storage development, and that the existing queue has fewer resources entered after 2026, PJM staff utilized two S&P Global Power Market Outlook analyses' generation expansion models. As estimates of future entry beyond the queue, these models are used to provide additional insight for the two scenarios: "Low New Entry" utilizes the "Planning Model,"<sup>19</sup> and "High New Entry" utilizes the "Fast Transition" model.<sup>20</sup> Based on these models, PJM added additional capacity to its commercial probability data in each scenario.

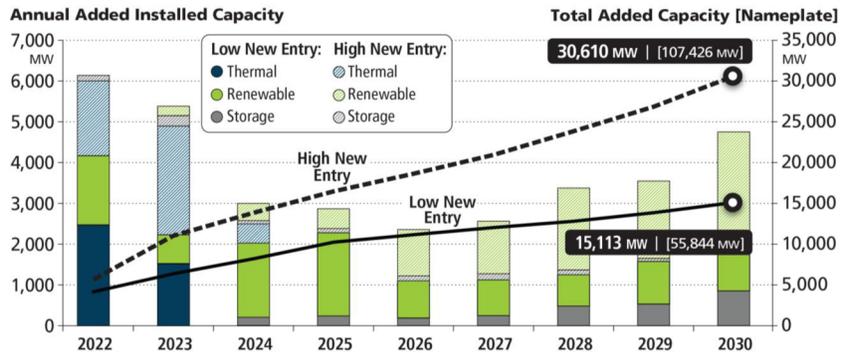
These forecasts of generation expansion are economic resource planning solutions, which take state RPS requirements and capacity margins into account to ensure new renewable builds. Over the study period, the Low New Entry scenario adds 42.6 GW-nameplate/8.4 GW-capacity to supply expectations, resulting in total entry of 55.8 GW-nameplate/15.1 GW-capacity. The High New Entry scenario adds 107 GW-nameplate/30.6 GW-capacity after ELCC derations. Net natural gas entry was approximately 5 GW, and renewables was 48.5 GW-nameplate/10.4 GW-capacity, as shown in **Figure 4**.

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<sup>19</sup> S&P Global, North American Power Market Outlook, June 2022, planning model. This planning case incorporated effects from the 2021 Infrastructure Investment and Jobs Act, but not the 2022 Inflation Reduction Act.

<sup>20</sup> S&P Global, North American Power Market Outlook, Sept. 2022, Fast Transition model. This planning case assumes carbon net neutrality by 2050 through the IRA and additional policies, such as state clean energy policies, and as such assumes adjustments for increased electrification of heating, tax credits for renewable generation and higher levels of fossil retirements.

Figure 4. Forecast Added Capacity



**Impact of Capacity Accreditation on Existing Renewables and Storage**

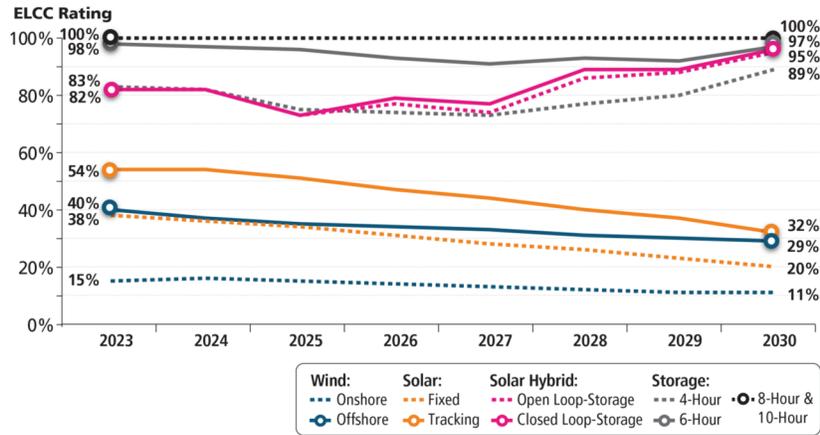
In July 2021, FERC accepted PJM’s ELCC methodology for calculating unforced capacity values for intermittent and energy storage capacity resource classes. The ELCC analysis<sup>21</sup> examines load and resource performance uncertainty, and calculates an hourly loss-of-load probability (LOLP) to meet a one-in-10 year loss of load expectation (LOLE) adequacy criteria. The ELCC method examines the alignment of a given resource type’s capacity to high risk hours, as well as the change in risk hours proportional to the changes in portfolio size. The adjustments to accredited capacity went into effect in the 2023/2024 BRA executed in June 2022.

This study examined the current renewable generation fleet for the impact of future changes in capacity accreditation. Today, there are approximately 3.5 GW of onshore wind and solar capacity resources participating in the RPM capacity market as intermittent resources. From 2022 to 2030, this accredited capacity is expected to decline by 1.2 GW to 2.3 GW due to portfolio effects resulting in the increase of entry from other intermittent renewable resources.<sup>22</sup> This adjustment is consistent with the renewable expectations presented in the [December 2021 Effective Load Carrying Capability \(ELCC\) Report](#).

<sup>21</sup> [Manual 20, Section 5: PJM Effective Load Carrying Capability Analysis](#)

<sup>22</sup> Approximate nameplate needed to replace 1 MW of thermal generation: Solar – 5.2 MW; Onshore Wind – 14.0 MW; Offshore Wind – 3.9 MW. These are average values.

Figure 5. Effective Load Carrying Capability (ELCC) Rating by Resource Type



**Demand Expectations**

Load forecasting is an important part of maintaining the reliability of the bulk electric system. Forecasting helps PJM make decisions about how to plan and operate the bulk electric system in a reliable manner, and how to effectively administer competitive power markets. PJM’s Resource Adequacy Planning Department publishes an annual [Load Forecast Report](#), which outlines “long-term load forecasts of peak-loads, net energy, load management, distributed solar generation, plug-in electric vehicles and battery storage.”

Along with the energy transition, PJM is witnessing a large growth in data center activity. Importantly, the PJM footprint is home to Data Center Alley in Loudoun County, Virginia, the largest concentration of data centers in the world.<sup>23</sup> PJM uses the [Load Analysis Subcommittee](#) (LAS) to perform technical analysis to coordinate information related to the forecast of electrical peak demand. In 2022, the LAS began a review of data center load growth and identified growth rates over 300% in some instances.<sup>24</sup> The 2023 PJM Load Forecast Report incorporates adjustments to specific zones for data center load growth, as shown in **Figure 5**.

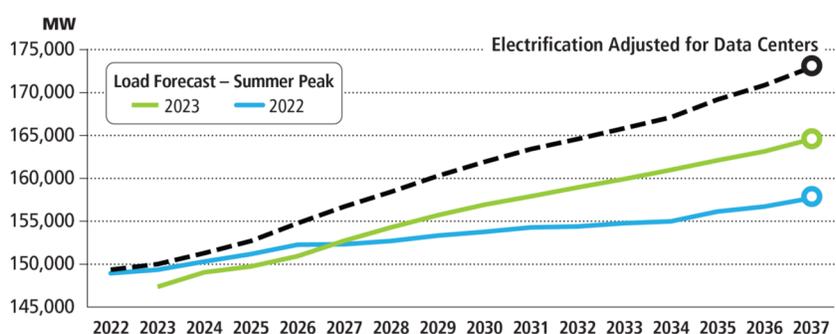
<sup>23</sup> See [Loudoun County Department of Economic Development](#), 2023.

<sup>24</sup> [Load Analysis Subcommittee: Load Forecast Adjustment Requests](#), Andrew Gledhill, Resource Adequacy Planning, Oct. 27, 2022

Additionally, PJM is expecting an increase in electrification resulting from state and federal policies and regulations. The study therefore incorporates an electrification scenario in the load forecast to provide insight on capacity need should accelerated electrification drive demand increases.<sup>25</sup> This accelerated demand increase is consistent with the methodology used in the Emerging Characteristics of a Decarbonizing Grid paper.<sup>26</sup> That paper found electrification to have an asymmetrical impact on demand growth, with demand growth in the winter, mainly due to heating, more than doubling that in the summer. This would move the bulk of the resource adequacy risk from the summer to the winter.

**Figure 6** highlights how updated electrification assumptions and accounting for new data center loads have impacted the summer peak between the 2022 and 2023 forecasts.<sup>27</sup>

**Figure 6.** Impacts of Electrification and Data Center Load on Forecasts



## What Does This Mean for Resource Adequacy in PJM?

PJM projects resource adequacy needs through the Reserve Requirement Study (RRS). The purpose of the RRS is to determine the required capacity or Forecast Pool Requirement for future years or delivery years based on load and supply uncertainty. The RRS also satisfies the North America Electric Reliability Corporation/ReliabilityFirst Adequacy Standard BAL-502-RFC-03, Planning Resource Adequacy Analysis, Assessment and Documentation, which requires that the Planning Coordinator performs and documents a resource adequacy analysis that applies a LOLE of one occurrence in 10 years. The RRS establishes the Installed Reserve Margin values for future delivery years. For this study PJM used the most recent 2022 RRS, as well as the 2021 RRS for comparison.

<sup>25</sup> Electrification assumptions are 17 million EVs, 11 million heat pumps, 20 million water heaters, 19 million cooktops in PJM by 2037, built on top of the 2022 Load Forecast.

<sup>26</sup> [Energy Transition in PJM: Emerging Characteristics of a Decarbonizing Grid](#), May 17, 2022.

<sup>27</sup> [2023 Load Forecast Supplement](#), PJM Resource Adequacy Planning Department, January 2023.

Combining the resource exit, entry and increases in demand, summarized in **Figure 7**, the study identified some areas of concern. Approximately 40 GW PJM's fossil fuel fleet resources may be pressured to retire as load grows into the 2026/2027 Delivery Year. At current low rates of renewable entry, the projected reserve margin would be 15%, as shown in **Table 1**. The projected total capacity from generating resources would not meet projected peak loads, thus requiring the deployment of demand response. By the 2028/2029 Delivery Year and beyond, at Low New Entry scenario levels, projected reserve margins would be 8%, as projected demand response may be insufficient to cover peak demand expectations, unless new entry progresses at a levels exhibited in the High New Entry scenario. This will require the ability to maintain needed existing resources, as well as quickly incentivize and integrate new entry

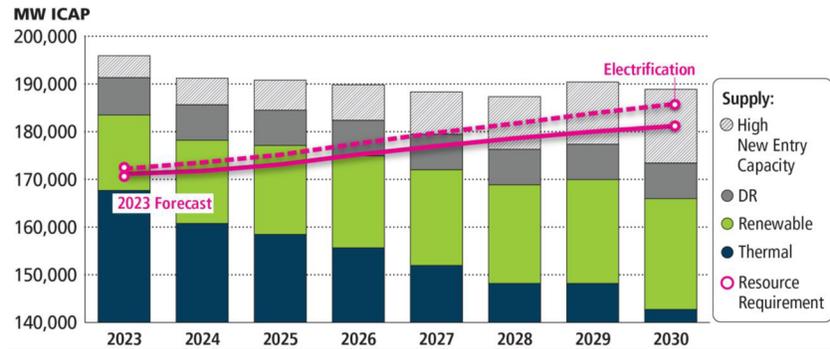
**Table 1.** Reserve Margin Projections Under Study Scenarios

Reserve Margin	2023	2024	2025	2026	2027	2028	2029	2030
<b>Low New Entry</b>								
<b>2023 Load Forecast</b>	23%	19%	17%	15%	11%	8%	8%	5%
<b>Electrification</b>	22%	18%	16%	13%	10%	7%	6%	3%
<b>High New Entry</b>								
<b>2023 Load Forecast</b>	26%	23%	21%	19%	17%	16%	17%	15%
<b>Electrification</b>	25%	22%	20%	18%	15%	14%	14%	12%

As witnessed during the rapid transition from coal resources to natural gas resources last decade, PJM markets provide incentives for capacity resources. The challenge will be integrating the level of additional resources envisioned to meet this demand, and therefore addressing issues such as resource capacity accreditation is critical in the near term. The low entry rates shown in our Low New Entry scenario are illustrative of recent completion history applied to the current queue. RTO capacity prices in recent auctions have been low for several delivery years, and capacity margins have historically reached around 28% of peak loads. As capacity reserve levels tighten, the markets will clear higher on the VRR curves, sending price signals to build new generation for reliability needs.

The 2024/2025 BRA, which executed in December 2022, highlighted another area of uncertainty. Queue capacity with approved ISAs/WMPAs is currently very high, approximately 35 GW-nameplate, but resources are not progressing into construction. There has only been about 10 GW-nameplate moving to in service in the past three years. There may still be risks to new entry, such as semiconductor supply chain disruptions or pipeline supply restrictions, which are preventing construction despite resources successfully navigating the queue process.

Figure 7. The Balance Sheet



For the first time in recent history, PJM could face decreasing reserve margins, as shown in **Table 1**, should these trends – high load growth, increasing rates of generator retirements, and slower entry of new resources – continue. The amount of generation retirements appears to be more certain than the timely arrival of replacement generation resources, given that the quantity of retirements is codified in various policy objectives, while the impacts to the pace of new entry of the Inflation Reduction Act, post-pandemic supply chain issues, and other externalities are still not fully understood.

The findings of this study highlight the importance of PJM's ongoing stakeholder initiatives (Resource Adequacy Senior Task Force, CAPSTF, Interconnection Process Subcommittee), continued efforts between PJM and state and federal agencies to manage reliability impacts of policies and regulations, and the urgency for coordinated actions to shape the future of resource adequacy.

The potential for an asymmetrical pace within the energy transition, where resource retirements and load growth exceed the pace of new entry, underscores the need for better accreditation, qualification and performance requirements for capacity resources.

The composition and performance characteristics of the resource mix will ultimately determine PJM's ability to maintain the reliability of the bulk electric system. Managing the energy transition through collaborative efforts of PJM stakeholders, state and federal agencies, and consumers will ensure PJM has the tools and resources to maintain reliability.



# EPA IRA Power Sector Impacts

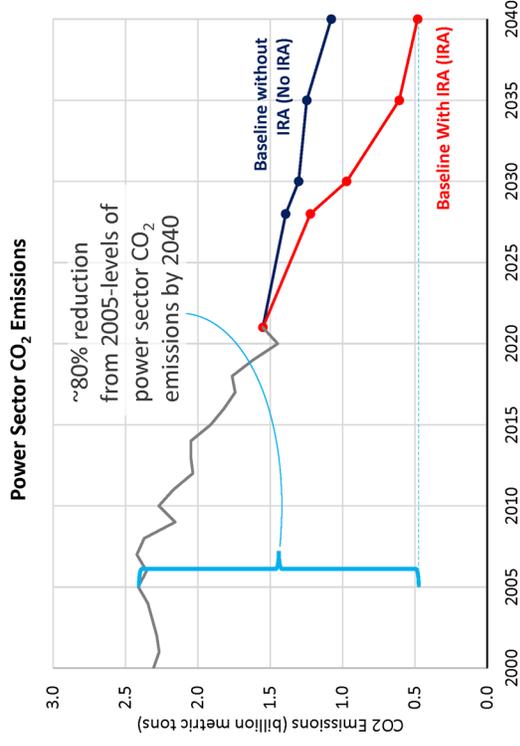
**Future Generation: Exploring the New Baseline for  
Electricity in the Presence of the Inflation Reduction Act**

February 15, 2023

Cara Marcy

## Introduction

- IRA is expected to greatly drive down power sector CO<sub>2</sub> emission in the coming decades
- EPA modeling of IRA impacts show major growth in clean and renewable technologies, driven by tax credit incentives, resulting in decreases in fossil fuel use
- Modeling results presented today are used to establish EPA's power sector baseline and are useful in informing EPA regulatory actions
- Ongoing analyses examine use of more advanced technology assumptions

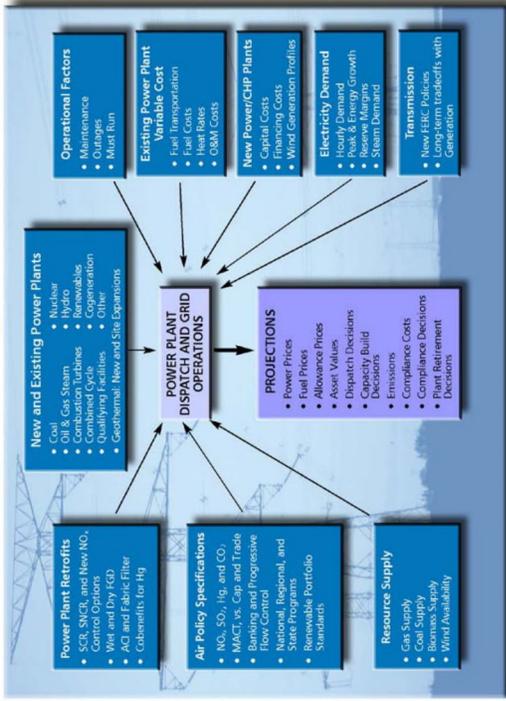


Note: Results from the Baseline with IRA are pending publication.  
Results from the Baseline without IRA can be found here:  
[www.epa.gov/power-sector-modeling/pre-ira-2022-reference-case](http://www.epa.gov/power-sector-modeling/pre-ira-2022-reference-case)

# Integrated Planning Model Framework

## IPM® Modeling Structure

- IPM is a long-term dynamic linear programming model of the U.S. power sector that aims to meet energy and peak demand at lowest cost over the projection period subject to constraints including:
  - Transmission constraints
  - Fuel markets
  - Resource supply
  - Emissions limits
- IPM is populated with information related to operating units, planned builds, and planned retirements and is able to:
  - add new capacity,
  - retrofit or retire existing capacity, and
  - alter dispatch in order to meet demand over the projection period at the lowest cost

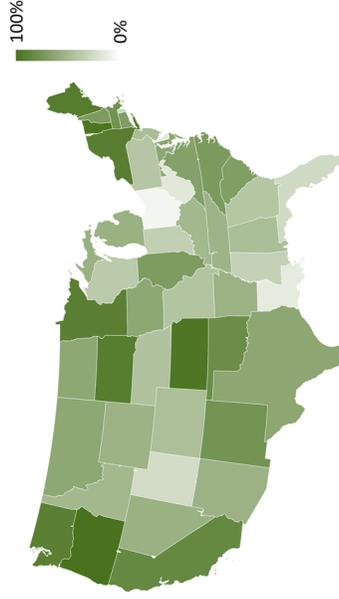


## Recent Updates to IPM

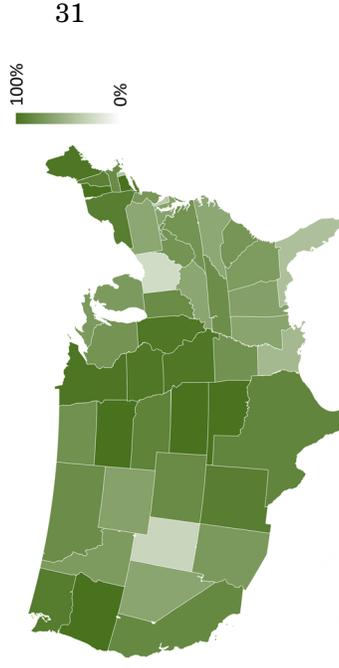
- IRA provisions now modeled include:
  - Clean Electricity Investment and Production Tax Credits (48E, 45Y)
  - Advanced Manufacturing Production Credit (45X)
  - Carbon Capture & Sequestration Tax Credit (45Q)
  - Existing Nuclear Tax Credit (45U)
  - Clean Hydrogen Fuels (45V)
- Other model updates include:
  - Updated plant file with announced retirements for coal
  - Updated natural gas supply curves
  - Added incremental demand (above AEO projections) from electrification expected in response to previously finalized vehicle standards
- The baseline scenario in this presentation does not include non-power-sector impacts from IRA, e.g., demand-side impacts

# Clean Electricity Generation

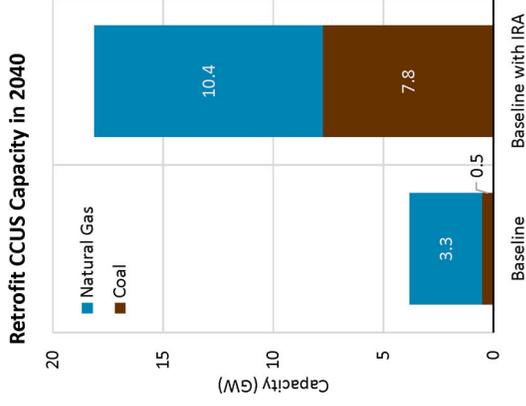
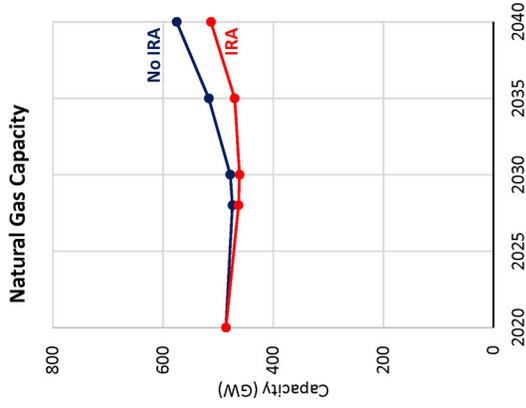
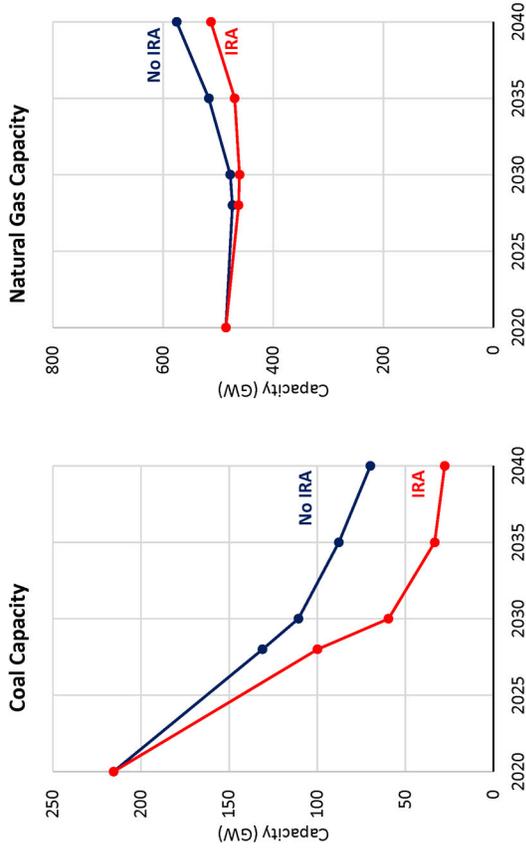
Clean Electricity Share of Generation by  
State in 2040 in Baseline without IRA



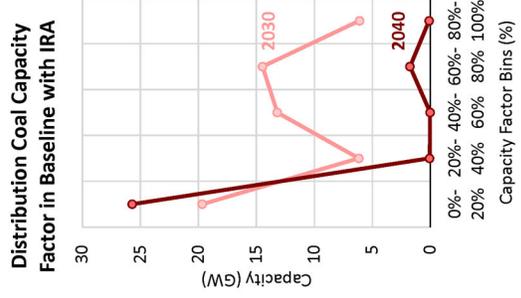
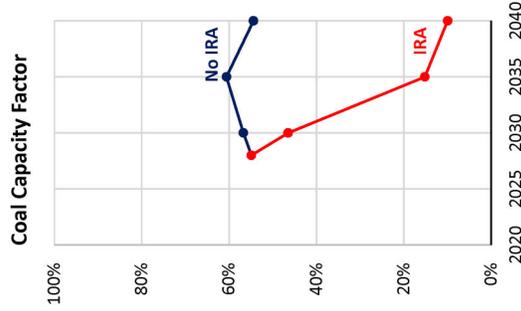
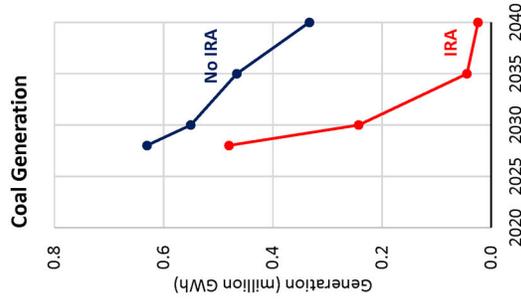
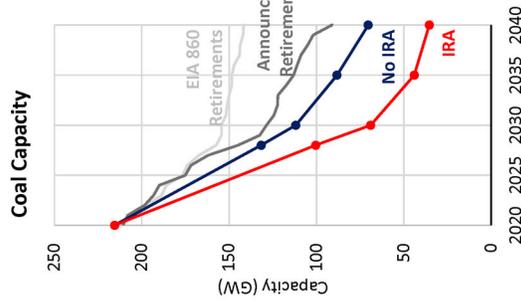
Clean Electricity Share of Generation by  
State in 2040 in Baseline with IRA



# Coal and Natural Gas Capacity



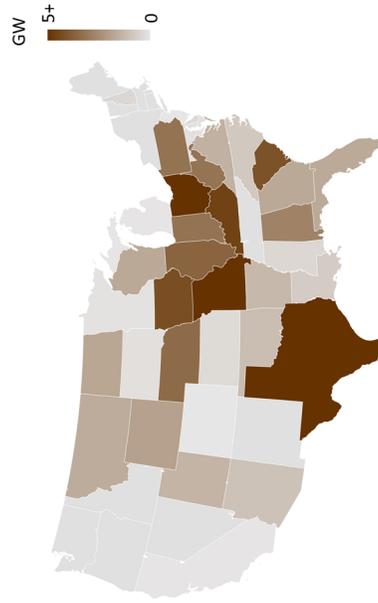
# Coal Deeper Dive



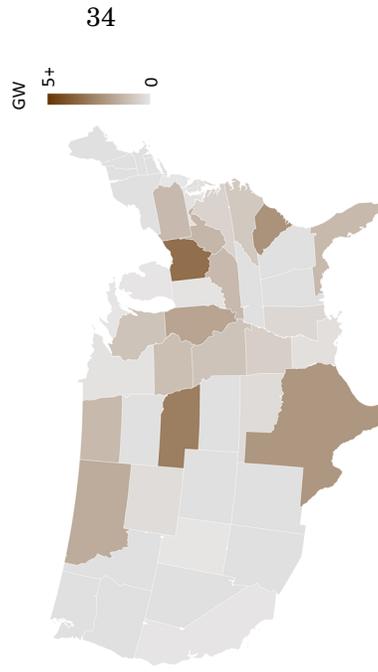
Note: EPA's National Electric Energy Data System (NEEDS) can be found here: [www.epa.gov/power-sector-modeling/national-electric-energy-data-system-needs](http://www.epa.gov/power-sector-modeling/national-electric-energy-data-system-needs)

# Coal Regional Results

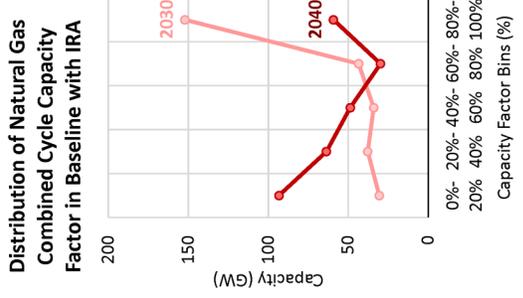
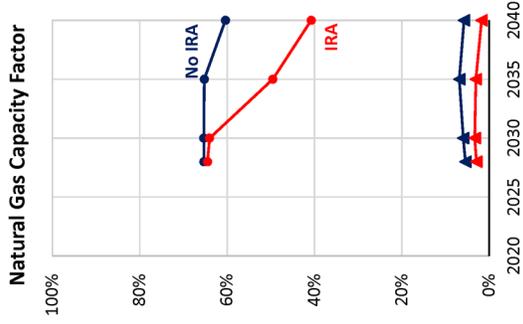
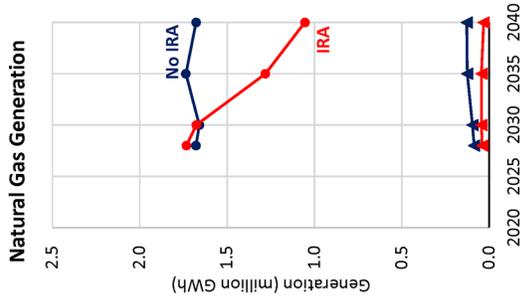
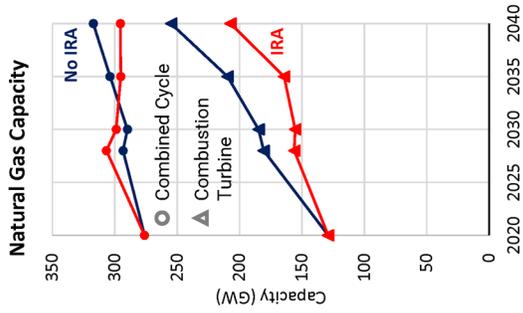
**Operating Coal Capacity by State in 2040 in Baseline without IRA**



**Operating Coal Capacity by State in 2040 in Baseline with IRA**

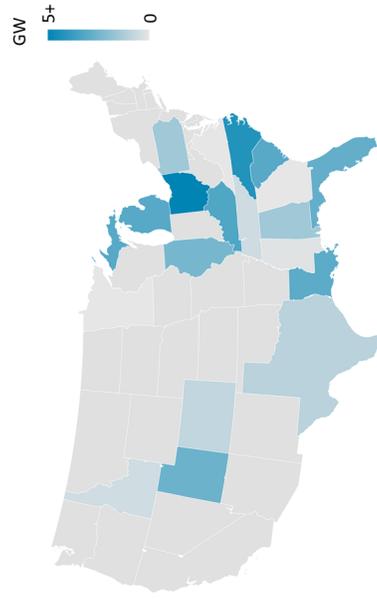


# Natural Gas Deeper Dive

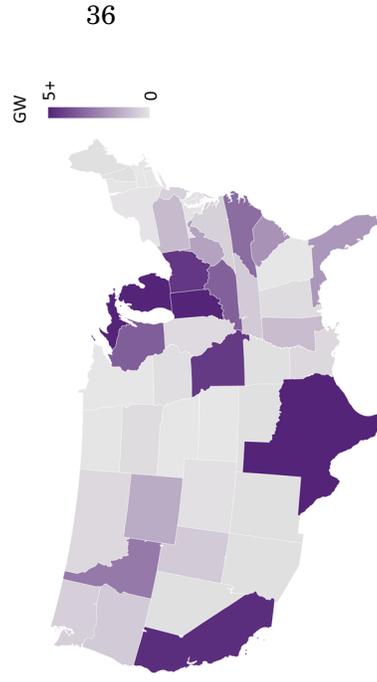


# Natural Gas Regional Results

**New Natural Gas Combined Cycle Capacity  
by State in 2040 in Baseline with IRA**



**New Natural Gas Combustion Turbine Capacity  
by State in 2040 in Baseline with IRA**



36

## Conclusions

- Initial modeling results show an 80% reduction from 2005 levels of power sector CO<sub>2</sub> emissions by 2040, compared to a 55% reduction pre-IRA
- Tax credits for renewables, storage, nuclear, and CCS lead to increases in generation from low and zero emitting generation resources
- These lower emitting technologies reduce the need for fossil fuel resources, both in terms of capacity and in generation
- EPA will continue assessing the potential role of advanced technology assumptions in modeling potential impacts of the IRA, including:
  - Rapid electrification growth
  - Improved RE technology manufacturing and costs
  - Improved energy storage costs and durations
  - Delivered hydrogen fuel prices

Senator CAPITO. That will be the substance of my questions.  
Thank you again for being here.

Senator CARPER. Thank you, Senator Capito.

Before I turn to Mr. Goffman for his testimony, I ask unanimous consent to submit for the record a letter of support for Joe Goffman's nomination from the United Mine Workers of America. Senator Capito knows that my sister and I were born and grew up in West Virginia for part of our lives. A bunch of our neighbors were coal miners, and they were members of the United Mine Workers.

It is interesting to me that one of the principal endorsements that you have gotten for your nomination is from the United Mine Workers of America, a diverse union with membership that includes coal miners, manufacturing workers, clean coal technicians, health care workers, corrections officers, and public employees.

I also ask unanimous consent to submit for the record testimony from our colleague from Pennsylvania, Senator Casey, in support of Mr. Goffman's nomination.

I ask unanimous consent. Is there objection?

Hearing none, so ordered.

[The referenced information follows:]

# United Mine Workers of America

CECIL E. ROBERTS  
INTERNATIONAL PRESIDENT



TELEPHONE  
(703) 291-2420

UNITED MINE WORKERS' HEADQUARTERS  
18354 QUANTICO GATEWAY DRIVE, SUITE 200

Triangle, VA

22172-1779  
May 19, 2022

Honorable Thomas R. Carper  
Chairman  
U.S. Senate  
Committee on Environment and  
Public Works  
410 Dirksen Senate Ofc. Bldg.  
Washington, D.C. 20510

Honorable Shelley Moore Capito  
Ranking Member  
U.S. Senate  
Committee on Environment and  
Public Works  
456 Dirksen Senate Ofc. Bldg.  
Washington, D.C. 20510

Re: Confirmation of Joseph Goffman  
as Assistant Administrator for Air and Radiation,  
U.S. Environmental Protection Agency

Dear Chairman Carper and Ranking Member Capito:

I write to the Committee regarding the nomination of Joseph Goffman to serve as Assistant Administrator for Air and Radiation (OAR) at the U.S. Environmental Protection Agency.

The UMWA has known Joe Goffman for more than 30 years, dating back to the acid rain debates of the 1980s and enactment of the 1990 Clean Air Act Amendments. The Clean Air Act is a key federal statute with direct bearing on the lives and wellbeing of America's coal miners, their families, and communities.

We believe Mr. Goffman is well qualified to serve as AA for OAR, as demonstrated by his previous work for EPA in the Clinton and Obama Administrations, as well as his private sector and academic experience at Harvard's Kennedy School. We recommend that his nomination be confirmed by the Committee and by the full Senate.

I appreciate this opportunity to discuss this nomination and hope that the Committee will take our views into account. Please do not hesitate to reach out if you have any questions or for further discussion.

Sincerely,

A handwritten signature in black ink that reads "Cecil E. Roberts".

Cecil E. Roberts

cc: Honorable Joe Manchin

**Statement of Senator Robert P. Casey, Jr.  
U.S. Senator from the Commonwealth of Pennsylvania  
U.S. Senate Committee on Environment and Public Works  
Hearing on the Nomination of Joseph Goffman to be Assistant Administrator for the  
Office of Air and Radiation at the Environmental Protection Agency**

**March 1, 2023**

Chairman Carper and Ranking Member Capito, thank you for the opportunity to submit my comments regarding the nomination of Joseph Goffman to be Assistant Administrator for Air and Radiation at the Environmental Protection Agency. I am proud to express my support for Joe, a native Pennsylvanian, to serve in this role.

I can think of no better candidate for this vital position than Joe Goffman. His more than 40-year career has centered on public service and his dedication to protecting the health and environment of the American people. He knows that the best results for the nation's health, environment, and economy happen through public engagement and a collaborative, open-minded problem-solving approach. We can be sure that he will listen to all sides of the issues before him, while faithfully adhering to the law, the science, and expert technical advice.

For proof of that, look no further than the range of support Joe's nomination has received – from the Mineworkers, the Steelworkers, the UAW and the AFL-CIO to the utility industry and the biofuels industry, to the air directors of Tribal nations, leading voices of the environmental justice community, the environmental NGO groups including the Evangelical Environmental Network and public health organizations.

In his decades of legal, legislative, policy and practical experience, he has helped shape critical clean air programs. The first was the landmark Acid Rain Program, which is widely recognized for its innovation, effectiveness, and durability. In 1989 and 1990, when Joe served as an associate counsel for this committee, he worked on the provisions of the 1990 Clean Air Act Amendments that established the first of-its-kind cap-and-trade program to cut the pollution that was harming our lakes and streams, clouding the Appalachians with haze, and threatening the health of millions of Americans.

After President George H.W. Bush signed the amendments into law, Joe took the experience he had gained and put it to work with the talented and dedicated career staff at the EPA to implement the legislation. Fast forward 30 years, and that program has reduced acid rain pollution to a fraction of 1990 levels – affordably – better protecting our treasured mountains, lakes, and streams, while helping millions of Americans live longer, healthier lives breathing cleaner air. That type of experience – helping write the law, putting it into practice and then ensuring that it's working as intended – was reflected in the major air pollution programs Joe helped develop when he held senior positions in the Obama EPA, programs that have delivered

the goods in improving air quality and protecting people's health. And that's why he's uniquely suited to be the Assistant Administrator for EPA's Office of Air and Radiation.

He will tell you this himself, but I know that Joe views public service as a privilege and honor. He's dedicated his career to environmental laws and policy aimed at safeguarding and improving Americans' health and prosperity. That's what motivates him to do this work, and that's what makes him a most qualified nominee for this important position.

I am grateful for Joe's desire to continue his distinguished career in public service, and I look forward to continuing working with him once he is confirmed as Assistant Administrator.

Chair Carper and Ranking Member Capito, I ask unanimous consent to add letters of support from the aforementioned stakeholders into the record.

Thank you.

Senator CARPER. Senator Casey, as you know, is bouncing back. He is off the DL, the disabled list. He is back in the lineup. He can't be here this morning, but we are happy that he is healthy again. He wishes he could be here in person to support his fellow Pennsylvania native, but in his absence, let me share some of his thoughts on Mr. Goffman.

I will just say something. I won't quote Bob Casey at length. Here is part of what he said in his testimony: "I know that Joe views public service as a privilege and an honor. He has dedicated his career to environmental laws and policy aimed at safeguarding and improving Americans' health and prosperity. That is what motivates him to do his work, and that is what makes him a most qualified nominee for this important position."

With that, let us turn to Mr. Goffman.

We thank you again for being with us today. We thank your wife for sharing you with us as a Nation and as our Committee today.

Mr. Goffman, you are now recognized for your opening remarks. Please proceed. Thank you.

**STATEMENT OF JOSEPH GOFFMAN, NOMINATED TO BE ASSISTANT ADMINISTRATOR, OFFICE OF AIR AND RADIATION, AT THE ENVIRONMENTAL PROTECTION AGENCY**

Mr. GOFFMAN. Thank you very much, Chairman Carper, for that extremely generous introduction.

Thank you very much, Ranking Member Capito, for outlining issues that I think we both agree are extremely important to be able to focus on. It is great to have the opportunity to do that.

It is indeed a privilege to appear before this Committee this morning. I am humbled to be nominated by President Biden and considered by the Committee for the position of Assistant Administrator for the Office of Air and Radiation at the U.S. Environmental Protection Agency. I am also grateful for the honor and opportunity to continue my public service, having previously worked for the members of this Committee in four different positions between 1989 and 2017. Being here before you today, again, is truly an honor.

Joining me here today is my amazing wife, Antonia.

Thank you, Senator, for introducing her.

Senator CARPER. Antonia, raise your hand, so we will know which one is the wife. You all could be triplets.

Mr. GOFFMAN. Watching this hearing from their homes in San Francisco, New York, and Los Angeles are my three children, Gabriel, Genevieve, and Olivia. As I said to them a year ago, when I was here last, I want them to know how very much I love them, and I admire them for leading lives that reflect the values their grandparents gave to me, values that I have carried with me and relied upon all my life.

Like too many Americans, I grew up in a household that struggled financially. There were months long periods when my father, who lost two businesses, was unemployed, and my family could barely afford even the basics. As a child, I felt the pressures of my parents' money worries acutely. For me, protecting businesses and jobs and keeping money in the pockets of hard working Americans is still very personal.

College was out of the question unless I worked hard enough in school to gain scholarships and financial aid, and hard enough after school and over summers to earn the rest. That meant working as a stock boy and janitor's assistant in a department store during high school and in a union job as a line worker in a corrugated box factory during college.

Besides giving me a strong work ethic, my parents insisted that I put the highest value in doing good, and with the civil rights movement of the 1960s gripping their and my own young, admiring attention, the lesson that I took away was that every person, including me, was responsible for making our society more just.

Working for the Committee in 1989 and 1990 gave me the chance to do that in drafting the acid rain provisions of the Clean Air Act Amendments of 1990, which succeeded in achieving substantial power plant pollution reductions at the lowest possible cost to businesses and consumers while ensuring cleaner, healthier air for our children to breathe.

