CLIMATE 21 PROJECT

TRANSITION MEMO

# Environmental Protection Agency

CLIMATE **21** PROJECT Transition Memo

# Environmental Protection Agency


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This memo is part of the **Climate 21 Project**, which taps the expertise of more than 150 experts with high-level government experience, including nine former cabinet appointees, to deliver actionable advice for a rapid-start, whole-of-government climate response coordinated by the White House and accountable to the President.

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# Environmental Protection Agency

## Executive Summary

The Environmental Protection Agency has a wealth of expertise, statutory authorities, and other tools to catalyze action to stem the climate crisis. In order to seize this opportunity, EPA will need to quickly and deftly promulgate high-leverage climate rules, refocus agency programs and priorities, create new management and organizational processes, and harness partnerships to accelerate climate progress.

Because of the substantial range and volume of opportunities EPA has to address climate change, setting priorities and targeting resources will be one of an incoming Administrator's most immediate tasks. It will be especially urgent because EPA has experienced a prolonged, systematic assault to disable effective capacities, demoralize its highly expert and dedicated staff, undercut its own legal authorities, and betray the EPA's core mission to protect human health and the environment. The Administrator will need to both communicate a compelling long-term vision on climate and quickly engage and build trust with the dedicated career leadership and expert staff to supply analyses, ideas, and approaches to achieve that vision. This will play a critical role in reinvigorating and rebuilding the agency, as well as focusing its resources on addressing a monumental challenge to humanity.

Using its enforcement, regulatory, international, programmatic, and leadership tools, EPA can have major impact on three pillars of the climate challenge: emissions reduction, climate diplomacy, and adaptation/resilience. Specifically, the agency can contribute major greenhouse gas emissions reductions in the transportation, energy, and industrial sectors as well as support international engagement. And on adaptation, the agency's water program and regulatory authority can deliver hundreds of billions of dollars for projects that increase resilience and improve public health. Finally, EPA can leverage the programs associated with contaminated land and emergency response for both emissions reduction and adaptation by working with developers on renewable energy siting and with state and local entities to address the impacts of climate change on contaminated properties.

The Administrator will need to set the balance among the competing interests that define a regulatory schedule: the desire to move quickly so that litigation can be finished in the first term, the importance of robust public engagement with diverse stakeholders, and the fundamental need to build strong technical support and well-thought-out legal arguments in order to allow a successful defense and a durable legacy. While the climate crisis demands an aggressive approach, the constraints and risks of exercising regulatory authority warrant a thoughtful assessment to define where to regulate and where to apply other leverage. In addition to traditional regulatory authorities, EPA's toolbox includes non-regulatory approaches built around engaging, convening, partnering with, providing technical assistance to, and educating the public and private sector. The value of robust internal and public processes, both to establish durable policy and to enhance public trust in the agency, cannot be overstated. In some cases, vigorous public engagement—especially when complementing, aligning with, reinforcing, or anticipating regulatory authority—can accelerate progress.

This memo presents the opportunities EPA has to resume its leadership in the fight against climate change. Starting with recommendations on how to structure the agency's management, budget, and hiring in the ways needed to deliver emissions reductions, the report then details EPA's tools for making decisive progress on the climate crisis while also producing results for environmental justice communities. Finally, the report recognizes that the agency cannot do the work of developing and carrying out climate change policies on its own and lays out ways in which EPA can form partnerships across agencies within the federal government; with states and tribes; between nations; and alongside private sector and public sector stakeholders. The appendices provide further detail on all of these proposals.

# Environmental Protection Agency

## MANAGEMENT, BUDGET, AND STRUCTURE

- **Build the case for an EPA restoration budget** with significant increases in funding, including state and tribal assistance grants targeted for climate. *(100 Days)*
- **Appoint critical leadership and energize staff.** *(100 Days)*

## KEY PROGRAM OPPORTUNITIES AND RECOMMENDATIONS

- **Initiate high-leverage rulemaking** to accelerate the pace of decarbonization in major greenhouse gas (GHG) emitting sectors.
  - Direct the Office of Air and Radiation (OAR) to create Clean Air Act rulemaking teams for vehicles, the power sector, and the oil and gas sector. *(Day 1)*
  - Direct OAR and the Office of Chemical Safety and Pollution Prevention (OCSPP) to develop a coordinated regulatory plan for hydrofluorocarbons (HFCs) and engage with the White House and State Department on ratification of the Kigali Amendment and an alternative legislative strategy. *(100 Days)*
  - Direct OAR to develop a strategy to address the remaining, diverse group of emitting sources. *(100 Days)*
  - Direct the Office of General Counsel (OGC) to coordinate with the Department of Justice (DOJ) to file the motions necessary to hold cases in abeyance in order to facilitate reconsideration of Trump era rules affecting GHGs. *(100 Days)*
- **Create a structured process, with rigorous criteria, to mobilize each of the agency's Offices to prioritize climate activities** and highlight the most important opportunities to drive down emissions and increase resilience. *(100 Days)*
- **Create an Environmental Justice (EJ) Council** including a senior EJ official and each Assistant Administrator (AA) to halt ongoing environmental injustice. *(100 Days)*
- **Announce an EPA renewal** to return EPA to its core mission of protecting human health and the environment. This would feature a restoration of its scientific foundation, renewed attention to compliance and enforcement, and a concerted effort to work with states, communities, and industry on the climate crisis. *(100 Days)*

## CROSS-CUTTING PRIORITIES AND RELATIONSHIPS

- **Meet with the head of Office of Management and Budget (OMB)** to develop a plan to expedite high priority regulations. *(100 Days)*
- **Prepare analyses and marshal expertise to support a strengthened U.S. commitment under the Paris Agreement**, as well as ongoing diplomatic efforts and implementation. *(100 Days)*
- **Seek interagency partnerships and cross-agency initiatives**, such as a task force on agricultural emissions, and another to pursue meaningful GHG reductions in the industrial sector, including efforts to advance energy efficiency and partial electrification. *(100 Days)*

# 1 Management, Budget, and Structure

EPA will be central to the new administration's climate agenda, thanks to its strong enforcement and regulatory tools, technical expertise and strong international reputation, existing programs, and leadership opportunities. The incoming Administrator and leadership team should prioritize emissions reduction—and the next administration should start working during the transition to increase the budget of the EPA closer to its high-water mark, so the agency has the resources it needs to contribute to the fight against climate change, while continuing its other important work. That includes prioritizing hiring across EPA, with a particular focus on the OAR rulemaking teams that oversee major GHG emitting sectors; the legal staff in OGC; the enforcement office; environmental justice staff; and OAR's international team.

The severity and urgency of the climate crisis may indeed warrant "an 'Apollo Moonshot' to decarbonize our economy"[1], and the Administrator, in conjunction with the rest of the government, will be called on to deliver. As the Administrator takes early actions to inspire, hire, delegate, and prioritize, an understanding of the tools in EPA's toolbox will facilitate getting the most out of the agency.

Using its enforcement, regulatory, international, programmatic, and leadership tools, the agency can have major impact on three pillars of the climate challenge: emissions reduction, climate diplomacy, and adaptation/resilience. Specifically, the agency can contribute major greenhouse gas emissions reductions in the transportation, energy, and industrial sectors as well as support international engagement. In establishing the U.S. Nationally Determined Contribution (NDC) to the Paris Accord, the Obama administration looked to EPA's regulatory programs, applied to the transportation and electricity sectors, to provide a significant amount of the GHG reductions needed to meet the U.S. commitment. The same EPA authorities will be available to provide significant reductions in both sectors, as well as in the oil and gas sector, and similar authorities will be available to reduce emissions in other industrial sectors in quantities critical to meeting the more stringent NDC the U.S. will undertake when rejoining the Paris Accord. EPA can play a key advisory role for U.S. diplomatic efforts to secure workable multi-lateral and bilateral agreements that complement domestic action; EPA has valuable technical, programmatic and analytical expertise to ensure and boost the transparency, ambition, and accountability of international commitments. On adaptation, the agency's water program and regulatory authority can deliver hundreds of billions of dollars for projects that increase resilience and improve public health. Finally, EPA can leverage the programs associated with contaminated land and emergency response both for emissions reduction and adaptation, by working with developers on the siting of renewable energy and with state and local entities to address the impacts of climate change on contaminated property.

As the Administrator carries out the actions critical to addressing climate change and other priorities, she will also face events beyond her control that will demand attention and influence the course she charts for the agency. In addition to the ongoing COVID-19 pandemic, these could include deadlines ordered by courts or negotiated in citizen suits, changes in judicial doctrine (e.g., weakening *Chevron*'s norm of deference to agency interpretations of statute), and emergencies like the Flint water crisis, the Kingston Tennessee coal ash spill, and the Gold King Mine release. With our deep nationwide infrastructure challenges, the agency's on-the-ground clean-up duties, and its role in emergency response, it is just a matter of time until the next accident or crisis. Such a derailment threatens to further squeeze the window of action on climate priorities and reinforces the importance of trusting and empowering the career leadership and initiating a quick start on top priorities.

[1] (Reeder, 2019)

## UNDERSTANDING EPA'S AUTHORITIES, STRUCTURE AND PROCESSES

### ACTION ITEMS

**(100 Days)** Request an early briefing on how the EPA operates, the inherent multi-tasking strengths in the agency's organizational structure, typical action timelines, and the limitations of regulatory authorities.

**(100 Days)** Set the balance among the competing interests that define a regulatory schedule:

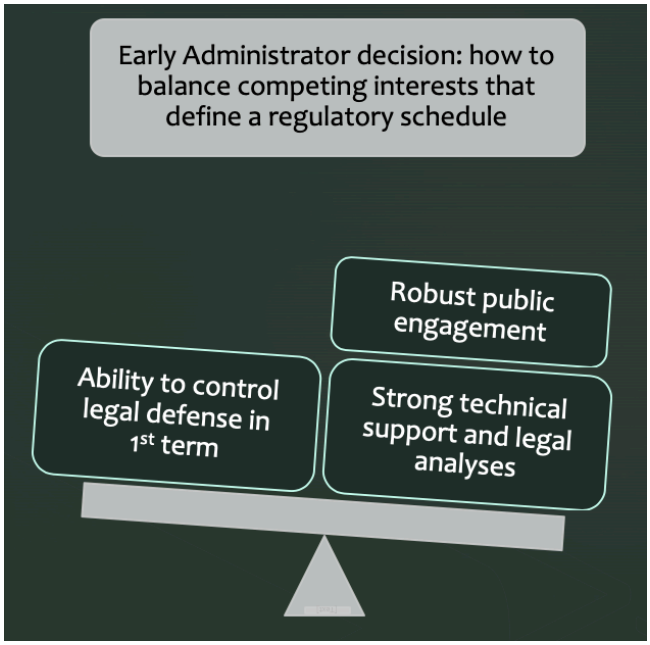
- the desire to be able to get through litigation in the first term,
- the importance of robust public engagement, and
- the fundamental need to build strong technical support and well-thought-out legal arguments in order to allow a successful defense and a durable legacy.

EPA's contributions are shaped by the nature and scope of its authorizing statutes, the rulemaking process, and the judicial review process. They are also influenced and affected by EPA's systematic decision-making processes and traditional organizational structure, which is broken down into distinct offices (e.g. air, water, waste) led by Senate-confirmed Assistant Administrators, or in the first 3-6 months of 2021, by Acting Assistant Administrators.

An early briefing on how the EPA operates, the inherent multi-tasking strengths in the agency's organizational structure, typical action timelines, and the limitations of regulatory authorities would help in establishing ambitious but realistic expectations for what is achievable and the part of the load that the regulatory process can bear.

The policy development and regulatory window will be limited to 18-26 months, if the Administrator's goals include remaining in control of a given action's legal defense in the first term of the administration. At the same time, making the upfront investment in quality, process, and organization is essential for the support the agency and its actions need for the long game.

