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The Future of U.S. Climate Policy: Coal, Carbon Markets, and the Clean Air Act

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- *The President's Climate Action Plan*
  Executive Office of the President
  June 2013

- Utility Air Regulatory Group v. EPA (October 2014 Supreme Court case)

THE PRESIDENT'S CLIMATE ACTION PLAN

Executive Office of the President

June 2013

THE WHITE HOUSE
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PRESIDENT OBAMA'S CLIMATE ACTION PLAN

"We, the people, still believe that our obligations as Americans are not just to ourselves, but to all posterity. We will respond to the threat of climate change, knowing that the failure to do so would betray our children and future generations. Some may still deny the overwhelming judgment of science, but none can avoid the devastating impact of raging fires and crippling drought and more powerful storms.

The path towards sustainable energy sources will be long and sometimes difficult. But America cannot resist this transition, we must lead it. We cannot cede to other nations the technology that will power new jobs and new industries, we must claim its promise. That's how we will maintain our economic vitality and our national treasure -- our forests and waterways, our croplands and snow-capped peaks. That is how we will preserve our planet, commanded to our care by God. That's what will lend meaning to the creed our fathers once declared."

-- President Obama, Second Inaugural Address, January 2013

THE CASE FOR ACTION

While no single step can reverse the effects of climate change, we have a moral obligation to future generations to leave them a planet that is not polluted and damaged. Through steady, responsible action to cut carbon pollution, we can protect our children's health and begin to slow the effects of climate change so that we leave behind a cleaner, more stable environment.

In 2009, President Obama made a pledge that by 2020, America would reduce its greenhouse gas emissions in the range of 17 percent below 2005 levels if all other major economies agreed to limit their emissions as well. Today, the President remains firmly committed to that goal and to building on the progress of his first term to help put us and the world on a sustainable long-term trajectory. Thanks in part to the Administration's success in doubling America's use of wind, solar, and geothermal energy and in establishing the toughest fuel economy standards in our history, we are creating new jobs, building new industries, and reducing dangerous carbon pollution which contributes to climate change. In fact, last year, carbon emissions from the energy sector fell to the lowest level in two decades. At the same time, while there is more work to do, we are more energy secure than at any time in recent history. In 2012, America's net oil imports fell to the lowest level in 20 years and we have become the world's leading producer of natural gas – the cleanest-burning fossil fuel.

While this progress is encouraging, climate change is no longer a distant threat – we are already feeling its impacts across the country and the world. Last year was the warmest year ever in the contiguous United States and about one-third of all Americans experienced 10 days or more of 100-degree heat. The 12 hottest years on record have all come in the last 15 years. Asthma rates have doubled in the past 30 years and our children will suffer more asthma attacks as air pollution gets worse. And increasing floods, heat waves, and droughts have put farmers out of business, which is already raising food prices dramatically.

These changes come with far-reaching consequences and real economic costs. Last year alone, there were 11 different weather and climate disaster events with estimated losses exceeding $1 billion each across the United States. Taken together, these 11 events resulted in over $110 billion in estimated damages, which would make it the second-costliest year on record.

In short, America stands at a critical juncture. Today, President Obama is putting forward a broad-based plan to cut the carbon pollution that causes climate change and affects public health. Cutting carbon pollution will help spark business innovation to modernize our power plants, resulting in cleaner forms of American-made energy that will create good jobs and cut our dependence on foreign oil. Combined with the Administration's other actions to increase the efficiency of our cars and household appliances, the President's plan will reduce the amount of energy consumed by American families, cutting down on their gas and utility bills. The plan, which consists of a wide variety of executive actions, has three key pillars:

1) **Cut Carbon Pollution in America:** In 2012, U.S. carbon emissions fell to the lowest level in two decades even as the economy continued to grow. To build on this progress, the Obama Administration is putting in place tough new rules to cut carbon pollution – just like we have for other toxins like mercury and arsenic – so we protect the health of our children and move our economy toward American-made clean energy sources that will create good jobs and lower home energy bills.

2) **Prepare the United States for the Impacts of Climate Change:** Even as we take new steps to reduce carbon pollution, we must also prepare for the impacts of a changing climate that are already being felt across the country. Moving forward, the Obama Administration will help state and local governments strengthen our roads, bridges, and shorelines so we can better protect people's homes, businesses and way of life from severe weather.

3) **Lead International Efforts to Combat Global Climate Change and Prepare for its Impacts:** Just as no country is immune from the impacts of climate change, no country can meet this challenge alone. That is why it is imperative for the United States to couple action at home with leadership internationally. America must help forge a truly global solution to this global challenge by galvanizing international action to significantly reduce emissions (particularly among the major emitting countries), prepare for climate impacts, and drive progress through the international negotiations.