This bipartisan legislation worked because it was grounded in science and crafted with the input and participation of utilities themselves. Since then, I have made it my business as a Senate staffer and as an EPA appointee to prioritize engagement with all stakeholders, from frontline communities to workers to businesses, and to listen proactively, learn from others' experiences, and reflect their concerns in my work. My goal has been and continues to be crafting smart, durable policy that protects the environment and people's health while enabling our economy to thrive and American innovation to flourish.

The range of perspectives was critical to three other pieces of legislation that this Committee helped enact: The AIM Act, the Bipartisan Infrastructure Law, and the Inflation Reduction Act. EPA is meeting the deadlines this Committee set in the AIM Act to phase down HFCs and enable American industry to lead the world in innovation. We are putting infrastructure dollars to work in communities across the country, awarding nearly \$1 billion in Clean School Bus rebates to over 400 school districts spanning all 50 States, Washington, DC, and several Tribes and U.S. territories. Under the Inflation Reduction Act, we are working quickly to tackle the climate crisis and secure environmental and economic benefits for all people.

Laws like the Bipartisan Infrastructure Law and the AIM Act show that when we work together, strive to reach common ground, and bring all stakeholders to the table, we can deliver strong, impactful results for the American people, results that will provide untold benefits for our health, our economy, job creation, and the environment. If confirmed, I will approach all our decisionmaking through the same lens and with the integrity, transparency, and accountability that Administrator Regan insists on.

Members of the Committee, like you, I hold the belief that all Americans, no matter where they live or what they do for a living, deserve clean air to breathe, clean water to drink, a secure job, and healthy, safe communities in which to raise their families. It would be a distinct privilege to work alongside and support EPA's brilliant and selfless civil servants in this shared mission.

Thank you for the privilege of speaking to you today. I look forward to hearing your concerns and answering your questions.  
[The prepared statement of Mr. Goffman follows:]

**Statement of Joseph Goffman**  
**Nominee for the Position of Assistant Administrator for the Office of Air**  
**and Radiation in the United States Environmental Protection Agency**

**Before the**  
**Committee on Environment and**  
**Public Works**

**United States Senate**

**March 1, 2023**

Thank you, Chairman Carper, Ranking Member Capito, and Members of the Committee. It is a privilege to appear before you this morning.

I am humbled to be nominated by President Biden and considered by the Committee for the position of Assistant Administrator for the Office of Air and Radiation at the United States Environmental Protection Agency. I am also grateful for the honor and opportunity to continue my public service, having previously worked for the Members of this Committee in four different positions between 1989 and 2017. Being here before you today is truly an honor.

Joining me here today is my amazing wife, Antonia, and watching from their homes in San Francisco, New York, and Los Angeles, are my three children – Gabriel, Genevieve, and Olivia. As I said to them a year ago, I want them to know how very much I love them and admire them for leading lives that reflect the values their grandparents gave to me – values that I have carried with me and relied upon all my life.

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Thank you for the privilege of speaking to you today. I look forward to hearing your concerns and answering your questions.

**Senate Committee on Environment and Public Works**  
**Hearing Entitled, "Hearing on the Nomination of Joseph Goffman to be Assistant**  
**Administrator for the Office of Air and Radiation, at the Environmental Protection Agency"**  
**March 1, 2023**  
**Questions for the Record for Joseph Goffman**

**Senator Kelly:**

1. I understand that EPA has recently proposed new National Ambient Air Quality Standards for particulate matter smaller than 2.5 microns, also known as PM 2.5. If finalized, these new regulations would put both Maricopa and Santa Cruz County into non-attainment for PM 2.5. From talking with air officials in both counties, there is some concern that setting the air quality standards too low could make it impossible for either county to get out of non-attainment, due to the background levels of PM 2.5 present in the area, and sources of emissions from outside of the region's control. As the EPA developed these proposed rules, what scientific evidence did EPA consider, and how will EPA consider an air region's ability to attain a particular standard, as you look to finalize these rules?

**Over the last 50 years, we have seen that cleaner air and economic growth go hand in hand. Air quality standards can promote innovation and a healthier, more productive economy. Particle pollution, or "soot" is one of the most dangerous forms of pollution, and a growing body of science has linked it to a range of serious and sometimes deadly illnesses. The National Ambient Air Quality Standards for particulate matter are a vital health protection that must be based on the best available health science, which is why we recently proposed to update and significantly strengthen the fine particulate annual NAAQS from its current level of 12 micrograms per cubic meter (ug/m3) to a level within the range of 9-10 ug/m3. As we describe in considerable detail in the proposal itself, a revised level within the proposed range of 9-10 ug/m3 is supported by the scientific evidence, outlined in the Integrated Science Assessment and reviewed by the Clean Air Scientific Advisory Committee. The public comment period on the proposal is open until March 28, 2023.**

- a. Given that a significant source of PM 2.5 is wildfire smoke, what steps is your office currently taking to ensure areas pushed into non-attainment are not penalized for PM 2.5 emissions from wildfires?

**We recognize that states and many stakeholders have concerns about the challenges that both wildfires and prescribed fires pose when it comes to meeting air quality standards for particulate matter. EPA's Exceptional Events Rule and related guidance under the Clean Air Act provide an approach to address air quality impacted by wildland fire, including both wildfires and prescribed fires, in the context of certain regulatory actions. The Exceptional Events Rule contains specific provisions for prescribed fires on wildland, and EPA recognizes the importance of prescribed fire as a land management tool. We intend to continue working with states,**

air quality management districts, federal land managers, and other stakeholders to ensure we are providing the air quality related tools and resources needed to support wildland fire mitigation activities while also protecting human health and the environment consistent with the Clean Air Act. Separate from these regulatory issues, it is also important to recognize that particulate matter, and smoke, from any source has negative health impacts – whether it’s a wildfire or prescribed fire. EPA and our state, local, Tribal and federal partners need to continue working together to reduce exposure, especially for those most vulnerable and EPA remains committed to doing so.

- b. In Arizona, another major source of PM 2.5 is industrial emissions from Mexico. How does EPA account for those emissions, as you prepare to implement a more stringent PM 2.5 rule?

EPA recognizes that the air quality in certain areas within the United States, particularly those near international borders, can be affected by pollution that originates in another country. Clean Air Act section 179B provides certain regulatory flexibilities for air agencies who develop and submit a demonstration showing that a nonattainment area would be able to attain and maintain, or would have attained, the relevant National Ambient Air Quality Standard but for emissions emanating from outside the United States. EPA has the authority to review and assess submitted Clean Air Act section 179B demonstrations and provide the regulatory relief specified in section 179B if the submitted demonstration establishes to the satisfaction of the Administrator that the implementation plan of such state would be adequate to attain and maintain the relevant national ambient air quality standards by the attainment date, but for emissions emanating from outside of the United States.

While section 179B can be an important tool for providing specified regulatory relief for air agencies, it is important to note that this flexibility is only available after an area has already been designated nonattainment. Section 179B does not provide a basis for either excluding air monitoring data influenced by international transport from regulatory determinations related to attainment and nonattainment or redesignating an area to attainment. EPA’s approval of a section 179B demonstration also does not relieve air agencies with nonattainment areas of having to meet the remaining applicable planning or emissions reduction requirements in the Clean Air Act

2. Arizona is in the midst of a historic drought – which is forcing some Arizona water users to take significant water cuts. Many of these cuts are being born by our agricultural community – meaning more and more farmland is being left to fallow. As you can imagine, dry, unused farmland is more likely to be a source of particulate air pollution. As EPA is considering changes to particulate matter air quality regulations, how are you accounting for the effects of Arizona’s longstanding drought on the ability of our communities to come into compliance?

- a. What technical assistance is EPA able to provide to Arizona communities to help them develop mitigation strategies for particulate matter that do not require significant water use?

**I recognize the unique nature of the air quality planning challenges Arizona faces with its climate and its growing economic and population base. EPA's Office of Air and Radiation and EPA Region 9 are available to work with Arizona DEQ, local government organizations, Tribes in Arizona, and any other relevant parties to ensure that Arizonans can benefit from clean, healthy air while allowing the Arizona economy to continue to grow.**

**EPA Region 9 has previously approved rules for Pinal County to control dust from croplands and other areawide sources, including fallow fields. These rules allow farmers to select among many best management practices, several of which do not involve significant water use (e.g., artificial wind barriers and mulching). Non-watering control options similarly apply for construction sites and paved roads (e.g., application of chemical stabilizers or dust suppressants, vehicle speed reduction, and sweeping) and unpaved roads (e.g., paving, graveling, and chemical stabilization).**

**EPA Region 9 staff are working with Arizona to help develop reasonable controls for PM10 sources in the area. EPA is committed to working with the Arizona DEQ and stakeholders to ensure that all areas of Arizona, including Pinal County and Yuma County, continue to achieve air quality improvements with rules that meet federal requirements.**

3. Administrator Regan recently discussed EPA's integrated strategy to reduce air emissions from the power sector and said that the strategy would ensure continued provision of reliable and affordable electricity to consumers. In Arizona we are seeing unprecedented growth in electricity demand – especially in our long, hot summer months. At the same time, our historic drought is threatening hydropower assets in Arizona – especially at Glen Canyon Dam. Given these factors, how will EPA consider energy affordability and threats to grid stability in the western United States as EPA moves forward on new and revised air quality regulations?

**Whenever EPA works on clean air protections for the power sector, we put ensuring reliability in a top priority position right alongside affordability and achieving cleaner and healthier air. Families and businesses all across America depend on having a reliable supply of affordable electricity for their livelihoods and well-being, and we take reliability considerations very seriously in developing regulations.**

**In over 50 years of implementing the Clean Air Act, EPA and OAR have established a strong track record of developing air quality protections that save lives, deliver clean and healthy air, and allow power companies to deliver reliable and affordable electricity. That's not by accident. As we work on any clean air rule for the power sector – including the rules we are developing right now – we carefully assess**

implications for electric reliability and cost as an integral part of our technical analysis, and where appropriate build in policy features that are specifically intended to support the industry's ability to ensure reliability.

EPA also actively engages directly with the electricity sector in the course of our rulemakings, including system operators, state regulators, DOE, FERC, and other parties that have responsibility for ensuring reliability and affordability in the electric supply. In addition, DOE and TVA, among other agencies, participate in interagency reviews of rules before they are signed. We also engage broadly with stakeholders who are responsible for reliability in the power sector, including investor-owned utilities; municipal utilities; rural electric cooperatives; state energy and environmental regulators; and grid operators to make sure we are working from the best possible information and addressing reliability issues appropriately. Lastly, we regularly confer with other expert agencies like DOE and FERC outside the interagency review process.

In support of our work addressing reliability, the Department of Energy (DOE) and EPA signed a Joint Memorandum of Understanding (MOU) on Interagency Communication and Consultation on Electric Reliability on March 9. This agreement provides a framework for both agencies to unlock the reliability advantages of the growing clean energy economy. It builds upon longstanding engagement from DOE and EPA with the power sector and further commits the agencies to routine and comprehensive communication about policies, programs, and activities regarding electric reliability. This includes sharing information and analysis, and ongoing monitoring and outreach to key stakeholders to proactively address reliability challenges.

4. I understand that EPA is moving forward with new regulations to reduce greenhouse gas emissions from new and existing fossil-fuel-fired power plants. When the agency released the proposed Clean Power Plan in 2014, the rule would have mandated the retirement of all existing coal generation in the state by 2020 – a timeline that would have had disproportionate impacts on Arizona. As a result, at least in part, of extensive comments and technical data submitted by Arizona stakeholders, EPA established more workable timelines and targets for Arizona. I recognize that you led the efforts within EPA at that time to listen to the concerns raised by Arizona stakeholders. As EPA moves closer to issuing its next set of carbon rules, Arizonans would like assurance from EPA that the agency will proactively engage with the state to ensure these rules won't cause significant disruption to utility resource plans and force adoption of dramatically more expensive and uncertain paths to decarbonization. Can you provide this assurance?

**EPA plans to propose carbon pollution standards for new fossil fuel-fired power plants and carbon pollution emissions guidelines for existing fossil fuel-fired power plants later this spring. The Clean Air Act lays out a central role for states in developing plans to meet the emissions guidelines. EPA is committed to working with states as we develop the proposed and final emission guidelines to ensure smooth implementation. We look forward to working with the Arizona Department of**

**Environmental Quality (ADEQ) and Arizona utilities to receive their feedback on the proposals through the public comment process, and, along with EPA's Region 9, we will continue that cooperation to assist ADEQ in developing a state plan for any emissions guidelines we finalize.**

5. The EPA recently reclassified the Phoenix-Mesa 2015 ozone nonattainment area from Marginal to Moderate nonattainment. The EPA also announced that they are reconsidering the 2020 decision to retain the 2015 ozone NAAQS and is considering lowering the current ozone standards to levels that are near or at the measured background levels in the western U.S. Without a new approach by the EPA for the development of demonstrations for nonattainment areas affected by ozone transport, particularly international transport, achieving the ozone standard will be nearly impossible. Will you increase the flexibility to EPA's approach to implementing requirements of the Clean Air Act, particularly for ozone transport, exceptional events, and emission reduction credits (ERCs)?

**EPA is committed to working with air quality planners, including Arizona and the tribal nations within Arizona, to implement the ozone national ambient air quality standards. The Clean Air Act has a proven track record of delivering cleaner, healthier air alongside a strong economy. EPA has been working with Arizona on implementation tools that recognize the unique situation that Arizona faces and we will continue to do so.**

**Ranking Member Capito:**

1. Please list all rulemakings that are part of the EPA's "EGU (Electric Generating Unit) Strategy."

**Administrator Regan recognizes that EPA has a responsibility to protect the public from harmful pollution from the power sector – and how important it is that we do so in a way that provides regulatory certainty and a long-term planning horizon that allows states, grid operators, and power companies to make good investment and planning decisions and preserves the ability of the industry to deliver reliable and affordable electricity. As a result, he has directed the Office of Air and Radiation to address not just the significant greenhouse gas emissions from power plants, but also the full range of public health and environmental impacts linked to power plant air pollution. Many of these impacts all too often fall most heavily on our most vulnerable and overburdened communities. We are committed to using all the tools at our disposal to meet that important goal and have been developing a suite of actions under the Clean Air Act as well as engaging with states, tribal nations, power companies/electric cooperatives/municipal power providers, RTOs/ISOs, DOE and FERC, and many other stakeholders to inform that work. Administrator Regan discussed EPA's approach to deliver certainty for the power sector and ensure significant public health benefits in March of 2022. His prepared remarks are available at (<https://www.epa.gov/speeches/administrator-michael-regan-remarks-ceraweek-about-epas-approach-deliver-certainty-power>).**

He discussed the following OAR regulations in that speech:

- Mercury and Air Toxics Standards for Power Plants
  - MATS Residual Risk and Technology Review
  - Clean Air Act “good neighbor” obligations for the 2015 Ozone National Ambient Air Quality Standards
  - Emission guidelines for carbon dioxide pollution from existing power plants under section 111(d)
  - Revisions to the greenhouse gas standards for new power plants under section 111(b)
2. For each rule listed in response to the question above, please list the anticipated proposal date (if not yet proposed) or finalization date (if already proposed).

The time frames for the OAR regulations that Administrator Regan mentioned in his March speech are:

- Mercury and Air Toxics Standards for Power Plants (Re-Affirmation of the Appropriate and Necessary finding) / notice of final rulemaking March 6, 2023
  - MATS Residual Risk and Technology Review / Expected notice of proposed rulemaking April 2023
  - Clean Air Act “good neighbor” obligations for the 2015 Ozone National Ambient Air Quality Standards / expected finalization March 2023
  - Emission guidelines for carbon dioxide pollution from existing power plants under section 111(d) / expected notice of proposed rulemaking April 2023
  - Revisions to the greenhouse gas standards for new power plants under section 111(b) / expected notice of proposed rulemaking April 2023
3. The EPA presentation made on February 15, 2023 entitled “EPA IRA Power Sector Impacts” (hereinafter “EPA Presentation”) at a Resources for the Future event included 11 slides and presented summary information of EPA modeling results. We discussed this presentation during your hearing. Please provide the underlying modeling results on which the presentation is based.

As you note, EPA staff from the Office of Air and Radiation participated in an event sponsored by Resources for the Future held on February 15, 2023, titled “Future Generation: Exploring the New Baseline for Electricity in the Presence of the Inflation Reduction Act.” The event explored how the electricity sector is expected to change in the coming decades as a result of the Inflation Reduction Act (IRA) and Infrastructure, Investment, and Jobs Act (IIJA). The EPA presentation, as you noted at the hearing, included preliminary modeling results projecting impacts of the IRA, including projections of major growth in clean and renewable technologies, driven by tax credit incentives, resulting in decreases in fossil fuel use. The workshop included presentation of interim results from modeling that is still undergoing review and documentation. As soon as this modeling is ready to publish, we will update our website at <https://www.epa.gov/power-sector-modeling> with detailed input and

output data files as well as full documentation of the modeling framework and assumptions.

**The power sector model that EPA used for that presentation is called the Integrated Planning Model (IPM), which is a long-term dynamic linear programming model of the U.S. power sector that aims to reflect scenarios for meeting energy and peak demand at lowest cost over the projection period subject to constraints, including transmission constraints, fuel markets, resource supply, and emission limits. The IPM is populated with information related to operating units, planned builds, and planned retirements, and is able to add new capacity, retrofit or retire existing capacity, and alter dispatch in order to meet demand over the projection period at the lowest cost. Initial modeling results accounting for IRA provisions show an 80% reduction from 2005 levels of power sector CO2 emissions by 2040, compared to a 55% reduction projected before the IRA was enacted.**

4. Slide 4 of the EPA Presentation lists five tax credit provisions in the Inflation Reduction Act (IRA). Are those the only IRA provisions included in the modeling results summarized in the EPA Presentation?

**Slide 4 lists six tax credit provisions from the IRA; the first bullet contains two provisions. Those six are the provisions included in the preliminary modeling results summarized in the EPA presentation.**

5. Will all analyses of future EPA rulemakings now include the effects of the five tax credit provisions from the IRA listed on Slide 4 of the EPA Presentation in EPA's modeling baseline, and will that influence future cost-benefit analyses of rulemakings?

**EPA intends to include the six provisions referenced in response to Senator Capito's question #4, except certain regulatory actions already underway where power sector modeling was conducted before the IRA was enacted and its provisions could be incorporated into EPA's power sector modeling. EPA's power sector modeling for any given regulatory impact analysis includes documentation of laws and regulations that are represented in the modeling baseline. That information is publicly available as the associated regulatory action is issued at <https://www.epa.gov/power-sector-modeling>.**

6. Slide 5 of the EPA Presentation presents a national map of changes in "clean electricity share." Which types of generation sources qualify as "clean electricity" for purposes of this analysis?

**Electricity generation shares for the maps used on this slide of the presentation include only generation from zero-emission sources. In the modeling conducted, these sources include: wind, solar, nuclear, hydro, energy storage, geothermal, and non-fossil waste.**

7. Does the EPA’s modeling predict an increase in nuclear electricity generation between now and 2040?

**EPA modeling provides projections; EPA’s modeling cannot provide predictions. EPA’s preliminary modeling projects a decrease in nuclear electricity generation between 2021 reported levels and 2040 projections.**

**The workshop where the post-IRA 2022 Reference Case was discussed included presentation of interim results from modeling that is still undergoing review and preparation of full documentation. Nuclear generation in that post-IRA scenario is higher compared to the Pre-IRA 2022 Reference Case, but still projected to be lower than 2021 reported levels. The increase in projected nuclear generation between the two scenarios is from delayed retirements from the existing fleet under a future with the IRA compared to a future without the IRA.**

**As soon as this modeling is ready to publish, we will update our website at <https://www.epa.gov/power-sector-modeling> with detailed input and output data files as well as full documentation of the modeling framework and assumptions.**

8. In January 2023 the White House issued its guidebook for implementing the Inflation Reduction Act (IRA), entitled “Building a Clean Energy Economy.” That document indicates which program office will administer each section of the IRA within the Environmental Protection Agency’s jurisdiction. According to that document, the Office of Air and Radiation (OAR) will administer approximately 14 programs established in the IRA. Can you confirm which sections of the IRA that the OAR has responsibility over implementing?

**OAR has responsibility within EPA for implementing Sections 60101, 60102, 60104, 60105(a)-(g), 60106, 60107, 60108, 60109, 60111, 60113, and 60114 of the Inflation Reduction Act.**

9. Notably the White House guidebook specifies that the Office of the Administrator, not the OAR, will implement the \$27 billion Greenhouse Gas Reduction Program established as Section 134 of the Clean Air Act in section 60103 of the IRA. Why is this program not being implemented through the Office of Air and Radiation, which is generally responsible for administering the Clean Air Act?

**The Greenhouse Gas Reduction Fund is currently being implemented through the Office of the Administrator as part of the agency’s overall plan to effectively implement over \$100 billion in new appropriations across more than 70 programs supported through the Bipartisan Infrastructure Law (BIL) and the Inflation Reduction Act (IRA). Implementing this program in the Office of the Administrator allows the agency to draw from expertise most effectively across EPA and the broader federal government. The Greenhouse Gas Reduction Fund team meets regularly with our experts in OAR, and EPA’s leadership is focused on ensuring investments across the agency are well-aligned for maximum impact.**

10. Nothing in the Inflation Reduction Act changes the EPA’s authority to regulate greenhouse gas emissions from power plants as it relates to the holding in *West Virginia v. EPA*, correct? If you disagree, please cite and explain the changes within the Inflation Reduction Act to these relevant authorities.

**In *West Virginia v. EPA*, the Supreme Court held that EPA did not have the authority to adopt generation-shifting as the best system of emission reduction (“BSER”) as part of its emission guidelines for power plant greenhouse gas emissions under Clean Air Act section 111(d). The Inflation Reduction Act did not include provisions addressing EPA’s authority to adopt generation shifting as the BSER under Clean Air Act section 111.**

11. In order to comply with the Byrd Rule, provisions within reconciliation legislation may include, at most, only “merely incidental” policy impacts beyond their budgetary effects. Do you agree that the Clean Air Act sections in the IRA were budgetary and did not represent substantial changes in policy nor provide the EPA with new authorities to regulate emissions from power plants?

**It is EPA's understanding that the authority to determine parliamentary matters in the Senate resides with the Senate itself, including compliance with the Byrd Rule, advised by the Senate parliamentarian.**

12. In the EPA’s supplemental proposal to regulate methane emissions from the oil and natural gas sector (*Standards of Performance for New, Reconstructed, and Modified Sources and Emissions Guidelines for Existing Sources: Oil and Natural Gas Sector Climate Review*), the EPA proposed a new “super-emitter response program.” Under this proposal, the EPA would approve and authorize “any third party, including but not limited to technology vendors, industry, researchers, non-profit organizations, or other parties demonstrating technical expertise as described” that is interested in monitoring for and identifying so-called “super-emitter” emissions events and notifying the sources. Owners and operators would be required to verify that emissions are linked to their site and act on notifications from approved third parties. Under what provision of the Clean Air Act does the EPA claim authority to authorize third parties to notify regulated sources of events that they would be required to act on (i.e., enforce compliance on regulated sources) in the proposed regulatory text, 40 CFR 60.5388c(c)?

**The EPA proposed the “super-emitter response program” under section 111 of the Clean Air Act, which authorizes the EPA to set new source performance standards that reflect what the Administrator determines to be the “best system of emission reduction,” as well as establish necessary compliance assurance measures to achieve the emission reductions. The EPA would also set emission guidelines under section 111 that States would use to set standards for reducing such emissions from existing sources within their States.**

13. Could a foreign government that demonstrates technical expertise qualify as a third-party identifier? What about an organization under the control or influence of a foreign government?

**EPA received a range of comments regarding the super-emitter response program as part of the more than 400,000 comments received on the Agency's supplemental proposal for oil and natural gas operations. We are currently evaluating the public comments we received, including comments regarding which third parties could be authorized third parties under the program.**

14. Would the EPA consider approving a nonprofit organization that lobbies against the exploration, development, production, or consumption of oil and gas as a third-party identifier?

**See answer to Senator Capito's question #13.**

15. Are there any qualified third-party identifiers that the EPA would automatically not consider for approval? What would be an example justification of such a disapproval?

**See answer to Senator Capito's question #13.**

16. In the EPA's proposal to update the National Ambient Air Quality Standards (NAAQS) for fine particulate matter (PM<sub>2.5</sub>) (*Reconsideration of the National Ambient Air Quality Standards for Particulate Matter*), the draft Regulatory Impact Analysis states that many of the required emission reductions will come from controls on smaller sources and businesses that may not even be aware of the program's existence or impact. Has the EPA reached out to any of these potentially affected groups to discuss the potential impacts? Has the EPA undertaken – or does the Agency intend to undertake – a Small Business Regulatory Enforcement Fairness Act (SBREFA) process with regards to this rulemaking, including a Small Business Advocacy Review Panel?

**The Regulatory Flexibility Act (RFA), as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA), requires EPA to convene a Small Business Advocacy Review (SBAR) Panel for proposed rules that are subject to notice and comment rulemaking requirements unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. As the proposal certifies, the NAAQS themselves do not impose any regulatory requirements on small entities. States have broad discretion to identify and implement control strategies to ensure attainment and maintenance of the NAAQS once EPA has promulgated them. The [Regulatory Impact Analysis](#) for the proposed standards provides illustrative examples of a limited number of potential control strategies that states might adopt in the first instance. Ultimately, during the implementation process, states have broad discretion to decide what control strategies and policies are appropriate to meet a standard given their specific circumstances.**

17. On October 5, 2022, your office proposed to disapprove California's proposed plan to attain the existing 2012 annual PM<sub>2.5</sub> standard for San Joaquin Valley. Given the significant

and ongoing challenges California has faced in attaining *existing* PM<sub>2.5</sub> standards, what basis is there to assume that areas in the state of California can fully attain the *newly proposed* PM<sub>2.5</sub> standards?

**EPA is proposing to revise the level of the primary, health-based annual standard because the available scientific evidence and technical information indicate that the current standard may not be adequate to protect public health with an adequate margin of safety, as required by the Clean Air Act (CAA). By law, EPA cannot consider costs of implementation when reviewing or revising NAAQS. EPA is committed to continuing to work with the California Air Resources Board, the San Joaquin Valley Air Pollution Control District, and stakeholders to address PM<sub>2.5</sub> air pollution in the San Joaquin Valley area.**

18. Unlike previous NAAQS rulemakings, the EPA failed to provide the public with estimates of the full costs of attaining the recently proposed PM<sub>2.5</sub> standards. Why did the EPA depart from this precedent? Will you be providing estimates of full costs before finalizing any regulation to update the PM<sub>2.5</sub> standards?

**As a matter of course in Agency rulemakings and per relevant federal executive orders and guidance, EPA prepares a regulatory impact analysis (RIA) to quantify the likely benefits and costs of certain regulatory options. Describing the effects of EPA rules is an important part of our obligation to be transparent in how we conduct our analyses. Each RIA is prepared in accordance with Executive Orders and OMB guidance, and the Agency's guidelines for economic analyses. The RIA for this proposal is available at [https://www.epa.gov/system/files/documents/2023-01/naaqs-pm\\_ria\\_proposed\\_2022-12.pdf](https://www.epa.gov/system/files/documents/2023-01/naaqs-pm_ria_proposed_2022-12.pdf).**

19. Last November, the US Government Accountability Office (GAO) issued a report on small refinery exemptions and made seven recommendations, including five recommendations to the EPA. Do you commit to implementing all of GAO's recommendations? Is there any progress on this effort you can share at this time?

**The GAO report had a number of recommendations for EPA regarding the inconsistency of past decisions and documentation of our workflow and communications with DOE. EPA takes seriously GAO's critique of our historic implementation of the program with regard to these process considerations and it is the Agency's intent to make further improvements to those elements of the program in response to this report. We are currently working with DOE on this. The GAO report also made recommendations related to the analysis of whether small refineries face disproportionate RIN costs, based on a flawed draft GAO analysis that led to flawed conclusions and recommendations, as discussed further in response to Senator Capito's question 20.**

20. In the report, GAO found "small refineries have paid more on average for compliance credits than large refineries." Do you agree with GAO's finding?

EPA does not agree with the GAO's finding given that EPA's analysis, published in December 2022, estimated that small refineries paid 2.6% (\$0.023) more per D4 RIN and 0.2% (\$0.001) less per D6 RIN. As EPA noted to GAO, we consider such small variations as not significant in evaluating potential hardship under the program and believe that these very minor variations may in fact simply be sampling noise in the data and not reflective of an actual market condition. This seems particularly likely when noting that the data shows small refineries paid less not more than large refineries in buying the D6 RIN category, which makes up approximately 70% of a company's RFS compliance obligation.

GAO recommended that EPA reconsider our conclusion that refineries pay the same cost to acquire RINs whether blending or buying them directly, although the analysis GAO conducted in reaching that recommendation evaluated a different question entirely. Specifically, GAO evaluated if small refineries pay the market price for RINs bought on the open market or if they must pay a premium over the market price. EPA pointed to an error in GAO's draft analysis, which when corrected, changed GAO's analysis from a nearly 40 percent difference to a difference of 2.4 percent; however, GAO's faulty conclusion and recommendation were left unchanged.

While EPA and DOE will continue to evaluate fuel contracts and market data provided by small refineries in evaluating new petitions, we see no need to reconsider EPA's prior evaluation of the cost to acquire RINs from blending or buying RINs especially given GAO did not even evaluate that question.

21. The EPA is currently updating regulations under 40 CFR 63 Subpart BBBBBB (40 CFR Subpart BBBBBB-National Emission Standards for Hazardous Air Pollution [NESHAP] Gasoline Bulk Terminals). The proposal would reduce the threshold for exemption from EPA vapor balance requirements from 20,000 gallons of *throughput* per day to application for tanks larger than 4,000 gallons of maximum *capacity*. The costs of compliance for these far smaller terminals may lead to their exiting the market, which will disproportionately impact the cost and availability of fuels in agricultural and rural states, like West Virginia. I fear that the EPA has underestimated the economic impact on these communities. Has the EPA undertaken – or does the Agency intend to undertake – a Small Business Regulatory Enforcement Fairness Act (SBREFA) process with regards to this rulemaking, including a Small Business Advocacy Review Panel? Will you commit to considering the impacts – and modifying the EPA proposal as warranted – of this regulation on rural and agricultural fuel markets?

EPA is currently reviewing the comments received on the proposal for Subpart BBBBBB NESHAP Bulk Gasoline terminals, and the concerns you cited were raised in the comments. EPA will consider all timely comments and potential impacts as it prepares a final rule. EPA anticipates issuing a final rule by August 30, 2023.

The Regulatory Flexibility Act (RFA), as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA), requires EPA to convene a Small Business Advocacy Review (SBAR) Panel for most proposed rules unless the agency can certify that a rule will not have a significant economic impact on a substantial number of

**small entities. The proposal certified that each of the rules included within the proposed action will not have a significant economic impact on a substantial number of small entities (87 Fed. Reg. at 35,641–42).**

22. With regards to the NESHAP for Gasoline Bulk Terminals, has the EPA done any modeling on the emissions impact of operating the vapor balancing equipment for storage and cargo tanks compared to the baseline? Will operating this equipment lead to more greenhouse gas emissions than it prevents in capturing fugitive vapors?

**Vapor balancing refers to a control option where vapors from one source (either a storage tank or a cargo tank) are displaced during a loading operation and routed to the storage or cargo tank that is the source of the liquids being loaded. The approach results in reductions of volatile organic compounds because these displaced emissions are captured rather than being emitted. Compressors are not typically needed to return the vapors to the originating storage or cargo tank. EPA does not expect that there are additional GHG emissions from vapor balancing.**

**EPA proposed National Emission Standards for Hazardous Air Pollutants: Gasoline Distribution Technology Review and Standards of Performance for Bulk Gasoline Terminals Review on June 10, 2022. We are currently reviewing the comments received on that proposal, including comments regarding vapor balancing.**

23. We understand that you recently self-reported to the Environmental Protection Agency’s Inspector General a potential lapse in the screening process outlined in your recusal agreement dated June 30, 2021. Please detail what portion of the existing Screening Arrangement in your recusal agreement failed.

**I take my ethical obligations extremely seriously. OAR staff and I are already working to identify opportunities to ensure that I meet those obligations fully and to improve the consistency and redundancy of the screening process in support of my meeting those obligations. I have been and will continue to cooperate fully with the Office of the Inspector General (OIG) and look forward to working with the OIG on identifying potential improvements to the screening process.**

24. Following this potential lapse, will you update your recusal agreement?

**See answer to Senator Capito’s question #23.**

25. What actions are you taking to improve the screening process in the future?

**See answer to Senator Capito’s question #23.**

26. Will you cooperate fully with any investigations or reviews of this incident?

See answer to Senator Capito's question #23.

**Senator Cramer:**

1. Mr. Goffman, during your nomination hearing last May, I asked if you had contacted North Dakota's three Public Service Commissioners Julie Fedorchak, Randy Christmann, and Sheri Haugen-Hoffart, and the Director of North Dakota's Department of Environmental Quality (NDDEQ), Dave Glatt, while you examine potential rulemaking options to reduce emissions from power plants. You stated contact had not been made, but committed to doing so in both your verbal and written answers. Unfortunately, even after my office passed along their contact information, during last week's hearing, I asked if you had contacted them since the hearing and you stated you have not.

- a. Will you uphold your commitment to engage with Director Glatt at NDDEQ and Commissioners Fedorchak, Christmann, and Haugen-Hoffart as you examine options before introducing a new rulemaking for stationary source emissions under the Clean Air Act?

**I will. EPA has reached out to schedule meetings with Director Glatt and Commissioners Fedorchak, Christmann, and Haugen-Hoffart, and key members of the Office of Air and Radiation team developing our proposals for carbon pollution standards for new fossil fuel-fired power plants and carbon pollution emissions guidelines for existing fossil fuel-fired power plants. We anticipate those meetings will occur this month (March).**

2. Mr. Goffman, during your recent hearing, I asked you about EPA's supplemental methane rule and conveyed North Dakota's unique challenges to capturing associated methane. Oil development happens within the western part of North Dakota where there is a much greater preponderance of federal land, such as U.S. Forest Service, Bureau of Land Management, and National Park Service. Further, the heart of the Bakken underlies the Fort Berthold Indian Reservation where the federal government's regulatory system and trust relationship takes hold. This federal control makes permitting incredibly difficult to complete, including new midstream infrastructure or capacity upgrades. North Dakota boasts a 95% capture rate outside of the Fort Berthold Indian Reservation, but in areas primarily under the authority of the federal government this high performance quickly disintegrates, dropping to as low as 59%. The methane supplemental only allows for operators to flare gas if they are able to demonstrate to a professional engineer that all options for beneficial use are infeasible due to a technical or safety reason. Access to a sales line or other beneficial uses, particularly developing ones, are not always available and sometimes other federal agencies are the ones standing in the way.

- a. Would a federal agency's inaction be considered a technical reason an operator could flare under this regulation?

**EPA received a range of comments regarding the proposed standards for associated gas and flaring as part of the more than 400,000 comments we received on the supplemental proposed rulemaking to reduce methane from oil and natural gas operations. We are currently**

**evaluating the public comments, including comments regarding flaring and challenges with permitting and infrastructure upgrades.**

- b. What have you done or plan to do to make sure other federal agencies are not inhibiting greater methane capture rates?

**In November 2021, President Biden announced the U.S. Methane Emissions Reduction Action Plan, and in numerous other instances the Biden-Harris Administration has announced initiatives and actions to use all available tools—commonsense regulations, catalytic financial incentives, transparency and disclosure of actionable data, and public and private partnerships—to identify and reduce methane emissions. These cost-effective actions will dramatically reduce greenhouse gas emissions, cut leaks, waste, and consumer costs, protect workers and communities, maintain and create high-quality, union-friendly jobs, and promote U.S. innovation and manufacturing of critical new technologies. This include actions by EPA and other federal departments agencies to promote methane capture.**

**EPA regularly coordinates with other federal agencies such as the Bureau of Land Management and the Pipeline and Hazardous Materials Safety Administration to discuss how our standards and practices are being developed.**

- c. Last April, Administrator Regan assured me methane regulations were taking a whole of government approach. How will the NEPA categorical exclusions for producers on federal and tribal land authorized in the Infrastructure, Investment and Jobs Act impact the EPA’s regulation of methane?

**Section 11318 of the Infrastructure Investment and Jobs Act authorizes the Secretary of the Interior categorically exclude “gathering line(s) and associated field compression or pumping unit(s)” that are located on federal or tribal land.**

**EPA's Office of Policy has the lead role for NEPA at EPA. If confirmed, I will continue to work with my colleagues in the Office of Policy and the Department of the Interior, as needed, to fulfill the duties assigned to me in EPA's Office of Air and Radiation.**

- d. In the rule, EPA admits the United States will produce 21 million fewer barrels of oil and 258 million fewer Mcf of natural gas a year in 2026. Many commenters have identified this regulation and others as costly to implement, especially for wells with small production, and may very well result in closure. Is it your intent to reduce domestic energy production and shut-in low producing wells, many of which are owned by small businesses?

**In the November 2022 supplemental proposal, the EPA proposed a cost-effective approach to ensure that every well site, regardless of size, is regularly monitored. This new approach is designed to achieve more comprehensive reductions in leaks from well sites while streamlining compliance for owners and operators. The revised program would tie leak monitoring requirements to the types and amount of equipment at a site, rather than to**

estimated emissions, which will make it simpler for owners and operators to determine which monitoring requirements they must meet at a site. EPA also expects that the proposal would deliver significant economic benefits through increased recovery of waste gas.

This approach removes exemptions from routine monitoring for well sites with lower emissions, which EPA had proposed in 2021, and it adds audio, visual and olfactory (AVO) inspections, where inspectors listen, look and smell for leaks, for smaller well sites. EPA proposed monitoring and repair programs for small well sites, which are defined as single wellhead well sites that have no controlled storage vessels, control devices, pneumatic controller affected facilities or pneumatic pump affected facilities, and include only one other piece of major production and processing equipment. Small well sites must conduct quarterly AVO inspections and repair any identified leaks within 15 days. Monitoring must continue until the small well site has been closed including plugging the wells at the site and submitting a well closure report.

EPA received a range of comments regarding the proposed standards as part of the more than 400,000 comments we received on the supplemental proposed rulemaking to reduce methane from oil and natural gas operations. We are currently evaluating the public comments, including comments regarding small operators.

**Senator Lummis:**

1. On December 20, 2022, EPA released a technical analysis of RIN prices in response to a recommendation by GAO. EPA analyzed over 2 million transactions for approximately 140 billion RINs and determined that large refineries do in fact pay a lower price for RINs, which is the same conclusion drawn by GAO. In light of these conclusions, will EPA re-evaluate its plans to relief on the basis that all refineries' compliance costs are the same?

**EPA does not agree with GAO's finding and does not intend to revisit previous decisions. Please see the answer to Senator Capito's Question # 20 for a more detailed response related to the analysis of RIN prices faced by small refineries.**

2. Two circuit courts of appeal stayed a group of small refineries' compliance obligations to avoid the irreparable harm that would occur if they were forced to comply with five years of RFS compliance in a 14-month period. If these denials result in the insolvency of small refineries, is that an outcome that EPA would find acceptable? In other words, are you comfortable with small refineries closing because EPA denied them relief?

**Given the stay actions, these small refineries will not have to meet their RFS obligations at this time.**

3. EPA has stated it has no intention of granting small refinery hardship relief again, despite GAO's findings and the statutory text allowing small refineries to seek and secure hardship relief "at any time." Will EPA reconsider its decision to abandon the program, particularly given a recent court of appeal's order that said: "EPA's 'new interpretation'—which quite

possibly will read the exemption framework promulgated by Congress out of the statute entirely, such that no small refinery will ever qualify for one—is thus likely contrary to law”?