**Figure 1. Key Drivers of the Regulatory Schedule**




It would not be realistic to assume every, or possibly any, climate-critical rule could be completed in 18 months. Particularly if the agency is interested in doing any significant upfront public outreach, large rulemakings are generally multi-year efforts. Before the Administrator may sign a final rule, the regulatory timeline generally includes EPA development of a proposed rule, an extensive OMB review process, a public notice and comment period, final rule development and satisfaction of the requirement to respond to all adverse comments, and a second OMB review process. Most of the authorities relevant to climate action have a significant regulatory and legal history; EPA will be required to justify any major policy changes in a technically and legally robust way in order to survive judicial review. After a rule is finalized, it is subject to both congressional and judicial review. In the first few months of the new administration, the Congressional Review Act (CRA) may be an option for reversing changes finalized by the Trump administration in the last months of 2020. The CRA, however, is a complex tool that raises a series of distinct legal questions that can vary from rule to rule.

In the case of rules issued under Clean Air Act authority, the timing of judicial review for many significant climate-related cases will depend on the schedules set by the D.C. Circuit Court of Appeals, which has exclusive initial jurisdiction over challenges to Clean Air Act rules. Where other statutory authorities govern, the predilections of district courts across the country will take on importance in the risk calculation and timing of actions.

## UNDERSTANDING EPA'S CONVENING TOOLS

While the monumental challenges of the climate crisis demand an aggressive approach, the constraints and risks of exercising regulatory authority warrant a thoughtful assessment to define where to regulate and where to apply other leverage. The Administrator will want to seek opportunities to expand and accelerate climate actions and commitments taking place at the regional, state, local, and corporate level. EPA's toolbox includes traditional regulatory authorities, as well as non-regulatory approaches built around engaging, convening, partnering with, providing technical assistance to, and educating the public and private sector.

The value of robust internal and public processes, both to establish durable policy and to enhance public trust in the agency, cannot be overstated. In some cases, vigorous public engagement, especially when complementing, aligning with, reinforcing, or anticipating regulatory authority, can function as an accelerant of change. For example, even without a fully executed implementation stage, convenings at the federal, regional, and state level under the auspices of EPA's Clean Power Plan have been identified as one of the drivers fostering ongoing and expanded investment in clean energy. EPA's engagement with utilities, states, and stakeholders prompted key players in the system to pay attention to decarbonization, and planning for compliance with the Clean Power Plan allowed companies to identify the economic opportunities inherent in decarbonization.[2] Furthermore, EPA's Energy Star voluntary labeling program has driven behavioral change to advance energy efficiency, particularly in sectors where EPA's regulatory levers are limited.[3] Again, simply marshaling the attention of private sector and public stakeholders and state governments via a sustained engagement effort can induce desired outcomes.

## UNDERSTANDING CRITICAL BUDGET MILESTONES

As noted, an ambitious 100-day plan requires budget and personnel resources to achieve these outcomes. By design, this memo primarily focuses on concrete actions the agency can take through existing resources and authority. In section 2.F. of this memo, we also recommend the Administrator task the senior leadership of each national program office with developing a Climate Blueprint which, among other things, includes an identification of gaps where significant budgetary and personnel resources are required. To facilitate a quick start, the transition/landing team should gather details from senior career leadership, including the office directors in OAR and OGC, on budgetary and personnel gaps to inform a high priority early budget request.

Budget resources play a major role in the implementation of agency priorities—and agency leadership will likely face three major budget deadlines that impact the climate agenda's success:

**(1)** FY2021 omnibus appropriations. It is likely that all or some agencies are on a continuing resolution (CR) as of inauguration day and that current year funding will be completed soon after (1-2 months) through an "omnibus" appropriations law. The spending levels will be largely negotiated by appropriators by this time, so there is very little room for increased spending or change of spending authorities. That said, small accommodations may be made, so a short list of priority funding and/or authority requests should be identified during the transition or in the first 1-3 weeks.

**(2)** FY2022 budget request. In the first year of a first term, the President's budget is announced within the first 50 days. President Obama announced on March 11, 2009 or 37 days into the term. As part of this process, agency requests are due earlier and generally focused on topline issues versus a detailed agency budget request. FY2022 Congressional budget and appropriations processes usually start in

[2] Nonetheless, the core reasons that stakeholders collaborate with EPA are either because they are subject to EPA regulation or because EPA has something to offer them, such as technical support or a marketing opportunity. The Clean Power Plan, arguably, showed that a convening that accompanies a regulatory process may be almost as important as the regulation itself; but EPA's convening power largely comes from its regulatory authority. For priority sectors subject to strong regulatory authorities, EPA should nest efforts to engage industry and build on industry commitments inside of a regulatory process, rather than as alternatives. Furthermore, the Administrator should seek opportunities to require stakeholder engagement by the states, such as was initiated under the Clean Power Plan.

[3] https://www.nrdc.org/experts/lauren-urbanek/energy-star-success-fund-it-dont-change-it

March when agency heads testify before the appropriating committees to support their budgets. And then, appropriations committees work with agency staff until the appropriations acts are passed with a deadline of October 1, 2021. With such a short window, there is little time to generate and advocate for major initiatives in the first budget. If the agency leadership seeks to make major climate budget proposals, it is critical to start that work in the transition or prior, so it is ready.

**(3)** FY2023 budget process. After submitting the FY2022 budget, agencies will immediately begin work on the FY2023 budget request which is due to Office of Management and Budget in late July prior to announcement the following February. This window provides time for major adjustments and initiatives. However, these requests are for funding that will only come available in October 2022 at the earliest.

## EPA'S RESTORATION BUDGET

### ACTION ITEMS

**(100 Days)** Build the case for a restoration budget with a significant increase to restore or approach EPA's high-water funding level in FY2010.

**(100 Days)** Develop ideas to increase climate funding and dedicated climate grants under the structure of state and tribal assistance grants (STAGs), multipurpose grants (MPGs), and state revolving loans with low interest financing.

**(100 Days)** In the transition period or first weeks, develop a high priority funding request for the Omnibus FY2021 budget and work with appropriators to seek increased flexibility to reprogram funds within the FY2021 budget.

**(100 Days)** Seek waivers from an early hiring freeze and/or direct hiring authority for priority climate actions and to rebuild essential expertise.

**(100 Days)** Omnibus FY2021: announce wins from FY2021 enacted.

**(100 Days)** EPA FY2022 budget: announce budget priorities, including increases for core science and environmental programs, additional FTE, and state climate grants, particularly for adaptation and resilience in vulnerable frontline communities that have suffered a historic pattern of environmental injustice.

In the past decade, EPA's total annual appropriations have ranged from $7.9 to $10.3 billion.[4] Almost half of EPA's budget is allocated to grants, a bit over a quarter to contracts, a little under a quarter to payroll, and a small amount to other categories.[5] By environmental media, about half of EPA's budget goes to water (which includes a significant pass-through to the states), a quarter to land preservation and restoration, about an eighth to air, and the rest to other environmental media. (See Appendix A: EPA FY2020 Budget Overview).

Even amid the growing threats to public health from the climate crisis, deteriorating infrastructure nationwide, and air, water, and waste pollution, the agency has been consistently underfunded since FY2010. After the Clean Air Act Amendments were passed in 1990, EPA's workforce ceiling ranged from 16,318 to 18,110 through 2012. From the more recent high water mark of 17,359 FTEs[6] in FY11, the FY20 FTE level is down by 18%, or 3,187 employees, with only 14,172 authorized FTEs in FY20.[7] Furthermore, the FY21 budget request contains a mere 12,610 FTEs, leaving the agency severely short staffed at a time when a major push is required to mount an aggressive offensive against the climate crisis.

[4] https://www.epa.gov/planandbudget/budget.
[5] https://www.nationalgeographic.com/news/2017/03/environmental-protection-agency-budget-cuts/
[6] FTE (Full Time Equivalent) = one employee working full time for a full year (52 weeks x 40 hours = 2,080 hours), or the equivalent number of hours worked by several part-time or temporary employees.
https://www.epa.gov/planandbudget/budget
[7] https://www.nationalgeographic.com/news/2017/03/environmental-protection-agency-budget-cuts/

For the new administration's first budget proposal, the Administrator will need to pull together and build the case for an EPA restoration budget that seeks to restore EPA to baseline funding levels prior to the recent decade of severe cuts. For example, a full restoration would entail an EPA top line budget request of $12-13 billion, an increase on the order of 30-40% from FY20. Areas where budget increases would be important for climate success include EPA's core science and environmental program work and additional FTEs for air, the general counsel, enforcement, environmental justice, international engagement, adaptation/resilience, and regional office rebuilding, in addition to state and tribal assistance grants.

The EPA transition team should reach out to staff on the appropriations committees as early as possible to collaborate on ideas for appropriating state revolving funds and providing EPA with flexibility to move money around, especially in first nine months. While the budget process is broken and fractured, there are EPA career staff who know how to make it work and should be trusted to help navigate early budget exercises. The budget team should be directed to work with Congress and the President's budget request to get earmarked appropriations for adaptation at EPA.

State grants and the adaptation budget should be leveraged to amplify state, local, philanthropic and other stakeholder efforts on adapting to a changing climate. The FY2016 appropriation included $21 million from the State and Tribal Assistance Grant appropriation for the Multipurpose Grant (MPG) program, which was used for state climate adaptation efforts late in the Obama administration and was popular with states. Similarly, the FY18 and FY19 budgets included $9.8 and $10.6 million, respectively, for MPGs with direction to EPA to give maximum flexibility so that States may determine where funds from this grant program are of most value.[8] This structure could be made climate explicit and the funding level increased to support state climate action, particularly associated with adaptation. In addition, EPA's Performance Partnership Grants (PPGs) and Performance Partnership Agreements (PPAs) give states flexibility to shift resources among programs or to fund projects that cut across program boundaries.[9] Furthermore, a new infrastructure fund, focused on resilience, which grants state revolving loans could follow the Clean Water State Revolving Fund (CWSRF) model for waste-water grants with low interest financing.[10]

As part of the budget proposal or in an earlier supplemental budget, the Administrator should seek waivers from a hiring freeze and/or direct hiring authority for priority climate actions. There may be an opportunity for the new team to establish priorities through an abbreviated presidential budget process in the first year and to quickly hire behind that. Under the Trump administration, EPA had been hiring in some cases within lower full time equivalent (FTE) caps than the congressionally appropriated FTE caps. If that situation remains true until the end of the administration, the new administration may have an unusual opportunity to hire people and the FTE buffer to grow in high priority areas without the internal barriers that often come with FTE re-allocation decisions.

## KEY STRUCTURAL AND ORGANIZATIONAL OPPORTUNITIES

### ACTION ITEMS

**(100 Days)** Appoint critical leadership, prioritizing climate-critical leaders: Assistant Administrator for Air and Radiation, the Deputy Administrator, and the General Counsel.

**(100 Days)** Prioritize visits with career staff to inspire and rebuild morale.

**(100 Days)** Reverse internal policies, procedures, and reorganization that have been damaging to morale and/or efficiency.

**(100 Days)** Assess gaps in staffing and the potential for bottlenecks among critical staff and allow Offices to fill positions quickly.

[8] https://www.epa.gov/grants/multipurpose-grants-states-and-tribes
[9] https://www.epa.gov/sites/production/files/documents/2006-0325-ppg-guide.pdf
[10] https://www.epa.gov/cwsrf

EPA is home to approximately 14,000 federal employees,[11] about half of whom are located in the Washington, DC area. With headquarters offices in both Washington, DC and Research Triangle Park, North Carolina, EPA also has ten Regional Offices in Boston, New York, Philadelphia, Atlanta, Chicago, Dallas, Kansas City, Denver, San Francisco, and Seattle, as well as a number of laboratories throughout the US.[12]

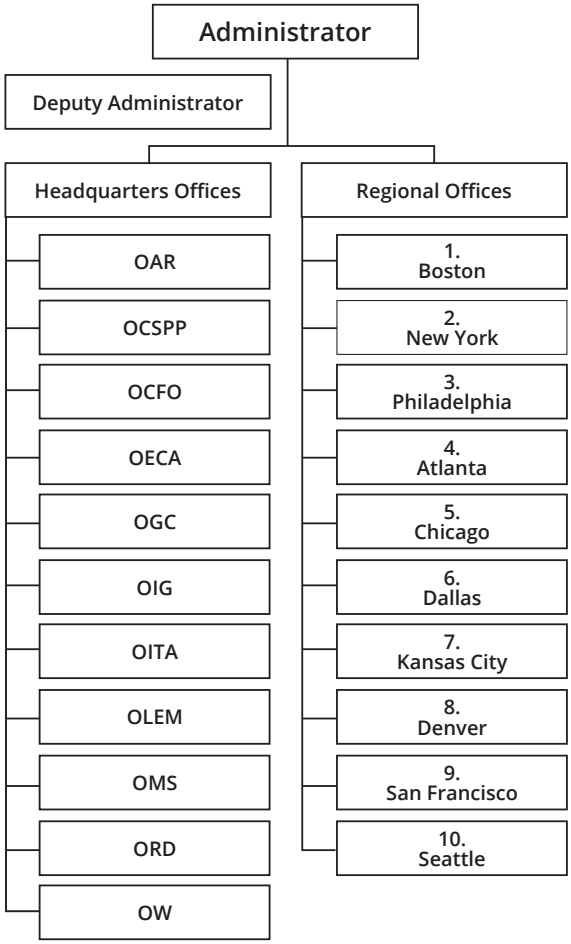
EPA has typically been managed by 13-15 senate confirmed political appointees, including: Administrator, Deputy Administrator, Chief Financial Officer (CFO), Inspector General (IG), General Counsel and eight to ten Assistant Administrators (AAs). In the Trump administration, AAs lead the following Offices: Air and Radiation (OAR), Chemical Safety and Pollution Prevention (OCSPP) (formerly Prevention Pesticides and Toxic Substances (OPPTS)), Enforcement and Compliance Assurance (OECA), International and Tribal Affairs (OITA), Land and Emergency Management (OLEM) (formerly Solid Waste and Emergency Response (OSWER)), Mission Support (OMS) (formerly the Offices of Administration and Resources Management (OARM) as well as Environmental Information (OEI)), Research and Development (ORD), and Water (OW).

Beyond the Administrator, critical staffing areas which require early appointments for climate success include the Assistant Administrator for OAR, the Deputy Administrator, and the General Counsel.

The timely appointment of Regional Administrators also will be important, given the important role states play in climate action. A unique individual is needed to fill the AA of the Office of Research and Development (ORD) in order to rebuild the scientific integrity of the agency, boost the agency's analytical capabilities, and elevate the commitment to integrative science for EPA to help in advancing society's goals. In order to integrate climate priorities and overhaul the offices, change agents are needed for the AAs of the Office of Water (OW) and the Office of Enforcement and Compliance (OECA) as well. Climate priorities will also benefit from an effective Chief Financial Officer (CFO), although the career staff is quite good and capable of navigating the budget process in the absence of a confirmed CFO.

In order to bolster the non-regulatory side of climate work, it would be beneficial to include on the political leadership team some state government experience and backgrounds that extend beyond the traditional core competencies of EPA regulation.

**Figure 2. EPA Organizational Chart**




OAR is the lead office on climate and includes three sub-offices that are critical to climate action: Office of Transportation and Air Quality (OTAQ), Office of Air Quality Planning and Standards (OAQPS), and Office of Atmospheric Programs (OAP). There is significant collaboration across these three offices on a range of climate-related efforts, including economic analyses. Generally, OTAQ has primary responsibility for transportation-related climate action and analyses, including the vehicle standards; OTAQ collaborates with OAP on analyses and actions related to transportation electrification. OAQPS has primary responsibility for stationary source rulemakings and new source permitting under the Clean Air Act; OAQPS collaborates with OAP on analyses, rulemaking, and implementation related to GHG performance standards (e.g., section 111 of the Clean Air Act). OAP has primary responsibility for climate science (e.g., GHG endangerment finding), GHG reporting and inventories, Energy Star and voluntary partnerships—including

[11] https://www.epa.gov/careers/where-us-can-i-work-epa
[12] https://www.epa.gov/careers/where-us-can-i-work-epa

climate outreach to and support for states and local governments as well as international partnerships—and EPA support of international negotiations, capacity building, and bilateral agreements. OAP also has extensive experience implementing and advising on market-based programs. Given the importance of its climate role at EPA, OAR should be tasked with providing an early assessment of the greatest potential for bottlenecks from key staff working on multiple high priority climate actions as well as climate staffing needs.

## ENERGIZING HUMAN CAPITAL

To optimize the agency's resources in the service of addressing the climate crisis, the Administrator and political leadership will need to signal their trust in and support of the expertise of talented career staff. The first step in that process is engaging senior career leadership to mobilize the vast resources of the agency in pursuit of a clear big picture vision that is as transformational and resilient as possible. Transition teams should reach out to career leadership early on, solicit their ideas, and lay to rest any anxiety that they may feel about being tainted by working under the previous administration. The Administrator, Deputy Administrator, and surrogates should prioritize visits with career staff and convey a sense of enthusiasm about the agency's mission. Regional Offices should also be enlisted to draw on their expertise related to the dynamics in individual states and to help identify overlapping climate-relevant interests with states that may not be as receptive to a climate agenda.

In order to unburden and empower the agency to effectively address the climate crisis, the Administrator will also need to direct a review of internal policies, procedures, and reorganization that have been damaging to morale and/or efficiency and identify those that need to be reversed. This includes the recategorization of career deputies and the restructuring of front offices, particularly in the Office of Water and the Office of Policy within the Office of the Administrator. Furthermore, mandatory use of EPA's lean management system (ELMS) and the requirement for top-down reporting of all metrics has turned a previously productive management tool into a cudgel.

The agency will need to expeditiously assess and prioritize gaps in staffing and expertise needed for climate and empower offices to fill positions quickly. It will be especially important to prioritize hiring for the OAR rulemaking teams that oversee major GHG emitting sectors; the legal staff in OGC; and the OAR team that advises the interagency working group on international climate diplomacy.

In addition, rebuilding is needed in regional offices, the enforcement office, and in climate-relevant programs across the agency. Based on any gaps identified by career leadership, the staffing of analysts who provide expertise on climate-critical activities such as the social cost of carbon and benefits associated with decarbonization should be reinforced. It may be beneficial to add full-time climate adaptation coordinators in each regional and program office and to expand the state and local team across OAR.

The Administrator will also need to assess recent changes in the structure of the Office of the Administrator and uncover opportunities to mold the structure for effective action on climate challenges. An over-reliance on counsel and advisors in the immediate office risks limiting the Administrator's connection with her AAs. An AA-centered model—perhaps with the addition of a very senior EJ advisor and a political appointee to coordinate climate prioritization on the Administrator's behalf—would be well-suited to empower the AAs to lead their respective Offices' rulemakings and allied initiatives and serve the Climate Change Blueprint prioritization process that will be described below.

# 2 Key Program Opportunities and Recommendations

The Office of Air and Radiation (OAR) is the office that can do the most to significantly reduce greenhouse gas emissions—and lead the fight against climate change. OAR can develop a plan for transportation, the sector that is both responsible for the most emissions and the one for which EPA has the clearest regulatory authority. Working through both OAR and other agency offices, the agency will be on point to find ways to reduce air and water pollution and waste generated by the power sector, take steps to set methane standards, and make rules phasing out high global-warming-potential chemicals like hydrofluorocarbons. The agency will also need to focus on sources of growing emissions in other sectors, from the building sector to the industrial sector to the bioenergy sector, that the agency has the tools to address. Success means creating a structured process, with rigorous criteria, to mobilize each of the agency's Offices to prioritize climate activities. It also means elevating environmental justice as a priority across the agency, recognizing that climate change impacts some communities more than others. And finally, it means announcing a renewal of EPA's mission that restores its scientific foundation, renews its attention to enforcement, and promises a concerted effort to work with states, communities, and industry to address the climate crisis.

OAR, the lead office on climate, has the authority, experience, and expertise to quickly implement regulatory and voluntary programs to significantly reduce GHG emissions. Success within the timing constraints will require OAR teams be empowered to jumpstart action on rulemakings, outlined below, for the transportation, power, and oil and gas sectors, as well as for HFCs. At the same time, the agency will also need to launch a parallel process in the first 100 days to identify priority opportunities across the entire agency to bend the U.S. emissions curve.

In undertaking the priority identification process, the Offices must be rigorously selective. Some of EPA's authorities are imperfect when applied to certain sectors' greenhouse gas emissions; other authorities have the potential to indirectly reduce GHG emissions while fulfilling other environmental protection obligations. To ensure that each Office focuses on its optimal actions, the Administrator should develop common evaluation criteria, such as those proposed later in this memo.

Applying transparent rigorous evaluation criteria will be essential, not only to optimize the actions chosen as priorities, but also to support the Offices' engagement with stakeholders, who can play a vital role in proposing potential approaches and actions. In addition, either on their own motion or in response to stakeholder advocacy, Offices may be prompted to consider novel or untested approaches or untested statutory authorities, such as section 115 of the Clean Air Act, in the hopes of creating a single comprehensive regulatory program or of achieving reductions in sectors that are not amenable to the application of more commonly used authorities. These ideas can neither be dismissed out of hand nor embraced uncritically; rigorous evaluation criteria can help the Offices analyze options like these efficiently and avoid misappropriating scarce resources. Options that fail to meet the key criteria should be rejected in favor of more promising actions.

## FORWARD-LOOKING TRANSPORTATION PLAN AND RULEMAKINGS

### ACTION ITEMS

**(100 Days)** Direct OAR to create a forward-looking transportation plan that includes vehicle standards for light duty, heavy duty, and off-road vehicles.

**(100 Days)** Direct OAR to initiate light duty vehicle rulemakings, while simultaneously engaging with important stakeholders, such as the state of California and auto manufacturers.

**(100 Days)** Direct OAR to work with California on their request for a vehicle emissions standard waiver under section 209 of the Clean Air Act.

Transportation is both the highest emitting sector and the sector for which EPA has the clearest regulatory authority. The Administrator should announce plans to initiate light duty rulemaking while simultaneously engaging with the state of California and auto-makers. Pending resolution of on-going litigation and in anticipation of a request from California, the Administrator should direct OAR to work with the state on a vehicle emissions standard waiver under section 209 of the Clean Air Act.

Under the Clean Air Act, EPA has the ability to encourage a bolder approach on light duty vehicle electrification in order to leap-frog incremental improvement of internal combustion engines, incorporate additional metrics, and set a long-term trajectory to zero emissions, while working with California and other key stakeholders. EPA's Clean Air Act authority to set standards for GHG emissions from mobile sources operates independently from that of the National Highway Transportation and Safety Administration (NHTSA) under the Energy Policy and Conservation Act—and it provides EPA with greater latitude and flexibility. The Obama administration recognized this and laid the groundwork for decoupling the activities of the two agencies. Decoupling may or may not be advisable, however, in the wake of pending federal court litigation regarding NHTSA and EPA's Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks. The SAFE Vehicles Rule treats California's Advanced Clean Cars Program as preempted by the Energy Policy and Conservation Act (EPCA).[13]

Additional leverage includes opportunities to lower the carbon intensity of transportation fuels and advance electrification. EPA's discretionary power under RFS authority could allow for a reset to drive towards advanced cellulosic ethanol and to promote biomethane production for electricity and electrified transportation. In addition, Clean Air Act section 211 authority offers a potential pathway to develop a Low Carbon Fuel standard. Furthermore, EPA's non-regulatory tools present opportunities to remove barriers to electrification in the transportation sector, including the build out of charging infrastructure.

## POWER SECTOR RULEMAKING

### ACTION ITEMS

**(Day 1)** Direct OAR to quickly marshal a team to maximize its authorities to achieve significant power sector reductions through a reevaluated, revised, and updated section 111 Clean Power Plan.

**(100 Days)** Create a power sector task force co-led by OAR and OGC with key representatives from offices on water, waste, and enforcement charged with an evaluation of power sector priorities to tee up a decision on actions to pursue.