**Since EPA’s actions in April and June 2022, EPA has received petitions from small refineries seeking exemption and we continue to review those petitions, in consultation with DOE.**

4. The GAO found that EPA’s implementation of the hardship program has created market uncertainty, thereby undermining the design of the RFS. EPA has rejected small refineries’ requests for regulatory reforms to the RIN market that would address this uncertainty, including provisions that only allow obligated parties to buy RINs. Wouldn’t you agree that removing market speculation and fraud in the RIN market is needed and what steps are you taking to make that happen?

**EPA takes seriously concerns regarding the potential for market manipulation in the RIN markets and took actions in 2019 (<https://www.govinfo.gov/content/pkg/FR-2019-06-10/pdf/2019-11653.pdf>) to increase transparency and deter potential manipulative and anti-competitive behaviors in the RIN market. Additionally, while some have attributed the rise and fall in RIN prices to fraud and speculation, this may be the result of swings in market demand from SRE grants that the market did not anticipate. To address this, we noted in the Agency’s response to the draft GAO report, “that SRE decisions, in particular for the 2016-2018 compliance years, contributed to significant volatility in RIN prices and uncertainty for all program participants due less to the timeliness of the decision and more to the outsize impacts they had on the demand for RINs. To address this, EPA finalized new regulations that applied first for the 2020 compliance year that project SRE volumes and reallocate those volumes to other program participants, helping to ensure a consistent demand for RINs (and the associated renewable fuels) and through that consistent demand, more consistent and predictable RIN prices.”**

5. Do you believe that your proposed eRINs rule aligns with congressional intent from when Renewable Fuel Standard was initially enacted?

**The proposed eRIN program aligns with Congress’ goals of increasing energy security and reducing greenhouse gas emissions. It would support the Renewable Fuel Standard Program’s mandate to increase the use of renewable fuels over time. EPA is currently evaluating public comments about the eRINs program in determining next steps.**

6. Is EPA proposing in that rulemaking to treat the auto manufacturers as obligated parties under the RFS by assigning them a renewable volume obligation? And if not, do you believe it is appropriate for EPA to set up a program whereby refineries will effectively be subsidizing electric vehicle manufacturers?

Under EPA's eRIN proposal, automotive manufacturers would be the parties eligible to generate RINs for renewable electricity used in their in-use fleet. They would not become obligated parties. The obligated parties under the RFS program remain the petroleum refiners, blenders, and importers.

The proposed eRIN program aligns with Congress' goals of increasing energy security and reducing greenhouse gas emissions. It would support the Renewable Fuel Standard Program's mandate to increase the use of renewable fuels over time. EPA is currently evaluating public comments about the eRINs program in determining next steps.

7. Without a clear requirement from Congress to set up the eRINs program, how do you justify its creation while simultaneously ignoring congressional intent as it pertains to small refinery exemptions?

See answer to Senator Lummis's question #5.

**Senator Mullin:**

1. In a recent letter to the state of Louisiana, the Environmental Protection Agency's (EPA) office of external civil rights chastised Dr. Brown, the head of the Louisiana Department of Environmental Quality (LDEQ), for public comments that it characterized as "questioning the scientific basis and significance of the Integrated Risk Information System (IRIS) inhalation unit risk [for chloroprene], and the advisability of reaching those concentration levels and risk levels." As an office that regularly uses IRIS values, do you agree that when questions about the scientific basis and significance of an IRIS value are raised, the Agency should fully consider the issues raised?
  - a. Should there be an opportunity for public comment on the validity of an IRIS value in a regulatory process before it is used to impose requirements on a source?

**When EPA's Office of Air and Radiation proposes regulations, we welcome comments on all aspects of those proposals. The Integrated Risk Information System Program is administered by EPA's Office of Research and Development. Therefore, EPA's Office of Research and Development has the lead role for managing and developing IRIS assessments at EPA. If confirmed, I look forward to continuing to work with my colleagues in that office, as needed, to fulfill the duties assigned to me in the Office of Air and Radiation.**

2. The Inflation Reduction Act (IRA) applies a new fee to methane emissions that exceed a waste emissions threshold. The effort to conduct this calculation is time consuming and complicated, especially for smaller oil and gas businesses located in rural states like Oklahoma. What tool or tools is EPA developing to help operators easily conduct this calculation?

EPA is currently in the process of developing the program to implement the waste emissions charge authorized by IRA Sec 60113, including program features that will help ensure efficient implementation for small operators. Congress structured the waste emissions charge so that it focuses on large oil and gas facilities (i.e., those with emissions greater than 25,000 metric tons CO2 equivalent) and that exceed statutorily specified waste emissions thresholds. To facilitate implementation of the waste emissions charge, the IRA directs EPA to revise its Greenhouse Gas Reporting Program regulations at 40 CFR Part 98, subpart W, by August 2024. EPA intends to meet the directive and timing set forth by Congress.

3. The Inflation Reduction Act (IRA) requires EPA to impose and collect a waste emissions charge and allows this charge to be based on empirical data submitted by owners and operators of applicable facilities. Currently, the Greenhouse Gas Reporting Program contains emission factors and estimation methodologies rather than empirical emissions data. Considering the methane fee is scheduled to apply to 2024 emissions, when and how does EPA plan to revise its rules in a timely manner to allow operators to submit empirical emissions data?

**The IRA directs EPA to revise its Greenhouse Gas Reporting Program regulations at 40 CFR Part 98, subpart W, by August 2024 to ensure the reporting under that subpart and calculation of the waste emission charge are based on empirical data, accurately reflect the total methane and waste emissions from the applicable facilities, and allow owners and operators of such facilities to submit empirical emissions data, in a manner prescribed by EPA, to demonstrate the extent to which the waste emission charge is owed. EPA intends to meet the directive and timing set forth by Congress.**

4. Considering EPA's aggressive approach to regulate Greenhouse Gas emissions, it is crucial that EPA considers the potential impacts that additional costly and burdensome regulations will have on our farmers and ranchers. Does EPA intend to involve agriculture in future emissions regulations?

**Farmers and ranchers, and the food and fuel they produce, are keystones in our economy and our quality of life. Agriculture practices also impact our environment in many different ways, and as a result farmers and ranchers play significant roles in many of our programs. Our AgStar program, a voluntary partnership program in collaboration with the Department of Agriculture, provides technical and outreach support that supports farmers as they seek to manage their manure in ways that provide environmental and economic benefits. The program offers a range of technical information and resources aimed at helping the farming community better understand options for manure management systems. In addition, AgSTAR provides technical support to the Department of Agriculture's Renewable Energy for America Program which provides grants to farmers to install anaerobic digester systems.**

**EPA is committed to considering the needs of agricultural communities, as well as all other key stakeholders, as we assess the benefits and costs of regulations that will protect human health and the environment for all Americans.**

5. As EPA continues its ongoing efforts to directly regulate and lower methane emissions for the upstream and midstream segments for the oil and gas sector, how do you plan to further collaborate with stakeholders to properly balance considerations to achieve this shared goal?
  - a. Moreover, how would you make certain that the agency encourages innovation and continued investment in methane detection technologies that allows for further production and transmission of natural gas?

**EPA conducted robust stakeholder outreach and engagement as it developed its 2021 proposal and 2022 supplemental proposal to reduce methane emissions from the oil and gas sector. EPA is currently evaluating the public comments from those proposals. EPA's supplemental proposal would encourage the continued development of innovative technologies by including a clear and streamlined pathway for technology developers and others to seek approval for using advanced technologies to monitor for methane. EPA also expects that the Clean Air Act standards in the supplemental proposal would complement provisions of the Inflation Reduction Act, which will also incentivize early implementation of innovative methane reduction technologies and support methane mitigation and monitoring activities.**

**In addition, EPA administers voluntary programs that seek to encourage innovation and best practices for the oil and gas sector, including the Methane Challenge Partnership and the legacy Natural Gas STAR partnership.**

**EPA plans to continue to collaborate with industry stakeholders that want to share their innovative voluntary actions to reduce methane emissions "above and beyond" regulatory requirements.**

6. The EPA's mission is critical to the United States, but the agency's robust regulatory agenda, including planning to issue over 70 air regulations over the next couple of years, could threaten the important balance between environmental progress, competitiveness, and energy reliability amid a continuing period of economic uncertainty. How do you plan to ensure that the EPA appropriately maintains its statutory focus without impacting the availability of natural gas needed at home and abroad?

**Two things are spurring our oil and gas sector rulemaking. First, reducing methane emissions will take on one of the most potent pollutants causing climate change, which is already causing dangerous and costly impacts for Americans in the form of devastating wildfires, extreme weather like floods, and historic heatwaves. Reducing methane emissions has immediate health benefits for nearby communities because methane is emitted alongside other health-harming pollutants, including cancer-**

causing pollutants like benzene and volatile organic compounds that contribute to smog. Second, the industry itself has recognized the need and opportunities to reduce methane pollution. Both our initial November 2021 proposed rule and the supplemental proposed rule we issued in November 2022 leverage those practical and cost-effective solutions that many leading oil and gas companies have been deploying for years, as well as innovative technologies for methane detection that the industry strongly supports. The proposed rules would lead to significant reductions in climate and health-harming pollution, with minimal impacts on energy production or prices. In addition to the health benefits, EPA expects that the proposal would deliver significant economic benefits through increased recovery of waste gas. Based on all the work we've done and everything we've heard from stakeholders, we are confident that we will be able to finalize a rule that gets significant climate and health benefits, that is achievable for the industry, and highly cost-effective.

7. As you know, EPA is considering three independent California waivers relating to Heavy-Duty Trucks: Omnibus Low NOx Regulation, Heavy-Duty Vehicle and Engine Emission Warranty and Maintenance Provisions, and Heavy-Duty vehicle Zero-Emission rules. If approved, these waivers will set de facto national environmental standards for any motor carrier operating in interstate commerce. This is just another example of California pursuing radical and unachievable mandates and timelines for the trucking industry. Mr. Goffman, do you intend to cede the regulation of America's interstate commerce to the state of California by approving these waivers?

**On June 13, 2022, EPA requested comment on three requests by California Air Resources Board for waiver of preemption, covering six regulations. We are currently reviewing the record, including the comments received, in determining whether to grant those waiver requests.**

8. Do you support the policy of prohibiting the sale of new light-duty vehicles with an internal combustion engine starting in 2035?

**EPA is planning to issue a proposal in the coming weeks for new more stringent emissions standards for greenhouse gases and criteria pollutants for light-duty vehicles and Class 2b and 3 ("medium-duty") vehicles that would phase-in over model years 2027 and later. The proposal is currently undergoing interagency review.**

9. The EPA's light-duty vehicle standards and the latest Renewable Fuel Standard (RFS) Set Proposal assume high rates of electric vehicle purchases. Has the EPA considered including the lifecycle emissions associated with these vehicles from mineral resource extraction, vehicle, battery production, lifetime energy use from the current electric mix, and end-of-life processing and recycling into these two programs?

**As a matter of course in Agency rulemakings and per relevant federal executive orders and guidance, EPA prepares a regulatory impact analysis (RIA) to quantify the likely benefits and costs of certain regulatory options. Describing the effects of EPA rules is an important part of our obligation to be transparent in how we conduct**

**our analyses. Each RIA is prepared in accordance with Executive Orders and OMB guidance, and the Agency's guidelines for economic analyses.**

10. Did you ever meet with the automakers to discuss EPA's light-duty vehicle standards and electric RINs in the same meeting? If so, is EPA working to tie these programs together to in an effort to incentivize electrification?

**As part of my commitment to engaging with everyone with a stake in the actions of the Office of Air and Radiation, I have had numerous meetings with automotive manufacturers where we have discussed a range of topics, including vehicle standards, fuels programs, and investment choices that manufacturers are making.**

11. When it comes down to it, reliability is the preeminent measurement of America's electrical grid performance. On the "Good Neighbor" Plan, did you consult with grid operators on how this proposal could impact our electric grid reliability?
- a. If you did, why are they still submitting comments to the docket and making statements expressing concerns about the rate of retirement of baseload generation assets?

**Whenever EPA works on clean air protections for the power sector, we put ensuring reliability in a top priority position right alongside affordability and achieving cleaner and healthier air. Families and businesses all across America depend on having a reliable supply of affordable electricity for their livelihoods and well-being, and we take reliability considerations very seriously in developing regulations.**

**In over 50 years of implementing the Clean Air Act, EPA and OAR have established a strong track record of developing air quality protections that save lives, deliver clean and healthy air, and allow power companies to deliver reliable and affordable electricity. That's not by accident. As we work on any clean air rule for the power sector – including the rules we are developing right now – we carefully assess implications for electric reliability and cost as an integral part of our technical analysis, and where appropriate build in policy features that are specifically intended to support the industry's ability to ensure reliability.**

**EPA also actively engages directly with the electricity sector in the course of our rulemakings, including system operators, state regulators, DOE, FERC, and other parties that have responsibility for ensuring reliability and affordability in the electric supply. In addition, DOE and TVA, among other agencies, participate in interagency reviews of rules before they are signed. EPA held multiple meetings with reliability authorities to discuss the proposed Good Neighbor Plan for the 2015 ozone NAAQS, including MISO, SPP, ERCOT, PJM, and balancing authorities in the Western and Southern U.S. We also engage broadly with stakeholders who are responsible for reliability in the power sector, including investor-owned utilities; municipal utilities; rural electric cooperatives; state energy and environmental regulators; and grid operators, to make sure we are working from the best possible information and**

addressing reliability issues appropriately. Lastly, we regularly confer with other expert agencies like DOE and FERC outside the interagency review process.

This is the time-tested approach we have followed on this regulatory action, supplemented with additional engagement.

In support of our work addressing reliability, the Department of Energy (DOE) and EPA signed a Joint Memorandum of Understanding (MOU) on Interagency Communication and Consultation on Electric Reliability on March 9. This agreement provides a framework for both agencies to unlock the reliability advantages of the growing clean energy economy. It builds upon longstanding engagement from DOE and EPA with the power sector and further commits the agencies to routine and comprehensive communication about policies, programs, and activities regarding electric reliability. This includes sharing information and analysis, and ongoing monitoring and outreach to key stakeholders to proactively address reliability challenges.

12. The Supreme Court's decision in *West Virginia v. EPA* made clear that the agency needs to implement the Clean Air Act without overstepping its delegated authority. How will you ensure EPA respects the Major Questions doctrine as you continue to develop rulemakings generally?
  - a. When is EPA planning to propose a replacement to the Clean Power Plan rule specifically?

**EPA takes seriously its obligation to effectively implement the statutes enacted by Congress, to do so for the benefit of the American people, and to do so consistent with legal requirements. Those legal requirements encompass all Supreme Court holdings, and we are committed to following the direction of the Supreme Court in *West Virginia v. EPA*. Part of EPA's process is to clearly explain the legal authority for proposed rules in the Federal Register and to respond to public comments. We are committed to taking actions firmly anchored in the law as set forth by Congress and the Supreme Court. EPA plans to issue proposals for carbon pollution standards for new fossil fuel-fired power plants and carbon pollution emissions guidelines for existing fossil fuel-fired power plants this spring.**

13. Your office recently finalized a reconsideration action on the Miscellaneous Organic National Emission Standards for Hazardous Air Pollutants (NESHAP). In the response to comments in that rule, the Agency indicates that it is not concerned that the IRIS value for Ethylene Oxide had not gone through the process envisioned by the National Academy of Sciences (NAS) recommendations for improvements to the IRIS development process. The Agency's reasoning was the ethylene oxide IRIS value had gone through peer review and there was no reason to believe that following the recommendations would have resulted in a different outcome. If this is the cause, why is EPA spending taxpayers' money to improve the IRIS process when your office just finalized a rule that effectively says that the

Agency's processes that did not incorporate them were sufficient to produce a value that the agency is completely confident in?

**When EPA's Office of Air and Radiation proposes regulations, we welcome comments on all aspects of those proposals. The Integrated Risk Information System Program is administered by EPA's Office of Research and Development. Therefore, EPA's Office of Research and Development has the lead role for managing and developing IRIS assessments at EPA. If confirmed, I look forward to continuing to work with my colleagues in that office, as needed, to fulfill the duties assigned to me in the Office of Air and Radiation.**

14. Your office is under a deadline to review and, if necessary, propose revisions the Hazardous Organics NESHAP by the end of March. Despite having no legal obligation to do so your office has committed to Environmental Non-Governmental Organizations (ENGOS) that it will impose additional requirements as a result of perceived risks associated with ethylene oxide. Based on EPA air monitoring, it appears likely that for most if not all facilities subject to the regulations, the concentration of ethylene oxide in the air around them is indistinguishable from normal range. Given this, how does it make any sense to regulate a pollutant where air quality is already generally indistinguishable from background and when doing so results in air quality that that is not measurably different?

**EPA is subject to a court-ordered deadline to review under Clean Air Act section 112(d)(6), and revise as necessary (taking into account developments in practices, processes, and control technologies), the National Emission Standards for Hazardous Air Pollutants (NESHAP) for the synthetic organic chemical manufacturing industry (SOCMI) (generally known as the Hazardous Organic NESHAP or HON). EPA is required to sign a proposed rule containing all such necessary revisions by March 31, 2023, and a final rule by March 29, 2024. As mentioned in the consent decree imposing these deadlines, EPA has separately stated its intention to conduct a human health risk assessment concurrently with the section 112(d)(6) review and, based on the results of this risk assessment, to take appropriate action to ensure that the standards in the HON continue to provide an ample margin of safety to protect public health. The draft proposed rule is currently under interagency review.**

**Senator Wicker:**

1. Last year, the Government Accountability Office (GAO) issued a report on small refinery hardship. The report recommended the Environmental Protection Agency (EPA) reassess its conclusion that small refineries pass their Renewable Fuel Standard (RFS) compliance costs onto consumers. This calls into question EPA's blanket denial of over 60 small refinery exemption petitions for the 2019, 2020, and 2021 compliance years. Then, in January, the U.S. Court of Appeals for the Fifth Circuit issued a decision related to RFS compliance obligations for two small refineries. The Court suggested EPA's new interpretation of small refinery hardship violates the Clean Air Act because it "quite

possibly will read the exemption framework promulgated by Congress out of the statute entirely, such that no small refinery will ever qualify for one.” This order follows the December 27, 2022 order granting a stay pending appeal for a small refinery in the U.S. Court of Appeals for the Eleventh Circuit, which also indicated a finding of likelihood of success on the merits. I am concerned EPA has decided to eliminate unilaterally a program authorized in the Clean Air Act, which is critically important to small refiners across America. How does EPA intend to respond to the GAO report and recent appellate court rulings?

**EPA does not agree with GAO’s findings or the recommendation to reassess previous actions. As noted, EPA’s 2022 Denial Actions have been challenged and those challenges are currently pending. Since EPA’s actions in 2022, EPA has received petitions from small refineries seeking exemption and we continue to review those petitions, in consultation with DOE. Please see the answer to Senator Capito’s question # 20 for a more detailed response related to the analysis of RIN prices faced by small refineries.**

**Senator Sullivan:**

1. The EPA is finally confronting an issue that Alaska has been a leader on since the 1970s – that is, reducing methane emissions. Alaska’s laws prohibit the waste of resources in the state, and the Alaska Oil and Gas Conservation Commission has strictly regulated this issue since 1971. However, EPA is deputizing rogue NGOs and other entities to “3rd party audit” industrial facilities to look for methane leaks. How will third-party monitoring work on Alaska’s North Slope, where security restrictions prevent public access, and winter temperatures of 40 below zero would involve safety risks for untrained and unprepared third-party monitors?

**We recognize that weather conditions on Alaska’s North Slope can be challenging, and EPA’s two proposals to reduce methane emissions from oil and gas operations include several requirements that would be different for that area than for other parts of the U.S. The comment period on the supplemental proposal closed February 13, 2023, and we will be carefully considering the more than 400,000 comments we have received, including comments regarding the conditions pursuant to which third parties could be authorized to perform monitoring under the proposed super emitter response program. We intend to finalize requirements that achieve the greatest possible reductions in emissions of methane and smog-forming VOCs, are cost-effective, promote technological innovation, and are anchored in science and the law.**

2. The EPA is responsible for certifying wood stoves, a job they’ve failed miserably at performing. Wood burning accounts for up to 90 percent of the air quality issues in Fairbanks and North Pole, communities that on certain winter days can (perhaps surprisingly) have the worst air quality in the nation. Alaska established a program to

replace 25-year old or older dirty stoves with what we thought were newer, cleaner burning stoves certified by EPA's wood stove certification program. Unfortunately, what the State of Alaska found is that many of the stoves that were replaced were emitting as much or more than their predecessors. In fact, EPA's wood stove certification program is now in such disarray that the Inspector General's (OIG) office opened an investigation. They brought a nationwide team last January to Alaska to try to understand the extent of the problem. Some of the stoves Alaska retested emit over 20 times EPA's certified value. Seeing this, if our communities were to continue to rely on EPA's "certification" program, we may be forced to move away from wood stoves altogether – which is not an option. Do you agree with the conclusions from the OIG Report?

- a. Tens of millions of dollars of targeted airshed grants have gone to replace old, bad stoves with new, bad stoves. What is EPA doing about their woodstove certification deficiencies?

**EPA welcomes the Office of the Inspector General's (OIG's) attention to testing and certification concerns for residential wood heaters. Residential wood heaters are an important source of heat for many families and communities, but they can also cause significant health and air quality harms when they are not designed and operated to meet Clean Air Act requirements. We know this is an urgent concern for states and communities in regions of the country that rely on wood for heat, especially interior Alaska. As EPA noted in its response to the OIG's draft report, we agree that it's essential to ensure that residential wood heaters that are sold to consumers are clean-burning and comply with Clean Air Act protections.**

**We are committed to working with the OIG to reach a resolution on these recommendations, and to working with Alaska, NESCAUM and other stakeholders to take other steps as needed to strengthen our testing and certification program for residential wood heaters. EPA's Office of Air and Radiation has taken a number of steps to strengthen our testing and certification requirements for new wood heaters and to lay the groundwork for future improvements to our regulations. In addition, through the Targeted Airshed Grants, EPA is supporting the diversification of heating options available to residents of Fairbanks and North Pole, including natural gas and pellet stoves.**

**EPA's Office of Enforcement and Compliance Assurance has also taken steps to improve the overall Residential Wood Heater Program.**

3. A big issue in Alaska is PFAS contamination. We are currently dealing with at least 100 sites contaminated by PFAS—so-called 'forever' chemicals—potentially threatening the safe drinking water of many Alaskans. Because of this, I was glad to see provisions included in the FY 2020 NDAA on thermal treatments to remediate soils contaminated with PFAS. Alaska is unique and thermal remediation is particularly important because transportation costs make other forms of destruction and disposal impracticable. We know that a one-size-fits-all approach to PFAS remediation just won't work in Alaska, which is

why we've been anticipating EPA releasing its updated interim guidance on thermal treatments to remediate soils contaminated with PFAS. Does EPA have a timeline as to when it would be able to make a recommendation regarding thermal treatment in the updated interim guidance it is required by law to issue this year?

**EPA's Office of Land and Environmental Management (OLEM) is leading a cross-agency team that is developing this action. It includes input from the Office of Air and Radiation and from other agency subject matter experts. EPA is taking significant steps toward updating our research and guidance on PFAS destruction and disposal.**

4. How does EPA plan to work with the State to gain approval for their PM 2.5 SIP?

**EPA appreciates that Alaska faces significant air quality challenges due to a variety of factors such as geography, availability of energy sources, and the prevalence of wood stove usage, among others. EPA and the Alaska Department of Environmental Conservation communicated regularly during the PM2.5 SIP development process, and we thank the state for their continued dialogue and engagement. Even though EPA proposed a partial approval and partial disapproval of some portions of the Fairbanks PM2.5 SIP, EPA continues to work closely with the Alaska Department of Environmental Conservation and the Fairbanks North Star Borough to help Alaska update and implement its PM2.5 attainment plan to address Clean Air Act requirements – and to address the woodstove and facility emission control challenges, among others, that the State and Borough have identified. You have my commitment to continue working with the State, the local government, the stationary sources, the Alaska Native Regional Corporation, and other relevant stakeholders to ensure that Alaskans can benefit from breathing clean air without threatening their ability to heat their homes or keep the lights on.**

5. In January 2023, the Governor of Alaska introduced two bills intended to support lower emissions. One of those bills would put in place a regulatory framework for the underground storage of carbon dioxide – the State intends to pursue primacy for Class VI wells. Are you aware that there are over 30 Class VI well applications and at least two state primacy applications languishing at EPA?

- a. If confirmed, will you work to break this bottle neck and speed approvals of Class VI well and primacy applications?

**EPA's Office of Water has the lead role for this issue at EPA. If confirmed, I will continue to work with my colleagues in the Office of Water, as needed, to fulfill the duties assigned to me in EPA's Office of Air and Radiation. I commit to sharing this issue with my colleagues in the Office of Water.**

6. During the Covid-19 pandemic, states operating delegated Clean Air Act programs were granted flexibility to conduct virtual inspections using tools like a cell phone we all carry – operators could tour facilities and show live information to compliance inspectors on what was going on. For facilities with good records on compliance and enforcement, states

should be allowed to use those virtual inspection tools and get credit for those inspections going forward. Technology can be a powerful tool: virtual inspections save time and money for remote travel to locations with good compliance histories. Onsite inspections should not be a requirement on State Compliance Monitoring Strategies. Will EPA consider eliminating the requirement of onsite inspections for State Compliance Monitoring Strategies?

- a. Will EPA consider allowing States the flexibility to conduct inspections in a way that is reliable yet cost-effective, and will allow us to reduce our carbon footprint?

**EPA's Office of Enforcement and Compliance Assurance has the lead role for this issue at EPA. If confirmed, I will continue working with my colleagues in the Office of Enforcement and Compliance Assurance, as needed, to fulfill the roles assigned to me in EPA's Office of Air and Radiation.**

**Senator Graham:**

1. As the Administration pushes toward electrification of the transportation sector, how is your office ensuring electrification is not driving further reliance on China for critical minerals?
  - a. How specifically is the EPA balancing the push for electrification and our ability source critical minerals and transportation fuels domestically?

**On February 24, 2021, President Biden issued E.O. 14017, "America's Supply Chains," directing the government to review critical U.S. supply chains to identify risks, address vulnerabilities, and develop strategies to strengthen resilience. In June 2021, the Biden-Harris Administration issued a supply chain assessment that found our over-reliance on foreign sources and adversarial nations for critical minerals and materials posed national and economic security threats. In addition to working with partners and allies to diversify sustainable sources, the reports recommended expanding domestic mining, production, processing, and recycling of critical minerals and materials—all with a focus on strong labor, environmental, environmental justice, community engagement, and Tribal consultation standards.**

**EPA is involved in a number of interagency efforts aimed at improving critical minerals supply chain resilience and domestic sourcing including:**

- **The DOI-led Interagency Working Group (IWG) on reforming hardrock mining laws, regulations and permitting policies in the United States;**
- **The critical minerals subcommittee under the President's Permitting Action Plan;**
- **Developing guidelines for battery recycling best practices and labeling to increase the amount of critical minerals recovered from recycling;**
- **Participating with other agencies in evaluating the potential for reprocessing of mine wastes to recover critical minerals;**

- **Improving the NEPA process and some permitting processes for domestic critical minerals mining projects; and**
  - **Establishing an EPA Supply Chain/Critical Minerals Working Group to respond to E.O. 14017 with Office of Policy as the lead office and participants from the national program offices, regions, and EPA's National Mining Team.**
2. What will be the demand on the grid if EVs make up half of new auto sales by 2030? Can the increased load be met without additional natural gas infrastructure?

**EPA is planning to issue a proposal in the coming weeks for new more stringent emissions standards for greenhouse gases and criteria pollutants for light-duty vehicles and Class 2b and 3 ("medium-duty") vehicles that would phase-in over model years 2027 and later. The proposal is currently undergoing interagency review. This proposal will be accompanied by a regulatory impact analysis (RIA) to quantify the likely benefits and costs of certain regulatory options. Describing the effects of EPA rules is an important part of our obligation to be transparent in how we conduct our analyses. Each RIA is prepared in accordance with Executive Orders and OMB guidance, and the Agency's guidelines for economic analyses.**

Senator CARPER. Mr. Goffman, thank you very much for those comments.

We are now ready to begin with questions for our witness. Senator Capito and I have agreed to two 5 minute rounds of questions, with additional rounds at the discretion of the Chair.

Again, this Committee has three standing yes or no questions that it asks of all nominees who appear before us, so I am going to ask those three questions today.

The first one is, do you agree, if confirmed, to appear before this Committee or designated members of this Committee and other appropriate committees of the Congress to provide information subject to appropriate and necessary security protections with respect to your responsibilities? Do you agree?

Mr. GOFFMAN. I agree.

Senator CARPER. That is a good answer. Next question is, do you agree to ensure that testimony, briefings, documents, and electronic and other forms of communication of information are provided to this Committee and its staff and other appropriate committees in a timely manner? Do you agree?

Mr. GOFFMAN. I agree.

Senator CARPER. Good. And finally, do you know of any matters which you may or may not have disclosed that might place you in a conflict of interest if you are confirmed?

Mr. GOFFMAN. I do not.

Senator CARPER. Good. We are three for three.

With that, we are going to start with the questions. I am going to lead them off, and then yield to Senator Capito.

As I mentioned in my opening statement, you have a history of being honest and fair. It sounds like hard work, even as a kid, during your long tenure in public office.

I see we have a couple of our new members that are joining us today.

It is rarely that I have seen such broad support from not just environmental groups and not just from industry, but from labor for one nominee, regardless of party. But we have seen it today. I must say, I am surprised and frankly, pleased. I can't remember a time when the United Steel Workers, Earth Justice, Fertilizer Institute, and American Forest and Paper Association all agreed on one thing, yet they seem to agree that you should be the Assistant Administrator for Air and Radiation at EPA, and for me, that is encouraging.

I want you to begin by telling us about one or two things you have done or been involved in over your career that make you most proud, and how did these things help shape who you are today and the type of leadership you will be, if confirmed. Go right ahead.

Mr. GOFFMAN. That is a really generous question to ask, Senator Carper. It is a very generous question to ask, and I hope you don't mind if I answer it a little bit indirectly.

I think what speaks to your question are two things. One is the extremely broad support that you just laid out that I have received from a number of interests. I think you heard, or I tried to convey in my opening statement, my understanding of the values and ideals that public service represents, or at least represents to me. I hope that the broad and diverse support that I have gotten for

my confirmation is evidence that others see the work that I have done over the years and the way in which I have attempted to conduct it is reflected in that support.

Of course, having been nominated by President Biden twice for this role, while serving in the Office of Air and Radiation, I hope that means that the President made this nomination because it reflects his appreciation of the work of the Office of Air and Radiation while I have been there.

I certainly found that my time working on this Committee, particularly during the enactment of the Clean Air Act Amendments of 1990, which was a vigorous bipartisan accomplishment, probably made an enormous imprint on the way I conducted business or have tried to conduct business as a public servant ever since. Because it was bipartisan, because the leadership of the Committee at the time and of the Senate and the House was so committed to engaging with all interests and ensuring that ultimately, the Clean Air Act Amendments of 1990 not only delivered meaningful pollution reduction, meaningful improvement in air quality and public health, but at the same time, allowed those things to be achieved while the economy continued to grow and jobs continued to be plentiful and good.

Senator CARPER. Thank you. Clean air is essential to human health, as we know. Unfortunately, far too many Americans are breathing air that is unhealthy, and that burden is not evenly shared. Too often, our most vulnerable and underserved communities suffer the most from harmful air pollution. We need strong air pollution standards and Federal investments to help reduce emissions in these communities, too.

That is why I am particularly proud of the Bipartisan Infrastructure Law Clean School Bus Program, which EPA is implementing under your leadership. This program provides, I think you mentioned, \$5 billion to accelerate the transition of millions of dirty school buses to cleaner buses. The Clean School Bus Program is cleaning up communities and protecting our most vulnerable from being harmed as they ride the bus to school.

Question: Would you please take a moment, again, and expand for us, describing how the implementation of the Clean School Bus Program is going, how is it going, and second, is it my understanding that EPA has already provided funding for Clean School Buses in every State in the country? I think you said that. I just want you to reconfirm that. Go right ahead.

Mr. GOFFMAN. Thanks, Senator Carper. The Clean School Bus Program, I think, is one of the many great accomplishments of this Congress working in a bipartisan fashion, and certainly of this Committee. Yes, we have delivered close to \$1 billion in rebates for clean school buses in 400 communities and in 50 States, plus Washington, DC, plus tribal areas and territories.

I think it would be maybe most revealing to just picture what that means for the communities and neighborhoods that are now getting to use non-emitting school buses instead of school buses that sometimes had been using diesel fuel and diesel engines. It means that kids getting on the bus, bus drivers, parents waiting with them at the school bus stop, the people who work, teachers

and others who work in the schools, are all, in a very immediate way, enjoying the benefits of cleaner air in their everyday routines.

That is going on across the country. Congress provided \$5 billion for that program. We have given out \$1 billion. That means that the lessons we learned last year in implementing that first round of rebates can be applied for the next three or four rounds of distributing these funds to communities across the country.

Senator CARPER. Yes. My colleagues know that I go home most nights to Delaware, something our President used to do years ago. About 3 or 4 days a week, I drive in the morning to the train station to catch a train to get down here and come to work. School buses are out.

Basically, they are out on the streets early, before 7 o'clock in the morning. I see a bunch of kids, one stop after the other, at a train station waiting for the buses, and the buses pull up, and they are all diesel. They are all diesel. What those kids are breathing is probably not good.

One of the things that we have done as a Congress is to provide the resources to help change that. I think that is something we could celebrate together. Thank you.

With that, Let me turn to Senator Capito. Then Senator Cardin is next.

Senator Capito.

Senator CAPITO. Yes, thank you, Mr. Chairman.

I want to go back to the charts that I spoke about in my opening statement. You can see, on the coal capacity, the blue line would be what is predicted to be the retirements, and then with the IRA, you see drastically, by 2040, many, many more. On this one, this is how much of those plants running, the ones that are remaining, you can see, with no IRA, close to over 50; post-IRA, looks like 15 to 18 percent.

Do you agree with the conclusions that were drawn? These were made by your Office of Air and Radiation staff recently and presented at a conference.

Mr. GOFFMAN. Thanks for that question, Senator. I believe that the model that we developed and the run that we did to produce these results was solid and methodologically sound.

Senator CAPITO. OK, yes. Thank you. There is also, which I don't have the larger charts for, but natural gas that has the same, not as dramatic, but the same post-IRA implementation drastically down in generation and also in capacity factor, so same thing for natural gas.

I have talked to you about this, and you emphasized a lot in your opening statement how you started, and the kind of community that you were in, and how difficult it was for you to go through joblessness of your father. This is what our communities, my communities, are going to be seeing and have seen, and more drastically over the next 20 years.

Are you concerned about the number of jobs that would be lost in this if these projections are correct, and are you taking that into consideration at every step of the way as you are putting forward your regulations?

Mr. GOFFMAN. Senator, that is one of the central questions that we always have before us, which is how to establish standards for,

in this case, the power sector that reduces pollution while preserving economic opportunity and jobs.

Senator CAPITO. And how does this preserve jobs?

Mr. GOFFMAN. The Inflation Reduction Act, as you know, as well as the Bipartisan Infrastructure Law, distributes investments across a great many sectors of the economy. What those charts look like, I think, to someone like me, who has worked in the Office of Air and Radiation on a number of rules and worked with expert staff who do this kind of modeling, we concluded when we did this analysis is that this was an illustrative case.

One of the things we tried to communicate in the presentation that went along with these charts is that what the Inflation Reduction Act did was to give utilities a wider range of choices as to the kinds of fuels and technologies they could look to in generating electricity going forward. A computer model is not a utility. A computer model does not make decisions. Communities make decisions. Utility regulators make decisions. Utility investors make decisions, and of course, the utilities themselves do as well.

Senator CAPITO. Right. I am going to stop you.

Mr. GOFFMAN. I think, when you consider that what the IRA has done has opened, again, a range of choices or broadened choices to include more cost effective, say, renewable energy options, we have a long way to go as decisionmakers and as policymakers before we know what has happened and before we can ultimately influence what is going to happen.

Senator CAPITO. Thank you. I think that is a longer explanation of not saying that it is a lot of job loss here on both these charts, and the ones with the natural gas, but let me ask you this.

Let us get to the reliability factor. You are retiring, and through your regulations, your Good Neighbor Policy. The Midcontinent Independent System Operator, which is another regional operation, says that this creates significant concerns about MISO, which is their acronym, ability to maintain electric reliability.

So you take all of this off, and the natural gas that is in your presentation as well, how are we going to power a Nation with this and meet the demands of electric cars? We are not going to be able to do it with what we are seeing. We can't permit anything, so that is a problem. So, where does this leave us, as a Nation, as being able to power our Nation?

Mr. GOFFMAN. Senator Capito, I appreciate that question, because reliability is another one of the central questions in front of us whenever we propose power sector rules. Before we even began the current round of developing rules, we engaged in extensive outreach across the country and across the utility sector, including with PJM, MISO, and other grid operators.

When we proposed the Good Neighbor Plan, a number of those parties, including PJM, the author of the most recent report, came back to us and pointed out the ways in which they had concerns about how the Good Neighbor Plan proposal would affect reliability. As we are developing the final rule, we are making changes to reflect and address those very concerns that have been raised about the ongoing reliability of the grid.

Senator CAPITO. I guess the timer has gone off.

Thank you, Mr. Chairman.

Senator CARPER. Thank you, ma'am.

A quick thought, Senator Capito. When I drove to the train station today, I went by all these buses, school buses, that over the years to come are going to be converted to electric vehicles, and that is actually happening. I went by DART buses, Delaware Authority Regional Transportation, they are also being converted to electric buses.

Across the river from where I live, in New Jersey, there is a nuclear power plant that is not going to live forever, not going to last forever. If we are smart, we will be able to help them stay in business and can continue to provide carbon free electricity. There are a bunch of things we can do. I wake up every day as a recovering Governor thinking about, how are we going to make it possible for people to go to work and have jobs in the future. There is opportunity here.

Not everybody likes carbon capture and sequestration. I think that is a part of the solution. I know you do, as well. It is just one of many things that we can do. It is not just enough to clean up our air and address the climate change and so forth. We have to make sure that when we do that, we put people to work, and they have good jobs that they can support their families, so I think we all agree on that. Thank you.

I ask unanimous consent to enter into the record an August 2022 report from the Rhodium Group, an independent research organization, that is entitled A Turning Point for U.S. Climate: Progress Assessing the Climate and Clean Energy Provisions in the Inflation Reduction Act. According to this report, the Inflation Reduction Act cuts household energy costs, cuts household energy costs, by up to an additional \$112 per household on average in 2030 than without the law, cuts electric power conventional air pollutants by up to 82 percent compared to 2021, and scales clean generation to supply as much as 81 percent of all electricity in 2030.

Is there objection?

Hearing none, so ordered.

[The referenced information follows:]

## A Turning Point for US Climate Progress: Assessing the Climate and Clean Energy Provisions in the Inflation Reduction Act

On August 12th, the US House of Representatives passed the Inflation Reduction Act (IRA) after the Senate did the same five days before. The climate change and clean energy investments are the single largest component in the package, out of the many issues that the IRA addresses. When President Biden signs it, the IRA will be the single largest action ever taken by Congress and the US government to combat climate change.

In this report, we provide a detailed assessment of the key energy and greenhouse gas (GHG) emissions impacts of this historic legislation. The IRA is a game changer for US decarbonization. We find that the package as a whole drives US net GHG emissions down to 32-42% below 2005 levels in 2030, compared to 24-35% without it. The long-term, robust incentives and programs provide a decade of policy certainty for the clean energy industry to scale up across all corners of the US energy system to levels that the US has never seen before. The IRA also targets incentives toward emerging clean technologies that have seen little support to date. These incentives help reduce the green premium on clean fuels, clean hydrogen, carbon capture, direct air capture, and other technologies, potentially creating the market conditions to expand these nascent industries to the level needed to maintain momentum on decarbonization into the 2030s and beyond.