[13] https://eelp.law.harvard.edu/2017/09/corporate-average-fuel-economy-standards-greenhouse-gas-standards/. https://eelp.law.harvard.edu/2018/08/cafe-standards-and-the-california-preemption-plan/

Air and water pollution and waste generated by the electricity sector continue to pose a broad spectrum of threats to public health and the environment as well as to the climate. Notwithstanding the favorable economics for clean, low-polluting energy and promising commitments at the state and utility company level, the pace of decarbonization and pollution and waste reduction in the power sector will need to be heavily policy-driven through 2030 for coal and even longer for natural gas. EPA will need to maximize its regulatory authorities to accelerate market trends as the electricity sector moves away from coal-fired and ultimately natural-gas-fired generation.

OAR power sector regulatory tools include Clean Air Act rulemakings which are in various points of the process, such as the MATS "appropriate and necessary" reversal and the residual risk and technology review (RTR) under section 112 (likely in litigation stage in 2021]; the Cross State Air Pollution Rule (CSAPR) under section 110(a)(2)(D); and Regional Haze.[14] In addition to the primary air quality and public health benefits these 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. For example, the latest MATS appropriate and necessary rulemaking creates risk for clean resources in competitive markets if coal plants are allowed to turn off pollution controls.

The Office of Land and Emergency Management's (OLEM) regulatory tools for the electricity sector include the Resource Conservation and Recovery Act (RCRA) Coal Combustion Residuals rulemaking for coal ash. The Office of Water (OW) has authority under the Clean Water Act (CWA) to establish effluent limitation guidelines and issue permits that may be relevant. Two specific rules worthy of assessment are the steam electric effluent limitation guidelines and the 316 (b) Cooling Water Intake rules.

Where regulation is justified to address critical environmental damage caused by coal production and combustion, regulation can create climate co-benefits by rectifying the economics of fossil-based generation and competition with clean energy sources. A cross-agency power sector task force would provide the Administrator with transparency on the overall impact of EPA's multiple power sector rulemaking actions, including on clean energy market trends.

## METHANE STANDARDS FOR OIL AND GAS

### ACTION ITEM

**(100 Days)** Task OAR with an immediate assessment of whether it is still necessary to update and reinstate the 2016 Information Collection Request (ICR). Direct OAR to re-propose with updates the 2016 methane new source performance standard (NSPS) and take all other steps necessary to establish comprehensive methane regulation of existing sources in the oil and gas sector.

EPA issued an ICR to fill significant gaps in knowledge about how facilities operate, what equipment they use, and which strategies to control methane are feasible; OAR should make an immediate assessment as to whether gaps in information remain that can be addressed via the ICR and, if so, reinstate the ICR promptly. Other tools to address the major source of methane emissions from the oil and gas sector include strengthening the CAA section 111(b) methane performance standards for oil and gas production, transmission, processing, and storage, and initiating a section 111(d) rulemaking for existing sources. Even signaling the intent to regulate existing sources could deliver benefits, especially since some major energy producers have stated their support for regulation and issued their own proposals.

Additional authorities for the oil and gas sector include regulation of hazardous air pollutants under section 112 of the Clean Air Act. Although conditions established under section 112(n)(4)(B) put limits on EPA's authority to regulate hazardous air pollutants from oil and gas production, the beneficial public health impact of such regulation would be significant especially given the expanding footprint of this sector and the prospect of achieving methane reductions as a co-benefit.

[14] August 20, 2019 EPA issued guidance for states on the second phase of implementation of Regional Haze.

## HYDROFLUOROCARBONS

### ACTION ITEM

**(100 Days)** Direct OAR to collaborate with OCSPP (formerly Prevention Pesticides and Toxic Substances (OPPTS)) to evaluate a rulemaking for HFCs under the Toxic Substances Control Act (TSCA).

EPA will need to develop a plan to either implement the Kigali Amendment to the Montreal Protocol or inform consideration of congressional action to overturn Honeywell vs. Fluor on HFCs as an alternative to formal ratification of the Kigali Amendment. EPA regulatory authorities for HFCs include the TSCA.

## STRATEGY FOR REMAINING, DIVERSE EMISSION SOURCES

### ACTION ITEMS

**(100 Days)** Direct OAR to present a strategy within 6 months to address the remaining, diverse group of emitting sources.

**(100 Days)** Support the White House in forming an interagency task force, co-led by EPA, to pursue meaningful GHG reductions in the industrial sector, including efforts to advance energy efficiency and partial electrification.

**(100 Days)** Request a briefing from OAR on partnership opportunities. Direct OAR to expand industry, state, and local engagement through partnerships and technical assistance.

Setting emissions standards and other regulations for the transportation, power, and oil and gas sectors, as well as for HFCs, would address the largest sources of emissions contributing to the climate crisis. However, a diverse group of sources in other sectors generate significant and growing emissions that must be addressed. EPA's regulatory authorities to set standards for sources within the industrial and commercial sector are less well suited for the task. EPA will have to look to a range of regulatory and non-regulatory tools. The complexities dictate that a longer timeframe will be needed, and it will be important to get started early.

### *Industrial sector*

The industrial sector is a challenging sector with subsector diversity and data gaps on reduction options. OAR will need to develop a strategic plan on industrial heat and process emissions based on an evaluation of the emission reduction options and potential for each subsector, as well as consideration of the full range of regulatory and non-regulatory tools. OAR regulatory tools for the industrial sector include CAA sections 111, 115, NSR permitting, and co-benefits from conventional pollutant regulation. There may also be opportunities to re-define regulatory source categories to achieve climate benefits, such as from the use of landfill gas, cogeneration, and methane from publicly owned biodigesters. Because of the significant time required for source-by-source regulation, subsector prioritization will be essential.

The challenges and importance of the industrial sector justify White House leadership, with EPA playing an appropriate co-leadership role in a multi-agency process. Increased investment for non-regulatory tools would allow for expanded partnership programs, technical support, and education programs to advance energy efficiency, electrification, and cogeneration. These non-regulatory tools may also be applied to encourage movement towards a circular economy with efforts aimed at the elimination of waste and pollution through the design of materials, products, systems, and business models.[15]

[15] Butterworth, Jamie et al., Towards the Circular Economy: Accelerating the scale -up across global supply chains, World Economic Forum, Geneva 2014. https://reports.weforum.org/toward-the-circular-economy-accelerating-the-scale-up-across-global-supply-chains/from-linear-to-circular-accelerating-a-proven-concept/

### *Buildings sector*

For the buildings sector, technologies are available to electrify onsite heating of space and water in order to address an important source of GHGs and significant use of fossil fuels. As with the industrial sector, the Administrator should direct OAR to expand industry, state, and local engagement through partnerships and technical assistance. This includes expanding programs to develop tools, such as the Energy Star Portfolio Manager, as well as model policies for states and locals as a pathway to advance electrification. OAR should also pursue cross-agency opportunities (e.g., partner with DOE on voluntary tools and industry outreach to advance electrification; partner with DOD on procurement and requiring efficiency in government buildings). In order to harness the emission reduction potential of partnerships and build off of the untapped demand from states, locals, and companies, partnership programs need more people and resources to go deeper and follow-up with individual state/local trainings and tailored tools and assistance.

### *Bioenergy*

EPA should take a proactive, rather than reactive, approach on bioenergy to harness the needed policy outcomes and to find a way to make biomass part of the climate solution. EPA's toolkit should be used to drive markets to beneficial forms of biomass. EPA should also provide analytical support for the US Department of Agriculture (USDA) and the Forest Service on land sector climate issues. EPA could pursue options, such as financial assistance through USDA, to accelerate efforts to convert animal biomass to energy by capping and capturing methane. This would also help with environmental justice objectives specific to hog farming in the southeast, as well as chicken farming and other areas of animal agriculture.

## CLIMATE CHANGE BLUEPRINT

#### ACTION ITEM

**(100 Days)** Create a structured process, with rigorous criteria, to mobilize each of the agency's Offices to prioritize climate activities and highlight the most important opportunities to drive down emissions and increase resilience.

EPA has an extremely broad array of tools to undertake a broad range of climate-critical tasks. The challenge for an incoming Administrator will be to set priorities and target resources, as well as mobilize the agency, to capitalize on the great number of different ways in which EPA can play its crucial role in addressing climate change. To accomplish this, the incoming Administrator should embrace climate policy priority-setting, specifically as a management challenge, and rely on the structure of the EPA and its expert-driven bottom-up practices and processes. Empowering leadership and career staff across EPA to develop the blueprint for agency action on climate will also play a critical role in reinvigorating and rebuilding the agency, as well as focusing its might on urgent attention to the climate crisis.

In addition to the actions enumerated above, immediately upon taking office, the Administrator should issue a directive (which will have been developed during the transition period) to EPA's Assistant Administrators or Acting Assistant Administrators to develop for each Office a "Climate Change Blueprint" to identify and implement other opportunities, if any, within each Office's purview to reduce greenhouse gases and to facilitate adaptation and resilience to the physical impacts of climate change. As part of the directive, the Administrator would specify criteria for the Assistant Administrators to apply in identifying the priority actions of their respective Offices. For example:

- Does the action result directly or indirectly in significant and timely reductions?
- Can it be implemented relatively easily?
- Does it entail interagency coordination that is manageable?
- Does the action address critical adaptation needs?

- Are the costs imposed by the action reasonable?
- To what extent does the action entail legal risk?
- Will the action face significant political opposition?
- Does the action fall within the core competence of the Office?
- Does the Office have adequate staffing and budget to undertake the action and, if not, can they be increased expeditiously?
- Have environmental justice impacts been a significant consideration in designing the proposal? Will the proposal advance the agency's environmental justice commitments?

Each Blueprint would put actions into one of three categories: those that are within the Office's or EPA's agency-wide purview; those that would benefit from the assistance of other executive branch agencies; and those that would necessarily be led by the Executive Office of the President (EOP) or other agencies and departments, even as the EPA plays a critical role. Several EPA Offices affect the same sectors; thus, each Blueprint would also be structured by sector indicating whether and what actions affected emissions or adaptation responses in the electricity, transportation, industrial, infrastructure[16], land use, and extraction and mining sectors—along with any other sectors or subsectors critical to climate change that fell within the Office's purview.

Additional areas of importance include the extraction and combustion of oil and natural gas, especially fossil-based transportation and fugitive releases of methane. In addition, even as the electricity sector transitions away from coal generation, growing emissions from the use of natural gas (both carbon dioxide and methane) represent a significant climate challenge for the next decade and beyond.[17] In developing their Blueprint, each office should evaluate actions that would contribute to a reduction in greenhouse gas emissions associated with the extraction and combustion of oil and natural gas.

Each Climate Change Blueprint would identify funding, hiring, and resource needs. Where appropriate, each Blueprint would also surface areas ripe for intra-agency collaboration, as well as targeted opportunities for inter-agency partnerships, to advance climate solutions.

Blueprints would also include priority actions each Office will take to integrate climate adaptation into planning, to mainstream climate adaptation into all programs, operations, and policies, and to initiate a vulnerability assessment to climate change impacts. This would include an evaluation of how each program is affected by climate change and how each program would need to evolve to adapt to both a changing climate and to deep decarbonization of the economy.

Finally, each Climate Change Blueprint would identify actions, such as rulemakings, taken by the Trump administration that may require review and, if appropriate, reversal as well as actions, such as compromising changes in processes, that require reform or repair.

Appendix B, which is organized by EPA Office, demonstrates the opportunities EPA has available to advance climate solutions and is illustrative of how each Office might begin to populate its respective Climate Change Blueprint.

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[16] In this context, infrastructure refers to the built environment, including buildings, cities, water supply, etc.

[17] EIA's Annual Energy Outlook 2020 projects that 13% of U.S. power generation will come from coal in 2050, while 36% will come from natural gas. They also project an average of over 10 GW of new natural gas generation through 2050, while they project no new coal and continued retirement of existing coal. https://www.eia.gov/outlooks/aeo/pdf/AEO2020%20Electricity.pdf

## STRATEGY FOR PENDING LITIGATION

### ACTION ITEMS

**(Days 1-14)** Working with DOJ, create a series of filings to stay pending litigation and allow the agency to reconsider positions for any rules that are still in the DC Circuit or another court.

**(100 Days)** Tasking OGC with identifying and evaluating current court cases that have direct or indirect climate implications to determine where a change of direction is appropriate.

**(100 Days)** Requesting legal assessment of the options for dealing with pending litigation, including, where appropriate, options to avoid focusing significant resources on litigation that may not be of high value.

Throughout the transition period and early days of the administration, a coordinated approach is needed with DOJ to devise the best strategy in ongoing litigation for positioning the agency to change policy direction and to avoid harmful legal directives that might undermine forward-leaning climate efforts. The Administrator's office will need to have early discussions with the General Counsel and career leadership in the Office of General Counsel (OGC) to accomplish legal filings. None of this can happen without coordination with DOJ, so it is essential for transition teams at DOJ and EPA to line up well and for the General Counsel's office to sync with the Environment and Natural Resources Division of the DOJ. Cross-agency collaboration with DOJ will also be fruitful for legal analyses and strategic decisions associated with developing and implementing an ambitious agenda to address climate change.

## ENVIRONMENTAL JUSTICE (EJ)

### ACTION ITEMS

**(100 Days)** Elevate EJ within the agency by increasing the seniority, visibility, budget, and team for the senior EPA official on EJ; empower the official to serve an accountability function for the Administrator, as well as a leadership role in collaborating across EPA Offices and other agencies to foster creative solutions, leverage tools, and accelerate action.

**(100 Days)** Create an Environmental Justice Council consisting of the AAs for national program offices and regional administrators in order to regularly map out how their climate actions have EJ benefits that could be advanced and to increase accountability for developing creative solutions and prioritizing concrete actions to benefit communities that have suffered patterns of environmental injustice.

Climate action is a component of social justice because the adverse effects of climate change (e.g., adverse health outcomes and extreme weather) disproportionately impact those who have the least resources and, therefore, their ability to adapt. These are often the same low income and working-class communities of color that have long endured environmental injustice. The majority of fossil fuel facilities are located in communities of color; fossil fuel infrastructure runs through vulnerable communities; and transportation emissions are a major driver of both climate change and environmental injustice. Many of the same sources of pollution responsible for sickness and premature death in frontline communities are now warming up our oceans and the planet.

Executive Order 12898, issued in 1994, directs Federal agencies to incorporate EJ into their mission and, in accordance with Title VI of the Civil Rights Act of 1964, ensure their programs and activities do not directly or indirectly discriminate. The Administrator will have an opportunity to help people understand the historical connection between the impacts on EJ communities and the emissions increases driving the climate crisis and threatening public health. This outreach combined with significant actions to both improve local issues of concern—such as transportation emissions at and around ports—and build resilience to climate impacts will help to build champions and confidence for EPA's work.

The Administrator should increase the accountability for program office integration of EJ solutions by establishing an EJ Council that includes AAs from each national program and Regional Administrators from each regional office. EPA must endeavor to more effectively integrate EJ considerations into EPA's programs that regulate facilities. Achieving this will not be straightforward, given that environmental justice considerations are not well integrated into many of EPA's media-specific authorities, and environmental justice has often been an afterthought in regulatory development in the program offices. These limitations warrant a concerted effort to develop creative solutions and build partnerships both within and outside of the Federal government to uncover opportunities to leverage authorities to be more effective. OAR should explore options to define characteristics associated with health impacts on vulnerable communities. Such characteristics could be used in guidance to states and EPA analyses of state plans (e.g., under Clean Air Act section 111(d) or National Ambient Air Quality Standards) in order to catalyze solutions for EJ communities.

During the Clean Power Plan process, EPA employed a unique approach and directed states to explicitly demonstrate that they had included EJ communities in the public participation process of developing state plans. While EPA was only able to offer limited resources—via a small quantity of emission allowances that had monetary value—the stakeholder outreach processes at the state level provided the EJ community with an important seat at the table to advance EJ interests. Looking across the EPA and administration for partners with additional resources and authorities has the potential to enhance what an individual program office can achieve. For example, collaboration between EPA's air and waste offices might uncover options to integrate EJ with the regulation of stationary sources. One way to do it would be by leveraging funds from Superfund and support from programs such as "RE-Powering America's Land" to facilitate redevelopment and siting of renewable energy. An application for that could be closing coal-fired power plants contaminated with coal ash and dust that pose a threat to nearby communities.[18]

EPA will also need to advance resilience to a changing climate at the local level and support states, local governments, and EJ communities, including through grants. EPA liaisons should engage constituents to ask about their challenges and tailor actions and objectives to address community concerns within EPA's authority.

Furthermore, EPA should collaborate across the administration to elevate environmental justice awareness and action at other agencies and to seek creative solutions for leveraging various programs and authorities to benefit EJ communities.

## RENEWAL OF THE EPA MISSION

### ACTION ITEMS

**(Day 1)** Announce an EPA renewal that features a restoration of its scientific foundation, renewed attention to enforcement, and a concerted effort to work with states, communities, and industry to address the climate crisis.

**(100 Days)** Restore scientific integrity by initiating a review and reconsideration of damaging rules, Administrator orders, and internal processes.

**(100 Days)** Charge the Science Advisory Board (SAB) with identifying biogenic energy sources/feedstocks that definitively contribute to decarbonization.

**(100 Days)** Staff up on the inter-agency working group on bioenergy to infuse as much science as feasible into bioenergy decision-making.

**(100 Days)** By Earth Day, EPA should announce a public education campaign aimed at major barriers to decarbonization and re-launch the climate website.

**(100 Days)** Co-lead an interagency workgroup to revamp and wield the social cost of carbon to drive ambition.

**(100 Days)** Work with the Council on Environmental Quality to reverse the Trump Administration policy on ignoring climate impacts in NEPA reviews.

[18] https://www.powermag.com/turning-brownfields-greenfields-coal-clean-energy/

For success on climate, as well as more broadly, the Administrator will need to repair and rejuvenate EPA's integrity, reputation, and leadership. This effort will need to include a renewed commitment to use the best science, operating in a transparent way and making sure agency regulatory efforts provide environmental benefits to all Americans. That includes those in disadvantaged communities, who often are the most exposed to the harms of pollution and climate change, even as they also have less power, opportunity, and recourse than other stakeholders to do anything about it.

EPA will need to initiate review and reconsideration of damaging rules, Administrator orders, and internal processes, such as the science transparency rule, the treatment of co-benefits in agency cost/benefit analyses, biogenic energy guidance[19], and advisory committee membership restrictions designed to favor industry over independent academic experts.

EPA's foundational work on climate includes the modeling to produce new federal estimates on the social cost of carbon and align science and rational policy making with those estimates as quickly as possible to support early rulemaking proposals. EPA expertise and analytical capabilities in OAR and the Office of the Administrator's National Center for Environmental Economics, as well as its regulatory use of the social cost of carbon, make EPA a critical player that needs to be engaged at the earliest stages of setting the parameters to guide a restarted interagency working group on the social cost of carbon.

EPA should drive an interagency effort to translate science into actionable and directly relevant information for state and local policy makers, particularly responsive to adaptation and resilience needs.

EPA will need a multi-pronged approach on bioenergy not just to repair damaging policies but also to forge partnerships to harness bioenergy into the climate solution set.

EPA has a critical role in implementing NEPA under Section 309 of the Clean Air Act.[20] EPA will need to seek opportunities to use NEPA far more robustly to identify climate impacts of policies and make those impacts transparent to the public.

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[19] This refers to EPA's interpretation of carbon-neutral biomass in permitting decisions, as well as a forthcoming rulemaking with guidance on accounting for the carbon content of biogenic material. https://www.epa.gov/air-and-radiation/epas-treatment-biogenic-carbon-dioxide-emissions-stationary-sources-use-forest

[20] https://www.epa.gov/nepa

# 3 Cross-Cutting Priorities and Relationships

EPA cannot do the work of lowering GHG emissions and fighting climate change on its own. In order to be successful, the agency will need to seek partnerships—across agencies within the federal government, especially OMB; with states and tribes; between nations; and alongside private sector and public sector external stakeholders. These collaborators will be integral to EPA's work, as it pertains to a wide variety of domains, so outreach should begin as soon as possible; and communication channels should remain open throughout the term.

**ACTION ITEMS**

**(100 Days)** Meet with the head of OMB to develop a plan to expedite high priority regulations.

**(100 Days)** Direct OAR leadership to build a stronger presence on interagency climate diplomacy teams and elevate the influence of OAR technical experts to ensure the ambition, accountability, and workability of climate actions in the international realm.

**(100 Days)** Direct OAR to address the gap in GHG reporting at the national level and to boost work with other nations to increase the ambition of climate commitments[21] and improve inventories and analyses.

**(100 Days)** Seek interagency partnerships and support the creation of a Green Cabinet that meets regularly and proposes cross-agency initiatives.

**(100 Days)** Develop an early outreach plan for external stakeholders.

**(100 Days)** Forge strengthened relationships with states and tribes.

**(100 Days)** Consider creation of an Office of Private Sector Climate to leverage convenings and information to engage CEOs, trade associations, and business communities and to drive measurable reductions in the private sector.

Relationship building is a prerequisite for success on climate. This includes interaction with the EOP, other agencies and departments in the administration, states and tribes, the private sector, and other stakeholders.

There may be no relationship that is more important than that with OMB; while OMB has the power to significantly slow down EPA regulatory actions, OMB staff have also proven useful allies to improve the quality of the work product and manage the interagency process on behalf of the agency—to the extent EPA's priorities align with the administration's. The Administrator should meet with the head of OMB very early in her tenure to set the stage for success and agree to a plan to expedite high priority regulations and resolve questions about the agency budget.

The EPA Administrator has formal roles on key White House councils, including the Domestic Policy Council[22] and the National Economic Council.[23]

[21] Nationally Determined Contributions (NDCs). https://unfccc.int/process-and-meetings/the-paris-agreement/nationally-determined-contributions-ndcs
[22] See executive order 12859 - https://www.hsdl.org/?view&did=457196
[23] See executive order 12835 - https://www.govinfo.gov/content/pkg/WCPD-1993-02-01/pdf/WCPD-1993-02-01-Pg95.pdf

EPA has significant analytical capability, which has been influential in informing previous legislative debates and driving international momentum. In coordination with the EOP, EPA's analytical teams, particularly in OAR, should be responsive to requests for legislative analyses. The Administrator should also enlist senior leadership to consider how pieces of the administration's agenda could be included in smaller bills with political viability, such as an infrastructure or transportation bill.

The Administrator should also ensure that EPA resources are at the ready to support the president's efforts to rejoin the Paris Agreement as well as on-going diplomatic efforts to secure ambitious and effective actions around the globe to stem the climate crisis. EPA's most important role in relation to Paris is to start the high-leverage regulatory actions that will underpin the U.S. commitment—and determine what EPA can do to further reduce emissions in support of a more robust commitment. To that end, EPA will need to quantify the emissions reductions achievable with existing authorities and be responsive to congressional requests to analyze legislative proposals. In addition, the Administrator should direct OAR to address the gap in GHG reporting at the national level and boost work with other nations to increase the ambition of commitments[24], as well as improve inventories and analyses. The Administrator should direct OAR leadership to build a stronger presence on interagency climate diplomacy teams and to elevate OAR technical experts to ensure the ambition, accountability, and workability of climate actions in the international realm. These include continuing efforts for the Paris Agreement under the United Nations Framework Convention on Climate Change, as well as the International Civil Aviation Organization's (ICAO) Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA). As part of the announcement to re-enter Paris, the Administrator could announce or advise the President to announce a re-doubling of international capacity building. EPA should also seek to expand international partnership programs; that would include re-chartering the Global Methane Initiative with more ambition and greater funding.

Political leadership at EPA should be encouraged to build a rapport with counterparts in other agencies, especially the Department of Energy (DOE), the Federal Energy Regulatory Commission (FERC), the Department of the Interior (DOI), the Department of the Treasury (DOT), the Department of Justice (DOJ), and the Department of Agriculture (USDA). Social interaction between counterparts will be as important as structural efforts to promote inter-agency cooperation.

There are significant opportunities for EPA to collaborate across the administration to advance climate solutions, including with DOE to develop analyses on natural gas and carbon capture, storage, and utilization in support of EPA regulation; with the USDA on agricultural emissions, rural energy, and wildfire smoke; and with the DOI and DOD on the citing of renewable energy. The Administrator should seek partnerships and support creation of a Green Cabinet to propagate cross-agency initiatives. (See Appendix C for office-based recommendations which include specific ideas for cross-agency collaboration.)