We also find that the IRA cuts household energy costs by up to an additional \$112 per household on average in 2030 than without it, cuts electric power conventional air pollutants by up to 82% compared to 2021, and scales clean generation to supply as much as 81% of all electricity in 2030. The IRA represents major progress by Congress, and at the same time more action will be needed for the US to meet its 2030 target of reducing emissions by 50-52% below 2005 levels. With the IRA enshrined as law, all eyes will be on federal agencies and states, as well as Congress, to pursue additional actions to close the emissions gap.

### A first for Congress: passing major climate legislation

Congress has had climate change on its radar since the first major hearings on the topic in 1988. Now, with the passage of the IRA 34 years later, Congress has taken decisive action. Though the intervening years have seen plenty of false starts on legislation to tackle emissions, acting late is certainly better than never. The package of new grant and loan programs, tax credits and emissions fees touches nearly every corner of the US economy and will make meaningful progress toward decarbonizing the US energy system for the next decade and beyond. While the overall size of the package is trimmed down

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compared to the Build Back Better Act (BBBA) passed by the House in November, the emissions reduction components are still robust and effective.

In this report, we provide a comprehensive assessment of the emissions and energy system impacts of the IRA, building on our [preliminary assessment](#) published on July 28. To conduct this analysis, we used RHG-NEMS, a version of the Energy Information Administration’s (EIA) National Energy Modeling System modified by Rhodium Group. We model the impacts of the IRA using the three core emissions scenarios—high, central, and low—from our newly updated baselines for 2030 US emissions under current policy in [Taking Stock 2022](#). We compare projected emissions from Taking Stock with the projected emissions trajectories we estimate under the IRA and calculate the emissions impacts of the IRA as the difference between the two policy environments for each emissions pathway. For more information on our methodology and analytical approach, see the technical appendix of [Taking Stock 2022](#).

We first assess the IRA’s impact from an economy-wide vantage point. From there, we consider key impacts in the three largest emitting sectors in the US: electric power, industry, and transportation. We then zero in on the

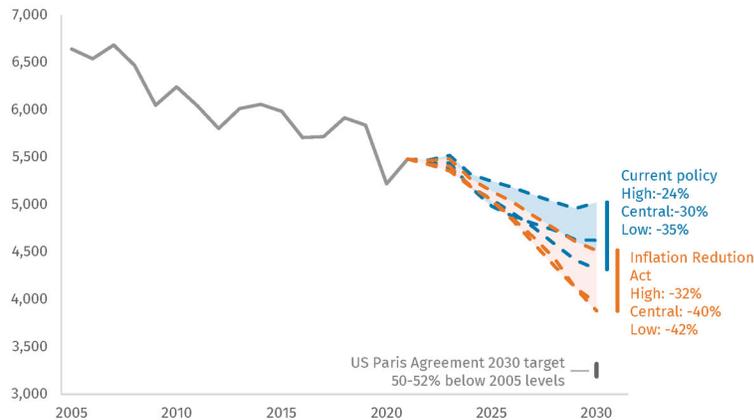
implications of the IRA for a few critical emerging clean technologies and look at its effect in other sectors. Finally, we quantify the IRA’s impact on consumer costs and energy security and conclude with a look to the future.

**The IRA cuts emissions across the economy**

The IRA contains an array of programs, tax credits, and fees that, in combination, drive a step change in decarbonization of the US economy by the end of the decade. These provisions lower the cost of commercial clean technologies like wind and solar, electric vehicles, and building efficiency, enabling them to become more competitive with incumbent fossil fuel technologies and driving a shift towards cleaner energy. Tax credits and other programs for manufacturing of clean technologies expand production capacity and help to enable accelerated deployment.

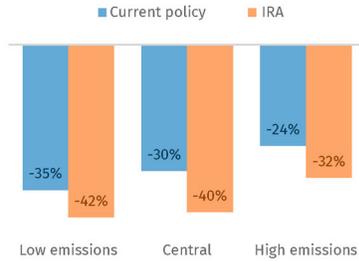
Provisions of the IRA also modify fossil fuel leasing on federal lands, including requiring lease sales and changing royalty rates, but we find almost no emissions impacts from the combined impact of these provisions, relative to the benefits of the clean energy provisions.

**FIGURE 1**  
**US greenhouse gas emissions**  
Net million metric tons (mmt) of CO<sub>2</sub>-e



Source: Rhodium Group. The range reflects uncertainty around future fossil fuel prices, economic growth, and clean technology costs. It corresponds with high, central, and low emissions scenarios detailed in [Taking Stock 2022](#).

**FIGURE 2**  
**US emissions in 2030 under the Inflation Reduction Act, compared to current policy**  
 Percent reduction in 2030 from 2005 levels



Source: Rhodium Group. The high, central, and low emissions scenarios reflect uncertainty around future fossil fuel prices, economic growth, and clean technology costs, and are detailed in [Taking Stock 2022](#).

The net result of all the provisions in the IRA is that US net GHG emissions decline to 32-42% below 2005 levels in 2030. That's up to 10 percentage points more than under current policy without the IRA, in which we project emissions of 24-35% below 2005 levels in the same year (Figure 1). The range reflects uncertainty around economic growth, clean technology costs, and fossil fuel prices across our high, central, and low emissions scenarios detailed in [Taking Stock 2022](#). In the high emissions case, which features cheap fossil fuels and more expensive clean technologies plus faster economic growth, we find that the IRA can accelerate emissions reductions to a 32% cut below 2005 levels in 2030, compared to 24% without it (Figure 2). On the flip side, in the low emissions case, with expensive fossil fuels and cheap clean technologies, the IRA can drive even larger reductions, from 35% below 2005 levels without it to 42% below 2005 levels with it. In the central emissions case, the IRA accelerates emissions reductions to 40% below 2005 levels in 2030, compared to 30% without it.

This is a huge step forward towards the US climate target of 50-52% below 2005 levels in 2030, though clearly more action is needed. [No single action](#) on its own will be enough to meet the target. Still the IRA changes the game, not just with the deep emissions reductions it generates but also by cutting the cost of additional action by the executive branch and states, which could put the 2030 target within reach.

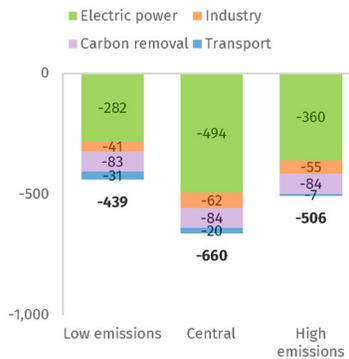
**Progress in the three biggest emitting sectors**

All told, the IRA cuts emissions and increases carbon removal by an additional 439-660 million metric tons in 2030 beyond what's projected without the IRA (Figure 3). On the high end, that's equal to zeroing out all current emissions from California and Florida combined. Put another way, the IRA helps close as much as 51% of the gap between the US emissions trajectory without the bill and the US's 2030 climate target.

Our [preliminary estimate](#) of the impacts of the IRA found a 31-44% reduction over 2005 levels attributable to the policies. Our revised estimate finds a narrower band of emissions impacts of 32-42%, as we've honed our modeling to reflect more of the nuance of the bill language. The biggest drivers of the difference from our preliminary estimate are a more refined representation of the EV tax credits; more granular characterization of the transition from the current electric sector tax regime, as extended by the IRA, to the new clean electricity credits; and interactive effects of increased federal fossil royalty rates driving gas prices slightly higher in the low emissions case, leading to more coal generation and higher emissions relative to our preliminary assessment (though still substantially lower than without the IRA).

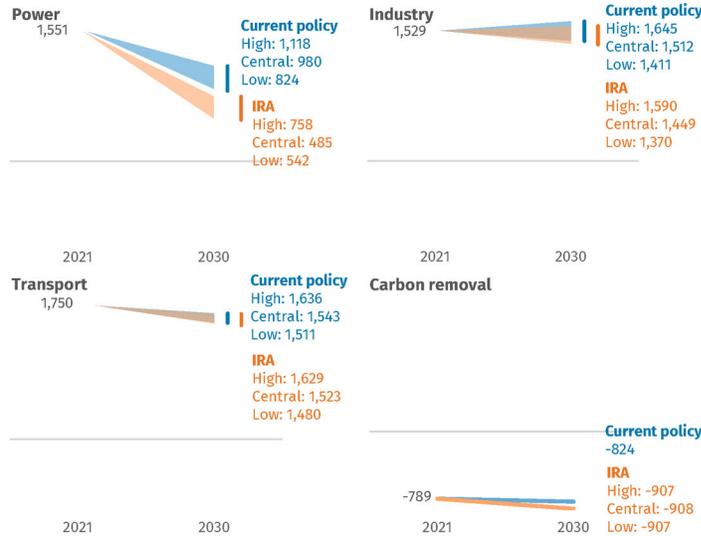
**FIGURE 3**  
**Additional emissions reductions from the IRA by sector, 2030**

Net million metric tons (mmt) of CO<sub>2</sub>-e



Source: Rhodium Group. Some sectors are omitted from this chart due to small abatement impacts.

FIGURE 4  
**US greenhouse gas emissions by sector**  
 Net million metric tons (mmt) of CO<sub>2</sub>-e



Source: Rhodium Group. Some sectors are omitted from this chart due to small abatement impacts.

Looking across sectors, the biggest emission reductions by far occur in the electric power sector, followed by carbon removal (due to forest and soil practices, direct air capture and other actions), industry (including emissions from fossil fuel production), and transportation (Figure 4). The investments that drive these emission reductions will create new economic opportunities across the country and shift the US closer to a decarbonized energy system.

**Record-level clean generation in the electric power sector**

The suite of long-term, full-value, flexible clean energy tax credits and other programs in the IRA focus on the “4 Rs” of electric generation decarbonization:

- **Reinvigorate** new clean capacity additions: production and investment tax credits (PTC and ITC)

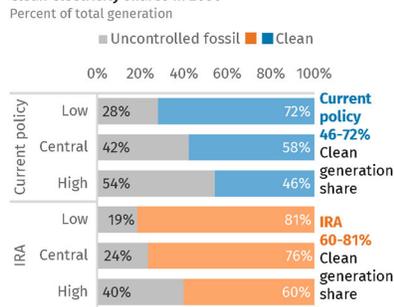
- **Retain** existing clean capacity: zero-emitting nuclear PTC
- **Retire** fossil capacity: US Department of Agriculture (USDA) investments in rural electric cooperatives (coops) and Department of Energy (DOE) loan programs
- **Retrofit** remaining fossil capacity: section 45Q carbon capture tax credit

Critically, the IRA includes direct pay and transferability provisions that make it easier to monetize the tax credits by decoupling them from a finite pool of tax equity dollars. Without these provisions, there would be a real risk that developers face financing bottlenecks as deployment expands, stifling the impact of incentives. Now, under the IRA, a broader set of players in the electric power industry can use tax credits and pour investment into achieving an increasingly cleaner electric grid. The manufacturing tax credits and other programs in the IRA will help expand domestic production capacity to support accelerated clean

energy deployment across the US. New DOE and USDA programs can support rural electric coops and other owners of coal plants to retrofit or install new clean technologies to achieve CO<sub>2</sub> and criteria pollutant reductions.

All of these measures taken together drive clean generation to the highest levels the US has seen in the modern era. Clean generation as a share of total electric generation rises from roughly 40% in 2021 to 60-81% in 2030 due to the IRA, compared to 46-72% without it (Figure 5). The IRA puts the US in a strong position to meet the President’s goal of 100% clean generation in 2035. These shares are achieved by preventing 10-20 GW of nuclear from retiring through 2030 and increasing the annual average capacity additions of renewables to 35-77 GW per year through 2030—more than double per year in the low and central emissions cases than the record set in 2021.

**FIGURE 5**  
**Clean electricity shares in 2030**



Source: Rhodium Group

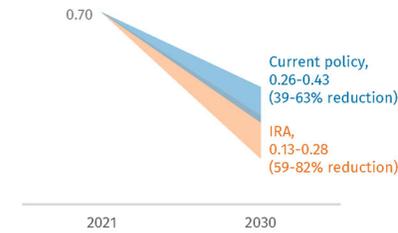
The largest absolute emissions abatement and lowest total power sector emissions occur in the central emissions scenario, which combines central clean technology costs and central fossil fuel prices. In this case, the IRA policy provisions drive large-scale deployment of clean generation, drive down coal generation, and limit the growth of natural gas generation. By contrast, in the low emissions case, natural gas prices are high enough in 2030 to allow relatively more coal generation to remain competitive, though generation from coal plants is still lower than without the IRA and relative to today.

All of this clean energy drives deep reductions in emissions of both GHGs and conventional pollutants. In 2030, electric power CO<sub>2</sub> emissions are 69-80% below 2005 levels, which represents a meaningful departure from the 54-66% below 2005 levels that occur under current policy.

Electric power plant emissions of harmful air pollutants like sulfur dioxide (SO<sub>2</sub>) and oxides of nitrogen (NOx) that exacerbate asthma attacks and cause premature deaths also decline dramatically thanks to the IRA. Without the IRA, SO<sub>2</sub> (Figure 6) and NOx (Figure 7) are on track to decline by 39-63% and 51-55% below 2021 levels in 2030 respectively. The shift to clean energy driven by the IRA cuts SO<sub>2</sub> emissions down to 59-82% below 2021 levels and NOx to 61-66% below 2021 levels. These cuts will provide important relief to the communities nearby and downwind of major power plants.

**FIGURE 6**  
**Power sector sulfur dioxide emissions**

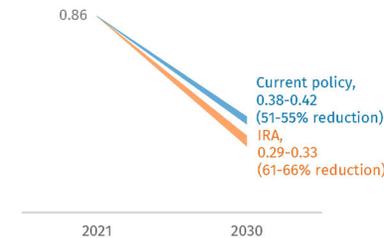
Million short tons, % change from 2021



Source: Rhodium Group

**FIGURE 7**  
**Power sector nitrogen dioxide emissions**

Million short tons, % change from 2021



Source: Rhodium Group

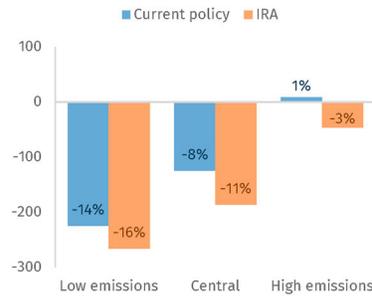
**Industrial emissions turn the corner**

Without the IRA, industrial emissions decrease by 14% and 8% in our low and central emissions scenario and increase by 1% in our high scenario relative to 2005 levels. In Taking Stock 2022, we projected that industry would become the largest-emitting sector by the early 2030s, so progress in this sector is important for meeting the 2030 target and achieving long-term decarbonization. With the IRA, industrial emissions decrease by 3%, 11%, and 16% in 2030 relative to 2005 in the high, central, and low emissions cases, respectively (Figure 8).

There are two main reasons for the IRA-driven decline. First, the enhancements to the section 45Q carbon capture tax credit drive meaningful additional deployment of carbon capture. Without the IRA, we project 74 million metric tons of carbon capture and direct air capture (DAC) capacity will be retrofitted on existing facilities or installed by 2030. With the IRA we project a 35-40% increase, to 100-103 million metric tons of carbon capture and DAC (Figure 9). This additional capacity helps drive down industrial sector CO<sub>2</sub> emissions. Importantly, the IRA continues to incentivize further carbon capture and DAC deployment after 2030, as the 45Q provision includes a commence construction deadline of 2032. By 2035, we project that that provision can help to more than double installed carbon capture and DAC capacity from 2030 levels, to 266-313

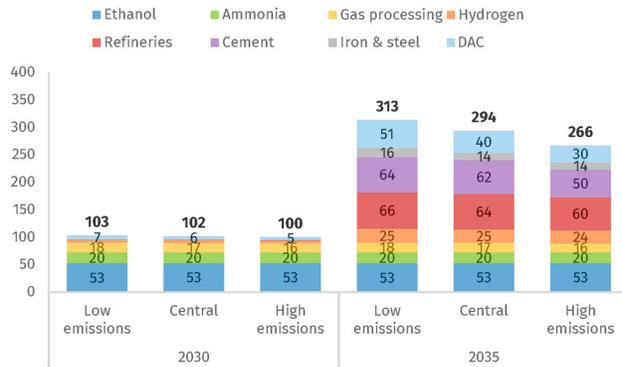
million metric tons of installed capacity. The longer duration and larger size of the credit also help drive carbon capture retrofits in harder-to-abate corners of industry, including in refineries, cement plants, and iron and steel facilities. The bill also provides an important level of foundational support for DAC deployment, helping to scale a new and necessary clean energy technology.

**FIGURE 8**  
**Industrial sector emissions, 2030**  
Million metric tons, percentage change relative to 2005 levels



Source: Rhodium Group

**FIGURE 9**  
**Installed carbon capture capacity, inclusive of the IRA**  
Million metric tons of capture capacity per year



Source: Rhodium Group. Results reflect the impacts of future energy market conditions and current policy, as well as the impacts of the IRA.

The other factor behind the decline in industrial emissions in the IRA is a decline in oil and gas production and transmission emissions, which we include as part of industrial sector emissions in our calculations. The clean technology provisions in the IRA lead to small reductions (<1%) in petroleum consumption and larger reductions of 3-10% in natural gas consumption across the economy. The much-discussed fossil fuel provisions of the IRA do not lead to meaningful increases in domestic production of oil and gas, which we discuss in greater detail below. All else equal, less production equates to lower production and transmission emissions. In addition, the IRA institutes a methane fee on emissions from production and transmission above a certain volumetric threshold, driving down oil and gas emissions further still.

Taken together, the policies start to bend the industrial emissions curve in the right direction, but much more needs to be done to drive the levels of decarbonization that will be required from industry. Fortunately, the bill makes an important down payment in that regard in the form of domestic manufacturing conversion grants, additional funding for the DOE Loan Programs Office, an advanced industrial facilities deployment program, and a suite of other provisions to help the industrial sector demonstrate and deploy new technologies.

**Diversifying transportation sector energy consumption**

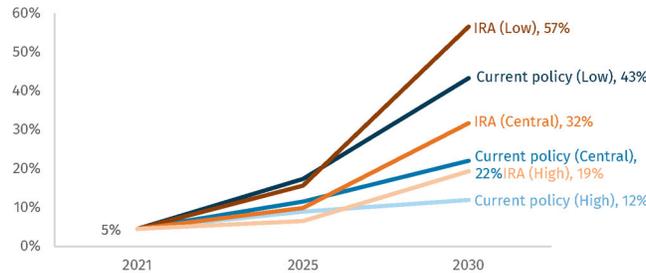
Transportation has been the highest-emitting sector in the US since surpassing power sector emissions in 2016. Due

to long vehicle stock turnover cycles, it will take decades to fully decarbonize the transportation sector, even with aggressive clean technology deployment. The array of tax credits for clean light, medium and heavy-duty vehicles (LDV, MDV, HDV) in the IRA accelerate the adoption of clean vehicles across the sector.

The new structure of the 30D electric vehicle (EV) tax credit limits its impacts in the near term, as manufacturers race to meet critical mineral and battery component sourcing requirements. This limits the amount of total LDV EVs on the road in 2030 relative to a policy without these requirements, reducing its emissions impact over this decade. Despite that, by 2030 the IRA increases the share that electric vehicles comprise of all LDV sales to 19-57%, up from 12-43% without it (Figure 10). In addition, these requirements and other investments made as part of the IRA can help stand up a meaningful EV supply chain domestically and in close partner countries.

The IRA also provides tax credits for used clean vehicles, improving access to this important clean technology for buyers for whom a new vehicle is out of financial reach. On the MDV and HDV front, the IRA provides a tax credit for the purchase of clean trucks. It also includes a number of grant programs and other fiscal incentives to drive clean vehicle deployment and reduce conventional air pollutants. In total, these provisions drive total transportation emissions down to 18-26% below 2005 levels in 2030, compared with an 18-24% reduction without the IRA.

FIGURE 10  
Electric vehicles as a share of all LDV sales, 2021-2030  
Percent share of total



Source: Rhodium Group

### More to do in carbon removal, agriculture, and buildings

Though we project some emissions abatement in the carbon removal and buildings sectors relative to current policy due to the IRA, in general, these impacts are small compared to the scale of decarbonization needed in these sectors, and continued work on all fronts will be necessary to drive down these emissions.

We find that a suite of provisions in the IRA can increase technological and natural carbon removal. For our accounting purposes, both direct air capture facilities and ethanol facilities retrofitted with carbon capture, which we discuss above, are accounted for as carbon removal. In addition, the agriculture title of the IRA includes agricultural conservation investments, non-federal reforestation projects, and state and private forestry conservation programs, which together increase the ability of natural and working lands to act as carbon sinks.

In the buildings sector, the bill makes important investments in decarbonizing buildings via retrofit and high-efficiency electric home rebates. The Greenhouse Gas Reduction Fund in the IRA may also help reduce emissions from buildings, though we don't know enough yet about how the program would be implemented to model its effects. The bill also modifies the current tax credit for the adoption of energy efficiency appliances, but the effect is largely to incentivize the installation of more efficient gas appliances, locking in long-lived fossil-consuming assets rather than driving needed progress in electrification. The new energy efficient home credit also helps drive some improvements in new home shell efficiency. But in total, these reductions are modest compared to the rest of the bill. More action, actually focused on decarbonization and not just energy efficiency, is necessary in the buildings sector.

### Cutting the green premium for emerging clean technologies

The IRA doesn't just incentivize the commercial-scale clean technologies like solar and wind available today. It also builds on the investments in the Infrastructure Investment and Jobs Act to cut the cost of deploying a host of emerging clean technologies such as carbon capture and DAC covered above as well as clean fuels, clean hydrogen, advanced nuclear, and other cutting-edge solutions. It does so through new deployment tax credits that reduce the "green premium," which is the added cost of clean technologies relative to fossil incumbents. The more

diverse the set of emerging clean technologies that get to commercial scale, the more opportunities there will be for large, low-cost emissions reductions in the long-term. In other words, the investments in emerging clean technologies in the IRA make achieving net-zero emissions by mid-century more feasible and more affordable.

We find that these new tax credits can make clean fuels competitive with conventional fossil fuel options in this decade. For example, the new sustainable aviation fuel (SAF) credit in the IRA provides up to \$1.75/ gallon of SAF produced with very low life-cycle GHG emissions. SAF is a critical technology for decarbonizing long-haul aviation where few other clean technologies are available. There are multiple ways to make SAFs, and they all have different associated costs. We considered low and high cost production pathways that can qualify for the maximum credit value and find that, at least in the low case, SAF could match projected fossil jet fuel prices in 2027, the last year the credit is available (Figure 11).

FIGURE 11  
Wholesale sustainable aviation fuel prices, 2027  
US dollars per gallon



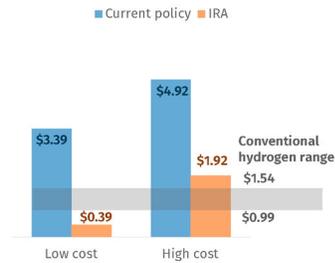
Source: Rhodium Group. Note: SAF estimates reflect HEFA and ATJ processes.

We find an even more encouraging story with regard to [clean hydrogen](#). Clean hydrogen is sometimes referred to as the "[Swiss Army Knife](#)" of decarbonization" because it can be used in so many applications across the energy system. Clean hydrogen can be made in a variety of ways including by using natural gas steam methane reformation equipped with carbon capture ("blue" hydrogen) or by splitting water via electrolysis using zero-emitting electricity ("green" hydrogen).

The new clean hydrogen production tax credit in the IRA supports both blue, green and other production pathways,

providing higher credit values for lower lifecycle GHG emissions. The maximum credit is \$3/kg for the cleanest processes. It is likely that the credit will shrink or eliminate the green premium for a variety of clean hydrogen options. Looking at green hydrogen produced with solar energy through high and low technology cost assumptions, we find that in 2030 the fuel will cost \$3.39-\$4.92 per kilogram without the IRA (Figure 12). The IRA credit more than eliminates the green premium for clean hydrogen assuming low technology costs and shrinks it to just 40 cents per kilogram using the high technology cost assumptions. With this credit, clean hydrogen will be primed for takeoff through the 2020s.

**FIGURE 12**  
**Green hydrogen prices, 2030**  
US dollars per kilogram



Source: Rhodium Group. Note: Green hydrogen assumed to be produced with utility-scale solar. Other zero-emitting electricity sources will lead to different costs.

**Cutting costs and bolstering security**

Beyond the large emissions impacts and other energy system benefits we've discussed, the IRA also has other effects across the economy, chief among them decreasing household energy costs and improving energy security.

**Costs go down for consumers**

The IRA lives up to its name by reducing the costs that consumers pay for electricity, other residential fuels, and transportation fuels by \$27-\$112 relative to without it in 2030 (Figure 13). The bill accomplishes this by driving some consumers to adopt electric vehicles, heat pumps, and other electrified and/or more efficient technologies that can help reduce their demand for fuels while meeting the same level of demand for energy services. But it doesn't just help consumers who are able to go electric—by

reducing overall demand for fossil fuels, the bill also drives down their costs for everyone by helping to reduce the price consumers pay for electricity, gasoline, diesel, and home heating fuels. In addition to the savings from the IRA described above, current policy and improving energy market conditions drive further decreases in household energy costs over the next decade. All together, we estimate household energy costs will decrease by between \$717 and \$1,146 in 2030, relative to 2021 levels.

**FIGURE 13**  
**Change in household energy costs from the IRA in 2030**  
US dollars

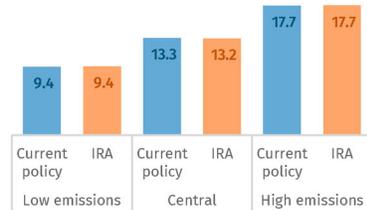


Source: Rhodium Group. The high, central, and low emissions scenarios reflect uncertainty around future fossil fuel prices, economic growth, and clean technology costs, and are detailed in [Taking Stock 2022](#).

**Less reliance on imported fossil fuels, improving energy security**

We incorporate the IRA's new leasing requirements and royalty reforms into our estimates of the impacts of the bill. We do not make exogenous assumptions around the impacts of these provisions; instead, the model finds the most economical way to meet demand for energy. As we mention in the discussion on industrial emissions, the clean energy provisions in the IRA drive down demand for petroleum and even more so for natural gas. Domestic production and imports respond accordingly, even though more federal land is available for exploration. In 2030, crude production is effectively flat (Figure 14) when comparing the IRA with current policy, and gas production declines by 2-7% (Figure 15) with the IRA compared to current policy.

**FIGURE 14**  
**Domestic crude oil production in 2030**  
Million barrels per day



Source: Rhodium Group

**FIGURE 15**  
**Domestic natural gas production in 2030**  
Trillion cubic feet



Source: Rhodium Group

As a sensitivity, we also tested the impacts of the IRA relative to a current policy scenario in which no new offshore exploration could occur until 2026. Compared to a future with this more restrictive leasing policy than is currently on the books, the IRA would increase domestic crude production by 0.1-0.2%, effectively flat, and decrease domestic gas production by 1-5%.

In addition to impacting domestic production, fossil fuel demand also drives trade dynamics. The IRA reduces net imports of crude oil by 1-6% and net pipeline imports of natural gas by 9-11%. The liquefied natural gas trade remains unchanged with and without the IRA, as the price differential between US production plus transportation costs versus global gas markets isn't sufficient to drive further LNG export capacity expansion beyond what happens under current policy.

**So much achieved, so much more to do**

The IRA is a historic step forward in the US's efforts to rapidly decarbonize in the next decade and beyond. It lays a strong foundation for rapid clean energy deployment and the scale-up of emerging clean technologies, and it cuts conventional pollutants, household energy costs, and the US's reliance on imported energy. The provisions in the IRA drive meaningful reductions in US greenhouse gas emissions, and at the same time, the IRA alone will not get the US on track to meeting its 2030 climate target of cutting emissions in half. However, it does lower the costs associated with additional action by the executive branch and subnational actors, which can help close the gap to the 2030 target.

All eyes will now be on EPA, DOE and other federal agencies as well as states to push the next wave of policies that build on the IRA and get US emissions down to 50-52% below 2005 levels in 2030. The biggest ticket policies to keep an eye on in the near term are the finalization of EPA's proposed oil and gas methane regulations, how EPA proposes to regulate CO2 emissions from new and existing power plants, and if EPA and the National Highway Traffic Safety Administration (NHTSA) ramp up ambition in the next round of light-duty vehicle standards.

Congress may also be of further help. A range of policies that were previously part of the Build Back Better Act and other past climate legislation didn't make the cut for the IRA, including some areas where there's been recent bipartisan agreement like electric power transmission, CO2 pipelines, and building energy efficiency. The permitting reform bill currently under development is widely expected to contain provisions to accelerate the construction of some fossil fuel infrastructure, which has the potential to push emissions in the wrong direction. But it could also be a vehicle to address some of these and other issues relating to roadblocks to clean deployment of clean energy and associated infrastructure. The 2023 Farm Bill could be an important vehicle for more investments in rural decarbonization and carbon removal on natural and working lands. We look forward to assessing options and impacts across all of these fronts in this new era where the US finally has momentum on the road to long-term decarbonization.

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**Disclosure Appendix**

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Senator CARPER. Senator Cardin, you are on. Thanks.

Senator CARDIN. Thank you, Mr. Chairman.

Mr. Goffman, thank you for your willingness to serve and continue to serve in this very important public position. And we thank your family for sharing you with us.

I want to talk about what States are doing. We have seen States that have been very aggressive in dealing with air quality. In my own State of Maryland, the Climate Solutions Now Act, provides for reduction of greenhouse gases by 60 percent compared to 2006 by 2031, and for Maryland's economy to reach net zero emissions by 2045. That is very aggressive.

The Inflation Reduction Act, great commitment at the national level, but our States are even moving more aggressively on air issues, air quality issues. And Maryland is not alone. Other States are also doing this.

My question is, how can the Federal Government help our States reach those types of goals when they are being more aggressive than required under any of our Federal regulations?

Mr. GOFFMAN. Thank you for that question, Senator Cardin, and for the inspiring news about what Maryland is doing in exerting leadership. Speaking as a long time Clean Air Act lawyer, I can say in some ways, that is what is supposed to be happening, in which the States are not only partners in making policy and very often, they are the leaders, whether it is States like Maryland or California.

Right now, we have in the opportunity created by Congress under the Inflation Reduction Act to provide financial support to States and municipalities that, for example, are putting in place, developing, and implementing programs to reduce carbon pollution. In fact, just this morning, the agency announced new guidance for how States and municipalities can apply for planning grants to prepare themselves to apply for even more generous grants later this year to support the kind of work that Maryland is doing.

So, while I don't know that we can catch up in the near future to the ambitious goals that Maryland has established, we can, thanks to Congress, provide material and financial support to States like Maryland and cities and communities in Maryland.

Senator CARDIN. The Chairman and Ranking Member and this Senator have something in common. We are all part of the Chesapeake Bay watershed. Your responsibilities in air quality have a major impact on our efforts and our commitments in regards to the Chesapeake Bay.

Tell me how you work with Region 3 and the Chesapeake Bay commitments that have been made where EPA is engaged in so that your work is coordinated with the strategies that we are using on the Chesapeake Bay.

Mr. GOFFMAN. Thank you for the opportunity to talk about that. The biggest contribution that your Office of Air and Radiation can make to the Chesapeake Bay is reducing airborne NO<sub>x</sub> pollution that ends up as NO<sub>x</sub> deposition in the Bay. What we do when we work with the Chesapeake Bay States, when we work with Region 3, is contribute, if you will, sort of the background improvement in the NO<sub>x</sub> situation so that as different pollutants that are delivered

through water runoff or through other, more immediate sources are addressed, we are doing our best to take care of the NO<sub>x</sub> problem.

That is why the heavy duty NO<sub>x</sub> rule that we finalized at the end of last year can play such an important role. And the Good Neighbor Plan itself also targets NO<sub>x</sub> reductions from the power sector and the industrial sector.

Senator CARDIN. The MATS program dealing with the mercury issues, can you just briefly talk about how that program has been effective in dealing with some of the issues, including the Chesapeake Bay?

Mr. GOFFMAN. The Mercury and Air Toxics Standards that EPA adopted about 10 years ago have achieved somewhere north of 80 percent reductions in mercury from the power sector. And we are looking to propose, if you will, a follow up rule that targets, among other things, any additional cost effective mercury reductions that are still available.

We believe that, if and when we do propose additional reductions in mercury emissions, we can point to the MATS rule, we can point to its success, we can point to its ultimate affordability to utilities and electricity ratepayers while also having achieved significant mercury reductions as a basis for an additional proposal.

Senator CARDIN. Thank you.

Thank you, Mr. Chairman.

Senator CARPER. Thank you, Senator Cardin.

I want to make another unanimous consent request, if I could. I ask unanimous consent to submit into the record a letter from a major utility's trade and labor organization into the record, a letter from a major utility trade and labor organization in support of full implementation of the 2012 Mercury and Air Toxics Standards.

The letter states that the upgrades to power plants under these standards reduced mercury and other air toxic emissions by nearly 90 percent at a quarter of the estimated cost. Let me say that again: Reduced mercury and other air toxic emissions by nearly 90 percent at a quarter of the estimated cost. Every power plant in the Nation in compliance by 2017. This rule was implemented without any blocked counsel brownouts. That is worth us keeping in mind.

[The referenced information follows:]



July 10, 2018

The Honorable William L. Wehrum  
 Assistant Administrator  
 Office of Air and Radiation  
 U.S. Environmental Protection Agency  
 1200 Pennsylvania Ave, NW  
 Washington, DC 20460

Dear Assistant Administrator Wehrum:

The Environmental Protection Agency (EPA or Agency) has indicated to the U.S. Court of Appeals for the District of Columbia Circuit its intent to address the Agency's Final Supplemental Finding for the Mercury and Air Toxics Standards (MATS) in which EPA determined that it was appropriate and necessary to regulate coal- and oil-based power plants under Clean Air Act (CAA) section 112 (Supplemental Finding). 81 *Fed. Reg.* 24,419 (Apr. 25, 2016). EPA's supplemental finding followed the Supreme Court's decision in *Michigan v. EPA*, which held that EPA must consider costs in evaluating whether it is appropriate and necessary to regulate.<sup>1</sup>

Driven by several factors—including customer demands, technology developments, and federal and state regulatory obligations—the electric power sector is undergoing a transition of its electric generating fleet that will continue over the next decade and beyond. Concurrent with this transition, electric companies, public power utilities, and electric cooperatives are making significant investments to make the energy grid smarter, cleaner, more dynamic, more flexible, and more secure in order to integrate and deliver a balanced mix of central and distributed energy resources.

Since the MATS rule became effective in 2012, it is estimated that the owners and operators of coal- and oil-based electric generating units (EGUs or units) have spent more than \$18 billion to

<sup>1</sup> Litigation following EPA's supplemental finding is being held in abeyance at the U.S. Court of Appeals for the District of Columbia Circuit.

comply. These investments, parallel state requirements, other CAA programs, and non-environmental drivers have reduced mercury emissions by nearly 90 percent over the past decade. Given this investment and these emissions reductions, regulatory and business certainty regarding regulation under CAA section 112 is critical—many of these same units are part of ongoing rate reviews regarding the generating fleet operated by investor-owned electric companies. In the case of public power utilities and rural electric cooperatives (even those that are rate regulated by state commissions), compliance costs are directly borne by their customers.

To provide this certainty, the Edison Electric Institute (EEI), the American Public Power Association (APPA), and the National Rural Electric Cooperative Association (NRECA), the Clean Energy Group (CEG), the Class of '85 Regulatory Response Group, the International Brotherhood of Electrical Workers (IBEW), and the International Brotherhood of Boilermakers, Iron Ship Builders, Blacksmiths, Forgers and Helpers ask EPA to complete the statutorily mandated Residual Risk and Technology Review (RTR)<sup>2</sup> for power plants as expeditiously as possible. We believe a complete and robust RTR will recognize the capital investments already made for compliance and will allow the industry to continue full implementation of the MATS rule, which was completed in April 2016.

It is important to note that all covered plants have implemented the regulation and that pollution controls—where needed—are installed and operating. In traditionally regulated jurisdictions, state public utility commissions in many cases still are in the process of reviewing the cost of these controls for inclusion in rates, along with the related and ongoing operation and maintenance costs. Units that retired in part due to MATS—along with other regulatory requirements, low natural gas prices, resource planning initiatives, and a variety of other factors—have been decommissioned and cannot be reinstated. The U.S. Energy Information Administration reports that facilities representing 87.4 gigawatts (GW), or 29 percent of 2014 coal capacity, added pollution control equipment to comply with the MATS rule.<sup>3</sup> As noted above, the industry already has invested significant capital—estimated at more than \$18 billion—in addition to these operating costs, and states are relying on the operation of these controls for their air quality plans.

Therefore, we urge EPA to move forward with an RTR for power plants under CAA section 112 and to leave the underlying MATS rule in place and effective. We also urge EPA to consider potential technical revisions to MATS—such as considering whether performance tests could be performed less frequently if units are running less frequently—while still ensuring that the standards are being achieved. We believe this approach can provide the regulatory and business

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<sup>2</sup> See CAA sections 112(d)(6) and (f)(2), which require that EPA complete the RTR by April 16, 2020.

<sup>3</sup> U.S. Energy Information Administration, *Coal plants installed mercury controls to meet compliance deadlines* (Sept. 18, 2017), <https://www.eia.gov/todayinenergy/detail.php?id=32952>. This period encompasses the time during which most coal-based generators installed pollution controls at EGUs to comply with the MATS rule's April 2015 compliance date and the one-year extension that many coal plants received to finalize their compliance strategies. By April 2016, virtually all coal- and oil-based generators completed their pollution control retrofits.

certainty our members need as they continue to provide safe, reliable, affordable, and increasingly clean energy to their customers.

Sincerely,

The Edison Electric Institute  
The American Public Power Association  
The National Rural Electric Cooperative Association  
The Clean Energy Group  
The Class of '85 Regulatory Response Group  
The International Brotherhood of Electrical Workers  
The International Brotherhood of Boilermakers, Iron Ship Builders, Blacksmiths, Forgers & Helpers

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The Edison Electric Institute (EEI) is the association that represents all U.S. investor-owned electric companies. Our members provide electricity for about 220 million Americans, and operate in all 50 states and the District of Columbia. As a whole, the electric power industry supports more than 7 million jobs in communities across the United States. In addition to our U.S. members, EEI has more than 60 international electric companies, with operations in more than 90 countries, as International Members, and hundreds of industry suppliers and related organizations as Associate Members.

The American Public Power Association (APPA) is the national service organization representing the interests of over 2,000 community-owned, not-for-profit electric utilities. These utilities include state public power agencies, municipal electric utilities, and special utility districts that provide low-cost, reliable electricity and other services to over 49 million Americans.

The National Rural Electric Cooperative Association (NRECA) is the national service organization for more than 900 not-for-profit electric utilities that provide electricity service to approximately 42 million consumers. NRECA members own and maintain 2.6 million miles, or 42 percent, of the nation's electric distribution lines and account for 11 percent of the total kilowatt-hours in the U.S. each year. With a commitment to contribute to the vitality and prosperity of the communities served by our members, electric cooperatives are dedicated to a healthy environment, building vibrant rural communities, and providing reliable and affordable electricity to our cooperative consumer.

The Clean Energy Group (CEG) is a coalition of electric generating and electric distribution companies that share a commitment to responsible environmental stewardship. The mission of CEG is to support and enhance the efforts of its members in understanding state and federal legislative, regulatory, and policy developments in environmental and energy areas.

The Class of '85 Regulatory Response Group is a voluntary ad hoc coalition of approximately 30 electric generating companies from around the country that has been actively involved in the development of Clean Air Act rules affecting the electric generating industry for over 28 years. The Class of '85 has written comments on all major stationary source regulations since the early 1990s, and members of the Class of '85 own and operate EGUs in approximately 35 states throughout the United States.

The International Brotherhood of Electrical Workers (IBEW) represents approximately 775,000 members and retirees who work in a wide variety of fields, including construction, utilities, manufacturing, telecommunications, broadcasting, railroads and government.

Established in 1880, the International Brotherhood of Boilermakers, Iron Ship Builders, Blacksmiths, Forgers & Helpers is a diverse union representing workers throughout the United States and Canada who are employed in industrial construction, maintenance and repair; ship building; manufacturing; railroads; cement; mining and related industries.