The Administrator and her surrogates will need to forge strengthened relationships with states and tribes, including state environmental commissioners through the Environmental Council of the States (ECOS), State Attorneys General, and other national and regional state and tribal organizations. In addition, Regional Administrators should be encouraged to avail themselves of opportunities to renew and enhance conversations around climate impacts in relation to public decision-making.

The Administrator should work with her senior leadership team, both political and career, to develop an efficient early outreach plan. Part of this will include identifying a broad range of organizations that represent key stakeholder groups (e.g., car companies, Green for All, Edison Electric Institute, Advanced Energy Economy, and the ISO/RTO Council).

[24] Nationally Determined Contributions. https://unfccc.int/process-and-meetings/the-paris-agreement/nationally-determined-contributions-ndcs

# **Appendix A:** EPA FY2020 Budget Overview

| Resources by major category | Amount (bn) |
|---|---|
| Trust Funds | 3.6 |
| Categorical Grants | 3.1 |
| Operating Budget | 1.3 |
| Infrastructure Spending | 1.1 |
| **Total** | **9.1** |

| Summary of agency resources by appropriation | Amount (mn) |
|---|---|
| State and Tribal Assistance Grants | 4,246 |
| Environmental Programs and Management | 2,663 |
| Hazardous Substance Superfund | 1,185 |
| Science and Technology | 716 |
| Leaking Underground Storage Tanks | 92 |
| Water Infrastructure Finance and Innovation Fund | 60 |
| Inspector General | 41 |
| Buildings and Facilities | 34 |
| Inland Oil Spill Programs | 20 |
| **Total** | **9,057** |

| Summary of agency resources by appropriation | Amount (mn) |
|---|---|
| Water | 419 |
| Air and Radiation | 249 |
| Hazardous Waste | 144 |
| Drinking Water | 116 |
| Multimedia | 92 |
| Pesticides and Toxics | 55 |
| **Total** | **1,075** |

| Revolving state funds (obligation amount) | Amount (mn) |
|---|---|
| Drinking Water State Revolving Fund | 1,126 |
| Clean Water State Revolving Fund | 1,639 |
| **Total** | **2,765** |

| Revolving state funds (obligation amount) | Amount (mn) |
|---|---|
| Superfund | 1,185 |
| Leaking Underground Storage Tanks | 92 |
| **Total** | **1,277** |

Source: http://www.epa.gov/sites/production/files/2020-02/documents/fy-2021-epa-bib.pdf

# Appendix B: Timeline of Key EPA Recommendations

## DAY 1

- **Initiate high-leverage rulemakings** to accelerate the pace of decarbonization in major greenhouse gas (GHG) emitting sectors. Direct the Office of Air and Radiation (OAR) to create Clean Air Act rulemaking teams for vehicles, the power sector, and the oil and gas sector. *(Jan. 20)*
    - ***Direct OAR to initiate light duty vehicle rulemakings***, while simultaneously engaging with important stakeholders, such as the state of California and auto manufacturers.
    - ***Direct OAR to work with California on their request*** for a vehicle emissions standard waiver under section 209 of the Clean Air Act.
    - ***Direct OAR to quickly marshal a team to maximize its authorities*** to achieve significant power sector reductions through a revised and updated section 111 Clean Power Plan.
    - ***Task OAR with an immediate assessment*** of whether it remains necessary to update and reinstate the 2016 Information Collection Request. Direct OAR to re-propose with updates the 2016 methane new source performance standard and take all other steps necessary to establish comprehensive methane regulation for the oil and gas sector.

## FIRST 100 DAYS (JANUARY 20–APRIL 30)

- **Appoint critical leadership, prioritizing climate-critical leaders:** Assistant Administrator for Air and Radiation, the Deputy Administrator, and the General Counsel. *(100 Days)*
- **Announce an EPA renewal** that features a restoration of its scientific foundation, renewed attention to enforcement, and a concerted effort to work with states, communities, and industry to address the climate crisis. *(Jan. 21)*
- **Create a series of filings to stay pending litigation, alongside DOJ**, and allow the agency to reconsider positions for any rules that are still in the DC Circuit or another court. Task OGC with identifying and evaluating current court cases that have direct or indirect climate implications to determine where a change of direction is appropriate. *(Feb. 3)*
- **Request a legal assessment of the options for dealing with pending litigation**, including, where appropriate, options to avoid focusing significant resources on litigation that may not be of high value. *(100 Days)*
- **Develop a high priority funding request**, during the transition period or first weeks, for the Omnibus FY2021 budget—and work with appropriators to seek increased flexibility to reprogram funds within the FY2021 budget. *(Feb. 6)*
- **Seek waivers from an early hiring freeze and/or direct hiring authority** to support priority climate actions and rebuild essential expertise. *(100 Days)*
- **Direct each Office to develop a Climate Change Blueprint.** Create a structured process, with rigorous criteria, to mobilize each of the agency's Offices to prioritize climate activities and highlight the most important opportunities to drive down emissions and increase resilience. *(100 Days)*
- **Request an early briefing on how the EPA operates**, the inherent multi-tasking strengths in the agency's organizational structure, typical action timelines, and the limitations of regulatory authorities**.** *(100 Days)*

- **Set the balance among the competing interests that define a regulatory schedule:**
  - the desire to be able to get through litigation in the first term;
  - the importance of robust public engagement; and
  - the fundamental need to build strong technical support and well-thought-out legal arguments in order to allow a successful defense and a durable legacy.
- **Build the case for a restoration budget** with a significant increase to restore or approach EPA's high-water funding level in FY2010. *(100 Days)*
- **Develop ideas to increase climate funding and dedicated climate grants** under the structure of state and tribal assistance grants (STAGs), multipurpose grants (MPGs), and state revolving loans with low interest financing. *(100 Days)*
- **Omnibus FY2021:** announce wins from FY2021 enacted. *(March 1)*
- **EPA FY2022 budget:** announce budget priorities, including increases for core science and environmental programs; additional FTE; and state climate grants, particularly for adaptation and resilience in vulnerable frontline communities that suffer from a historic pattern of environmental injustice. *(March 10)*
- **Direct OAR to create a forward-looking transportation plan** that includes vehicle standards for light duty, heavy duty, and off-road vehicles. *(100 Days)*
- **Create a power sector task force** co-led by OAR and OGC with key representatives from offices on water, waste, and enforcement charged with an evaluation of power sector priorities to tee up a decision on actions to pursue. *(100 Days)*
- **Direct OAR to collaborate with OCSPP to develop a coordinated regulatory plan** for hydrofluorocarbons (HFCs) and engage with the White House and State Department on moving forward with ratification of the Kigali Amendment and an alternative legislative strategy. *(100 Days)*
- **Direct OAR to present a strategy**, within 6 months, to address the remaining, diverse group of emitting sources. *(100 Days)*
- **Support the White House in forming an interagency task force**, co-led by EPA, to pursue meaningful GHG reductions in the industrial sector, including efforts to advance energy efficiency and partial electrification. *(100 Days)*
- **Request a briefing from OAR on partnership opportunities.** Direct OAR to expand industry, state, and local engagement through partnerships and technical assistance. *(100 Days)*
- **Elevate environmental justice within the agency** by increasing the seniority, visibility, budget, and team for the senior EPA official on EJ; empower them to serve an accountability function for the Administrator, as well as a leadership role in collaborating across EPA offices and agencies to foster creative solutions, leverage tools, and accelerate action. *(100 Days)*
- **Create an Environmental Justice Council** consisting of the AAs for national program offices and regional administrators in order to both regularly map out how their climate actions have EJ benefits that could be advanced and increase accountability for developing creative solutions and prioritizing concrete actions to benefit communities that have suffered patterns of environmental injustice. *(100 Days)*
- **Restore scientific integrity** by initiating a review and reconsideration of damaging rules, Administrator orders, and internal processes. *(100 Days)*
- **Staff up on the inter-agency working group** on bioenergy to infuse as much science as feasible into bioenergy decision-making. *(100 Days)*

- **Charge the Science Advisory Board (SAB)** with identifying biogenic energy sources/feedstocks that definitively contribute to decarbonization. *(100 Days)*
- **Announce an EPA public education campaign, by Earth Day**, aimed at major barriers to decarbonization, and re-launch the climate website. *(April 23)*
- **Co-lead an interagency workgroup to revamp and wield the social cost of carbon** to drive ambition. *(100 Days)*
- **Work with the Council on Environmental Quality** to reverse the Trump Administration policy on ignoring climate impacts in NEPA reviews. *(100 Days)*
- **Prioritize visits with career staff to inspire and rebuild morale.** *(100 Days)*
- **Undo internal policies**, procedures, and reorganization that have been damaging to morale and/or efficiency. *(100 Days)*
- **Assess gaps in staffing and the potential for bottlenecks** among critical staff and allow Offices to fill positions quickly. *(100 Days)*
- **Meet with the head of OMB to develop a plan** to expedite high priority regulations. *(100 Days)*
- **Direct OAR to build a stronger presence on interagency climate diplomacy teams** and elevate the influence of OAR technical experts to ensure the ambition, accountability, and workability of climate actions in the international realm.
- **Direct OAR to address the gap in GHG reporting at the national level** and boost work with other nations to both increase the ambition of climate commitments[25] and improve inventories and analyses. *(100 Days)*
- **Seek interagency partnerships and support the creation of a Green Cabinet** that meets regularly and proposes cross-agency initiatives, such as task forces on industrial and agricultural emissions. *(100 Days)*
- **Rebuild relationships with states and tribes.** *(100 Days)*
- **Develop an early outreach plan for external stakeholders.** *(100 Days)*

## YEAR ONE REMAINDER (MAY 1–DECEMBER 31)

- **Consider creation of an Office of Private Sector Climate** to leverage convenings and information to engage CEOs, trade associations, and business communities, as well as drive measurable reductions in the private sector.

[25] Nationally Determined Contributions (NDCs). https://unfccc.int/process-and-meetings/the-paris-agreement/nationally-determined-contributions-ndcs

# Appendix C: Office-Level Recommendations

To reflect EPA's organizational structure and its resulting strength of being able to pursue multiple efforts in parallel, the agency's tools for addressing the climate crisis are included by program office. Specifically, sections I through IX describe priority climate actions and tools available to EPA within the Offices of Policy, Air and Radiation, Land and Emergency Management, Water, Enforcement and Compliance Assurance, General Counsel, Research and Development, Chemical Safety and Pollution Prevention, and International and Tribal Affairs.

## OFFICE OF POLICY (OP) WITHIN THE AO

### *Adaptation/resilience*

#### Within EPA

The Adaptation Workgroup will need to coordinate with program offices, regions, and inter-agency efforts in order to employ EPA tools to advance local- and state- level resilience to climate impacts. In order to do so, EPA will need to identify and develop needed resources, information, and assistance with cost-benefit analyses, as well as leverage information clearing-houses and tools like ARC-X[26] to facilitate cross-fertilization in adaptation planning. The Workgroup should build on engagement and activities at EPA's regional offices to target tools to the needs of communities.

#### Budget/resources

- Assess whether it would be beneficial to add full-time climate adaptation coordinators in each regional and program office.
- Leverage state grants and adaptation budget to amplify state, local, philanthropic, and other stakeholder efforts on adapting to a changing climate.
- Work with Congress and the President's budget request to get earmarked appropriations for adaptation at EPA and other relevant agencies (DOI, USDA, DOD).
- Increase the size of Multiprogram Grants—a small pot of money ($21 mil) from the last Obama budget, which states used for their climate efforts—and make the program's focus on climate explicit.
- Launch a new infrastructure fund, focused on resilience, which grants state revolving loans—and follows the model for waste-water grants with low interest financing from the Clean Water State Revolving Fund. This could be part of an overall strategy to use funds for the agriculture sector and also to support the conservation reserve program.

### *Analytical capabilities*

#### Within EPA

- Boost analytical capabilities across the agency, including on the social cost of carbon and benefits of decarbonization.
- Task the National Center for Environmental Economics (NCEE) with coordinating with OAR on cross-cutting economic issues, such as methane regulation and cost-benefit analyses.