Senator CARPER. OK, I think we are going to turn next to Senator Cramer.

How are you doing?

Senator CRAMER. I am doing great, and I would never object to you. Even if you don't ask.

Senator CARPER. I love to do unanimous consent requests when I am the only one here.

[Laughter.]

Senator CARPER. I am the only one who can object, and I never object to my own unanimous consent requests.

Senator CAPITO. That is good.

Senator CARPER. Senator Cramer.

Senator CRAMER. Thank you, Mr. Chairman, and thank you, Mr. Goffman, for being here and for your willingness to continue to serve. Actually, this most recent unanimous consent request raises a really important point. I was a utility regulator through a lot of the SO<sub>x</sub>, NO<sub>x</sub>, mercury particulate matter reductions.

And guess what we did in those days? We had cooperative federalism where the Federal agencies and the State agencies and the stakeholders were all in it together. They spent millions and millions of dollars to make these upgrades for the benefit of the people we serve. And we didn't have what we see today.

Which brings me to my first point and question that I wanted to raise with you. Because as a strong advocate for cooperative federalism, I think we are missing the opportunity. I am going to go back to something you and have I talked about before, and that was your proposed clean power plan rule back in the day that would have required North Dakota to reduce its emissions 11 percent.

Now, we weren't crazy about that, and our stakeholders weren't crazy about it, but we knew it was doable, and we were willing to do our part. Then when the final rule came out, it was 400 percent greater than the 11 percent, the bait and switch that I have talked about before. And at the 45 percent, which was absolutely, it was federalism the way it is not supposed to be done.

The last time you were here, which was May of last year, so 9 months ago, I asked you a question about working with my State regulators, the three public service commissioners, our DEQ director. You said something to the effect that, I am glad you asked that, because I was going to ask you for the contact information so we could reach out.

I reached out to them last week. In the last 9 months they have not heard from you or anybody in your shop to talk about the replacement rule. Are they wrong? Did they just forget? Or did you forget? Could you clear this up for me?

Mr. GOFFMAN. Thank you for pointing that out, Senator. I have to say I am disappointed in myself in not having ensured that we made those contacts.

But I hope you and your colleagues in North Dakota are willing to go with better late than never. We are going to be moving forward with, as I mentioned to Senator Cardin, a proposal to address mercury emissions in the power sector. We expect to be moving forward later this spring with a proposal to address CO<sub>2</sub> emissions.

What I anticipate we will do, and now that you have brought this up, I will make sure we will do, is as those proposals are being publicly shared for comment, well before we finalize them, we will engage directly with your colleagues in North Dakota.

Up until this point, a number of senior people in the Office of Air and Radiation have engaged in lots of discussions across the country. I think I may have mentioned to you last time that we have engaged with utility commissioners through NARU. And I believe when Senator Capito and I were talking about reliability, I mentioned we also spent a lot of time talking to grid operators.

I had hoped in that casting of a very wide net we had captured an opportunity to talk to—

Senator CRAMER. Well, you didn't. But cooperative federalism needs to be more deliberate than reaching out to NARU. I was a member of NARU for half of my term; I was always a member; I just came to the realization that they tend to gravitate to the lowest common denominator and then have nice meetings. I think you need to reach out; you can't just talk to people you agree with. That is my sense, is you are not talking to people who actually do this every day.

But all of that said, quickly I do want to address another problem, or potential problem. And that is the methane rule, the proposed methane rule. North Dakota has stricter requirements than any Federal rule, but it does require doubling the paperwork. In fact, in North Dakota, our methane, of course, is a byproduct of oil production.

So flaring is one of the viable, not the ideal, of course, method of dealing with venting. But 95 percent of ours is captured on State and private land, 59 percent on Federal and tribal land. In other words, North Dakota's excellence doesn't really want to yield to Federal Government mediocrity.

I will just wrap up, and we can get deeper into it in the next round. But again, cooperative federalism would go a long way if you didn't impose new restrictions on the excellent States but rather worked with to maybe empower them a little more at the local level, and you might get a better outcome. The problem is, Senator Capito raised the issue of permitting. Well, permitting is the problem on Federal lands, the permitting of the takeaway capacity for what is now being flared, wasted.

Maybe in the next round we can drill down a little more on that one, Mr. Chairman. Thank you.

Senator CARPER. Good.

Do you want to respond very briefly to that?

Mr. GOFFMAN. Just to say that I remember Senator Cramer citing the performance of operators in North Dakota, both on private land and in public land in terms of efficiency and avoiding methane escape, methane leaps. One of the things we are trying to do with the Federal rule is raise the floor for everybody else. In many ways, our proposals are based on successful practices that are already in place in States like North Dakota.

Senator CARPER. Yes.

Thank you, Senator Cramer. Thank you for bringing your expertise and knowledge from a previous part of your life to this body. Thanks so much.

Senator Lummis, welcome.

Senator LUMMIS. Thank you, Mr. Chairman. Good morning to you as well.

Mr. Goffman, in 2015, EPA officials working on the ozone transport rule stated that it was not appropriate to extend that rule to western States due to differences in topography, climate, wildfire prevalence, and other factors. They even indicated that they would work with western States on a case by case basis with respect to this rule.

But this Administration has decided to ignore that approach, and instead proceed with a one size fits all approach with your new ozone transport rule. So what factors have changed between now and 2015 to warrant this drastic change in approach?

Mr. GOFFMAN. Thanks for that question, Senator Lummis. One of the things that we do is continually update our air quality modeling. And in fact, since we met last in May, we have done another update, along with having met with Governor Gordon and his environmental staff in a meeting that Administrator Regan led and that I was able to participate in. Since then, we have done yet another update in our modeling.

One of the results of that is that while, when I was here last time, we had proposed to disapprove of Wyoming's ozone transport implementation plan; when we made final decisions in January, we did not finalize that disapproval. It is usually, it is the basis of the disapprovals that allows us to move forward or requires us to move forward with Federal Implementation Plans.

So in a way, the process of air quality modeling changes on a continual basis, so that since last, not just since 2015, but since the last time we spoke, we have done another update, we have had additional engagement with the State. And our proposed disapproval, based on previous modeling, we are not finalizing, at least for Wyoming.

Senator LUMMIS. Yes. But here is the problem. You are finalizing Federal Implementation Plans on almost all other States, and denying State Implementation Plans. And we just assume that you are going to eventually deny ours and do a Federal Implementation Plan, because that is your M.O.

So for example, Governor Gordon, with a couple of other Governors, sent a letter just a few months ago outlining these concerns. The Governors stated because EPA proposed Federal Implementation Plans before acting on the State Implementation Plans, EPA eliminated the opportunity for early, meaningful, substantive, and ongoing consultations with the States. This is a vast majority of this country in terms of geographic areas.

So how is this concern being addressed by EPA? Can we just plan in Wyoming on, oh, we will wait until December of this year, and then we will go with a FIP?

Mr. GOFFMAN. That is not our approach. As I said, the information we got, at least about updated air quality modeling with respect to Wyoming, guided us in a different direction. Having used one set of information and modeling to propose to disapprove the State Implementation Plan, subsequent modeling that we did and subsequent discussions we had with Wyoming and the Governor

and the Wyoming environmental regulators took us in a different direction.

What I am trying say, Senator, is we actually do try to follow the data and the modeling and the analysis where it takes us. In this particular case, our own updated modeling and dialogue and interaction with the State took us in a different direction from the one we were going in a year ago.

Senator LUMMIS. State plans need, as my colleague from North Dakota said, cooperative federalism means State plans should have equal consideration to Federal plans.

I have more questions, but I will wait for the next round.

Thank you, Mr. Chairman.

Senator CARPER. Thank you for those questions.

We have been joined by Senator Markey.

If no one else shows up in the next 5 or 10 minutes after he has asked his questions, Senator Mullin, you are going to be recognized for your questions, then Senator Ricketts.

Senator Markey, please.

Senator MARKEY. Thank you, Mr. Chairman, very much.

Mr. Goffman, first I want to thank you for your years of public service in the Senate and in the executive branch. There is an urgent need to act on climate change and make sure everyone everywhere gets to breathe clean air. And it is more important than ever to have experienced, talented, committed people serving our country. So thank you so much.

Strong vehicle emissions standards will be critical if we want to tackle the climate crisis, cut pollution, save drivers money at the pump, and create jobs. To keep moving down the road to a safer, healthier, more affordable future, we need strong rules for light and heavy duty vehicles for model year 2027 and later. And we need to keep our foot on the accelerator.

That is why Senator Padilla and Representatives Matsui and Clark and I sent a letter to the EPA calling for the rule to be issued and finalized before the end of the year and made as strong as possible.

Mr. Goffman, if confirmed, will you work to swiftly issue and finalize strong vehicle emission standards to protect public health, the climate, and drivers' budgets with model year 2027 and beyond, and to get those done before the end of the year?

Mr. GOFFMAN. Right now, we are planning to propose ambitious car and truck standards, at this point, in a matter of weeks. And that puts us on a schedule where it is in reach to finalize those standards, certainly the truck standards, by the end of this year. And our goal is to finalize the car standards as soon thereafter as possible.

Senator MARKEY. That is very good news. Thank you.

Americans will be able to breathe easier once we confirm a strong head of the Office of Air and Radiation. And I am pleased that the EPA is currently strengthening the National Ambient Air Quality Standards which keep smog out of our air and out of our lungs.

Mr. Goffman, if confirmed, will you work to update our air quality standards to reflect the most up to date science to ensure all communities are protected to the greatest extent possible?

Mr. GOFFMAN. Yes, Senator. That is what we are committed to doing. That is what Administrator Regan is committed to doing.

Senator MARKEY. Excellent. And in addition to dirty, soot filled air, environmental justice communities are exposed to multiple sources of pollution, whether it is from factories, power plants, trucking centers, or other high polluting activities nearby. Black, Brown, indigenous, and low income and rural communities have experienced environmental injustice from toxic pollution like lead, arsenic, benzene, and mercury. Any one of these chemicals is an injury; being hit with multiple chemicals is an insult.

Mr. Goffman, if confirmed, will you work to include cumulative impacts in EPA rulemaking and look at how multi-pollutant exposure affects health, well being, and quality of life?

Mr. GOFFMAN. That is a question I really appreciate your asking at this time, Senator Markey. We are making a sort of agency-wide push to address cumulative impacts. Our colleagues in the Office of Research and Development are developing scientific tools to do that.

In the Office of Air and Radiation, we are developing a new set of analytic and mapping tools so that when we set, say, toxic air emissions standards for certain industrial sectors, we can find a way to take consideration of the cumulative effects of pollution on the communities that might be affected by those standards.

Senator MARKEY. I think that is the only smart way of looking at it, how they all interact to create the harm, and as a result a plan can be put together, which ultimately will reduce costs on those who are going to have to make the changes, because they can see the totality of the issues they are going to have to deal with.

Mr. Goffman, can you speak more about what activities are covered under the Climate Pollution Reduction Planning Grants, and how can eligible entities make the most of these opportunities?

Mr. GOFFMAN. Thank you, that is a super timely question. I think you probably know that within the last hour or so we released guidance for States to apply for the purposes of applying for planning grants under that program. That is a non-competitive grant program for which all 50 States are eligible up to \$3 million per grant.

The purpose of that funding is to give States and localities that States may be working with the ability to sort of plan the next set of investments they want to make or programs they want to put in place, and then apply for more extensive resources to implement those plans. We will be issuing guidance on those implementation grant opportunities later this year.

Senator MARKEY. Thank you for your service, sir.

Senator CARPER. Thanks, Senator Markey.

Senator Mullin, welcome.

Senator MULLIN. Thank you, Mr. Chairman.

It is good to see you, sir. I sure wish we would have had an opportunity to speak beforehand. You made a statement that you look forward to working with all of us. But I haven't heard from you; you haven't reached out to me. I would love to sit down with you and have these conversations, these questions I have for you, in a longer setting. Unfortunately, I only have 5 minutes.

So when I ask you a question, I am really looking close to a yes or a no, and I don't mean to be rude, but I will cut you off if you start going on. They should be some questions that you should be able to answer pretty quick.

Do you believe in a one size fits all approach when it comes to clean air or that you should work closely with the States in developing your thoughts?

Mr. GOFFMAN. No, and yes.

Senator MULLIN. What do you mean, no and yes?

Mr. GOFFMAN. No, I do not believe that one size fits all, and yes, I think States are our partners.

Senator MULLIN. So how much do you take into consideration when you are looking at regulating the East Coast versus the West Coast, especially when you start looking at emissions for vehicles and taking into consideration that my wife drives an average of about 5,000 miles, literally a month, to take my kids back and forth to school because we live out in the middle of nowhere on a ranch, and it is an hour for her to get there and get back, versus an electric car, where an electric car is not feasible, we'd spend half our time on a charger?

Mr. GOFFMAN. One of the approaches we have been taking for a long time, and we continue to take, is to set standards in a way to give the—

Senator MULLIN. But wouldn't you think a State should be open to that, that the State should be one to make the standards for them, rather than having the East Coast and the West Coast make those decisions? Because you mentioned California multiple times and PG&E, which is the Pacific Gas and Electric Company of California. You start talking about their standards. You have actually bragged on California.

Do you think California sets the gold standard for setting emission rules and electrical rules as far as energy costs and setting the standard for clean energy and clean air?

Mr. GOFFMAN. From a technology perspective, California has been a leader. But we—

Senator MULLIN. OK, well, let's just stop on that. So there is, they are a leader, right? But yet they have the most unaffordable gasoline and energy costs, and they have rolling blackouts. I had the dis-privilege of staying most of 2020 in California because of an accident my son had, and he was going through rehabilitation there. It was interesting to me that around 8 o'clock to 10 o'clock every night, during the hottest times of the year, they had rolling blackouts.

And they set them on zones. And it was interesting because we talked about the dis-privileged neighborhoods, but yet it was the dis-privileged neighborhoods that always seemed to have the rolling blackouts. They set out the zones, right, where they are at, and the zones were rated depending on their importance.

They would have rolling blackouts, and they would set the time when those were going to hit. Is that affordable and reliable energy? Don't you think that should play a cost when considering things?

Mr. GOFFMAN. It should—

Senator MULLIN. But yet California you think is setting the standard for us, and you want to put their rules on Oklahoma?

Mr. GOFFMAN. I don't think we have the authority to do that, even if we wanted to.

Senator MULLIN. But if you are using California as a model and you are setting this rule, then you are forcing that on us. And yet that is a good plan. PG&E can't even get a permit to upgrade their systems because of the environmental impacts supposedly it has.

So they have the most unreliable and some of the oldest transmission lines out there. Yet you are using them as someone that says they support your policies moving forward? And you think that is a bragging point?

Mr. GOFFMAN. I probably should have been more specific, Senator. We—

Senator MULLIN. It is not specific. We could have this conversation if you would just have reached out to me, and said let's have this conversation. But it concerns me when you are going to be heading this agency specifically in this area and are talking about California as a gold standard.

I don't want California rules. I don't want them to play a role in Oklahoma. I want affordable and reliable energy. I don't want to have rolling blackouts, to which we don't have rolling blackouts in Oklahoma. I don't want them to make a decision on what neighborhood is going to be shut down and which isn't.

The irony of that, when they have rolling blackouts, it was funny because it was never the retail area. It was never hospitals. It was never the fire department or the police stations. It was poor neighborhoods that was getting the raw—and it was the same time over and over again.

And the irony of that, too, get this, you could set your clock to it. Because when they had the blackout because they would announce when the time was going to be, right, wait 30 minutes and you start hearing sirens. Because the criminals also knew when the blackouts were going to be, and they started breaking into houses about the same time.

And that is the energy policy you want for the rest of America?

Mr. GOFFMAN. Senator, I think we have a lot to talk about. I am going to make myself available.

Senator MULLIN. We have a lot to talk about, right. Because what I don't want you to do is force something on us. If people in California want to live that way, let them vote those people in, and let them make their decisions. But you are representing the United States, the Environmental Protection Agency of the United States. And your say should take into consideration what the States say, and the States should have a bigger stake in it than you. And you shouldn't set a standard that is going to be across the board.

When you start talking about emission rules, that affects all of us. We haven't even talked about trucking, which I carry a CDL in my back pocket. I would love to have a longer conversation with you on that, too.

I yield back.

Senator CARPER. I hope the two of you have an opportunity to continue this conversation. I think that is very much needed.

Senator Kelly, I believe you are next. Thanks.

Senator KELLY. Thank you, Mr. Chairman.

Mr. Goffman, good to see you again. I appreciate your candor during our previous hearing as well as your commitment to ensuring that the EPA works with stakeholders in the State of Arizona to address some unique air quality challenges that we face.

One particular challenge that we face in Arizona is ozone forming pollution, particularly in Maricopa County, which is where Phoenix is. Most of the western United States, including Maricopa County, have background levels that are near the national air quality standard for ozone. Unlike many other urban areas, Maricopa County doesn't have this long history of big smokestack industries.

So when it is time to attempt to meet the ozone emission targets, the county has to focus on some really non-industrial emission sources like smaller commercial facilities or vehicles. And this is important, because without identifying emissions offsets, new manufacturing facilities like our growing semiconductor industries, they have got to figure out how can they be built and meet the emission standards without taking the whole county over the limit. So it is important that we find solutions to reduce ozone emissions while enabling smart economic growth.

Fortunately, Maricopa County has developed some innovative solutions to this. Mr. Goffman, are you familiar with two proposed emission reduction credit rules developed by Maricopa County called Rule 205 and 204?

Mr. GOFFMAN. Thanks for that question, Senator. It gives me an opportunity to recognize that at EPA headquarters and EPA Region 9, we actually recognize Maricopa County as exerting real leadership and innovative approaches to the very problem or very challenge you talk about, which is what in Clean Air Act speak is the offset requirement.

I am familiar with both 204 and 205, which are permitting offset rules. I know my colleagues in Region 9 are very familiar with those rules. Right now, we are looking at the approval review for 204. I think as a technical matter, we don't have 205 in front of us quite yet to review. But in any case, we do, we have been looking to Maricopa in that leadership role that I just described and which they have demonstrated.

Senator KELLY. Rule 204 was submitted to the EPA, to Region 9, nearly 3 years ago. They are still awaiting that response. Do you think that response is coming soon?

Mr. GOFFMAN. I believe it is, and I have spoken to Region 9. We are going to do whatever we need from the headquarters level to sort of surge the resources and get the review done.

Senator KELLY. Are we talking a couple of months?

Mr. GOFFMAN. I hope so. I can't say for sure.

Senator KELLY. Can you check and get back to my office on that?

Mr. GOFFMAN. We will do that.

Senator KELLY. Thank you. I also understand that the county is continuing to have discussions with Region 9 on the other rule, 205, which would seek to generate additional credits from vehicle electrification. Any status update you can give us on 205?

Mr. GOFFMAN. My understanding is that there are still informal discussions but real discussions going on between Region 9 and Arizona and Maricopa County in sort of setting up the formal submis-

sion of that rule for approval. But technically speaking, it is not in front of us, but we are working to kind of ease the path once the rule is submitted.

Senator KELLY. Thank you.

Last, do you believe that the EPA has any statutory limitations within the Clean Air Act that make it difficult for the agency to identify non-industrial sources of emission reduction credits?

Mr. GOFFMAN. At a superficial level, I am afraid I will have to follow up to answer the question with all the nuance that my colleagues might counsel me to share, I think we have a fair amount of latitude to identify emissions reductions that can serve as offsets. Again, I think Maricopa County's program using electrification to create offsets for economic development is an example of the range of what is approvable or permissible.

Senator KELLY. Thank you. I want to thank you for recognizing that Maricopa County has been a leader on coming up with some other options that uniquely address the situation out here in the West, specifically the State of Arizona.

Mr. Chairman, I am going to submit a few more questions for the record. Thank you.

Senator CARPER. That would be great. Thanks so much.

Senator Ricketts, welcome. Welcome to the Committee; all of our new members, welcome to the Committee.

Senator RICKETTS. Thank you very much, Mr. Chairman.

Thank you, Mr. Goffman. It is an honor to be on this Committee. I love to be on this Committee, because I get to talk about ethanol.  
[Laughter.]

Senator RICKETTS. I love talking about ethanol.

Senator CARPER. The Senator's time is expired.

[Laughter.]

Senator CARPER. Just kidding.

Senator RICKETTS. Ethanol saves consumers money at the pump, it helps clean up our environment, and it is great for creating jobs in America. First of all, ethanol helps with gas prices. Last summer, E15 users in some areas of this country were able to save up to \$1 a gallon. I think the average was about 16 cents. But last time I filled up with just E10 back in Nebraska, I think I was saving almost 50 cents a gallon on filling up my car. So it saves consumers money.

Second, it reduces carbon emissions. Blended ethanol fuels reduction reduced about 1 billion metric tons of carbon dioxide equivalent greenhouse gas emissions from 2008 to 2020. The USDA data shows that ethanol reduces greenhouse gases by about 43 percent.

Third, ethanol is great for our families here in Nebraska. Our 24 plants create about 1,400 jobs and boosts our State economy by about \$4.5 billion. And that also rolls over to our farm families as well as all the ancillary jobs that are created.

In fact, one of the things I have heard from people too is, hey, I don't want to replace fuel for food, but actually the byproduct of ethanol is distillers grains, which goes to feed livestock, cattle, pigs, chickens, which then we consume for food. So it actually doesn't take away from our food supply.

Actually, we did a test on E30 that the EPA allowed at the State level. So we ran E30 in vehicles, State vehicles that were produced

after 2001, and had phenomenal success with that, and potential for even more environmental cleanup and more cost savings.

Last year, the Biden administration allowed E15 to be sold year round, and Americans benefited in the three ways I just outlined. If confirmed, will you commit that the EPA will provide the required waivers so that E15 will be available throughout this upcoming summer driving season?

Mr. GOFFMAN. Senator Ricketts, thank you for that question, and for that overview of the benefit of ethanol. I know that my boss, Administrator Regan, agrees with you and agrees that the RFS program should really be implemented to meet its objectives.

It turns out that the decision to grant the use of E15 over the course of the summer season under the Clean Air Act, that is a game time decision. That is to say, we look at the data right at the time we are making the decision before we make the decision. So I don't have the authority under the Clean Air Act to commit on March 1st to a decision that won't really come if it comes at all until May 15th.

However, I hope you see that from the decision we made last year we are certainly open to and really focused on what is happening in the market, what is happening with supply and working within our own team and with DOE so that if and when we get to the point where we have to do what we did last summer, we will be in a position to do it again.

Senator RICKETTS. Thank you; I appreciate that. Again, for consumers and creating confusion, when we have the on again, off again policies, so something that would be more permanent would be great as well.

Also, I am glad you mentioned the RFS. I am concerned that the EPA's proposed Renewable Fuels Standard rule does not reflect the actual market conditions, specifically when we are talking about renewable diesel. The EPA proposed to keep the RFS biomass based diesel requirements below 3 billion gallons in 2025. However, more than 3.6 billion gallons of advanced biomass based diesel was produced in 2022, and more than 5.9 billion gallons may be produced by 2025.

How do you reconcile that the industry is producing more, but it is not reflected in the RFS?

Mr. GOFFMAN. That is a really good question, and it is a question we are looking at directly. Because we have gotten a lot of comments focusing on this question since the proposal. And we will be addressing it when we issue the final set rule in mid-June.

Senator RICKETTS. Great. Thank you very much, Mr. Goffman.

Senator CARPER. I think Senator Wicker is next, and if nobody else shows up, we will yield to and recognize Senator Sullivan after that.

Senator WICKER. Thank you very much.

Let's talk about the submission for enforcement of the National Ambient Air Quality Standards set by the EPA. Mississippi worked with EPA to submit an approvable proposal for the 8 hour ozone requirement in September 2019. In February 2022, EPA proposed to disapprove our plan for Mississippi, also for Alabama and Tennessee.

According to Mississippi DEQ, EPA took this action based on incomplete modeling results. In EPA's proposed disapproval, EPA claims that Mississippi has a significant impact on three monitoring sites in Texas, one in Dallas, which is some 361 miles west of the western boundary of Mississippi, and two in Houston, which is some 386 miles west of Mississippi on our western boundary.

As we know, weather moves from west to east in that section of the United States. This is a preposterous claim, that a State of less than 3 million people would have on two major metropolitan areas, 386 miles away and 361 miles away.

Our meteorologists dispute this, and say that high ozone in those three monitoring areas is a result of atmospheric conditions in that area, which makes a lot more sense. I am saying that under your leadership, EPA failed to work with Mississippi on implementation of the Good Neighbor provision in the Clean Air Act on ambient air quality standards.

Under the Clean Air Act, States are entitled to come up with their way of making this work. And we have done that. The proposed Federal Implementation Plan, which my State and several other States are about to have to abide by, will toss that away and implement, seek to implement, Washington based drastic unachievable nitrogen oxide emissions from power plants and other industrial sources, which we cannot do.

One of the most important tenets, I repeat, of the Clean Air Act, is the ability of States to regulate emissions in a way that makes sense for the State, as long as we can get there, and we can get there, we are entitled under the law to regulate emissions in the way that is best for us. And the proposed FIP violates this.

Given that EPA is working to finalize the FIP this month, how are you going to help us get around these impossible requirements?

Mr. GOFFMAN. Thanks, Senator Wicker, for the chance to address that issue. You are right, we are under a consent decree to finalize the Good Neighbor Plan. I know we received comments from Mississippi about the questions you raised, and the dispute they have with the way we do, the conclusions we came to vis-à-vis our air quality modeling.

The obligation that Congress created for States and then in turn for EPA to ensure that upwind or out of State pollution doesn't blow into a non-attainment area and prevent that area from improving its air quality is one that the agency has been trying to tackle since the late 1990s.

Senator WICKER. Let me interject here, sir. Doesn't it seem preposterous to you that Mississippi would be considered upwind of Houston, Texas, and upwind of Dallas, Texas, when everyone that ever watches weather patterns knows that is absolutely preposterous?

Mr. GOFFMAN. The only way I can really answer that is by turning to what we rely on, which is the science of air circulation and air quality modeling. The air quality modeling does tell us that—

Senator WICKER. That Mississippi is upwind of Houston, Texas.

Mr. GOFFMAN. We see through the science of atmospheric circulation that pollution from Mississippi at times affects the air quality in locales in Texas. And we can't un-see it.

Senator WICKER. I will ask you to respond on the record. I am over my time. Do you concede that there is more than one way to achieve this level of attainment?

Mr. GOFFMAN. Absolutely. And we try to build, we intend to build flexibility into our Federal Implementation Plans for sources that end up being affected by them. You know, Senator, even after we put out a Federal Implementation Plan, the State can always step in again and come in with a State Implementation Plan to replace the Federal Implementation Plan.

Senator WICKER. Well, it seems you are about to impose on us an impossible requirement. So I look forward to visiting with you, and thank you, Mr. Chairman, for your indulgence.

Senator CARPER. All right, thanks.

We have been joined by my favorite Marine, Senator Sullivan.

Welcome, good to see you.

Senator SULLIVAN. Thank you, Chairman, Captain, thank you very much.

Mr. Goffman, thank you for being here again. Third appearance in front of this Committee for this position. You really must want it.

Senator CARPER. In the worst way. Actually the best way.

[Laughter.]

Senator SULLIVAN. Well, no, I appreciate it, right? These hearings are not easy, and you go through a lot of questions, and you are hanging in there.

I am going to start where I left off last time. I have this chart; I love to show this chart. Can you see that chart? Now, you might remember, I asked you about this chart in your last hearing.

By the way, the national media hates this chart, right? What does this chart say? From 2005 to 2020, the major economy in the world that reduced greenhouse gas emissions more than any other major economy in the world by far was the United States of America. Yay, say it, be proud.

The national media hates it, because it goes against all climate change doom and gloom, we are against it. Now, you might remember, I raised this. So they fact checked the hell out of this chart, and guess what? It is true. Can't deny it. Look at this. Reductions of this percentage. And of course, who is the polluter of the world by far? The Chinese Communist Party, India, Iran, Russia, by the way, all the bad guys. The good guys are here, reducing emissions.

Now, if you remember, when I asked you about this chart, you looked a little skeptical, you looked confused, you looked surprised by it, which surprised me, because you want to be in charge of air, you need to have this chart embedded in your head. OK? When I asked you why do you think that happened, you actually said, I think it was maybe EPA regulations. So remember my response to you? What was it?

Mr. GOFFMAN. I remember our time together, and you actually didn't just ask me a question, you tutored me. I hope I pass the test this time.

Senator SULLIVAN. Well, you are going to show if you need remedial education right now or if you pass the test. So what do you think happened? Did this have anything to do with EPA regs?

Come on, you know the answer. If you say yes, you are going to fail.

Mr. GOFFMAN. Technology and the market is what I remember from the——

Senator SULLIVAN. OK, technology and the market, and the market particularly where?

Mr. GOFFMAN. In the electricity sector, the oil and gas sector, and particularly in States like Alaska.

Senator SULLIVAN. Well, revolution and the production of natural gas.

Mr. GOFFMAN. George P. Mitchell, right?

Senator SULLIVAN. Exactly. Revolution and the production of natural gas right here, that is the answer for the most part. It has nothing to do with EPA. Private sector, technology, American innovation is literally helping keep the world clean.

So here is my question. You, if you are confirmed, the EPA is going to have a lot of role, not just domestically but internationally. John Kerry, who I think is the bane of America's existence on so many issues of security; by the way, he is a White House staffer, right? He is not a secretary, he is not a Senator; he couldn't get confirmed in this body if it took 100 years. He is out there internationally, saying, well, we don't think countries should buy American LNG, telling countries—do you think that is smart? Do you think that is smart?

Do you think what John Kerry is up to is smart? Assume what I said is correct. I would love it if he came out and denied it, I didn't do that. But trust me, I have talked to foreign governments. He is out there cautioning the Japanese against buying American LNG, for God's sake, which would make the world cleaner. This is all about clean burning American natural gas. That is it. That is the answer. Every media outlet in America has fact checked this, and they are like, damn, he is right.

So should we be telling foreign governments not to buy clean burning American LNG from Alaska and other places? Come on, this is easy.

Mr. GOFFMAN. I really don't think so, but I never have——

Senator SULLIVAN. It is a bad idea, isn't it? Let me just give you another—right now, the G7 group of seven countries, the G7 industrialized democracies are looking at their next meetings. I am hearing rumors that John Kerry is trying to get in the G7 leaders' statements not to buy American LNG. Like, whose side is this guy on? Do you think that is a good idea? You will have responsibility over this. Is that a good idea for the environment of the world? Look at that chart. Answer my question.

Mr. GOFFMAN. Personally, I don't think so.

Senator SULLIVAN. A horrible idea. It is a horrible idea based on science. The Democrats like to say, we are the party of science. Great. That is science.

So here is the commitment I need from you. I am just 4 minutes, 4 seconds over. One question. When you guys get, because you do a lot of international work, any proposal from John Kerry or the other climate zealots in this Administration, who don't know any of the science, by the way, and they are trying to reduce the export of American LNG, can you commit to me to weigh in it with the

EPA and say, that is a bad idea for the environment of the world, not to mention national security, for God's sake? Can you commit to me to do that? Assume that is going to happen.

Mr. GOFFMAN. Senator, I commit to you to carry out the responsibilities of the Office of Air and Radiation.

Senator SULLIVAN. You just said this was a bad idea. Will you commit to me to telling others, John Kerry and others, that this is a bad idea? You are going to be in charge of EPA's Air program.

Mr. GOFFMAN. The reason I am hesitating, Senator, is I have never been, in my experience working in the Office of Air and Radiation, that question has never come up as a Clean Air Act question. It is very hard for me to make a commitment based on authority I don't have or that I am not familiar with having. My personal opinion is not what I am asked for. I am asked to apply my expertise under the Clean Air Act. I don't expect in my current job ever to be asked that question—

Senator SULLIVAN. You are. You are.

Mr. GOFFMAN [continuing]. In my current capacity.

Senator CARPER. The Senator's time is expired.

Senator SULLIVAN. Mr. Chairman, the witness is—

Senator CARPER. The Senator's time is expired.

Senator SULLIVAN [continuing]. Dodging my question.

Senator CARPER. The Senator's time is expired. We are going to have another round of questions. I invite you to stay and participate in that. Your time is expired.

Senator SULLIVAN. It would be good if you can answer my question in the next round. Don't dodge it.

Senator CARPER. I ask unanimous consent to submit for the record data from the Smart Electric Power Alliance, an organization that tracks power sector commitments to reduce emissions, which shows that today 75 percent of the U.S. customer accounts are served by a utility that is committed to a 100 percent carbon reduction target or a utility owned by a parent company that has a 100 percent carbon reduction target. I ask unanimous consent.

Without objection.

[The referenced information follows:]

[Utility Transformation Challenge](#)

[Utility Transformation Survey](#)

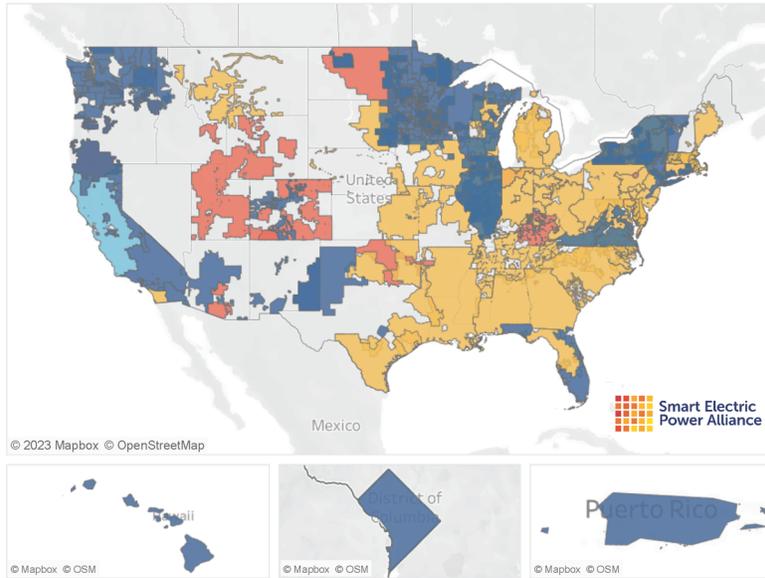
**[Utility Carbon-Reduction Tracker™](#)**

[Utility Transformation Profile](#)

[Frequently Asked Questions \(FAQ\)](#)

## Utilities' path to a carbon-free energy system

This map displays carbon-reduction targets adopted by individual electric utilities, as well as individual electric utilities that are subject to a state-level 100% requirement. It also displays carbon-reduction targets adopted voluntarily by parent companies of utilities that provide retail electric distribution service. A target adopted by a utility parent does not necessarily require individual utilities owned by the parent to comply with the overarching target.



Credit: The Oak Ridge National Laboratory's Geographic Information Science & Technology group generated the electric utility service territory maps displayed above.

For more information on the SEPA Utility Carbon-Reduction Tracker's methodology, see the [FAQ page](#).

## Recently announced carbon-reduction targets

- January 2023 | **Pasadena Water and Power**  
100% carbon-free electricity by the end of 2030.
- November 2022 | **AVANGRID**

Carbon neutral scope 1 and 2 emissions by 2030.

November 2022 | **NiSource**

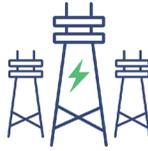
Net-zero scope 1 and 2 emissions by 2040.

October 2022 | **American Electric Power**

Net-zero CO2 emissions by 2045.

## Utility Carbon Reduction: By the Numbers

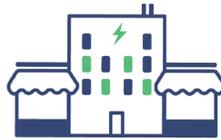
### Carbon-Reduction Target



**83%**

**Of U.S. customer accounts** are served by an individual utility with a carbon-reduction target, or a utility owned by a parent company with a carbon-reduction target

### 100% Carbon-Reduction Target



# 75%

**Of U.S. customer accounts** are served by an individual utility with a 100% carbon-reduction target, or a utility owned by a parent company with a 100% carbon-reduction target

#### Individual Utilities vs. Utility Parent Companies

##### Individual Utilities – 41%

of U.S. customer accounts are served by an individual utility with a voluntary or mandatory 100% carbon-reduction target

##### Utility Parent Companies – 33%

of U.S. customer accounts are served by a utility owned by a parent company with a voluntary 100% carbon-reduction target

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#### Additional Stats

##### Individual Utilities

493 Individual utilities are preparing to meet a state's 100% carbon-reduction requirement

46 Individual utilities have adopted a voluntary carbon-reduction target

34 Individual utilities have adopted a voluntary 100% carbon-reduction target

### Utility Parent Companies

27 Utility parent companies have adopted a voluntary carbon-reduction target

25 Utility parent companies have adopted a voluntary 100% carbon-reduction target

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*Notes on the data presented in this section appear at the bottom of the page*

## Download the data

Download a CSV file of selected data from the SEPA Utility Carbon-Reduction Tracker

Name\*

First

Last

Email\*

Company\*

Title\*

Senator CARPER. Let me lead into my next question. I want to build off some of the conversation raised earlier. As the document I just submitted for the record states, 75 percent of Americans, not just Californians, are being served by a utility with a net zero goal. It is also my understanding a big contributor of the California blackouts are because of extreme weather and extreme weather events like wildfires fueled by climate change.

Question: Can you please talk with us, Mr. Goffman, about how our Clean Air Rules work? That is one. Can you please explain about how our Clean Air Rules work, and that many of our rules require EPA to look at the existing technology to help clean up pollution, not at one State's actions? I will say that again. Can you please talk about how our Clean Air Rules work, and that many of our rules require EPA to look at the existing technology to help clean up pollution, not at one State's actions?

Mr. GOFFMAN. Thanks for that question. It is a fundamental question to what the Clean Air Act requires us to do and the limits of what the Clean Air Act authorizes us to do. The way Congress wrote the Clean Air Act directed EPA to look at available technology that is in use, and to identify that technology, and it is technology that is in use as the basis for emissions standards.

The Act also requires us to take account of cost, economics, in some cases energy needs, in establishing standards, so that while we establish standards that apply on a national basis, we are also directed by the Clean Air Act and in many cases by the courts, to include sufficient latitude and flexibility for States or for individual sources to meet those standards by any means that they identify that in the end effectuate the required emissions reductions consistent with either other policies if we are talking about States, or the business needs of individual sources if we are talking about individual sources.

Senator CARPER. All right, thank you. EPA's mission is to protect public health and the environment. However, protecting public health and the environment also protects and helps our economy to grow.

For example, implementing the American Innovation in Manufacturing Act to phase down the super climate pollutants HFCs is expected to create 150,000, 150,000, direct and indirect jobs and improve our Nation's trade imbalance and chemicals and equivalent by \$12.5 billion. Briefly describe some regulations that you have worked on where there are critical economic and public health benefits.

Mr. GOFFMAN. Thanks, that is another question I really appreciate being able to answer. The American Innovation in Manufacturing Act is a good example that really crystallizes what much of our environmental policy accomplishes. The AIM Act was both an environmental and climate policy, but it was also a policy that supported ongoing investment in innovative chemicals and the chemical industry, so that that industry could continue to develop economically and play a leading role internationally.

So you can look at the AIM Act as both at the same time a climate and environmental policy and as an economic growth and innovation policy. And any number of Clean Air Act regulations have proven to achieve the same thing. They are designed both to

achieve pollution reduction, air quality improvement, and public health improvement on the one hand, while also stimulating technological innovation. It more often than not leads to more efficient economic operations of sources and businesses.

Senator CARPER. Thank you.

Senator Capito is next, if she wishes to be recognized. I think she may be yielding.

Senator CAPITO. Yes, in the interest of the vote being on, I will yield my questioning time. I am going to want a question at the very end, but yield to Senator Ricketts and then Senator Sullivan.

Senator CARPER. Senator Ricketts, go ahead.

Senator RICKETTS. Great, thank you very much.

Mr. Goffman, I want to kind of build on what Senator Mullin was talking about earlier. One of the things that concerns me as well is managing the ability to, as we talked about earlier, the demand for electric cars and power generation but also transmission lines is another big deal. And if we don't have transmission lines, it doesn't really matter. If you look, for example, where a lot of wind energy potential in this country is, it is in the middle part of the country where the demand is going to be on the coast and so forth.

Then of course just making sure we have baseload power as well. Actually 2 years ago in Nebraska, the amount of wind energy generated actually exceeded the amount of coal energy generated. So we are heading in a direction for more renewable energy.

But it does raise a question about baseload and making sure that we have enough power to be able to provide to folks and not have the rolling blackouts, which is something that, again, in my lifetime has not happened until very recently.

Can you talk about reliable energy and electricity and how it is important here, and how do you think about this when you are thinking about this critical need to develop environmental regulations that are impacting our electric utilities? How does that play into, when you are doing your modeling, to make sure that we have proper power generation and proper baseload to be able to continue to provide the growing needs of this country for electricity?

Mr. GOFFMAN. Thank you for asking that question. As I said to Senator Capito, whenever we do power sector regulations, we look at cost impact on consumers and businesses and reliability with the same level of focus we do at the pollution reduction we are aiming to achieve.

I have never encountered a Clean Air Act provision that authorizes the agency to shut down sources. And in fact, as I was mentioning, we have got that problem statement right in front of us as we are endeavoring to finalize the Good Neighbor Plan. We proposed the Good Neighbor Plan, and we got a lot of feedback from reliability entities saying that what you have proposed is going to put a burden on the very sources that we may need in order to ensure grid reliability.

So having been given that information by the experts in reliability, we are going to be addressing that challenge they put to us or the information they shared with us. We are going to be addressing that in the final rule.

So, the reliability issue comes to us on a rule by rule basis. And fortunately, the Clean Air Act, by design of Congress, the Clean Air Act authorizes us, even requires us, to ensure that whenever we set standards and define compliance we include sufficient flexibility so that grid operators and generators can respond to the reliability needs of the grid.

Senator RICKETTS. You made a comment about shutting down utilities. The EPA's regulations can have that effect, when you put on regulations, especially, we talked a little bit about State Implementation Plans versus the Federal Implementation Plans. The experience in my State was, some of the regulations can be so onerous that in effect, even though you are not shutting down the utility, that is what is going to happen. Then of course, with all the consequences that go along with that.

So are there specific models you are using when you are saying, hey, this is how much power generation is going to come offline for the potential impact, or are there models that say, wherever you are regulating, this rule will allow certain sources of utilities to be able to continue to provide electricity?

Mr. GOFFMAN. We do modeling that predicts or projects, predict is an overstatement, projects shutdowns. But that is just the beginning of the inquiry when we see those results. We then consult with and engage with reliability or grid operators to get an assessment of whether those possible shutdowns will result in reliability problems.

I point you to rulemakings that the Office of Air and Radiation has done where we have added provisions to ensure that if in reality a source is going to shut down or have to go offline to install pollution controls in circumstances when doing so would threaten reliability, we have added additional provisions to allow those sources or those grid operators to avoid that.

I don't want to quite say it is case by case, but we work with the particularities of each rule and each area of the country that may be affected by a rule that we have proposed and then work on finalizing.

Senator RICKETTS. Thank you.

Senator CARPER. Thank you for those questions.

Senator Padilla, thanks for coming back. I know you have been here before. Thanks for coming back.

Senator PADILLA. Thanks, Mr. Chairman. Yes, there is Budget and Judiciary also meeting this morning, so I am on my roller skates today.

Senator CARPER. Yes. There you go.

Senator PADILLA. Mr. Chairman, I understand that while I was out of the room there were questions and concerns raised about the reliability of the electrical grid in California, to put it mildly.

Senator CARPER. I think that did come up.

Senator PADILLA. I invite any of my colleagues who are interested in learning more about how California is not only greening our grid but minimizing the frequency and duration of blackouts when they do occur, I am happy to lead a tour to the fourth largest economy in the world. Not just to brag on California, but in the interest in bipartisanship, talk about some of the work that Senator Cornyn and I did last session in response to not just concerns in

California, but blackouts in Texas because of the winter storms they have had year after year.

Our Power On Act, which was introduced and incorporated into the Bipartisan Infrastructure Law, has us working with States and utilities to modernize the grid and minimize grid impact on people, their lives, and the economy.

With that being said, Mr. Goffman, I want to thank you for your collaboration these past few years in addressing some of those pressing challenges facing California. As you know, over 18 million people, nearly half of California's population, are breathing air that does not meet Federal health based standards for ozone and particulate matter, non-attainment areas. California is in jeopardy of Federal sanctions as a result, including the potential loss of highway funds if our air quality does not improve.

Having served in local government and State government in California, I can attest to California's aggressive actions to reduce or regulate the sources of pollution under State jurisdiction. What is left to tackle is the pollution sources under Federal jurisdiction, such as pollution from goods movement, which especially impacts our most vulnerable populations living in environmental justice communities or those near ports and major transportation corridors.

I appreciate the EPA's efforts so far to reduce air pollution from some of the hardest to decarbonize transportation sectors including interstate heavy duty trucks. So yes, that is progress, but we can't stop there. We have had this conversation. We need EPA to act with urgency on all of the above efforts to tackle the sources of California's continued air pollution.

I am particularly interested in how EPA plans to tackle mobile sources of pollution under Federal jurisdiction such as ocean going vessels, locomotives, and other heavy duty sectors.

Mr. Goffman, does EPA plan to issue non-regulatory dockets to lay the groundwork for future regulatory action to address mobile sources?

Mr. GOFFMAN. Thanks for that question, Senator Padilla. I hope you appreciate that we really do have the same priorities. We have a lot of different initiatives in the works or already out and running.

I have mentioned before that we are starting to look at locomotives, for example, in two different ways. One is to address directly State authority to impose requirements on locomotives. The other is to start to lay the groundwork within our own shop to address perhaps an entry to Federal standards locomotive emissions.

Your question suggested that establishing a non-regulatory docket would be a tool we could use to start focusing on that issue, not just for the purposes of gathering information that we would need, but also for sending a signal or even creating a venue for engagement with the industry, so that we could make progress there.

As you probably know, the Administration recently put out a comprehensive transportation strategy focused on decarbonization across the entire universe of transportation. Thanks to the Inflation Reduction Act, we are in the position to be able to initiate and deploy several grant programs that go directly to goods movement,

either at ports or at other freight depots, and also through Clean Air Act pollution reduction grants.

Senator PADILLA. I know my time is almost up, but just a quick follow up question. Is there a tentative timeline for subsequent action to just push it from locomotives specifically?

Senator CARPER. Briefly, brief response, please.

Mr. GOFFMAN. For the aspect of State authority, I think we have got a proposal in the works that will include addressing that.

Senator PADILLA. Weeks? Couple of months?

Mr. GOFFMAN. If I am thinking about the right proposal, it could be in a few weeks on the State authority side.

Senator PADILLA. OK.

So in closing I just want to thank you for not just responding to these questions; we have been in regular contact. I look forward to our continued collaboration, and I want to say I look forward to EPA issuing California's outstanding waiver requests which are critical to addressing the very serious air quality challenges facing California that we have been discussing today.

Thank you.

Senator CARPER. Yes, thanks for the extra effort to come back and join us.

Senator Capito.

Senator CAPITO. I am going to yield to Senator Sullivan, and then I will wrap up.

Senator CARPER. Senator Sullivan.

Senator SULLIVAN. Thank you.

I am going to return to where I was before, and you know, it is not my intention, Mr. Chairman, to get you upset. I have a lot of respect for you.

But these are actually really important issues. And just in the break here, Administrator Regan is a G7 delegate. They do an environment administer statement leading up to the G7.

So the questions I am going to ask you are very relevant. I have a lot of respect for you, but don't dodge my question, OK? We just went through the science of what I was talking about. Assume that what I am saying is correct. You have people like John Kerry who are trying to make it harder or impossible to export clean burning American LNG. Not only is this good for our national security, but it is clearly good for the environment.

So assume the hypothetical that you get asked, Regan gets asked to sign a G7 environment leader statement that would do something like that which would be against our national security, against the environment, against our economy. What advice are you going to give him, given what you have said to me? Don't dodge me. In your personal opinion. Don't tell me you don't have authority, you do, to be asked this question.

What is the answer? You know what the answer is. Give it to me in this hearing right now in front of the Senate confirmation.

Mr. GOFFMAN. Senator, I would rather plead guilty to dodging the question than answer a question that I don't feel qualified to answer right now. This is an issue that I have not been briefed on by my expert staff. If and when Administrator Regan asks me for his advice, of course I will give it to him. But in my work, I am

never asked hypothetical questions, and I don't really feel qualified to answer it.

Again, I will admit to you that, to use your words, I am not answering or I am dodging the question, but I would rather, in a Senate hearing, answer a question that I am qualified to answer, and decline to answer questions I don't feel qualified to.

Senator SULLIVAN. OK. Well, let me just say, this is a huge issue, all right? Because we have an Administration led by guys like Kerry who are not Senate confirmed, that guy could never get Senate confirmed, who are fundamentally focused on shutting down the production of American energy. And it makes no sense. It makes no sense for the environment, for the economy, for workers, for national security.

Let me turn to a related question. And this is where I do get upset, Mr. Chairman, and I would love to have a damned hearing on it some time. My State, in the 2 years of the Biden administration, has suffered 44 executive orders or executive Actions solely focused on Alaska, 44. There is no State in the Union that is getting this kind of unwanted attention. Forty-four, crushing the people who I represent and their jobs.

So here is my simple ask of you. We have gone to the White House. We have pleaded for a cease fire on the war on Alaska's economy. I have asked for at a minimum with senior officials in this Administration at least give me a heads up when you are going to screw my State again.

So can I get that commitment from you, when you guys do a singular rule focused on Alaska, maybe reach out to us. I did this with the Secretary of Agriculture, the big issue in the Tongass National Forest.

You know how we learned about it, me, Senator Murkowski, Congresswoman Peltola, a Democrat? In the Washington Post. They briefed them for 2 weeks, never gave us one heads up. Can I get at least a commitment to the respect that I would imagine should come out of the EPA that if you are going to do another action, not 44 but 45 or 46, it is almost daily with these people, that you call me, call Senator Murkowski, call Democrat Congressman Peltola and go, hey, Senator, just a heads up, we are getting ready to screw you again. Can you at least commit to that to me?

Mr. GOFFMAN. When the Office of Air and Radiation takes an action that is going to affect Alaska, I look forward to engaging with you and your colleagues.

Senator SULLIVAN. OK, thanks. I have one final question. It is a simple one. It is not a simple one, it is just, the EPA is finally confronting a rule that Alaska has been a leader on since the 1970s, that is reducing methane emissions. My State actually re-injects all our gas on the North Slope, 9 def a day, almost. Highest standards on the environment in the world by far. Go look at a place like New Mexico that, drill baby drill, spewing emissions all over the place.

But here is my question. EPA, however, with their new rule, is deputizing NGOs and other "third party audits" to do this kind of work. This is State of Alaska DEC work.

So can you tell me how you are going to do that, say, on the North Slope of Alaska, with third party NGOs? Like who? The Cen-

ter for Biological Diversity? Who are you going to deputize? This is an EPA and a State of Alaska issue on methane emissions. Can you explain what they are trying to do on this new program that is outsourcing government enforcement rules probably to NGOs that don't have my State's interests in mind?

Senator CARPER. The Senator's time is expired. Let me ask, we are 30 minutes into a vote. Thirty minutes they have been waiting for us to come and vote on the Senate floor. You may not know that but that is what is going on right now.

Senator SULLIVAN. You are not going to let him answer that question?

Senator CARPER. I am going to ask him to answer that question for the record.

The other thing I am going to ask is, the way we do stuff in Delaware is when we have differences of opinion like this, we actually get together and talk about it. If the two of you are not doing that, please do, please do before we go through another hearing like this, all right?

I am going to now go back to Senator Capito. You are next in line.

Senator CAPITO. Thank you, Mr. Chair.

I have my own questions, but very quickly, first of all, on the MATS Rule, which was \$9.8 billion estimated per year. When you were in your prior time at the EPA, the Supreme Court stayed EPA's Clean Power Plan and found that the EPA had not properly justified the MATS Rule.

So the EPA recently finalized and reinstated, and the Chairman was touting the results. What people did was went ahead and did it and then found out it wasn't a firm foundation of which that rule was created.

You are using a very similar and overly broad interpretation of the statute again, we feel. Do you think this broad interpretation of the statute will fare any better in the courts this time?

Mr. GOFFMAN. I believe that the determination we made that it is appropriate and necessary to regulate mercury and other air toxics from the power sector is consistent with our legal authority.

Senator CAPITO. I don't think that was the question. I don't think that was the problem, though. It was that you hadn't taken the full array of—that is correct, right?

Mr. GOFFMAN. Of cost, yes.

Senator CAPITO. Yes.

Mr. GOFFMAN. What the Supreme Court told us is that our interpretation of the statute, which was that we had to look at the mercury question without looking at cost, was wrong, and that we were not required to exclude cost, and that within the meaning of the statute, we needed to take account of cost.

Senator CAPITO. I am going to go, because I know we need to vote. But I would hope that, you can't just keep overly, overly picking and choosing what parts of the law that you have to take into consideration. I think the Supreme Court has supported that policy, and that is why those two either got stayed or taken down.

One thing I would say as part of the discussion here on retirements of plants, of coal plants or natural gas, according to PJM,

those are policy driven. A lot of those, most power plant retirements are policy driven. I just want to make that point.

Next point I wanted to make is first of all, I should have said this in the beginning, green school buses are great. We actually got a Green Power, which is a manufacturer of green school buses, in our State. So I will say those 35 or so jobs are welcome in our State, and we actually have just completed a pilot study in one of our hillier regions on an electric bus, and it was successful. So good for that.

Last question, on the Good Neighbor Plan, you have included other sources besides what the original CSAPR plan, which was just the power sector. So you've got cement and cement production, iron and steel, gas and glass products, chemical manufacturing, pulp and paper, paper board, et cetera, et cetera. We are hearing daily about supply chain shortages, we are hearing about Buy America that is becoming problematic. That is in the IJJA and other kinds of things.

So with these bottlenecks, with this kind of onerous regulation on a new sector, the industrial sector, and I asked you about this before, how is this going to help with the domestic production of our own domestic that we need for semiconductors, that we need for everything that we want to build in this country?

Mr. GOFFMAN. I hope you realize that that set of questions is compelling to the Administration and to the agency as well. Just a few things. The Federal courts have weighed in, including the Supreme Court, several times about how to implement the Good Neighbor provisions. And we are really doing our best to follow what the courts have told us the boundaries of our legal authority and obligation are.

Second, we are focusing on requirements that are based on what sources in the same sectors are already using in some States to control NO<sub>x</sub> emissions. Third, the question you raise has come to us in comments since we issued the Good Neighbor proposal, and we are focusing on finding ways to address those questions when we finalize the Good Neighbor proposal.

Senator CAPITO. Good. Like I said on the earlier response, time will tell on that.

Thank you very much. I would say anecdotally if you have a provision that is directly going to affect just my State of West Virginia, I would expect you to come and tell me that in advance. I don't think that is an unreasonable request from Senator Sullivan. Thank you.

Senator CARPER. Senator Capito, this has been an interesting confirmation hearing. A little more exciting than some, but we covered a lot.

I want to again thank Mr. Goffman for joining us today. He has been nominated, as we all know, for a critical role at EPA. I am pleased we have been able to hear from you today.

I would like to ask unanimous consent to submit into the record a variety of materials related to today's hearing, including the over 50 letters of support for Mr. Goffman's nomination, along with articles and independent analyses related to this nomination.

I hear no objection.

[The referenced information follows:]



May 20, 2022

Executive Committee**Region 1**

Marvin Cling  
Passamaquoddy Tribe

**Region 2**

Angela Benedict  
Saint Regis Mohawk Tribe

Steven Smith  
Shinnecock Nation

**Region 4**

Scott Hansen  
NTAA Treasurer  
Catavba Indian Nation

Tiffany Lozada  
Poarch Band of Creek Indians

**Region 5**

Brandy Toft  
NTAA Vice-Chairperson  
Leech Lake Band of Ojibwe

Vallen Cook  
Grand Portage Band of Lake  
Superior Chippewa

**Region 6**

Craig Kreman  
NTAA Treasurer & Mobile  
Sources Lead  
Quappaw Nation

Maxine Paul  
Pueblo of Santa Ana

**Region 7**

Billie Toledo  
NTAA Secretary  
Prairie Band Potawatomi  
Nation

**Region 8**

Janice Archuleta  
Ute Mountain Ute Tribe

Randy Ashley  
Confederated Salish &  
Kootenai Tribes

**Region 9**

Syndi Smallwood  
NTAA Chairwoman  
Jamul Indian Village of  
California

Leonard Bruce  
Gila River Indian Community

**Region 10**

Lucas Bair  
Wood Smoke Lead  
Spokane Tribe

Caleb Minthorn  
Confederated Tribes of the  
Umatilla Indian Reservation

**Alaska**

Rose Kalistook  
Association of Village Council  
Presidents

Chairman Tom Carper &  
Committee Members  
Senate Committee on Environment and Public Works  
456 Dirksen Senate Office Building  
Washington, D.C. 20510

**RE: NTAA Support for the Confirmation of Joseph Goffman as Assistant  
Administrator, Office of Air and Radiation of the U.S. Environmental Protection Agency**

Honorable Chairman Carper and Committee Members:

The National Tribal Air Association (NTAA) is pleased to support the confirmation of Joseph Goffman for the U.S. Environmental Protection Agency's next Assistant Administrator. The NTAA is a member-based organization with 155 principal member Tribes, which include 25 Alaskan Native Villages. Members of the NTAA's Executive Committee (NTAA E C) work regularly with EPA leadership to advance air quality in Indian Country and are eager to again work with Mr. Goffman.

Mr. Goffman is familiar with NTAA's priorities related to air quality and climate change for Indian Country. We are grateful for the many virtual meetings held between Mr. Goffman and the NTAA EC over the past several years to discuss EPA's work and Tribal air quality priorities. Each year, NTAA works with EPA leadership including Mr. Goffman to bring voice for the need for better Tribal Air Programs funded under EPA grants.

As you know, Tribes and Alaskan Native Villages face many challenges related to climate change and air quality and we know from working with Mr. Goffman in the past, he is familiar with the specific concerns of Tribes and Alaskan Native Villages as Tribes continue to partner with federal, state and local air quality regulators to advance our shared air quality. For example, Mr. Goffman has been proactive in early discussions with Tribes to gain insights for the expected rule making for the power sector.

The NTAA is honored to support Joe Goffman's nomination. We hope that Tribes across the nation will benefit from his leadership, and we are eager to work with him in his confirmed role as Assistant Administrator of the U.S. EPA's Office of Air and Radiation.

On Behalf of the NTAA Executive Committee,

Syndi Smallwood  
Chairwoman  
NTAA Executive Committee

Cc: Brian Eiler, EPW  
Adam Tomlinson, Adam EPW  
Travis Cone, EPW  
Eunjung Kim, EPA  
William Niebing, EPA



**Thomas M. Conway**  
International President

May 20, 2022

**Via Email**

Chairman Carper  
Committee on Environment and Public Works  
U.S. Senate  
Washington, D.C. 20515

Ranking Member Capito  
Committee on Environment and Public Works  
U.S. Senate  
Washington, D.C. 20515

**RE: United Steelworkers supports the nomination of Joseph Goffman as Assistant Administrator of the Office of Air and Radiation at the Environmental Protection Agency.**

Dear Chairman Carper and Ranking Member Capito:

On behalf of the 850,000 members of the United Steel, Paper and Forestry, Rubber, Manufacturing, Energy, Allied Industrial and Service Workers International Union (USW), I write in strong support of the nomination of Joseph Goffman as Assistant Administrator of the Office of Air and Radiation (OAR) at the Environmental Protection Agency (EPA).

The Office of Air and Radiation is a very impactful part of EPA for our union. It implements the Renewable Fuel Standard that impacts USW members in oil refineries, vehicle emissions standards that impact USW members in the auto supply chain, and other regulations to regulate pollution, including from industrial sources. These are important issues that have significant impact on our members and the work that they do.

Mr. Goffman has served as the executive director of the Environmental and Energy Law Program at Harvard Law School beginning in 2017. He is a veteran of the Obama Administration's EPA, working as the associate Assistant Administrator for Climate and Senior Counsel at OAR from 2009-2017.

During Mr. Goffman's time in public service, the USW has had a very good working relationship with him. We find him to be thoughtful, reasonable, accountable,



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and pragmatic. We especially appreciate his responsiveness and willingness to engage with all stakeholders, including unions.

In closing, I strongly urge you to support the confirmation of Mr. Goffman to fill this critical position at EPA. Thank you for your time and consideration.

Sincerely,

  
Thomas Conway  
International President

CC: Senate Committee on Environment and Public Works members

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**United Steel, Paper and Forestry, Rubber, Manufacturing, Energy, Allied Industrial and Service Workers International Union**

60 Boulevard of the Allies, Pittsburgh, PA 15222 • 412-562-2400 • 412-562-2598 (Fax) • [www.usw.org](http://www.usw.org)





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February 27, 2023

The Honorable Tom Carper  
Chairman  
U.S. Senate  
Committee on Environment and Public Works  
410 Dirksen Senate Office Building  
Washington, D.C. 20510

The Honorable Shelley Moore Capito  
Ranking Member  
U.S. Senate  
Committee on Environment and Public Works  
410 Dirksen Senate Office Building  
Washington, D.C. 20510

Dear Chairman and Ranking Member,

The Truck and Engine Manufacturers Association (EMA) writes again to fully support the nomination of Joseph Goffman to serve as Assistant Administrator of the Office of Air and Radiation (OAR) at the U.S. Environmental Protection Agency (EPA).

EMA represents the leading U.S. manufacturers of medium- and heavy-duty commercial vehicles, internal combustion engines, and zero-emission powertrains. EMA member companies embrace their essential role in powering the trucking industry that moves the goods and services that drive the Nation's economy. We have worked closely with OAR to reduce to near zero levels the nitrogen oxide (NO<sub>x</sub>) and particulate matter (PM) emissions from heavy-duty engines, and to significantly reduce the greenhouse gas emissions from commercial vehicles. Those successes notwithstanding, we are poised to further improve the environmental performance of our products.

There is no doubt that zero-emission vehicles (ZEVs) are the future of the U.S. trucking industry, and that is why EMA member companies are investing billions of dollars to develop and bring to market medium- and heavy-duty ZEV technologies. We are committed to that ZEV future – with cleaner air and healthier communities – and to partnering with the EPA and other stakeholders to achieve those goals. Transitioning the commercial trucking industry to ZEVs demands a concerted effort by EPA and other key stakeholders to develop and implement the federal policies to, among other things, establish the infrastructure needed to keep those ZEVs moving. We are bringing heavy-duty ZEV products to market, and we are committed to partnering with others to realize that ZEV future as soon as possible.

Under Mr. Goffman's leadership, we are confident that EPA will be well positioned to take on the heavy responsibility of setting the framework to transition the commercial trucking industry to ZEVs. We look forward to working with Mr. Goffman, EPA, and the Committee on Environment & Public Works to assure the success of that transition.

Very truly yours,

Jed R. Mandel  
President

May 20, 2022

The Honorable Thomas Carper  
Chairman, Committee on the Environment and Public Works  
United States Senate  
Washington D.C. 20510

The Honorable Shelley Moore Capito  
Ranking Member, Committee on the Environment and Public Works  
United States Senate  
Washington D.C. 20510

Re: Letter of Support for Joe Goffman

Dear Chairman Carper and Ranking Member Capito:

Everyone should have clean, safe air to breathe. Across America, in urban and rural areas our country has made important progress in cleaning up air pollution thanks to strong clean air laws. Yet too many communities still experience dangerous levels of air pollution, exposing children and other vulnerable populations to harmful health effects. Securing clean air for all people requires constant vigilance and strong leadership. That is why we write on behalf of our millions of members from every state to express strong support for Joe Goffman, the President's nominee to lead the US Environmental Protection Agency's Office of Air and Radiation (OAR).

OAR is responsible for administering the Clean Air Act, one of this country's most protective public health laws. OAR leads critical programs to address outdoor and indoor air quality, pollution from vehicles and industrial operations, acid rain, harmful emissions that contribute to climate change, and radiation protection. In short, this office is vital to EPA's mission to protect public health and secure a safe climate for all people of this country. It demands strong leadership that Joe Goffman can provide.

Joe Goffman's nomination is great news for everyone who wants cleaner air and a safer climate. He has dedicated his career to the protection of human health and the environment and understands the urgency of the climate crisis. As assistant administrator of EPA's Office of Air and Radiation, Joe will focus on protecting the health of families and communities, anchor his decisions in law and science, and carry out the President's vision for a stronger and cleaner economy.

His extensive expertise—including as a professional staff member serving the Senate Environment and Public Works Committee and at EPA--will mean greater protections for the millions of people across our nation who are harmed by climate and air pollution.

We urge the committee to advance Goffman's nomination as swiftly as possible.

Respectfully,

Abbie Dillen, President, Earthjustice

Fred Krupp, President, Environmental Defense Fund

Margie Alt, Director, Climate Action Campaign

Katie Huffling, Executive Director, Alliance of Nurses for Healthy Environments  
John Boesel, CEO, CALSTART  
Christy Goldfuss, Senior Vice President, Center for American Progress  
Joseph Otis Minott, Esq., Executive Director and Chief Counsel, Clean Air Council  
Lisa Frank, Executive Director, Washington Legislative Office, Environment America  
Howard A. Learner, Executive Director, Environmental Law & Policy Center  
Lena Moffitt, Chief of Staff, Evergreen Action  
Rev. Susan Hendershot, President, Interfaith Power & Light  
Gene Karpinski, President, League of Conservation Voters  
Dominique Browning, Director, Moms Clean Air Force  
Shannon Heyck-Williams, Senior Director, Climate and Energy Policy, National Wildlife Federation  
Sister Joan Brown, ofc, Executive Director, New Mexico & El Paso Interfaith Power and Light  
Yvonka M. Hall, MPA, Executive Director, Northeast Ohio Black Health Coalition  
John Bowman, Managing Director, Government Affairs, Natural Resources Defense Council  
Tonyehn Verkitus, Executive Director, Physicians for Social Responsibility Pennsylvania  
Lucas Herndon, Energy Policy Director, ProgressNow New Mexico  
Elizabeth Perera, Senior Director, Climate Policy and Partnerships, Sierra Club  
The Rev. Mitchell C. Hescocx, President/CEO, The Evangelical Environmental Network  
Faye Park, President, U.S. PIRG  
Johanna Chao Kreilick, President, Union of Concerned Scientists  
Peggy Shepard, Co-Founder and Executive Director, WE ACT for Environmental Justice



May 24, 2022

The Honorable Thomas R. Carper  
Chair  
U.S. Senate Committee on Environment and  
Public Works  
Washington, DC 20510

The Honorable Shelley Moore Capito  
Ranking Member  
U.S. Senate Committee on Environment and  
Public Works  
Washington, DC 20510

Dear Chairman Carper and Ranking Member Capito:

On behalf of the American Public Health Association, a diverse community of public health professionals that champions the health of all people and communities, I write to offer our support for the nomination of Joseph Goffman to be Assistant Administrator for the Office of Air and Radiation, at the Environmental Protection Agency. We believe Mr. Goffman brings the needed experience to serve in this critical position where he will help oversee EPA's efforts to protect the public from air pollution and combat climate change which is already threatening the health of communities across the nation.

Goffman currently serves the Principal Deputy Assistant Administrator in EPA's Office of Air and Radiation. He previously served as Associate Assistant Administrator for Climate and Senior Counsel to the Assistant Administrator for the Office of Air and Radiation at EPA and has extensive experience working at the agency where he has helped lead efforts to develop policies to reduce dangerous air pollution to protect the public's health. He has also served as an Associate Counsel to the Senate Environment and Public Works Committee and has held other senior positions with the Harvard Law School and Environmental Defense Fund.

We endorse Mr. Goffman's nomination and urge the Senate's swift confirmation. We look forward to working with him and the rest of EPA's dedicated staff to tackle the many environmental and public health challenges that we face as a nation. Please feel free to contact me with any questions regarding our support for his nomination.

Sincerely,

A handwritten signature in black ink, appearing to read 'Georges C. Benjamin'. The signature is fluid and cursive, written in a professional style.

Georges C. Benjamin, MD  
Executive Director



*Office of the President*

May 18, 2022

The Honorable Thomas J. Carper, Chairman  
The Honorable Shelley Moore Capito, Ranking Member  
U.S. Senate Committee on Environment and Public Works  
456 Dirksen Senate Office Building  
Washington, D.C. 20510

Dear Chairman Carper and Ranking Member Capito:

On behalf of the American Forest & Paper Association, I am writing in support of President Biden's nomination of Joseph Goffman to serve as the Assistant Administrator for the Office of Air and Radiation (OAR) at the U.S. Environmental Protection Agency.

The American Forest & Paper Association (AF&PA) serves to advance U.S. paper and wood products manufacturers through fact-based public policy and marketplace advocacy. The forest products industry is circular by nature. AF&PA member companies make essential products from renewable and recycle resources, generate renewable bioenergy and are committed to continuous improvement through the industry's sustainability initiative — [Better Practices, Better Planet 2030: Sustainable Products for a Sustainable Future](#). The forest products industry accounts for approximately four percent of the total U.S. manufacturing GDP, manufactures nearly \$300 billion in products annually and employs approximately 950,000 people. The industry meets a payroll of approximately \$60 billion annually and is among the top 10 manufacturing sector employers in 45 states.

AF&PA's sustainability initiative — *Better Practices, Better Planet 2030: Sustainable Products for a Sustainable Future* — comprises one of the most extensive quantifiable sets of sustainability goals for a U.S. manufacturing industry. This is the latest example of our members' proactive commitment to the long-term success of our industry, our communities and our environment. We have long been responsible stewards of our planet's resources. AF&PA members met or surpassed most of the goals outlined in our previous sustainability initiative, *Better Practices, Better Planet 2020*, including a 24.1 percent reduction in GHG emissions; 13.3 percent improvement in purchased energy efficiency; 30 percent reduction in workplace injuries; and 12.2 percentage point increase in wood fiber procurement from certified forestlands.

We believe Mr. Goffman is eminently qualified for this important role. In addition to his current service at EPA since the beginning of President Biden's Administration, he had many years of experience at EPA during President Obama's Administration when he served as Associate Assistant Administrator for Climate and Senior Counsel in OAR. There he played a key

Chairman Carper and Ranking Member Capito  
May 17, 2022  
Page 2

role in developing a range of air emissions regulations. Earlier in his career, Mr. Goffman served as Chief Counsel to the U.S. Senate Committee on Environment and Public Works, where he focused on key provisions of the Clean Air Act Amendments of 1990, including Title IV, which included an innovative cap-and-trade market mechanism to dramatically reduce acid rain pollution from utilities at a fraction of the cost projected for a command-and-control approach.

Clean Air Act issues are consequential for the U.S. paper and wood products industry and for our country. While we have not always agreed with Mr. Goffman on every issue, we respect his willingness to hear from stakeholders, to understand their perspectives, and to engage in reasoned dialogue based on the evidence.

Based on our knowledge of Mr. Goffman and our experience working with him over the years, we believe his expertise, experience and professionalism make him an ideal candidate for this important position.

Kind Regards,



Heidi Brock  
President and Chief Executive Officer

# AFL-CIO

## LEGISLATIVE ALERT

May 19, 2022

Chairman Thomas R. Carper  
Ranking Member Shelley Moore Capito Ranking Member  
Committee on Environment and Public Works  
United States Senate  
Washington, D.C. 20510

Dear Chairman Carper and Ranking Member Capito:

I am writing to express support for Joseph Goffman to serve as Assistant Administrator for Air and Radiation (OAR) at the U.S. Environmental Protection Agency, and to urge his swift confirmation. Mr. Goffman is highly qualified for this position, and his prompt confirmation will insure that the important work of OAR continues under his leadership and expert guidance.

The AFL-CIO and many of our affiliates have known and interacted with Mr. Goffman for more than two decades in his previous work at EPA, and he has a well-demonstrated record as dedicated public servant. His experience in previous administrations, in the private sector, and in academia give Mr. Goffman the experience and perspective needed to fill this key position in administering the Clean Air Act, which is important to American workers across every sector of the economy.

We ask for your support for Mr. Goffman's confirmation by the Committee and the full Senate because we believe he will serve in the position of Assistant Administrator in best interest of all Americans. Thank you for your consideration of our views.

Sincerely,



William Samuel  
Director, Government Affairs



**The Alliance**  
for Responsible Atmospheric Policy

May 23, 2022

The Honorable Tom Carper  
Chairman, Senate Environment and Public Works  
Committee  
410 Dirksen Senate Office Building  
Washington, DC 20510

The Honorable Shelley Moore Capito  
Ranking Member, Senate Environment and Public  
Works Committee  
456 Dirksen Senate Office Building  
Washington, D.C. 20510

Dear Senators Carper and Capito:

I am writing on behalf of the Alliance for Responsible Atmospheric Policy in support of the nomination of Joe Goffman to serve as the Assistant Administrator for Air and Radiation, at the U.S. Environmental Protection Agency.

The Alliance for Responsible Atmospheric Policy ("Alliance") is an industry coalition of fluorocarbon producers, user entities and trade associations of companies that rely on these compounds. The Alliance was organized in 1980. Today, the Alliance coordinates industry participation in the development of economically and environmentally beneficial international and domestic policies at the nexus of ozone protection and climate change. A list of our member companies and associations is enclosed.

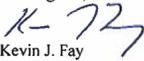
The Alliance and its member companies and associations have been active on critical environmental policy issues relating to protection of the earth's ozone layer and the climate since its founding. As such, we have had ample opportunity to be involved in a number of key domestic and international policy issues. Domestically, our activities include the Clean Air Act Amendments of 1990, Waxman-Markey climate legislation, and the American Innovation and Manufacturing Act of 2020. Internationally, our activity encompasses the Vienna Convention for the Protection of the Ozone Layer, the Montreal Protocol on Substances that Deplete the Ozone Layer, including the most recent Kigali Amendment, and the United Nations Framework Convention on Climate Change.

The Alliance has had the opportunity to work closely over many years with Mr. Goffman on these important issues, including in his roles as a legislative staffer, as an EPA professional, as an Environmental Defense Fund staff member, and as an academic. Mr. Goffman has shown himself to be an extremely capable manager, legal advisor, and policy official. He has provided critical functions in all of the key policy processes with which the Alliance has been associated, and has proven himself to be a strong, creative, and fair leader during these activities.

While we have not always agreed with Mr. Goffman on some policy specifics, he was always willing to listen, and to consider new viewpoints and interpretations. He continuously worked hard to find consensus where possible and identify paths forward for mutual success.

We recommend support for Joe Goffman's confirmation as the Assistant Administrator of the EPA Office of Air and Radiation. Please do not hesitate to contact us if you have questions concerning our views on this important nomination.

Best regards,

  
Kevin J. Fay  
Executive Director



CREATING GOOD JOBS, A CLEAN ENVIRONMENT, AND A FAIR AND THRIVING ECONOMY

January 31, 2023

The Honorable Thomas Carper  
Chairman, Senate Committee on  
Environment and Public Works  
410 Dirksen SOB  
Washington, D.C. 20510

The Honorable Shelley Capito  
Ranking Member, Senate Committee on  
Environment and Public Works  
410 Dirksen SOB  
Washington, D.C. 20510

Dear Chairman Carper, Ranking Member Capito, and Members of the Committee:

As a coalition of the nation's largest labor unions and environmental groups, collectively representing millions of members and supporters, the BlueGreen Alliance supports the nomination of Joseph Goffman to be the assistant administrator of the U.S. Environmental Protection Agency's (EPA) Office of Air and Radiation (OAR).

The largest office at EPA, OAR leads critical programs to address outdoor and indoor air quality, chemical accident prevention, pollution from vehicles, emissions that contribute to climate change, and radiation protection. In short, this office is vital to EPA's mission to protect public health and secure a safe environment for workers and communities. Mr. Goffman has the experience needed to do this critical work in ways that lift up communities and workers and prioritize investments in the workers and communities that need it most, including frontline communities.

Mr. Goffman has dedicated his career to the protection of human health and the environment and understands the urgency of the climate crisis. He has a track record of developing relationships with stakeholders across sectors and will no doubt continue that work at the OAR. As assistant administrator of OAR, Mr. Goffman will focus on protecting the health of American families and communities, anchor his decisions in law and science, and carry out the president's vision for a stronger and cleaner economy. His extensive expertise—including as a professional staff member serving the U.S. Senate Environment and Public Works Committee and at EPA—will mean greater protections for the millions of Americans all across our nation who are harmed by climate and air pollution.

We urge you to swiftly confirm this nominee.

Sincerely,

Jason Walsh  
Executive Director  
BlueGreen Alliance



May 20, 2022

The Honorable Thomas Carper  
Chairman, Committee on the Environment and Public Works  
United States Senate  
Washington D.C. 20510

The Honorable Shelley Moore Capito  
Ranking Member, Committee on the Environment and Public Works  
United States Senate  
Washington D.C. 20510

Dear Chairman Carper and Ranking Member Capito:

CALSTART urges the committee to advance Joe Goffman’s nomination, the President’s nominee to lead the US Environmental Protection Agency’s (EPA) Office of Air and Radiation (OAR), as swiftly as possible.

CALSTART is an internationally recognized clean transportation non-profit industry-based organization with more than 300 members all dedicated to the growth of the clean transportation industry. We work with the public and private sectors to knock down barriers to innovation, progress and drive the transportation industry to a clean and prosperous future. CALSTART accelerates the pace of technology and is a market building organization.

The transportation sector remains the largest contributor of U.S. greenhouse gas emissions. However, US innovation has provided significant advancements in innovative, cost-effective emissions-reducing and clean transportation technologies. Now the US needs science-based policies that encourage adoption of these technologies that will drive global leadership, continue to encourage US innovation, and make significant strides towards the nation’s clear air goals.

Since the OAR is responsible for administering the Clean Air Act and leading critical programs to address pollution from vehicles, it demands strong leadership that Joe Goffman can provide. As assistant administrator of EPA’s OAR, Joe will base his decisions in law and science, and carry out the President’s vision for clean transportation and an overall stronger and cleaner economy.

Consequently, CALSTART expresses strong support for Joe Goffman on behalf of our broad spectrum of clean transportation members. CALSTART urges the committee to advance Goffman’s nomination.

Respectfully,

Jessica Olson  
Vice President, Policy  
CALSTART

**Clean Transportation  
Technologies and Solutions**

[www.calstart.org](http://www.calstart.org)

Board of Directors

**Mr. John Boesel**  
CALSTART

**Ms. Dawn Fenton**  
Volvo Group North America

**Mr. Yuri Freedman**  
Southern California Gas  
Company

**Ms. Karen Hamberg**  
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Navistar, Inc.

**Ms. Chelle Izzi**  
NextEra Energy

**Ms. Colleen Jansen**  
ChargePoint

**Ms. Katie Sloan**  
Southern California Edison

**Mr. Chris Stoddart**  
New Flyer of America

**Mr. Stephen Trichka**  
BAE Systems

**Ms. Cynthia Williams**  
Ford Motor Company

**Mr. Bob Wyman**  
Latham and Watkins

OFFICES IN :

48 S. Chester Ave PASADENA, CA 91106 | 1607 Cole Blvd. LAKEWOOD, CO 80401 | 67 36<sup>th</sup> St. 5<sup>th</sup> floor Ste B508 BROOKLYN, NY 11232 |  
2600 Tenth Street, Suite 407, BERKELEY, CA 94710 | 200 E. Big Beaver TROY, MI 48063 | 168 Smolian Circle, SANTA ROSA BEACH, FL 32459



Edison Electric  
INSTITUTE

Thomas R. Kuhn  
President

May 5, 2022

The Honorable Thomas R. Carper  
Chairman, Committee on Environment & Public Works  
United States Senate  
Washington, D.C. 20510

The Honorable Shelley Moore-Capito  
Ranking Member, Committee on Environment & Public Works  
United States Senate  
Washington, D.C. 20510

Dear Chairman Carper and Ranking Member Moore-Capito:

The Edison Electric Institute (EEI) and our member companies—America's investor-owned electric companies—support the nomination of the Honorable Joseph Goffman to be the next Assistant Administrator of the U.S. Environmental Protection Agency's (EPA) Office of Air and Radiation (OAR).