[26] https://www.epa.gov/arc-x

### EPA role in Executive Branch effort

- An important EPA tool is its analytical capabilities, including on the social cost of carbon. EPA should co-lead a restarted interagency working group on the social cost of carbon. EPA will need to undertake the modeling work to get new federal estimates and return science and rational policy-making to those estimates as quickly as possible to have draft numbers for early rulemaking proposals.

### Budget/resources

- Staffing: Ensure National Center for Environmental Economics and OAR are staffed up and that staff time is robustly allocated to the effort to restart the interagency working group for the social cost of carbon.
- Create a matrix team with Office of Administrator support to leverage OP and its NCEE to integrate with the OLEM effort to build a sensible CCR rule on coal ash.

## *Environmental justice*

### Within EPA

Climate action is a component of social justice because the adverse effects of climate change, from health outcomes and extreme weather, disproportionately impact those who have the least resources and, therefore, their ability to adapt. These are often the same low income and working-class communities of color that have long endured environmental injustice. The majority of fossil fuel facilities are located in communities of color; fossil fuel infrastructure runs through vulnerable communities; and transportation emissions are a major driver of both climate change and environmental injustice. Many of the same sources of pollution responsible for sickness and premature death in frontline communities are now warming up our oceans and the planet.

Executive Order 12898, issued in 1994, directs Federal agencies to incorporate EJ into their mission and, in accordance with Title VI of the Civil Rights Act of 1964, ensure their programs and activities do not directly or indirectly discriminate.

- Elevate EJ within the agency by increasing the seniority, visibility, budget, and team for the senior EPA official on EJ; empower them to serve an accountability function for the Administrator, as well as a leadership role in collaborating across EPA offices and agencies to foster creative solutions, leverage tools, and accelerate action.
- Create an EJ Council consisting of the AAs for national program offices and regional administrators in order to both regularly map out how their climate actions have EJ benefits that could be advanced and increase accountability for developing creative solutions and prioritizing concrete actions to benefit communities that have suffered patterns of environmental injustice. EPA must endeavor to more effectively integrate EJ considerations into EPA's programs that regulate facilities. Achieving this will not be straightforward, given that environmental justice considerations are not well integrated into many of EPA's media-specific authorities, and environmental justice has often been an afterthought in regulatory development in the program offices. These limitations warrant a concerted effort to develop creative solutions and build partnerships both within and outside of the Federal government to uncover opportunities to leverage authorities for more effect.
- EPA will have an opportunity to help people understand the historical connection between the impacts on EJ communities and the emissions increases driving the climate crisis and threatening public health. This outreach combined with significant actions to both improve local issues of concern—such as transportation emissions at and around ports—and build resilience to climate impacts will help to build champions and confidence for EPA's work.
- EPA will also need to advance resilience to a changing climate at the local level and support states, local governments, and EJ communities, including through grants. EPA liaisons should engage constituents to ask about their challenges and tailor actions and objectives to address community concerns within EPA's authority.

### Cross-agency

EPA should collaborate across the administration to elevate environmental justice awareness and action at other agencies and to seek creative solutions to leverage various programs and authorities to benefit EJ communities.

For example, during the Clean Power Plan process, EPA employed a unique approach and directed states to explicitly demonstrate that they had included EJ communities in the public participation process of developing state plans. While EPA was only able to offer limited resources—via a small quantity of emission allowances that had monetary value—the stakeholder outreach processes at the state level provided the EJ community with an important seat at the table to advance EJ interests. Looking across the EPA and administration for partners with additional resources and authorities has the potential to enhance what an individual program office can achieve. For example, collaboration between EPA's air and waste offices might uncover options to integrate EJ with regulation of stationary sources by leveraging funds from Superfund and support from programs such as "RE-Powering America's Land" to facilitate redevelopment and siting of renewable energy. An application for that could be closing coal-fired power plants contaminated with coal ash and dust that pose a threat to nearby communities.[27]

## *Science Advisory Board (SAB)*

### Within EPA

- Target use of SAB to evaluate policy-relevant research questions in support of program offices for the second tier of climate priorities/actions to account for the process lead time. In particular, support OAR, OP/NCEE, and ORD on best practices for economy-wide modeling. Coordinate with OAR on research related to policy-relevant forms of biomass with unequivocal carbon benefits.

# OFFICE OF AIR AND RADIATION

## *Transportation*

Transportation is both the highest emitting sector and the sector where EPA has the clearest regulatory authority. EPA should announce plans to initiate a light duty rulemaking process while simultaneously engaging with the state of California and auto-makers. Pending resolution of on-going litigation and in anticipation of a request from California, EPA should direct work with California on a vehicle emissions standard waiver under section 209 of the Clean Air Act.

### Within EPA

- Vehicle standards (light duty, heavy duty, off-road)—strong, clear authority with the ability to encourage a bolder approach on EVs (particularly for light duty) to leap-frog incremental improvement of ICEs, consider additional metrics, and set a long term trajectory to zero emissions, while working with CA/states and stakeholders.
- Transportation fuels—opportunities to lower the carbon intensity of transportation fuels and advance electric vehicles.
    - Authorities include discretionary power under RFS authority, which could allow for a reset to drive towards advanced cellulosic ethanol—and promote biomethane production for electricity and electrified transportation.
    - Additional authority on transportation fuels includes CAA section 211, which could allow for the development of a Low Carbon Fuel standard.
    - EPA's non-regulatory tools could offer opportunities to remove barriers to charging infrastructure.

[27] https://www.powermag.com/turning-brownfields-greenfields-coal-clean-energy/

### Cross-agency

- EPA's Clean Air Act authority to set standards for GHG emissions from mobile sources operates independently from that of the National Highway Transportation and Safety Administration (NHTSA) under the Energy Production and Conservation Act and provides EPA with greater latitude and flexibility. The Obama administration recognized this and laid the groundwork for decoupling the activities of the two agencies. Decoupling may or may not be advisable in the wake of pending decisions regarding NHTSA and EPA's Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks. The SAFE Vehicles Rule treats California's Advanced Clean Cars Program as preempted by the Energy Policy and Conservation Act (EPCA).[28]

### EPA role in Executive Branch effort

- Work with DOJ to devise the best strategy in ongoing litigation for positioning the agency to change policy direction and avoid harmful legal directives that might undermine forward-leaning climate efforts.

- Aviation and maritime represent longer term challenges where EPA has fewer tools. Evaluate opportunities to bend the aviation emissions trajectory. Coordinate with the Federal Aviation Administration (FAA) and the State Department on negotiation and implementation of international efforts under the International Civil Aviation Organization (ICAO), including the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA). Coordinate with the State Department on efforts under the International Maritime Organization (IMO).

## *Electricity*

OAR should wield regulatory authorities to accelerate market trends and the pace of decarbonization in the electricity sector.

### Within EPA

OAR electricity sector regulatory tools include performance standards under section 111, where there is [pending litigation on] the Affordable Clean Energy rule and Clean Power Plan repeal. Evaluation of GHG regulation for the power sector under section 111 includes an examination of the menu of approaches for program design, stringency, and incorporating outreach and convenings with the utility sector. Within such an approach, there may be options to offer safe harbor and/or streamlined compliance within the regulatory process for utilities that establish meaningful commitments and demonstrate progress towards meeting goals.

Tools to specifically address new natural gas plants include stricter section 111(b) new source performance standards, and/or substantive elements of NSR permits for individual sources. Although CCS for natural gas (e.g., Net Power demonstration project which uses the Allam Cycle to produce electricity, while eliminating all air emissions and generating pipeline-ready $CO_2$)[29] may or may not yet be ready to support a regulatory requirement, creating the conversation about new gas standards would be a helpful nudge to the market.

Air and water pollution and waste generated by the electricity sector continue to pose a broad spectrum of threats to public health and the environment—as well as to the climate. Notwithstanding the favorable economics for clean, low-polluting energy, and promising commitments at the state and utility company level, the pace of decarbonization and pollution and waste reduction in the power sector will need to be heavily policy-driven through 2030 for coal and even longer for natural gas. EPA will need to maximize its regulatory authorities to accelerate market trends as the electricity sector moves away from coal-fired and ultimately natural-gas-fired generation.

OAR power sector regulatory tools include Clean Air Act rulemakings which are in various points of the process, such as the Mercury and Air Toxics Standards (MATS) "appropriate and necessary" determination and the residual risk and technology review (RTR) under section 112 [likely in litigation stage in 2021]; the Cross State Air Pollution

[28] https://eelp.law.harvard.edu/2017/09/corporate-average-fuel-economy-standards-greenhouse-gas-standards/. https://eelp.law.harvard.edu/2018/08/cafe-standards-and-the-california-preemption-plan/

[29] https://www.netpower.com/

Rule (CSAPR) under section 110(a)(2)(D); and Regional Haze.[30] These rules are important in terms of the economics of the power generation resources that affect climate outcomes. For example, the latest MATS appropriate and necessary rulemaking creates risk for clean resources in competitive markets if coal plants are allowed to turn off pollution controls.

Where regulation is justified to address critical environmental damage caused by coal production and combustion, regulation can create climate co-benefits by rectifying the economics of fossil-based generation and competition with clean energy sources. A cross-agency power sector task force would provide the Administrator with transparency on the overall impact of EPA's multiple power sector rulemaking actions, including on clean energy market trends.

Additional OAR tools include outreach and partnerships (e.g., Green Power Partnership) to engage the utility sector and large energy users to build on utility CEO commitments to decarbonize and corporate commitments to both reduce energy use and increase clean energy in order to lock-in, accelerate, and support those efforts.

### Cross-agency

- Develop partnership with DOE on energy and leverage their resources (budgetary and expertise) to complete the analyses needed to accomplish climate goals. Develop research questions for DOE analyses to prepare for the challenge of continued emissions from new natural gas electricity generating units and climate impacts from new natural gas units out-competing nuclear and renewables in competitive markets.
- Be prepared, before making any commitments to use CAA section 115 authority, to undertake a rigorous analysis of the legal questions and risks surrounding whether and how it could be used, including to coordinate with DOJ as well as the State Department and its legal department on the international implications.
- Consider EPA-FERC intersection as an inter-agency opportunity. (For example, think about the impact that the FERC minimum offer price rule (MOPR) process could have on the nuclear fleet and renewable energy in organized markets.)
- Develop partnership with the U.S. Securities and Exchange Commission to pursue opportunities related to the financial disclosure of climate risk.

## *Extraction and mining*

### Within EPA

EPA issued an Information Collection Request to fill significant gaps in information about facilities' operations and equipment and about potential feasible control strategies; OAR should make an immediate assessment as to whether gaps in information remain that can be addressed via the ICR and, if so, reinstate the ICR promptly. Other tools to address the major source of methane emissions from the oil and gas sector include strengthening the CAA section 111(b) methane performance standards for oil and gas production, transmission, and distribution—and initiating a section 111(d) rulemaking for existing sources. For existing sources, even signaling the intent to proceed in that direction would be beneficial.

Additional authorities for the oil and gas sector include regulation of hazardous air pollutants under section 112 of the Clean Air Act. Although conditions established under section 112(n)(4)(B) put limits on EPA's authority to regulate hazardous air pollutants from oil and gas production, the beneficial public health impact of such regulation would be significant, especially given the expanding footprint of this sector and the prospect of achieving methane reductions as a co-benefit.

[30] August 20, 2019 EPA issued guidance for states on the second phase of implementation of Regional Haze.

## *Industrials*

The industrial sector is a challenging sector with subsector diversity, data gaps on reduction options, and international competitiveness issues associated with trade-exposed sources. A strategic plan for action would include an evaluation of options and emissions reduction potential by subsector for addressing industrial heat and process emissions considering the full range of regulatory and non-regulatory tools, including to increase energy efficiency and advance partial electrification. It will be important to recognize the significant time required for source-by-source regulation, the need to prioritize subsectors; and that, if EPA augments the rulemaking process with its convening power, the agency can help drive industry to action.

### Within EPA

OAR regulatory tools for the industrial sector include CAA sections 111, 115, and NSR permitting. There may also be opportunities to re-define regulatory source categories to achieve climate benefits, such as from the use of landfill gas, cogeneration, and methane from publicly owned biodigesters.