Mr. Goffman has a tremendous amount of experience in leading a team dedicated to protecting public health and the environment. He also has a strong commitment to public service and engaging with diverse stakeholders, including industry, as demonstrated by his decades of service in Congress and EPA's Office of Air and Radiation.

EEI's member companies are leaders on clean energy, and carbon emissions from the U.S. power sector are nearly 40 percent below 2005 levels. We are committed to getting the energy we provide as clean as we can as fast as we can, without compromising on the reliability and the affordability that our customers value. Upon his confirmation, we look forward to working with Mr. Goffman on clean energy, climate, environmental justice and just transition issues.

It is important to us that we lead on clean energy in a way that gives us all the options, including making sure that we maintain existing nuclear and that we are still able to use natural gas to help achieve our clean energy targets. Wind, solar, and energy storage can get us much of the way to a carbon-free future. Using an energy mix that includes nuclear and natural gas will help us get there faster and more reliably.

EEI and our member companies also are committed to working with Mr. Goffman and other leaders across the Biden Administration to build the critical energy grid infrastructure we need to deliver affordable, reliable, and resilient clean energy to our customers.

With the right policies and the right technologies, a 100 percent clean energy future can be more than a goal. It can be a reality for all Americans. Confirming Mr. Goffman as EPA's Assistant Administrator of OAR is an important step forward, and we encourage you to act without delay.

Sincerely,

Thomas R. Kuhn

202-508-5555 | [tkuhn@eei.org](mailto:tkuhn@eei.org)

701 Pennsylvania Avenue, NW | Washington, DC 20004-2696 | [www.eei.org](http://www.eei.org)

May 23, 2022

The Honorable Thomas R. Carper  
United States Senate  
513 Hart Senate Office Building  
Washington, DC 20510

The Honorable Shelley Moore Capito  
United States Senate  
172 Russell Senate Office Building  
Washington, DC 20510

Dear Senators Carper and Capito,

The Energy Strategy Coalition supports President Biden's nomination of Joseph Goffman as Assistant Administrator for the Office of Air and Radiation, Environmental Protection Agency. Mr. Goffman has a pragmatic approach to environmental policy development and a long history of meaningful stakeholder engagement.

The Energy Strategy Coalition is a coalition of electric generating and electric and natural gas distribution companies with a shared commitment to responsible environmental stewardship. We manage fossil fuel, nuclear, hydropower, solar, wind, and other renewable generation as well as electricity and natural gas transmission and distribution systems across the United States. We reflect the diversity of business models in the U.S. power and utility sectors, including investor-owned utilities, independent power producers, and public power companies.

EPA is considering a number of regulatory actions to address air and greenhouse gas emissions in the U.S., many of which will affect the energy sector. Mr. Goffman's experience working with stakeholders, his understanding of the regulatory landscape, and his deep experience and knowledge of air regulation and the regulated sectors, make him an excellent candidate for this role. The Energy Strategy Coalition has long worked to be a constructive and active stakeholder in EPA rulemakings, and we look forward to continued engagement with Mr. Goffman in this new role as he and his staff advance practical environmental policies for the energy sector.

Sincerely,

Austin Energy

Calpine Corporation

Constellation Energy Corporation

Exelon Corporation

Los Angeles Department of Water & Power

National Grid

PG&E Corporation

Seattle City Light

Sacramento Municipal Utility District

May 20, 2022

The Honorable Thomas Carper  
Chairman, Committee on the Environment and Public Works  
United States Senate  
Washington D.C. 20510

The Honorable Shelley Moore Capito  
Ranking Member, Committee on the Environment and Public Works  
United States Senate  
Washington D.C. 20510

Re: Letter of Support for Joe Goffman

Dear Chairman Carper and Ranking Member Capito:

Evergreen Action is pleased to submit this letter of strong support for Joseph Goffman to serve as the Assistant Administrator for the Office of Air and Radiation (OAR) at the Environmental Protection Agency (EPA). Everyone deserves clean air, but millions of Americans still suffer from exposure to toxic pollution that leads to hundreds of thousands of premature deaths each year. OAR has the great responsibility of administering the *Clean Air Act* (CAA), a law that has successfully reduced major air pollutants in the U.S. since 1970, and is thus vital to fulfilling the EPA's mission to protect the public and our environment from pollution. OAR clearly demands strong leadership and exceptional character. For those reasons, we believe Joe Goffman is the right person to lead this important office.

Mr. Goffman has extensive experience working to deliver on the promise of a healthy environment for all Americans, and he understands the urgency of the climate crisis. As a former professional staff member on the Senate Environment and Public Works Committee and current Principal Deputy Assistant Administrator of EPA's OAR, Joe has shown he is not just extremely qualified, but a life-long public servant dedicated to a stronger and cleaner economy and advancing environmental justice.

We urge this committee to swiftly confirm Joe Goffman to lead the U.S. Environmental Protection Agency's Office of Air and Radiation.

Sincerely,

Evergreen Action



701 9<sup>TH</sup> ST, NW  
WASHINGTON, DC 20068

May 20, 2022

The Honorable Thomas R. Carper  
United States Senate  
513 Hart Senate Office Building  
Washington, DC 20510

The Honorable Shelley Moore Capito  
United States Senate  
172 Russell Senate Office Building  
Washington, DC 20510

Dear Chair Carper and Ranking Member Capito,

My name is Melissa Lavinson, Senior Vice President Federal Governmental & Regulatory Affairs and Public Policy for Exelon Corporation. Exelon is the largest regulated transmission and distribution utility in the country, providing 10.5 million customers across Delaware, Illinois, Maryland, New Jersey, Pennsylvania, and the District of Columbia with safe, affordable, reliable, and clean energy. Given the breadth and scope of our interests, Exelon has been an active participant in rulemakings at the Environmental Protection Agency (EPA) and engaged in public policy matters related to air both at EPA and in Congress.

Throughout my career in the utility industry, I have had the opportunity to work with Joseph Goffman in myriad capacities, including as a public servant both working in the Senate and subsequently at the EPA. Mr. Goffman has a solutions-oriented approach to policy development, recognizing the importance of understanding the perspectives of and impacts on various constituencies and stakeholders. It is this approach to policy development and implementation, coupled with Mr. Goffman's demonstrated experience working on regulatory and legislative matters and depth of knowledge of air regulation, that make him an excellent candidate to be Assistant Administrator for the Office of Air and Radiation, EPA.

Respectfully,

A handwritten signature in cursive script, appearing to read "Melissa Lavinson".

Melissa Lavinson

Senior Vice President, Federal  
Governmental & Regulatory Affairs and  
Public Policy  
Exelon Corporation  
melissa.lavinson@exeloncorp.com



May 25, 2022

The Honorable Thomas Carper  
Chairman  
Committee on Environment and Public Works  
United States Senate  
Washington, DC 20510

The Honorable Shelley Moore Capito  
Ranking Member  
Committee on Environment and Public Works  
United States Senate  
Washington, DC 20510

Dear Chairman Carper and Ranking Member Moore:

Constellation Energy Corporation respectfully writes today to express our support for the confirmation of Mr. Joseph Goffman as the next Assistant Administrator of the Environmental Protection Agency (EPA) for the Office of Air and Radiation (OAR).

The role of OAR Assistant Administrator is vital for ensuring that the air we breathe is clean and for implementing the President's commitments to reduce greenhouse gas emissions.

Mr. Goffman is an outstanding candidate for this position, having worked as a senior attorney at Environmental Defense (formerly known as the Environmental Defense Fund) where he managed the climate and air quality program, as Associate Counsel on your committee where he was responsible for the development of Title IV of the bipartisan Clean Air Act Amendments of 1990, and as Special Assistant and Acting Section Chief at EPA where he oversaw the development of the cost-effective and highly successful proposed rules governing the trading of sulfur dioxide emissions allowances under Title IV.

Constellation supports aggressive regulation of carbon dioxide and air pollution to protect the health and safety of all Americans and to demonstrate leadership in addressing the climate crisis. Over the last twenty years, we have dramatically reduced the carbon intensity of our generation fleet and have offered sustainable solutions to our customers while assuring that electricity in the United States remains affordable and reliable. Today, we provide 10 percent of the emission-free power in the United States and almost 90 percent of the energy we produce is emission-free, far more than our nearest competitors. We believe EPA needs an OAR leader who will use the full authority of the agency to ensure all power generators achieve similar emission reductions and ensure market signals are created to drive innovation in emission-free technologies that are cost-effective and available when customers need power.

There is no question that Mr. Goffman is well-qualified. But he is also the right person for the job at this pivotal moment. We strongly urge you to support his nomination and to confirm him as the next Assistant Administrator for OAR.

Sincerely yours,

Kathleen Barrón  
Executive Vice President and Chief Strategy Officer



May 17, 2022

The Honorable Thomas R. Carper  
 Chairman  
 Committee on Environment & Public Works  
 United States Senate  
 Washington, D.C. 20510

The Honorable Shelley Moore Capito  
 Ranking Member  
 Committee on Environment & Public Works  
 United States Senate  
 Washington, D.C. 20510

Dear Chairman Carper and Ranking Member Capito,

On behalf of the Renewable Fuels Association (RFA), I write today to express our strong support for the swift confirmation of Joseph Goffman to serve as Assistant Administrator for Air and Radiation at the U.S. Environmental Protection Agency (EPA). Mr. Goffman is eminently qualified to serve the public in this position.

RFA is the leading national trade organization representing producers and supporters of low-carbon ethanol. Our member companies are key stakeholders in a number of important regulatory programs administered by EPA's Office of Air and Radiation (OAR), including the Renewable Fuel Standard (RFS), light-duty vehicle GHG emissions standards, fuel and emissions standards for mobile and stationary sources, and others.

RFA's members and staff have had several opportunities to interact with Mr. Goffman in his current capacity as Principal Deputy Assistant Administrator at OAR. We have found him to be accessible, thoughtful, pragmatic, and highly knowledgeable on the Clean Air Act and other statutory programs designed to protect human health and the environment. Mr. Goffman has earned the respect and trust of a diverse array of stakeholders and is willing to listen to differing viewpoints on complicated policy and regulatory matters.

While we may not always agree with every decision made by OAR, we are confident that Mr. Goffman will continue to perform his duties in an open and transparent manner guided by science and the law. Based on our interactions with Mr. Goffman, it is clear to us that his ultimate priority is serving the best interests of the public and protecting our nation's air resources.

We look forward to working with both Mr. Goffman and this Committee to continue advancing the production and use of low-carbon renewable fuels, which improve our nation's environmental quality and energy security. Please do not hesitate to contact me with any questions.

Sincerely,

A handwritten signature in black ink that reads "Geoff Cooper". The signature is written in a cursive, flowing style.

Geoff Cooper  
 President & CEO



May 25, 2022

The Honorable Thomas R. Carper  
Chairman  
United States Senate  
Committee on Environment and Public Works  
410 Dirksen Senate Office Building  
Washington DC 20510

The Honorable Shelly Moore Capito  
Ranking Member  
United States Senate  
Committee on Environment and Public Works  
456 Dirksen Senate Office Building  
Washington DC 20510

RE: Hearing on the Nomination of Joseph Goffman to be Assistant Administrator for the Office of Air and Radiation, at the Environmental Protection Agency.

Dear Senators Carper and Capito:

As a diverse set of stakeholders dedicated to reducing carbon and increasing resiliency in our respective industries, we wholeheartedly support the nomination of Joseph Goffman to be the Assistant Administrator for the Office of Air and Radiation at the U.S. Environmental Protection Agency (EPA) and applaud the Senate Environment and Public Works Committee for considering the nomination.

With approximately 25% of the U.S. transportation sector's greenhouse gas (GHG) emissions coming from mid- and heavy-duty vehicles, aircraft, and marine vessels, the creation of commercial, low-carbon fuel opportunities is of vital importance to our nation's environment and to transportation industries. Our companies and organizations are committed to reducing these emissions and decreasing carbon from our individual sectors, and a critical component of our success will be close collaboration with the EPA.

Joseph Goffman is a proven thought leader who has deep technical knowledge and willingness to work with stakeholders. He is committed to our collective quest to become a low-carbon nation, and in the role of Assistant Administrator we believe he will effectively utilize federal policies already in place to help reduce GHG emissions from the transportation sector.

As stakeholders, we stand ready to collaborate with Congress and the EPA to ensure we meet our shared carbon-reduction goals. Senators Carper and Capito, we thank you for your continued leadership on these issues and appreciate your consideration of Joseph Goffman at EPA.

Sincerely,

Advanced Biofuels Association  
Alder Fuels  
Coalition for Renewable Natural Gas  
EcoEngineers  
Gevo

Low Carbon Fuels Coalition  
National Air Transportation Association  
Oberon Fuels  
World Energy



May 20, 2022

The Honorable Thomas Carper  
 Chairman, Committee on the Environment and Public Works  
 United States Senate  
 Washington D.C. 20510

The Honorable Shelley Moore Capito  
 Ranking Member, Committee on the Environment and Public Works  
 United States Senate  
 Washington D.C. 20510

Dear Chairman Carper and Ranking Member Capito:

WE ACT for Environmental Justice, in partnership with members of the Environmental Justice Leadership Forum, are writing to provide our support for Mr. Joseph (Joe) Goffman to serve as Assistant Administrator of the Office of Air and Radiation within the U.S. Environmental Protection Agency (EPA).

The transportation and power sectors are the largest contributors to air pollution in the United States. Vehicles, including cars, trucks, public transit and school buses, produce 87 percent of the carbon (CO<sub>2</sub>); 55 percent of the nitrogen oxides (NO<sub>x</sub>); and 10 percent of the volatile organic compounds (VOCs) that contribute to climate change, poor air quality, and adverse health effects in communities across the U.S. In 2021, emissions of carbon dioxide (CO<sub>2</sub>) from coal, gas, petroleum and other segments of the power sector were 32% of total U.S. energy-related CO<sub>2</sub> emissions. Americans living in communities of color have a racially disproportionate exposure to these toxins because of institutionalized bias in environmental, energy, land use, and economic decision-making at every level of government.

Last year, researchers at the University of Illinois at Urbana-Champaign found that African Americans have a higher than average exposure to particulate matter from every pollution emitting source studied, including cars, trucks, power plants, construction, industrial operations, and agriculture. This outsized and dangerous exposure was repeated in nearly all categories when researchers grouped Black, Hispanic and Asians into a "people of color" category and compared the risk to whites. People in our communities live, work, play and pray in conditions that can only be described as environmental and climate emergencies. Every facet of our existence, including our health and economic conditions, demands ambitious and clear protections that will alleviate the adverse impacts of pollution - and that starts with ensuring key positions within the EPA have confirmed staff.



Joe Goffman has served in several areas of government, including the EPA and Congressional offices and committees, and in academia. He has a demonstrated understanding of the range of indoor and outdoor air pollution issues that harm our communities. It is important for the rulemaking and program work in the power and transportation sectors that he has been leading in his role as Principal Deputy Assistant Administrator of OAR to continue at a time when overburdened communities are calling for the EPA to address the cumulative impact of exposure to CO<sub>2</sub>, ground-level ozone, NO<sub>x</sub>, particulate matter, methane, and sulfur dioxide and to strengthen its enforcement practices. The momentum must continue!

We all deserve access to clean air and the experience of innovative approaches to solving the climate crisis. We all deserve the assurance of equity and justice in the design and application of our environmental protections. We all deserve to live in an environment that is treated with the respect and sacredness it deserves. We all deserve to have a fully staffed and functioning federal government. Joe Goffman is committed to the EPA mission to protect human health and the environment. We urge the Senate Environment and Public Works committee to advance his nomination as soon as possible, and call for a full Senate vote to occur immediately after.

Respectfully,

Alaska Community Action on Toxics - Alaska  
 Coalition of Community Organizations - Texas  
 Connecticut Coalition for Economic and Environmental Justice - Connecticut  
 Deep South Center for Environmental Justice - Louisiana  
 Duwamish River Cleanup Coalition - Washington  
 East Michigan Environmental Action Council - Michigan  
 Green Door Initiative - Michigan  
 North Carolina Climate Justice Collective - North Carolina  
 People for Community Recovery - Illinois  
 South Bronx Unite - New York  
 Tallahassee Food Network, Inc. - Florida  
 t.e.j.a.s. - Texas  
 WE ACT for Environmental Justice - New York  
 West End Revitalization Association - North Carolina

CC: Senate Majority Leader Charles Schumer



May 16, 2022

Dear Senator:

Since 1919, the National Parks Conservation Association (NPCA) has been the leading voice of the American people in protecting and enhancing our National Park System. On behalf of our more than 1.6 million members and supporters nationwide, we strongly urge you to support the nomination of Joseph Goffman as head of the U.S. Environmental Protection Agency's Office of Air and Radiation (OAR).

Our national parks are symbols of healthy wild spaces, clear views, conservation, historic preservation and our shared heritage. NPCA works towards clean air, a healthy climate and protections for cultural resources, wildlife and waters and we believe the highest level of protections must be afforded to these incredible places. We strongly support the Biden-Harris Administration in addressing climate change head-on, prioritizing frontline communities and environmental injustices, and advancing policies that safeguard the natural and cultural resources that make our parks world-renowned.

Joseph Goffman is an eminently qualified candidate to lead EPA's air office. He has decades of legal experience in environmental policymaking and a strong history of working across stakeholders to advance critical climate and air pollution reduction initiatives. As acting head of OAR, Goffman has taken important actions in support of robust implementation of the Regional Haze Rule, the pivotal Clean Air Act program designed to restore clear and clean skies 156 iconic national parks and wilderness areas.

Goffman has also prioritized the reconsideration of critical air rules, including the National Ambient Air Quality Standards for particulate matter and ozone, regulation of methane and volatile organic compounds from the oil and gas sector, and greenhouse gas standard for cars and trucks. These efforts stand to greatly improve air quality and cut climate pollution, which in turn benefit the health of our national parks as they face the serious impacts of climate change and dirty air.

During his time as Associate Assistant Administrator for Climate and Senior Counsel with EPA's Office of Air and Radiation, Goffman also played a key role in ensuring compliance with the round 1 of state haze plans. This work reduced 1.4 million tons of visibility-impairing pollution that marred the views in our national parks and wilderness areas. He was also instrumental in developing the power plant and oil and gas sector rules aimed at significantly cutting greenhouse gas emissions.

Our national parks are suffering from the climate crisis. These special places represent some of our most extreme and fragile ecosystems and hold irreplaceable cultural and historical artifacts. National parks also suffer from significant air pollution that muddies park skies, degrades ecosystems and harms people's health, particularly in the predominantly Black, Hispanic, Indigenous and poor

Headquarters  
777 6<sup>th</sup> Street, NW, Suite 700  
Washington, DC 20001  
P 202.NAT.PARK | 800.628.7275

[NPCA.org](https://www.npca.org)

communities adjacent to polluting facilities. We need leadership at EPA who will guide and enact policies that address greenhouse gas, toxic and criteria pollution, and environmental injustices that will also benefit the health of our national parks.

Our National Park System protects our nation's natural and cultural history and resources and binds Americans together. These places unify us as a people. It is America's legacy to future generations and to the world. But this story is still incomplete, and the chapters to be written must be done with the utmost care, prioritizing the well-being of all people and our planet.

Please support Joseph Goffman as head of EPA's Office of Air and Radiation. For more information, please do not hesitate to contact Chad Lord with our government affairs at [clord@npca.org](mailto:clord@npca.org).

Sincerely,



Theresa Pierno  
President & CEO

Thursday, May 19, 2022

ENDORSEMENT OF JOSEPH GOFFMAN  
TO LEAD THE OFFICE OF AIR AND RADIATION (OAR)  
FOR THE U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA)

We, the undersigned business organizations and individuals, all endorse President Joe Biden's nomination of Joseph Goffman to serve as Assistant Administrator for the U.S. Environmental Protection Agency's Office of Air and Radiation (OAR).

Mr. Goffman had years of experience serving as Associate Assistant Administrator for Climate and Senior Counsel to the Assistant Administrator of EPA's OAR, where he played a key role in developing a range of pollution control rules under the Clean Air Act. He also served as Democratic Chief Counsel to the U.S. Senate Environment and Public Works Committee, focusing on key provisions of the Clean Air Act Amendments of 1990, including Title IV, which pioneered the use of an innovative cap-and-trade market mechanism to reduce acid rain pollutants. Mr. Goffman's public service record makes him not just a stellar candidate for this office, but the best candidate.

Joe Goffman is exceptionally well qualified for this important job. While we don't always see eye-to-eye with him on every policy issue, we have been able to see him, talk with him, and have a dialogue with him and his team; he always has been transparent and accessible to all stakeholders.

We endorse his candidacy and urge the Senate to act promptly on his nomination.

Signed,

Commodity Markets Council  
Construction Industry RoundTable  
The Fertilizer Institute  
Institute of Scrap Recycling Industries  
International Safety Equipment Association  
Manufacturers Alliance  
National Asphalt Pavement Association  
Society of Chemical Manufacturers and Affiliates

*and*

Maura Valis, Executive Director, Manufacturing Action Council  
Wayne Valis, Founder, Trade Association Leadership Council

CONTACT: Maura Valis, 202-880-2456, [mvalis@wvalisllc.com](mailto:mvalis@wvalisllc.com)

WSJ | OPINION

## Biden’s ‘BackDoor’ Climate Plan Emails reveal the strategy behind the new regulation to come.

By [The Editorial Board](#)

Follow

March 17, 2021 6:32 pm ET



The Environmental Protection Agency building

PHOTO: PABLO MARTINEZ MONSIVAIS/ASSOCIATED PRESS

President Biden wants Congress to pass climate legislation, but that faces political obstacles. No worries—state Democratic Attorneys General are conspiring with green groups on a regulatory Plan B.

Climate activists have long sought to force CO<sub>2</sub> emissions reductions under the Clean Air Act, but this has been tricky. The Supreme Court in *Massachusetts v. EPA* (2007) ruled that the law’s general definition of “pollutant” covered greenhouse gases. But the Court didn’t tell the EPA how it should regulate CO<sub>2</sub> under the law.

*Massachusetts v. EPA* set the ground for the Obama EPA’s “endangerment finding” in 2009 declaring that greenhouse gases are a threat to public health and welfare. Green groups then petitioned the Obama EPA to list CO<sub>2</sub> as a “criteria pollutant” and set National Air Ambient Quality Standards (NAAQS).

The EPA dictates air quality standards for six “criteria pollutants” known to directly harm human health: nitrogen dioxide, sulfur dioxide, lead, carbon monoxide, ozone and

particulate matter. States must craft plans to meet the EPA standards if they are out of compliance.

But unlike the six criteria pollutants, CO2 doesn't cause asthma or other diseases, and CO2 emissions generated locally can't be reliably measured. CO2 can also persist in the atmosphere for centuries, but the Clean Air Act requires the EPA to set deadlines for states to meet their primary NAAQS for criteria pollutants within 10 years.

In other words, it's technically infeasible and legally questionable to regulate CO2 as a criteria pollutant. Obama EPA Administrator Lisa Jackson described the idea as not "advisable" and shelved it. The Obama EPA instead tried to force states to reduce CO2 power plant emissions via its Clean Power Plan, which was blocked by the Supreme Court.

CO2 emissions from electricity in the U.S. have nonetheless continued to fall as natural gas and subsidized renewables replace coal. But the climate lobby isn't satisfied and wants to force states to reduce emissions from all sources including industry, transportation, farms and homes.

\*\*\*

Enter Joe Goffman, a former Obama EPA official who is now responsible for NAAQS as principal deputy assistant administrator of the Office of Air and Radiation. Mr. Goffman was a chief architect of the Clean Power Plan, and a 2014 article from E&E News described him as the "U.S. EPA's law whisperer. His specialty is teaching an old law to do new tricks."

Tricks indeed. Emails obtained by Chris Horner at Energy Policy Advocates, which were shared with us, show Democratic AGs in 2019 consulted Mr. Goffman, then at Harvard Law School, on using the NAAQS to regulate CO2. Mr. Goffman connected the AGs to former EPA officials and environmental attorneys. As his new EPA profile slyly explains, Mr. Goffman at Harvard "led a team of attorneys and communications specialists providing information and analysis to stakeholders, government decision makers and the media."

Consultants referred by Mr. Goffman told the AGs that regulating CO2 as a criteria pollutant wouldn't fly. But they proposed using ozone NAAQS as what one called a "backdoor." Fossil fuel combustion, motor vehicle exhaust and industrial emissions contribute to ozone. So the EPA could make states reduce CO2 emissions by tightening ozone standards. States might have to outlaw natural gas-powered appliances, gas stations and internal combustion engines to meet stricter ozone standards.

Any climate legislation Congress enacts will no doubt contain a potpourri of green energy subsidies, but Democrats won't be able to use budget reconciliation to banish fossil fuels. As former EPA official John Bachmann wrote in an email to New York's Office of Attorney General, "New legislation requiring specific actions would be much better than NAAQS, and yet I'm mindful of the obvious problem of how to get such legislation even with a new administration." Other climate consultants agreed.

\*\*\*

Mr. Goffman was included in some email and phone discussions and is now in position to execute their plan at the Biden EPA. Sixteen Democratic AGs on Jan. 19—a day before Mr. Biden's inauguration—challenged the EPA's current ozone NAAQS. Their one paragraph lawsuit says the standards are "unlawful, arbitrary and capricious and therefore must be vacated."

Their aim is to hasten a replacement ozone rule that regulates CO<sub>2</sub>. The Obama EPA often entered into legal settlements with third-parties to bypass procedural requirements of the Administrative Procedure Act and impose extralegal regulations. Acting EPA Administrator Jane Nishida showed the Biden team's cards on March 4 by notifying the Center for Biological Diversity and 350.org that the agency plans to reconsider "the important issues" in its 2009 petition to regulate CO<sub>2</sub> under NAAQS.

To sum up, Democratic AGs, green groups and a top Biden environmental regulator are colluding on a plan to impose the Green New Deal on states through a back regulatory door because they know they can't pass it through the front in Congress.

*Appeared in the March 18, 2021, print edition as 'Biden's 'BackDoor' Climate Plan'.*

Senator CARPER. Senators are going to be allowed to submit written questions for the record by 4 p.m. on Monday, March 6th.

We will compile those questions, submit them to you, Mr. Goffman, and will ask you to reply by Monday, March 13th.

Before I adjourn the hearing I just have to say something. I am the last Vietnam veteran serving in the U.S. Senate. One of the people who served in Southeast Asia in the Vietnam war at the same time that I did, I was in the P3 aircraft, mission commander, and we were flying low level missions off the coast of Vietnam and Cambodia to interdict and infiltrate trawlers trying to come in and resupply the Viet Cong. We would track them into the coast, and we would turn them over, those trawlers, interdicting, we would turn them over to swift boats.

One of those swift boat commanders was John Kerry, who was highly decorated for his role and heroism in that war. Later, along with John McCain and I, the two of them led the effort in the Senate, along with me and a group of bipartisan Congressmen, we worked with the Vietnamese government and the Bush administration, George Herbert Walker Bush, to normalize relations with Vietnam. We literally served in a war with Vietnam and later on, years later, in a bipartisan way for a Republican President, worked to normalize relations.

Today, Vietnam and the United States enjoy some of the closest relations, not just trade relations, but actually defense related relations, standing up to China and their effort to expand their influence in that part of the world.

For his efforts in the Vietnam war and I think for his service here in the United States, when John Kerry was nominated to be Secretary of State, he was actually confirmed. He wasn't narrowly confirmed, he was confirmed by a vote of 94 to 3 in 2013.

With that, this hearing is adjourned.

[Whereupon, at 12:11 p.m., the hearing was adjourned.]

[Additional material submitted for the record follows:]



JULY 11, 2022

## **ICYMI: CAPITO: JOE GOFFMAN IS THE WRONG CHOICE TO LEAD EPA'S AIR OFFICE**

**WASHINGTON, D.C.** – In an op-ed for *The Wheeling Intelligencer*, U.S. Senator Shelley Moore Capito (R-W.Va.), Ranking Member of the Senate Environment and Public Works (EPW) Committee, discussed her opposition to President Joe Biden's nominee to lead the U.S. Environmental Protection Agency (EPA)'s Office of Air and Radiation, Joe Goffman.

“Throughout the Obama administration, Joe Goffman made a name for himself writing some of the most overreaching and costly air regulations ever, including the illegal Clean Power Plan. This is the same Clean Power Plan that sought to eliminate coal-powered electricity before the Supreme Court stopped the regulation from going into effect. Even after the Supreme Court's slap on EPA's wrist, Joe Goffman remained one of the Clean Power Plan's staunchest supporters,” **Ranking Member Capito wrote.**

“Joe Goffman has a proven track record of disregarding Congress and the law. He has led the creation of sweeping regulations and shown no regret when citizens and the courts point out the overreach. If the Senate were to confirm him as an assistant administrator, that decision will lead us to regulations worse than the ones he authored in the past,” **Ranking Member Capito continued.**

**The full op-ed is available [here](#) and below.**

**Joe Goffman the Wrong Choice to Help Lead EPA**

By: U.S. Senator Shelley Moore Capito (R-W.Va.)

*The Wheeling Intelligencer*

July 9, 2022

For too long, bureaucrats in Washington, D.C. have ignored West Virginians while they make decisions that fundamentally reshaped our state's economy and everyday way of life. As a candidate, President Biden promised that he would be a "President for All Americans." I had hoped that President Biden would stay true to his word and steer us away from that harmful past. A year and a half into this administration, it is clear the president instead wants to double down on a devastating regulatory onslaught, prescribed by bureaucrats who "know what is best" at the expense of West Virginians.

Currently, the EPW Committee, where I serve as the top Republican, is considering the nomination of former Obama-era Environmental Protection Agency official Joe Goffman to serve as an assistant administrator for EPA.

President Biden's nomination of Joe Goffman as the EPA chief air regulator shows that he wants to repeat the Obama administration's devastating War on Coal and reshape our economy through regulatory overreach.

President Biden waited a historic 412 days to nominate Joe Goffman for the position as head of the EPA's Office of Air and Radiation — longer than any other incoming president since the position was created.

Yet in the end, President Biden chose a man who has been serving as the temporary leader of the office since day one of this administration, and served in that same office for all eight years of the Obama administration. That means Mr. Goffman has had a hand in every significant and overreaching air and climate regulation issued by the Obama administration and the Biden administration so far.

Throughout the Obama administration, Goffman made a name for himself writing some of the most overreaching and costly air regulations ever including the illegal Clean Power Plan. Known for his specialty of "teaching old laws to do new tricks," Mr. Goffman and his Obama EPA colleagues tried to abuse their limited powers under the Clean Air Act

to eliminate coal-generated electricity. The Supreme Court prevented that attempted EPA power grab from going into effect in 2016. Even after the Supreme Court's 2016 slap on EPA's wrist, Joe Goffman remained one of the Clean Power Plan's staunchest supporters. In 2019, Mr. Goffman said that he believed "success was the Clean Power Plan."

Just last week, the Supreme Court struck down the Clean Power Plan once and for all. The court recognized it is Congress's job to write the law, and the administration's to faithfully execute the law as written. Bureaucrats like Mr. Goffman do not get to "teach" laws to perform new tricks. EPA does not have the authority to wage a war against coal and natural gas and restructure our energy sector. The people — represented through their elected members of Congress — determine what is best for the country on such economically and politically significant issues.

Given his past record, we all know what EPA will continue to do if he is confirmed: Claim success when it hurts energy-producing states like West Virginia and misapply the law.

This time, EPA has not only the mining and power sectors, but also manufacturing industries in its sights.

In April, EPA published a so-called "good neighbor" proposal to impose regulations on steel, concrete, and other critical manufacturing sectors, as well as more regulations on power plants. Regional grid operators have warned the proposal threatens grid reliability. By EPA's own analysis, this proposal will drive up West Virginians' electricity prices 5% by 2025.

That proposal is just one in a series of regulations EPA has announced that target the industries that keep our lights on, build our roads, and power our economy.

Joe Goffman has a proven track record of disregarding Congress and the law. He has led the creation of sweeping regulations and shown no regret when citizens and the courts point out the overreach. If the Senate were to confirm him as an assistant administrator, that decision will lead us to regulations worse than the ones he authored in the past.

I will not support Joe Goffman's nomination, and I urge my colleagues in the Senate to oppose him as well. The president should nominate individuals who start listening to West Virginians who have been repeatedly left behind by Washington, D.C. and bureaucrats like Joe Goffman.

---

*Sen. Shelley Moore Capito, R-W.Va., serves on the following Senate committees: Appropriations, Environment and Public Works, Commerce, Science, & Transportation, and Rules and Administration.*  
###

Washington, DC  
26<sup>th</sup> July 2022

**A Coalition Letter Opposing the Confirmation of Joseph Goffman  
as EPA's Assistant Administrator for Air and Radiation**

Dear Chairman Carper, Ranking Member Capito, and Members of the Senate  
Committee on Environment and Public Works:

The undersigned organizations and individuals write to express and explain our  
opposition to the confirmation of Joseph Goffman as Assistant Administrator for Air  
and Radiation in the Environmental Protection Agency.

Mr. Goffman served in the EPA's Air and Radiation Office during the Obama  
administration as Senior Counsel 2009-17 and in addition as Associate Assistant  
Administrator for Climate 2013-17. During that time he was a participant in, and often  
the key architect of, a number of highly controversial, legally suspect, and economically  
damaging Clean Air Act rules and decisions, including the 2009 Endangerment Finding,  
the 2010 and 2012 greenhouse gas emissions rule for cars and light trucks and  
associated 2009 California waiver, the 2011 Mercury and Air Toxins Standards Rule  
(MATS Rule), the 2011 Cross-State Air Pollution Rule, the 2015 "Clean Power" Plan  
(CPP), and the replacement of an unprecedented number of State Implementation Plans  
under the Regional Haze Rule with more expensive Federal Implementation Plans. As  
Principal Deputy Assistant Administrator in the Biden administration, Mr. Goffman has  
revived and advanced many of the problematic decisions he helped make in the Obama  
administration.

The MATS Rule, for example, forced electric utilities to close hundreds of coal-fired  
power plants and indirectly devastated the coal mining industry and destroyed  
thousands of mining jobs. The EPA's own estimates at the time found that the costs  
would outweigh the direct benefits by between 1600 to 1 and 2400 to 1. The alleged  
collateral benefits of billions of dollars used to justify the rule are highly dubious at  
best. Mr. Goffman was a key player in developing this economically disastrous rule.

Mr. Goffman was also a key player in writing the "Clean Power" Plan. In 2016, the  
Supreme Court imposed an unprecedented stay in implementing the rule because of its  
dubious legality; and on 30<sup>th</sup> June 2022, the Supreme Court in a 6 to 3 decision ruled  
emphatically that the CPP exceeded the EPA's authority under the Clean Air Act.

Between the Obama and Biden administrations, Mr. Goffman served as executive director of the Environmental Law Program at the Harvard University Law School. A profile published in Harvard Law Today on 2<sup>nd</sup> October 2017 approvingly repeated a description of Mr. Goffman as a “law whisperer” because “his specialty is teaching an old law to do new tricks.”

E-mails and other documents produced by federal and state freedom of information requests have revealed that Mr. Goffman continued as a law whisperer at Harvard Law, where he worked with a number of State Attorneys General to file suit to require the EPA to set a secondary National Ambient Air Quality Standard for ozone that would target the causes of climate change—that is, greenhouse gas emissions—on the grounds that climate change will raise ozone levels. Incredibly, despite Mr. Goffman’s leadership in concocting this scheme, he has been in charge of the EPA’s response to the suit (State of NY et al. v EPA), which could result in a “sue-and-settle” agreement.

It is not surprising that President Biden nominated Mr. Goffman to head the EPA’s Office of Air and Radiation. The Biden administration is trying to achieve its climate and anti-energy agenda primarily through gross administrative over-reach, and Mr. Goffman has proven to be a master of administrative over-reach. We oppose his confirmation for this very reason. His regulatory decisions in the Obama EPA have done tens, and arguably hundreds, of billions of dollars of economic damage. The EPA’s Office of Air and Radiation should not be headed by an expert in stretching and twisting the Clean Air Act in ways that expand regulatory authority at the expense of American taxpayers, workers, and consumers.

Sincerely,

Myron Ebell  
Director, Center for Energy and Environment  
Competitive Enterprise Institute

Garrett Bess  
Vice President  
Heritage Action for America

James L. Martin, Founder/Chairman  
and Saulius “Saul” Anuzis, President  
60 Plus Association

Adam Brandon  
President  
FreedomWorks

James Taylor  
President  
The Heartland Institute

Craig Rucker  
President  
Committee For A Constructive Tomorrow (CFACT)

Craig Richardson  
Title: President  
Energy & Environment Legal Institute

Steve Milloy  
Founder and Publisher  
JunkScience.com

Steven J. Allen  
Vice Chairman  
The Conservative Caucus

Daniel Turner  
Executive Director  
Power The Future

Rob Schilling  
Executive Director  
Energy Policy Advocates

John Droz, jr.  
Founder  
Alliance for Wise Energy Decisions (AWED)

Seton Motley  
President  
Less Government

Jameson Taylor  
President  
Center for Political Renewal (CPR)

Donna Jackson  
Director, Membership Development  
Project 21

Paul Gessing  
President  
Rio Grande Foundation

E. Calvin Beisner  
President  
Cornwall Alliance for the Stewardship of Creation

Jon Sanders  
Director of the Center for Food, Power, and Life  
John Locke Foundation

Kathleen Sgamma  
President  
Western Energy Alliance

Tim Stewart  
President  
US Oil and Gas Association

Jason McFarland  
President  
International Association of Drilling Contractors

Carla Sands  
U. S. Ambassador to the Kingdom of Denmark (ret.)

Donn Dears  
Author of The Looming Energy Crisis

## AMERICA'S STATE COAL ASSOCIATIONS

June 15, 2022

**The Honorable Thomas R. Carper**  
Chairman, US Senate Committee on Environment and Public Works  
410 Dirken Senate Office Building  
United States Senate  
Washington, DC 20510

**The Honorable Shelley Moore Capito**  
Ranking Member, US Committee on Environment and Public Works  
456 Dirken Senate Building  
United States Senate  
Washington, DC 20510

**Dear Senators Carper/Capito:**

We, the undersigned, are writing on behalf of America's coalfields and member companies to express our strong opposition to the nomination of JOE GOFFMAN as the assistant administrator for the EPA Office of Air and Radiation.

We represent a Coalition of 13 states whose economies rely upon and are supported by mining companies, the production of coal-fired electric generation and manufacturing of US steel. Collectively, our collation accounts for billions of dollars of overall economic activity throughout our country and over hundreds high paying, industrial jobs.

Mr. Goffman's nomination to serve as the nation's top air quality regulator is very concerning given his record of authoring and championing rules applicable to our nation's valuable energy resources in defiance of reasonableness and underpinning legal framework.

For instance, under the Obama Administration, Mr. Goffman was the lead author behind the agencies unlawful and far-reaching Mercury Mats Rule which was subsequently which was stayed by the US Supreme Court (in Feb. 2016) because EPA did not consider the high costs of the rule.

The Mercury Mats rule was the most expensive administrative rule ever promulgated by a federal agency costing approximately \$175 "Billion" causing beginning a long list of coal-fired generators being forced to close around the country and wreaking havoc on our natin's

economy. It's been estimated that the total cost to America's economy was ( ) Trillions!  
Goffman still publicly supports the MATS rule.

"I believe that commitment paid off in a range of Committee and EPA actions I have been fortunate to have contributed to over the years... **EPA's Mercury and Air Toxics Standards and Cross State Air Pollution Rules... all achieved or will achieve ambitious pollution reductions** while keeping costs down and protecting public health." - Joe Goffman's submitted testimony for upcoming EPW nomination hearing (attached)

- "So everybody should know **that we were very involved** working with the amazing EPA career staff and our leadership, Gina McCarthy and Lisa Jackson on putting [MATS] together. **Which was really one of the shining stars of the first Obama term in terms of health protection.**" – Janet McCabe to Goffman in his February [2019 podcast, "CleanLaw."](#)

Mr. Goffman was also the primary architect and outspoken defender of the illegal Clean Power Plan, which sought to overstep federal authority to regulate the power plant sector and eliminate fossil fuel.

- "To us, success was the **Clean Power Plan (CPP)**, a rule we and our colleagues wrote and President Barack Obama announced in August 2015." - [Goffman in an Op-Ed](#) along with Gina McCarthy and Janet McCabe.
- "Well, if there was a motto that captured the Clean Power Plan, the motto was something like, well, **it's just common sense.**" – Goffman in his [March 2020 podcast, "CleanLaw."](#)

Throughout his career, Joe Goffman has advocated for overreaching regulations that shift the economics of power generation away from fossil fuels.

"The answer to the question, 'What's the best system admission reduction?' was the commonsense answer. **Just move generation.**" - Goffman in his [March 2020 podcast, "CleanLaw."](#)

- "Because power plants operate as part of an interconnected grid, **the best way to cut emissions is to shift electricity generation from the dirtiest plants, which happen to use coal**, to lower-emitting sources such as natural gas, renewables or nuclear power." - Goffman in [an Op-Ed](#) along with Gina McCarthy and Janet McCabe.

"In addition to the primary air quality and public health benefits these [Mercury Risk and Technology Review, Cross State Air Pollution, and Regional Haze] rules would deliver, they would also produce climate benefits; in some cases, pollution control compliance measures would result in GHG reductions and in all cases, **they would influence the economics of power generation.**" - [Climate 21 Project's EPA Transition Memo](#) (authored by Goffman)

Joe Goffman has been the lead Air official at EPA since President Biden was inaugurated. He is responsible for all overreaching climate-related policies implemented by this Administration, and will instate a more expansive version of the Clean Power Plan if he remains head of the Office of Air and Radiation.

- “(Day 1) Direct OAR to quickly marshal a team to maximize its authorities to achieve significant power sector reductions through **reevaluated, revised, and updated section 111 Clean Power Plan.**” – Recommendation from [Climate 21 Project’s EPA Transition Memo](#) (authored by Goffman)

EPA currently has issued advance rule making on myriad aspects of coal fired generators. This aggressive agency agenda coupled with President Biden’s, EPA Administrator Gina McCarthy and Climate Czar John Kerry’s total disdain and callous view on coal, leaves us no choice but to argue vehemently against Joe Goffman’s appointment.

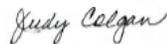
Mr. Goffman’s specialty seems to be eliminating coal jobs. There have been over 600 coal fired generating units forced to close and over half of the nation’s coal jobs eliminated under his watch and regulatory assault on America’s coal workers.

Although a 50% drop in jobs cannot be attributed solely to regulations, the EPA’s agenda and cavalier attitude shown by top EPA officials’ comments on ensuring the EPA’s regulations even complied with the Clean Air Act directly contributed to this dramatic reduction.

Grid operators and energy experts across our country recently cite grave concerns over the critical loss of coal plants and base load generation, this is not the time to place a person of Goffman’s history in charge of impending regulations and added controls over our nation’s remaining coal fleet.

For these reasons, we respectfully oppose Joe Goffman’s nomination to serve as the assistant administrator for the EPA Office of Air and Radiation.

Sincerely,



---

Judy Colgan, President  
Colorado-based Rocky Mountain Mining Inst.



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Nick Williams, President  
The Illinois Coal Association



---

Matt Bell, President  
Indiana-based Reliable Energy, Inc



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Tucker Davis, President  
The Kentucky Coal Association



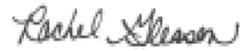
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Molly Schwend, Executive Director  
The Montana Coal Council



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Mike Cope, President  
The Ohio Coal Association



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Rachel Wilson, President  
The Pennsylvania Coal Alliance



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Ches Blevins, President,  
The Texas Mining and Reclamation Assn.



Chris Hamilton, President  
The West Virginia Coal Association



Travis Deti, Executive Director  
The Wyoming Mining Association

#### AMERICA'S STATE COAL ASSOCIATIONS

Colorado-based Rocky Mountain Mining Institute ("RMMI") is a nonprofit corporation dedicated to the promotion of western mining through education. RMMI membership is diverse and includes individuals from both surface and underground mines, equipment manufacturers, service/supply firms, utilities, law firms, government, universities and colleges, financial institutions, and others interested in supporting the industry in Colorado, Montana, Texas, Utah, Wyoming, North Dakota, and beyond. Colorado is the 13<sup>th</sup> largest coal production state according to the Energy Information Agency.

The Kentucky Coal Association ("KCA") is a non-profit organization that represents Kentucky operations that mine coal through surface and underground methods. KCA's constitution and by-laws were adopted on April 28, 1947, "to promote the best interest of the coal mining industry in the Commonwealth of Kentucky and all those engaged therein..." KCA has two classes of members: (1) corporations, firms or individuals directly engaged in producing and/or processing coal in Kentucky; and (2) any other association, organization, corporation, firm or individual interested in promoting the welfare of the coal industry in Kentucky. Kentucky is the 7<sup>th</sup> largest coal production state according to the Energy Information Agency.

The Illinois Coal Association ("ICA") is the professional trade organization responsible for the promotion of Illinois coal. The ICA represents the coal industry in Illinois in governmental affairs, in public relations, and in related matters. Through the ICA, companies producing coal in Illinois deal with issues affecting their interests with a single unified voice. Illinois is the 4<sup>th</sup> largest coal production state according to the Energy Information Agency.

**In Indiana-based Reliable Energy, Inc. (“REI”)** is a trade association promoting the interests of the coal industry and its supporting businesses and is committed to ensuring an abundant supply of available, affordable, and dependable energy in Indiana and across the country. Indiana is the 8<sup>th</sup> largest coal production state according to the Energy Information Agency.

**The Montana Coal Council (“MCC”)** is a non-profit association whose membership includes all major coal mine operators, holders of Montana coal reserves, those who ship coal, utilities who use coal, and numerous suppliers and businesses directly and indirectly involved in the coal industry. Montana is the 6<sup>th</sup> largest coal production state according to the Energy Information Agency.

**The Ohio Coal Association (“OCA”)** is a non-profit trade association dedicated to representing the interests of Ohio’s underground and surface coal producers. The OCA represents nearly all of Ohio’s coal producers and more than 50 associate members, which include suppliers and consultants to the mining industry, coal sales agents and brokers and allied industries. As a united front, the OCA is committed to advancing the development and utilization of Ohio coal as an abundant, economic, and environmentally sound energy source. Ohio is the 15<sup>th</sup> largest coal production state according to the Energy Information Agency.

**The Pennsylvania Coal Alliance (“PCA”)** is a trade association that represents the Pennsylvania coal industry and associated service companies. The Pennsylvania Coal Alliance is committed to promoting and advancing the Pennsylvania coal industry and the economic and social benefit to the employees, businesses, communities, and consumers who depend on affordable, reliable, and increasingly clean energy from coal. Pennsylvania is the 3<sup>rd</sup> largest coal production state according to the Energy Information Agency.

**The Texas Mining and Reclamation Association (“TMRA”)** is the professional trade association that represents the mining industry in Texas. TMRA serves as a single voice for the Texas mining industry and exhibits integrity, clarity and vision in its efforts to create a balance between and among mineral production, environmental protection, economic strength and public welfare. The association educates the public, regulators and policymakers on the value of mining to Texas’s economy and advocates on issues including environmental regulation, legislation and public perception. Texas is the 9<sup>th</sup> largest coal production state according to the Energy Information Agency.

**The West Virginia Coal Association (“WVCA”)** is a trade association located in Charleston, West Virginia, representing more than 90 percent of the state’s underground and surface coal mine production. Its purpose is to have a unified voice representing the state’s coal industry as well as increase emphasis on coal as a reliable energy source to help the nation achieve energy independence.

The Wyoming Mining Association (“WMA”) is a trade association that serves as a unified voice, by communicating, influencing, and promoting issues on behalf of the Wyoming mining industry. The WMA promotes the mining industry by communicating with elected officials, regulators, educators, and the public in a credible way that encourages trust and confidence and earns respect as a reliable source of information on issues pertinent to the industry. Wyoming is the largest coal production state according to the Energy Information Agency.

**Conclusion:** The above-referenced state coal associations (collectively “America’s State Coal Associations”) are comprised of members who have invested substantial amounts in the operation of coal and lignite-fueled power plants, coal and lignite coal mines supplying those plants, and businesses that supply goods and services to coal and lignite owners and users.

Lignite and coal-fired electricity is abundant, low-cost, reliable, weather-resilient and environmentally stable. It is therefore a reasonable, often state-preferred, method of supplying power to a region. In fact, many states, depend primarily on lignite or coal as a primary source of electricity, including Petitioners West Virginia (90%), Wyoming (83%), Missouri (71%), Utah (62%), North Dakota (57%), Indiana (56%), Nebraska (51%), Ohio (38%), Kansas (31%), and Arkansas (30%), as well as Amici Kentucky (69%) according to the Energy Information Agency.<sup>1</sup> Other Petitioners continue to rank among the top consumers of coal and lignite as key sources powering their very large power plant fleets, including Texas (#1), Missouri (#2), Alabama (#12), Pennsylvania (#16), Arkansas (#17), and Georgia (#20).

Lignite and coal mines and reserves, as well as the power plants they supply, have substantial economic value at risk and their value will be significantly impaired if the current nominee Joe Goffman is confirmed for this office.

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September 16, 2022

The Honorable Thomas R. Carper  
 Chairman  
 Committee on Environment and Public Works  
 United States Senate  
 Washington, DC 20510  
*Via Email to:* Greg\_dotson@senate.gov

The Honorable Shelly Moore Capito  
 Ranking Member  
 Committee on Environment and Public Works  
 United States Senate  
 Washington, DC 20510  
*Via Email to:* Elizabeth\_Horner@senate.gov

Dear Chairman Carper and Ranking Member Capito,

As the Committee on Environment and Public Works takes up the nomination of Joseph Goffman to serve as Associate Administrator for the Office of Air and Radiation (OAR) at the U.S. Environmental Protection Agency (USEPA), I write today to ensure that the Committee knows what public records reveal about an issue both of critical importance and highly relevant to Mr. Goffman's possible service in that role.

"OAR is responsible for administering the Clean Air Act."<sup>1</sup> As such, if confirmed to be Associate Administrator for OAR, Mr. Goffman will be intimately involved in Agency decision making on all aspects of the Clean Air Act's National Ambient Air Quality Standards (NAAQS) program. This includes making decisions on a priority of his in recent years, using the NAAQS to regulate greenhouse gases (GHGs). But Congress has never authorized the CAA to be a nationwide decarbonization law, and past admissions by leading environmentalist officials affirm this would represent a radical reinvention of the Act, by bureaucratic fiat.

Mr. Goffman's involvement in plans to reinvent NAAQS and the Clean Air Act in this way is a matter with which Energy Policy Advocates is very familiar thanks to its long track record of open records requests (and litigation, as is far too often necessary) at the state and federal level. However, we also note that Mr. Goffman did not disclose, during his onboarding process in the Biden Administration,<sup>2</sup> his role in consulting with extant- and prospective-plaintiff state attorneys general (AGs) who filed suit against the Environmental Protection Agency the day before President Biden's inauguration to, records strongly suggest, force the expansive use of NAAQS. Mr. Goffman therefore has also failed to recuse himself from deliberations on this critical issue during his tenure at USEPA.

<sup>1</sup> <https://www.epa.gov/aboutepa/about-office-air-and-radiation-oar>

<sup>2</sup> From productions under a federal Freedom of Information Act request (EPA-2021-003933),

We refer you to an Amicus Curiae brief we filed in a case involving an apparent, hoped-for sue-and-settle by certain state attorneys general, toward regulating GHGs through a “back door” of a revised secondary NAAQS for ozone (in *State of New York et al. v. Environmental Protection Agency* (D.D.C. 21-1028, available at [https://govoversight.org/wp-content/uploads/2021/07/21-1028\\_State-of-NY-v-EPA\\_Brief-for-Amicus.pdf](https://govoversight.org/wp-content/uploads/2021/07/21-1028_State-of-NY-v-EPA_Brief-for-Amicus.pdf)).<sup>3</sup> This brief details a ‘Plan B’ that activist AGs turned to after receiving counsel that a direct approach of a carbon dioxide (CO<sub>2</sub>)/CO<sub>2</sub>-Equivalent (GHGs) NAAQS was unlikely to survive.<sup>4</sup>

This plan to reinvent NAAQS as a backdoor decarbonization regime was both economically and politically risky because of its radicalism. When word circulated early in the Obama-Biden administration that that administration might seek to impose a GHG NAAQS, President Obama’s first EPA Administrator, Lisa Jackson, rejected a climate NAAQS as not “advisable.”<sup>5</sup> One prominent environmentalist group attorney, also seeking to quell controversy over the prospect, said “hell will freeze over before there’s a NAAQS for CO<sub>2</sub>.”<sup>6</sup> The idea was downplayed because the economy would certainly freeze over *after* such a move.<sup>7</sup>

But Mr. Goffman did not share former EPA officials’ reluctance to reinvent this old law in a new and radical way. After the October 2019 initial consideration of a direct GHG NAAQS, and after consulting with Mr. Goffman, an attorney, in his position held immediately prior to joining the Biden administration and parties Mr. Goffman referred the AGs to, the AGs arrived upon the idea of a back door GHG NAAQS through a secondary ozone NAAQS. This was followed by the filing of *State of New York et al., v. EPA*, on the last day of the Trump administration. Now, in the wake of the United States Supreme Court’s most recent *West Virginia v. EPA* opinion, No. 20-1530, we see largely the same group of AGs preparing for litigation over “whether the federal government can or must take action to address climate change under the NAAQS provisions of the Clean Air Act.”<sup>8</sup>

<sup>3</sup> Mr. Goffman also was working in the Agency as a member of the Biden Administration transition team prior to and when suit was filed on January 19, 2021.

<sup>4</sup> Public records, and a privilege log in litigation under Michigan’s Freedom of Information Act (FOIA), indicate that these plaintiff AGs discussed the prospect of suing to force a listing of carbon dioxide (CO<sub>2</sub>)/CO<sub>2</sub>-Equivalent (GHGs) as a criteria pollutant, toward obtaining a GHG NAAQS, in October 7, 2019. This would prompt a CO<sub>2</sub> equivalent or GHG equivalent NAAQS, herein “CO<sub>2</sub> eq”, GHG eq”.

<sup>5</sup> Robin Bravender, “EPA chief signals opposition to Clean Air Act curbs on GHGs,” E&E News, December 8, 2009, <https://www.eenews.net/stories/85407>.

<sup>6</sup> *Id.*

<sup>7</sup> A climate NAAQS, whether or not obscured within a “secondary ozone NAAQS”, would require massive central regulation of nearly all aspects of economic life, essentially a perpetual “Lockdown Economy”, requiring truly massive reductions in energy use emissions.

<sup>8</sup> Relevant excerpts of August 17, 2022 deposition of Steve Novick, “Special Assistant Attorney General” in the Oregon Department of Justice, in *Energy Policy Advocates v. Rosenblum, et al.*, Circuit Court for the County of Marion (OR), 20CV38257, available at <https://govoversight.org/wp-content/uploads/2022/09/OR-DoJ-Novick-on-GHG-NAAQS-litigation.pdf>. See also July 28, 2022 letter to USEAP Administrator Michael Regan,

All of this played out as a result of Mr. Goffman's consultation with these AG offices, which is documented in public records.<sup>9</sup> It is now proven that as of October 2019, the *State of New York, et al.* plaintiff-attorneys general, led by New York, were consulting with Mr. Goffman on these issues.<sup>10</sup> These activist AGs specifically sought to develop strategies for regulating GHGs through the NAAQS, replacing and expanding the Obama Administration's "Clean Power Plan" which was stayed in 2016 by the United States Supreme Court in *West Virginia v. EPA*.

Public records released by the New York Office of Attorney General show that these AGs consulted with Mr. Goffman specifically because they sought "people who have made the case for using NAAQS" to regulate GHGs.<sup>11</sup> On this issue, it appears Mr. Goffman long ago made up his mind.<sup>12</sup>

According to the USEPA's response to our FOIA request number EPA-2021-003933, we can state with confidence that Mr. Goffman did not disclose these consultations in his filings with the Biden Administration to assume his current position with USEPA. He therefore also failed to recuse himself from consideration of how the Agency responds to, e.g., *State of New York et al. v. EPA*, or in Agency deliberations on whether to impose a "front door" or back door" NAAQS (through a secondary ozone standard, see Amicus Brief as well as "Biden's 'Back Door' Climate Plan," *Wall Street Journal*, March 17, 2021, <https://www.wsj.com/articles/bidens-backdoor-climate-plan-11616020338>). It is our belief, grounded in these public records, that Mr. Goffman cannot properly have any role in such deliberations.

The consideration of Mr. Goffman's nomination presents an opportunity for the Committee to review EPA's conflicts and pertinent disclosures pertaining to this matter of

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[https://www.doj.state.or.us/wp-content/uploads/2022/07/Multistate-NAAQS-Letter-to-Regan\\_2022-07-28.pdf](https://www.doj.state.or.us/wp-content/uploads/2022/07/Multistate-NAAQS-Letter-to-Regan_2022-07-28.pdf)

<sup>9</sup> Energy Policy Advocates also possesses public records from Mr. Goffman's tenure at Respondent EPA during the Obama administration showing a long history of coordinating with Petitioner New York Attorney General and environmentalist groups, together, to advance the cause of GHG regulation.

<sup>10</sup> Energy Policy Advocates also possesses public records from Mr. Goffman's tenure at USEPA during the Obama administration showing a long history of coordinating with Petitioner New York Attorney General and environmentalist groups, together, to advance the cause of GHG regulation. As such, Energy Policy Advocates also notes that Goffman was working in the Agency as a member of the Biden Administration transition team prior to and when New York filed suit.

<sup>11</sup> We detail these findings and link to the records in an Amicus Curiae brief in *State of New York et al. v. Environmental Protection Agency* (D.D.C. 21-1028, available at [https://govoversight.org/wp-content/uploads/2021/07/21-1028\\_State-of-NY-v-EPA\\_Brief-for-Amicus.pdf](https://govoversight.org/wp-content/uploads/2021/07/21-1028_State-of-NY-v-EPA_Brief-for-Amicus.pdf)).

<sup>12</sup> In the context of this knowledge revealed in public records, see also Joseph Goffman and Laura Bloomer, "Disempowering the EPA: How Statutory Interpretation of the Clean Air Act Serves the Trump Administration's Deregulatory Agenda," <http://eelp.law.harvard.edu/wp-content/uploads/Draft-CWU-Symposium-Paper-Goffman-Bloomer-For-Upload.pdf>.

seeking to reinvent the Clean Air Act as a nationwide decarbonization statute, possibly in undisclosed and/or unethical coordination with outside litigants and other parties.

Sincerely,

A handwritten signature in black ink, appearing to be 'RS', followed by a long horizontal line that loops back to the left.

Robert Schilling  
Executive Director  
Energy Policy Advocates

cc: Members of the Senate Committee on Environment and Public Works



Senate Committee on Environment and Public Works  
Senator Tom Carper, Chairman  
410 Dirksen Senate Office Building  
Washington, D.C. 20510

July 18, 2022

**OPEN LETTER TO MEMBERS OF THE U.S. SENATE COMMITTEE  
ON ENVIRONMENT AND PUBLIC WORKS**

Dear Chairman Carper,

The Domestic Energy Producers Alliance (DEPA) is expressing and explaining our opposition to the confirmation of Joseph Goffman as Assistant Administrator for Air and Radiation in the Environmental Protection Agency.

Mr. Goffman served in the EPA's Air and Radiation Office during the Obama administration as Senior Counsel 2009-17 and in addition as Associate Assistant Administrator for Climate 2013-17. During that time he was a participant in, and often the key architect of, a number of highly controversial, legally suspect, and economically damaging Clean Air Act rules and decisions, including the 2009 Endangerment Finding, the 2010 and 2012 greenhouse gas emissions rule for cars and light trucks and associated 2009 California waiver, the 2011 Mercury and Air Toxins Standards Rule (MATS Rule), the 2011 Cross-State Air Pollution Rule, the 2015 "Clean Power" Plan (CPP), and the replacement of an unprecedented number of State Implementation Plans under the Regional Haze Rule with more expensive Federal Implementation Plans. As Principal Deputy Assistant Administrator in the Biden administration, Mr. Goffman has revived and advanced many of the problematic decisions he helped make in the Obama administration.

The MATS Rule, for example, forced electric utilities to close hundreds of coal-fired power plants and indirectly devastated the coal mining industry and destroyed thousands of mining jobs. The EPA's own estimates at the time found that the costs would outweigh the direct benefits by between 1600 to 1 and 2400 to 1. The alleged collateral benefits of billions of dollars used to justify the rule are highly dubious at best. Mr. Goffman was a key player in developing this economically disastrous rule.

Mr. Goffman was also a key player in writing the "Clean Power" Plan. In 2016, the Supreme Court imposed an unprecedented stay in implementing the rule because of its dubious legality; and on 30<sup>th</sup> June 2022, the Supreme Court in a 6 to 3 decision ruled emphatically that the CPP exceeded the EPA's authority under the Clean Air Act.



Between the Obama and Biden administrations, Mr. Goffman served as executive director of the Environmental Law Program at the Harvard University Law School. A profile published in Harvard Law Today on 2<sup>nd</sup> October 2017 approvingly repeated a description of Mr. Goffman as a “law whisperer” because “his specialty is teaching an old law to do new tricks.”

E-mails and other documents produced by federal and state freedom of information requests have revealed that Mr. Goffman continued as a law whisperer at Harvard Law, where he worked with a number of State Attorneys General to file suit to require the EPA to set a secondary National Ambient Air Quality Standard for ozone that would target the causes of climate change—that is, greenhouse gas emissions—on the grounds that climate change will raise ozone levels. Incredibly, despite Mr. Goffman’s leadership in concocting this scheme, he has been in charge of the EPA’s response to the suit (State of NY et al. v EPA), which could result in a “sue-and-settle” agreement.

It is not surprising that President Biden nominated Mr. Goffman to head the EPA’s Office of Air and Radiation. The Biden administration is trying to achieve its climate and anti-energy agenda primarily through gross administrative over-reach, and Mr. Goffman has proven to be a Master of Administrative over-reach. We oppose his confirmation for this very reason. His regulatory decisions in the Obama EPA have done tens, and arguably hundreds, of billions of dollars of economic damage. The EPA’s Office of Air and Radiation should not be headed by an expert in stretching and twisting the Clean Air Act in ways that expand regulatory authority at the expense of American taxpayers, workers, and consumers.

DEPA is a nationwide collaboration of 39 coalition associations – from California to West Virginia, Texas to Montana – representing individuals and companies engaged in domestic onshore oil and natural gas exploration and production. DEPA is a non-partisan association seeking common ground, and in common sense solutions to the challenges facing American oil and natural gas production.

Sincerely,

A handwritten signature in black ink, appearing to read "Jerry R. Simmons", written in a cursive style.

Jerry R. Simmons  
DEPA CEO/President



*FINANCIAL CONFLICTS OF INTEREST*

As required by 18 U.S.C. § 208(a), I will not participate personally and substantially in any particular matter in which I know that I have a financial interest directly and predictably affected by the matter, or in which I know that a person whose interests are imputed to me has a financial interest directly and predictably affected by the matter, unless I first obtain a written waiver, pursuant to 18 U.S.C. § 208(b)(1), or qualify for a regulatory exemption, pursuant to 18 U.S.C. § 208(b)(2). I understand that the interests of the following persons are imputed to me: any spouse or minor child of mine; any general partner of a partnership in which I am a limited or general partner; any organization in which I serve as officer, director, trustee, general partner or employee; and any person or organization with which I am negotiating or have an arrangement concerning prospective employment.

*Particular Matters Involving Specific Parties*

Because of the current level of financial ownership, I am disqualified from participating personally and substantially in any particular matter that affects any of following entities as a specific party:

RECUSAL LIST – SPECIFIC PARTY MATTERS			
Abbot Laboratories	Abbvie	Accenture PLC	Agilent Technologies
Alphabet Inc	Altria Group	Amazon	American Express
Ameriprise Financial	Apple, Inc.	Arthur J Gallagher	AT&T
Becton Dickinson	Centene Corp	Charter Communications	Cisco Systems
Colgate Palmolive	Comcast	Costco	Danaher Corp
Deere & Co.	Discover Financial	Disney	Dollar Tree Inc
Facebook	Fidelity	First Rep Bank	Glaxo Smith Kline
IBM	Johnson & Johnson	JP Morgan Chase	Lab Co of America Holding
Markel Corp	Martin Marietta Materials Inc	Meditronic PLC	Merck & Co.
Mettler Toledo Intl	Microsoft	Mondelez International	Monster Beverage
Nestle S.A.	Nike	Novartis AG	Omnicom Group
PayPal	PepsiCo	Pfizer Inc.	Philip Morris
Proctor & Gamble Co.	PNC Financial	Roche Holding AG	SalesForce
Sherwin Williams	Spotify	Starbucks Corp	State Street
TJX	Truist Financial Corp	United Health Group	US Bancorp
Verizon Comm	Visa	Wells Fargo	Zoetis, Inc.

*Particular Matters of General Applicability*

I am also disqualified from participating personally and substantially in any particular matter of general applicability that is focused on the interests of any individual discrete and identifiable class of "persons" (identified as "sectors" below). This prohibition extends to each class (or sector) individually. If a matter affects all sectors or if a particular matter affects a combination of sectors, including the ones listed below, then I understand that I do not have a financial conflict of interest.

RECUSAL LIST – INDIVIDUAL SECTORS		
Agricultural & Farm Machinery	Apparel, Accessories, & Footwear	Banks
Commodity Chemicals (Paint)	Construction Machinery & Heavy Trucks	Construction Materials
Cruise lines	Diversified Financials	Food & Staples Retailing
Healthcare Equipment & Services	Household & Personal Products	Household Appliances (lawn & garden tools)
Insurance	Internet & Direct Marketing Retail	Logistics
Media & Entertainment (including interactive media and services, and advertising)	Non-Alcoholic Beverages	Packaged Foods & Meats (snack food)
Pharmaceuticals, Biotechnology, & Life Sciences	Professional Services	Software & Services
Technology Hardware & Equipment	Telecommunication Services	Tobacco

*Corporate Bonds*

I am recused from participating in any particular matter that will have a direct and predictable financial effect upon the ability and willingness of the following bond issuers to honor their obligations or that will affect their bond ratings:

RECUSAL LIST – BONDS			
Amgen, Inc.	Anthem, Inc.	Apple, Inc.	Comcast Corporation
General Dynamics Corporation	Morgan Stanley	Starbucks Corporation	State Street Corporation

*SCREENING ARRANGEMENT*

In order to ensure that I do not participate in matters relating to any of the entities listed above, I will instruct Ann Ferrio, Chief of Staff, to assist in screening EPA matters directed to my attention that involve my former employer or my former clients. All inquiries and comments involving the entities or issue areas on my recusal list should be directed to the Chief of Staff without my knowledge or involvement.

If the Chief of Staff determines that a particular matter will directly involve any of the entities or issue areas on my recusal list, then she will refer it for action or assignment to another, without my knowledge or involvement. In the event that she is unsure whether an issue is a particular matter from which I am recused, then she will consult with OGC/Ethics for a determination. I will provide a copy of this memorandum to my principal subordinates and a copy to Justina Fugh, Director, Ethics Office.

*UPDATE AS NECESSARY*

In consultation with OGC/Ethics, I will revise and update my recusal statement whenever warranted by changed circumstances, including changes in my financial interests, changes in my personal or business relationships, or any changes to my EPA duties. In the event of any changes, I will provide a copy of the revised recusal statement to you and OGC/Ethics.

cc: Elizabeth Shaw, Deputy Assistant Administrator  
Tomás Carbonell, Deputy Assistant Administrator for Stationary Sources  
Alejandra Nunez, Deputy Assistant Administrator for Mobile Sources  
Ann (Campbell) Ferrio, Chief of Staff  
Eunjung Kim, Special Assistant  
Justina Fugh, Director, Ethics Office

		Microsoft Teams Meeting Goffman, Joseph
<input checked="" type="checkbox"/>	11:15 AM – 12:00 PM	<a href="#">Social Cost of Carbon OAR/OP</a> Microsoft Teams Meeting Goffman, Joseph
<input checked="" type="checkbox"/>	12:00 PM – 1:00 PM	<a href="#">Lunch/Management time</a>
<input checked="" type="checkbox"/>	1:00 PM – 2:00 PM	<a href="#">ORIA All Hands Meeting</a> Edwards, Jonathan
<input checked="" type="checkbox"/>	1:00 PM – 2:00 PM	<a href="#">ORIA All Hands Teams Live Event with Acting AA for OAR</a> Microsoft Teams Meeting Stingel, Shawn
<input checked="" type="checkbox"/>	2:00 PM – 5:00 PM	<a href="#">Administrator Confirmation Hearing</a> See link below
<input checked="" type="checkbox"/>	4:30 PM – 5:00 PM	<a href="#">Megan Ceronsky's Personal Meeting Room</a> <b>(b) (6)</b> Ceronsky, Megan M. EOP/WHO
<input checked="" type="checkbox"/>	5:00 PM – 5:30 PM	<a href="#">IPC Discussion</a> Microsoft Teams Meeting <b>(b) (6)</b>
<input checked="" type="checkbox"/>	5:00 PM – 6:00 PM	<a href="#">Cars Working Group</a> <a href="https://pitc.zoomgov.com/join/91234567890">https://pitc.zoomgov.com/</a> <b>(b) (6)</b> <b>(b) (6)</b> Zaidi, Ali A. EOP/WHO
<input type="checkbox"/>	6:00 PM – 7:30 PM	Free
<input checked="" type="checkbox"/>	7:30 PM – 8:00 PM	<a href="#">Prep for Background Interview</a>
<input type="checkbox"/>	After 8:00 PM	Free

▲ Thu, Feb 4

<input type="checkbox"/>	Before 8:00 AM	Free
<input type="checkbox"/>	8:00 AM – 8:30 AM	Free
<input checked="" type="checkbox"/>	8:30 AM – 9:00 AM	<a href="#">Check-In</a> Microsoft Teams Meeting Utech, Dan
<input type="checkbox"/>	9:00 AM – 9:15 AM	Free
<input checked="" type="checkbox"/>	9:15 AM – 10:00 AM	<a href="#">Air Issues Meeting</a> Microsoft Teams Meeting Goffman, Joseph
<input checked="" type="checkbox"/>	10:00 AM – 10:30 AM	<a href="#">Management Roundtable</a> Microsoft Teams Meeting Goffman, Joseph
<input checked="" type="checkbox"/>	10:30 AM – 11:00 AM	<a href="#">Comms weekly</a> Microsoft Teams Meeting Goffman, Joseph
<input type="checkbox"/>	11:00 AM – 11:30 AM	Free
<input checked="" type="checkbox"/>	11:30 AM – 12:30 PM	<a href="#">ALI &amp; GINA: Power Sector Meeting</a>

		<a href="https://pitc.zoomgov.com/(b) (6)">https://pitc.zoomgov.com/(b) (6)</a>
		Smith, Grace Y. EOP/CEQ
<input checked="" type="checkbox"/>	12:30 PM – 1:00 PM	<a href="#">EPA/NHTSA GHG Modeling Meeting</a> Microsoft Teams Meeting <b>(b) (6)</b>
<input checked="" type="checkbox"/>	1:00 PM – 2:00 PM	<a href="#">Background interview</a> See below
<input checked="" type="checkbox"/>	2:00 PM – 2:45 PM	<a href="#">Oil and Natural Gas (O&amp;G) Sector</a> Microsoft Teams Meeting Goffman, Joseph
<input checked="" type="checkbox"/>	2:45 PM – 3:30 PM	<a href="#">American University Virtual Climate Event</a> Details Below
<input checked="" type="checkbox"/>	3:30 PM – 4:00 PM	<a href="#">One-on-One with Chris Grundler</a> Microsoft Teams Meeting Goffman, Joseph
<input checked="" type="checkbox"/>	4:00 PM – 4:30 PM	<a href="#">One on One with Casey Katims</a> Microsoft Teams Meeting Goffman, Joseph
<input checked="" type="checkbox"/>	4:30 PM – 5:00 PM	<a href="#">One-on-One with Jon Edwards</a> Microsoft Teams Meeting Goffman, Joseph
<input checked="" type="checkbox"/>	5:00 PM – 6:00 PM	<a href="#">Fuels Bi-weekly</a> Microsoft Teams Meeting Goffman, Joseph
<input checked="" type="checkbox"/>	6:00 PM – 6:30 PM	<a href="#">Management Time</a>
<input type="checkbox"/>	<b>After 6:30 PM</b>	<b>Free</b>

**Fri, Feb 5**

<input type="checkbox"/>	<b>Before 8:00 AM</b>	<b>Free</b>
<input type="checkbox"/>	<b>8:00 AM – 8:30 AM</b>	<b>Free</b>
<input checked="" type="checkbox"/>	8:30 AM – 9:00 AM	<a href="#">SC-GHG Meeting</a> <a href="https://pitc.zoomgov.com/(b) (6)">https://pitc.zoomgov.com/(b) (6)</a> Smith, Grace Y. EOP/CEQ
<input checked="" type="checkbox"/>	8:30 AM – 9:00 AM	<a href="#">Check-In</a> Microsoft Teams Meeting Utech, Dan
<input type="checkbox"/>	<b>9:00 AM – 9:15 AM</b>	<b>Free</b>
<input checked="" type="checkbox"/>	9:15 AM – 10:00 AM	<a href="#">Air Issues Meeting</a> Microsoft Teams Meeting Goffman, Joseph
<input checked="" type="checkbox"/>	10:00 AM – 10:30 AM	<a href="#">Management Roundtable</a> Microsoft Teams Meeting Goffman, Joseph

Learn More <<https://aka.ms/JoinTeamsMeeting>> | Meeting options  
<<https://teams.microsoft.com/meetingOptions/?organ> (b) (6)

[Redacted]

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Attendees	Name <E-mail>	Attendance
	Goffman, Joseph <Goffman.Joseph@epa.gov>	Organizer
	Kim, Eun <Kim.Eun@epa.gov>	Optional
	Campbell, Ann <Campbell.Ann@epa.gov>	Required
	Millett, John <Millett.John@epa.gov>	Required
	DeLuca, Isabel <DeLuca.Isabel@epa.gov>	Required
	Carbonell, Tomas <Carbonell.Tomas@epa.gov>	Optional
	Nunez, Alejandra <Nunez.Alejandra@epa.gov>	Required
	Stevens, Katherine <stevens.katherine@epa.gov>	Optional

---

**Time** 11:30 AM – 12:30 PM  
**Subject** ALI & GINA: Power Sector Meeting  
**Location** <https://pitc.zoomgov.com/> (b) (6)  
**Attachments** EGU strategy - v4.pptx  
**Show Time As** Busy  
Join Information

Grace Smith is inviting you to a scheduled ZoomGov meeting.

Topic: Power Sector Meeting

Time: Feb 4, 2021 11:30 AM Eastern Time (US and Canada)

Join ZoomGov Meeting

https://pitc.zoomgov.com/(b) (6)  
<https://gcc02.safelinks.protection.outlook.com/?u  
(b) (6)  
(b) (6)

Meeting ID: (b) (6)

Passcode: (b) (6)

One tap mobile

(b) (6) # US (San Jose)

(b) (6) # US (New York)

Dial by your location

(b) (6) US (San Jose)

+(b) (6) US (New York)

+(b) (6) US (San Jose)

+(b) (6) US

Meeting ID: (b) (6)

Passcode: (b) (6)

Find your local number: https://pitc.zoomgov.com/(b) (6)  
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Join by SIP

(b) (6) @sip.zoomgov.com

Join by H.323

(b) (6) (US West)

(b) (6) (US East)

Meeting ID: (b) (6)

Passcode (b) (6)

Overview

Attendees: Gina, Ali, Sonia Aggarwal, Maggie Thomas, Dan Utech, Joe Goffman

Email Context

Dan and Joe,

We would like to schedule a 60-minute discussion on the power sector for Thursday or Friday.

Topics to cover include:

- \* Criteria Pollutants
- \* ELG and CCR
- \* 111B

Manifest on our end will likely be: Gina, me, Sonia, and Maggie. Looping the right crew on our end to land.

**Categories** Purple Category

<b>Attendees</b>	<b>Name &lt;E-mail&gt;</b>	<b>Attendance</b>
	Smith, Grace Y. EOP/CEQ <(b) (6)>	Organizer
	Zaidi, Ali A. EOP/WHO <(b) (6)>	Required
	McCarthy, Gina A. EOP/WHO (b) (6)	Required
	Aggarwal, Sonia R. Aggarwal R. EOP/WHO (b) (6)	Required
	Thomas, Maggie M. EOP/WHO (b) (6) >	Required
	Utech, Dan <Utech.Dan@epa.gov>	Required
	Goffman, Joseph <Goffman.Joseph@epa.gov>	Required

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▲ **Time** 12:30 PM – 1:00 PM

**Subject** EPA/NHTSA GHG Modeling Meeting

**Location** Microsoft Teams Meeting

**Show Time As** Busy

-----Original Appointment-----

From: (b)(6) NHTSA Acting Administrator  
(b) (6) @dot.gov  
<mailto:(b) (6) @dot.gov> >

Sent: Wednesday, February 03, 2021 4:01 PM

To: (b) (6); Cliff, Steven (NHTSA); Carlson, Ann (NHTSA); Putnam, John (OST); Shulman, Sophie (OST); Monje, Carlos (OST); Sarah.dunham@epa.gov <mailto:Sarah.dunham@epa.gov> ; Joseph.Goffman@epa.gov <mailto:Joseph.Goffman@epa.gov> ; William.Charmley@epa.gov <mailto:William.Charmley@epa.gov> ; Nunez, Alejandra

Cc: Stewart, Gwen

Subject: EPA/NHTSA GHG Modeling Meeting

When: Thursday, February 04, 2021 12:30 PM-1:00 PM (UTC-05:00 Eastern Time (US & Canada).

Where: Microsoft Teams Meeting

# Power Sector Strategy: Climate, Public Health, Environmental Justice

## The Building Blocks

Briefing for Gina McCarthy and Ali Zaidi  
February 4, 2021

## EPA Has Responsibility Across Multiple Media to Address Environmental Effects of the Power Sector

- **Air**
  - Toxics
  - NAAQS Pollutants
  - GHGs
  - Regional Haze
- **Water**
  - Effluent Limitation Guidelines
  - Cooling water requirements
- **Solid Waste**
  - Coal Combustion Residuals

## Key Considerations - Timing

- Timing

- **Ex. 5 Deliberative Process (DP)**

- Air Toxics Standards (Flagged in EO)

- **Ex. 5 Deliberative Process (DP)**

## Key Constraints - Geographic Scope

- Some authorities apply to all units across the country while others only apply to a subset of units
  - National Rules Include
    - Air Toxics Standards
    - GHG Standards
    - Water Standards
    - Coal Combustion Residual Standards
  - Authorities that would cover a subset of units include
    - Non-attainment provisions (transport provisions would generally cover a greater number of units than provisions for non-attainment areas)
    - Regional Haze

Effluent Limitation Guidelines and  
Coal Combustion Residuals

**Ex. 5 Deliberative Process (DP)**

Air Toxics Standards (e.g., MATS Rule)

**Ex. 5 Deliberative Process (DP)**

Non-attainment Provisions

**Ex. 5 Deliberative Process (DP)**

## 111(d) CO2 Standards

- National in scope, but requires two step process  
(EPA guidelines followed by State Plans)

### **Ex. 5 Deliberative Process (DP)**

Regional Haze

**Ex. 5 Deliberative Process (DP)**

Next Steps for **Ex. 5 Deliberative Process (DP)**

**Ex. 5 Deliberative Process (DP)**

New Natural Gas Units and 111(b)

**Ex. 5 Deliberative Process (DP)**