In addition, increased investment for non-regulatory tools would allow for expanded partnership programs, technical support, and education programs to advance energy efficiency, electrification, and cogeneration. These non-regulatory tools may also be applied to encourage movement towards a circular economy with efforts aimed at the elimination of waste and pollution through the design of materials, products, systems, and business models.[31]

### Cross-agency

- Form and co-lead a task force on opportunities to influence industrial GHG emissions.

## *Infrastructure*

Technologies are available to electrify onsite heating of space and water in buildings in order to address an important source of GHGs and significant use of fossil fuels.

### Within EPA

- OAR tools include expanded industry, state, and local engagement through partnerships and technical assistance. This includes expanding programs to develop tools, such as the Energy Star Portfolio Manager, as well as model policies for states and locals as a vehicle to advance electrification.
- Brief the Administrator on partnership opportunities within the first month.

### Cross-agency

- Partner with DOE on voluntary tools and industry outreach to advance electrification.
- Work with DOD on procurement and requiring efficiency.

### Budget/resources

- In order to exploit the emission reduction potential of partnerships and build off of the untapped demand from states, localities, and companies, partnership programs need more people and resources directed toward individual state/local trainings and tailored tools and assistance. To increase the role of partnerships as an important way for EPA to reach its mission, EPA should expand the state and local team across OAR.

## ***Land sector*** (*see also Transportation priorities*)

### Within EPA

- Biomass: take a proactive, rather than reactive, approach to harness the needed policy outcomes and find a way to make biomass part of the climate solution. Ask SAB to analyze what amount and forms of biomass are unequivocally good. Use EPA's toolkit to drive markets to beneficial forms of biomass.

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[31] Butterworth, Jamie et al., Towards the Circular Economy: Accelerating the scale -up across global supply chains, World Economic Forum, Geneva 2014. https://reports.weforum.org/toward-the-circular-economy-accelerating-the-scale-up-across-global-supply-chains/from-linear-to-circular-accelerating-a-proven-concept/

### Cross-agency

- Work with the Interagency group on bioenergy early on to agree on research needs and fund those efforts so they will be ready when needed.
- Work with Treasury on 45 Q tax credit regulations to require reporting to EPA under GHG Reporting Rule.
- Provide analytical support for USDA and forest service on land sector climate issues.
    - Look for ways, such as financial assistance through USDA, to accelerate converting animal biomass to energy by capping and capturing the methane. This would also help with EJ objectives specific to hog farming in the southeast, as well as chicken farming and other areas of animal agriculture.
- Provide assistance to USAID on rice cultivation—a source of methane—and ways to change methods to reduce emissions.

### Budget/resources

- Staff up on the inter-agency working group on bioenergy to infuse as much science as feasible into bioenergy decision-making.

## *Non-$CO_2$ gases*

### Within EPA

- Regulatory authorities for Hydrofluorocarbons include the Toxic Substances Control Act. OAR should collaborate with OCSPP (formerly OPPTS) to evaluate rulemaking for HFCs under TSCA. OAR and the Office of Chemical Safety and Pollution Prevention (OCSPP) will need to develop a coordinated regulatory plan for hydrofluorocarbons (HFCs), engage with the White House and State Department on ratification of the Kigali Amendment to the Montreal Protocol, and inform consideration of congressional action to overturn Honeywell vs. Fluor on HFCs as an alternative to formal ratification of the Kigali Amendment.

### EPA role in Executive Branch effort

- Invest in interagency effort to develop creative approaches on non-$CO_2$ gases, including how to implement Kigali Amendment to Montreal Protocol, agriculture sector, F gases, etc. Consider Congressional action to overturn Honeywell vs. Fluor on HFCs as an alternative to formal ratification of the Kigali Amendment.

## *International*

### EPA role in Executive Branch effort

- Support EOP announcement/effort to rejoin Paris Agreement. A strategic decision should be made by the incoming administration on the process for development of the next Nationally Determined Contribution (NDC) emission goal for rejoining the Agreement. EPA should:
    - Quantify emissions reductions achievable with existing authorities and be responsive to congressional requests to analyze legislative proposals.
    - Build a stronger presence on interagency climate diplomacy teams and elevate the influence of OAR technical experts to ensure the ambition, accountability, and workability of climate actions in the international realm. These include continuing efforts for the Paris Agreement under the United Nations Framework Convention on Climate Change, as well as the International Civil Aviation Organization's (ICAO) Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA).
    - Address the gap in GHG reporting at the national level.
    - International capacity building: work with other nations to increase ambitions of NDCs[32], improve inventories, analyses, etc. As part of the announcement to re-enter Paris, include a re-doubling of capacity building.

[32] Nationally Determined Contributions (NDCs). https://unfccc.int/process-and-meetings/the-paris-agreement/nationally-determined-contributions-ndcs

- Expand partnership programs; that includes re-chartering the Global Methane Initiative with more ambition and greater funding.
- Engage on the next National Climate Assessment, already underway, with caution given the potential for mischief from the previous administration.

### *Climate science*

#### Within EPA

- Bring the climate website back online (possible Earth Day announcement) and launch a public education campaign aimed at major barriers to decarbonization.

#### Cross-agency

- Provide EPA leadership on an interagency effort to translate science into actionable and directly relevant information for state/local policy makers, particularly on adaptation.

### *Environmental justice*

#### Within EPA

- OAR should explore options to define characteristics associated with health impacts on vulnerable communities. Such characteristics could be used in guidance to states and EPA analyses of state plans (e.g., under Clean Air Act section 111(d) or National Ambient Air Quality Standards) in order to catalyze solutions for EJ communities.

## OFFICE OF LAND AND EMERGENCY MANAGEMENT (OLEM)

### *Electricity, industrial, and mining and extraction sectors*

#### Within EPA

- OLEM regulatory tools for the electricity sector include the Resource Conservation and Recovery Act (RCRA) Coal Combustion Residuals rulemaking for coal ash.
- Regulations under the 2018 Build Act on brownfields grants could be reassessed to prioritize renewable energy and energy efficiency.
- OLEM has resources and programs (e.g., RE-Powering America's Lands) designed to help identify renewable energy potential on contaminated lands and support RE-development on such sites, including brownfields, superfund sites, sites subject to corrective actions under RCRA, mining sites, and landfills.

#### Cross-agency

- Collaborate with DOD on siting energy efficiency and renewable energy on contaminated/fallow lands at Federal Facilities; prioritizing siting of energy efficiency and renewable energy in sustainability plans.

#### Budget/resources

- These programs need additional FTE and expertise in the national program office and in the regions.

### *Adaptation*

#### Within EPA

- EPA programs provide grants and funding to clean-up hazardous waste sites, including at facilities that are particularly vulnerable to flooding and hurricanes—natural disasters that are exacerbated by, and present increased risks due to, climate change.
- Collaborate with ORD on resilience and flooding.

### Budget/resources

- These programs need additional FTE and expertise to target clean-up at the most vulnerable facilities.

## *Environmental justice*

### Within EPA

- EPA funding and grants for clean-up at superfund and brownfields sites could better prioritize environmental justice communities and opportunities for redevelopment and job creation, including siting renewable energy on contaminated lands.

### Budget/resources

- OLEM needs more resources and expertise to optimize the benefits of these programs for environmental justice communities.

# OFFICE OF WATER (OW)

## *Electricity*

### Within EPA

- OW has authority under the CWA to establish effluent limitation guidelines and issue permits that may be relevant. Two specific rules worthy of assessment are the steam electric effluent limitation guidelines and the 316 (b) Cooling Water Intake rules. EPA also has a [pending rule] under CWA on water quality certification that would affect how long states have to provide their approval. Review of this rule's status will be important.

## *Natural gas (electricity sector and industrial sector)*

### Within EPA

- Task OW with exploring possible options for regulation of hydraulic fracturing, with the understanding that fracking has significant exemptions from the Safe Drinking Water and Clean Water Acts.

## *Adaptation/resilience*

### Within EPA

- Leverage programmatic water activities related to CWA authority to help communities adapt to the changing climate and build resilience when it comes to water security, flow, and quality issues.
- Further analysis is necessary regarding the potential for OW regulatory or other levers related to climate-important sectors—such as mining and extraction, industrials, the land sector, and non-CO2 gases.

# OFFICE OF ENFORCEMENT AND COMPLIANCE ASSESSMENT (OECA)

## *Transportation*

### Within EPA

- Ensure compliance with certificates of conformity and with decay in performance prevention.

## *Electricity sector*

### Within EPA

- OECA tools include enforcement of power sector regulations with climate co-benefits.

### *Natural gas (electricity sector and industrial sector)*

#### Within EPA

- Task OECA with exploring authorities associated with natural gas that could offer climate co-benefits. (For example, this would include enforcement of the one-year rule for Clean Water Act 401 water quality certifications.)

### *Mining and extraction*

#### Within EPA

- Undertake an enforcement initiative focused on volatile organic compounds (VOCs) at the wellhead and downstream using data from the OAR ICR (e.g., identifying violations in the form of improper equipment design linked to emissions).

### *Industrial sector*

#### Within EPA

- Task OECA with considering the potential impact of enforcement tools for addressing industrial heat and process emissions by subsector—and evaluating its options.

### *NEPA*

#### Within EPA

- EPA has a very clear role in implementing NEPA under Section 309 of the Clean Air Act.[33] Staff up NEPA expertise (now in OP, may be better back in OECA) to collaborate with the rest of the agency on NEPA climate questions. Avail of opportunity to use NEPA far more robustly to ask questions about climate impacts of policies and make those impacts transparent to the public.

#### Cross-agency

- Work with DOE and DOI on speeding siting for renewable energy (RE) on public lands and on accelerating/coordinating the NEPA process to be less cumbersome and more effective.

#### Budget/resources

- Attention is needed to rebuild the enforcement office and to strengthen the legal and technical enforcement capacity at headquarters and in the regions. The Administrator should make an announcement signaling EPA will increase its focus on enforcement.

## OFFICE OF GENERAL COUNSEL (OGC)

#### Within EPA

- Evaluate current court cases to determine where a change of direction is appropriate. Two things that can be done during the transition:
    - Identify cases/regulations with potential climate impact (e.g., ACE/CPP, coal combustion residuals rule, secret science and transparency rule).
    - Identify OGC staff to coordinate with DOJ/ENRD through interim leadership. It is important that transition teams for DOJ and EPA line up well.
- Develop good relations with state AGs involved in litigation.
- Direct OGC staff to review all proposed climate change rules/policies to ensure proper procedure is followed to avoid early litigation challenges on procedural issues.

[33] https://www.epa.gov/nepa

### Cross-agency

- Day 1-15, work with DOJ to create a series of findings to stay the litigation and allow the Agency to reconsider positions and avoid rulings that would undermine climate activities.

### Budget/resources

- Bolster the staff of OGC (and DOJ): as part of the budget proposal or in an earlier supplemental budget, seek waivers from a hiring freeze and/or secure direct hiring authority.

## OFFICE OF RESEARCH AND DEVELOPMENT (ORD)

### Within EPA

- Align ORD research agenda with urgent capacity needs in the rest of the agency; fund external researchers and harness the skills and expertise of staff within the agency to work on the following issues:
    - Research on health impacts of particulate matter (PM) pollution beyond mortality such as birth outcomes and cognitive impacts.
    - Analyses of co-benefits associated with climate policies that accurately reflect emerging science on PM as well as traditional co-benefits.
    - Analyses of the benefits associated with the transition to a deeply decarbonized society.

## OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

### Within EPA

- Regulatory authorities for Hydrofluorocarbons (HFCs) include the Toxic Substances Control Act (TSCA). OCSPP should collaborate with OAR on rulemaking for HFCs under TSCA.

## OFFICE OF INTERNATIONAL AND TRIBAL AFFAIRS (OITA)

### Within EPA

- For many companies, the greatest emissions occur, and the greatest emissions reduction opportunities lie, in leveraging changes in the supply chain outside of the U.S. Explore what role OITA can play on climate related to the international supply chain of U.S. companies.

### Cross-agency

- Involve USAID on expanding education of women and girls globally, which is shown to result in lower carbon emissions.