Climate change represents one of our greatest challenges of our time, but it is a challenge uniquely suited to America's strengths. Our scientists will design new fuels, and our farmers will grow them. Our engineers to devise new sources of energy, our workers will build them, and our businesses will sell them. All of us will need to do our part. If we embrace this challenge, we will not just create new jobs and new industries and keep America on the cutting edge; we will save lives, protect and preserve our treasured natural resources, cities, and coastlines for future generations.

What follows is a blueprint for steady, responsible national and international action to slow the effects of climate change so we leave a cleaner, more stable environment for future generations. It highlights progress already set in motion by the Obama Administration to advance these goals and sets forth new steps to achieve them.

CUT CARBON POLLUTION IN AMERICA

In 2009, President Obama made a commitment to reduce U.S. greenhouse gas emissions in the range of 17 percent below 2005 levels by 2020. The President remains firmly committed to achieving that goal. While there is more work to do, the Obama Administration has already made significant progress by doubling generation of electricity from wind, solar, and geothermal, and by establishing historic new fuel economy standards. Building on these achievements, this document outlines additional steps the Administration will take – in partnership with states, local communities, and the private sector – to continue on a path to meeting the President's 2020 goal.

I. Deploying Clean Energy

Cutting Carbon Pollution from Power Plants: Power plants are the largest concentrated source of emissions in the United States, together accounting for roughly one-third of all domestic greenhouse gas emissions. We have already set limits for arsenic, mercury, and lead, but there is no federal rule to prevent power plants from releasing as much carbon pollution as they want. Many states, local governments, and companies have taken steps to move to cleaner electricity sources. More than 35 states have renewable energy targets in place, and more than 25 have set energy efficiency targets.

Despite this progress at the state level, there are no federal standards in place to reduce carbon pollution from power plants. In April 2012, as part of a continued effort to modernize our electric power sector, the Obama Administration proposed a carbon pollution standard for new power plants. The Environmental Protection Agency's proposal reflects and reinforces the ongoing trend towards cleaner technologies, with natural gas increasing its share of electricity generation in recent years, principally through market forces and renewables deployment growing rapidly to account for roughly half of new generation capacity installed in 2012.

With abundant clean energy solutions available, and building on the leadership of states and local governments, we can make continued progress in reducing power plant pollution to improve public health and the environment while supplying the reliable, affordable power needed for economic growth. By doing so, we will continue to drive American leadership in clean energy technologies, such as efficient natural gas, nuclear, renewables, and clean coal technology.

To accomplish these goals, President Obama is issuing a Presidential Memorandum directing the Environmental Protection Agency to work expeditiously to complete carbon pollution standards for both new and existing power plants. This work will build on the successful first-term effort to develop greenhouse gas and fuel economy standards for cars and trucks. In developing the standards, the President has asked the Environmental Protection Agency to build on state leadership, provide flexibility, and take advantage of a wide range of energy sources and technologies including many actions in this plan.

Promoting American Leadership in Renewable Energy: During the President's first term, the United States more than doubled generation of electricity from wind, solar, and geothermal sources. To ensure America's continued leadership position in clean energy, President Obama has set a goal to double renewable electricity generation once again by 2020. In order to meet

this ambitious target, the Administration is announcing a number of new efforts in the following key areas:

- **Accelerating Clean Energy Permitting:** In 2012 the President set a goal to issue permits for 10 gigawatts of renewables on public lands by the end of the year. The Department of the Interior achieved this goal ahead of schedule and the President has directed it to permit an additional 10 gigawatts by 2020. Since 2009, the Department of Interior has approved 25 utility-scale solar facilities, nine wind farms, and 11 geothermal plants, which will provide enough electricity to power 4.4 million homes and support an estimated 17,000 jobs. The Administration is also taking steps to encourage the development of hydroelectric power at existing dams. To develop and demonstrate improved permitting procedures for such projects, the Administration will designate the Red Rock Hydroelectric Plant on the Des Moines River in Iowa to participate in its Infrastructure Permitting Dashboard for high-priority projects. Also, the Department of Defense – the single largest consumer of energy in the United States – is committed to deploying 3 gigawatts of renewable energy on military installations, including solar, wind, biomass, and geothermal, by 2025. In addition, federal agencies are setting a new goal of reaching 100 megawatts of installed renewable capacity across the federally subsidized housing stock by 2020. This effort will include conducting a survey of current projects in order to track progress and facilitate the sharing of best practices.

- **Expanding and Modernizing the Electric Grid:** Upgrading the country's electric grid is critical to our efforts to make electricity more reliable, save consumers money on their energy bills, and promote clean energy sources. To advance these important goals, President Obama signed a Presidential Memorandum this month that directs federal agencies to streamline the siting, permitting and review process for transmission projects across federal, state, and tribal governments.

Unlocking Long-Term Investment in Clean Energy Innovation: The Fiscal Year 2014 Budget continues the President's commitment to keeping the United States at the forefront of clean energy research, development, and deployment by increasing funding for clean energy technology across all agencies by 30 percent, to approximately $7.9 billion. This includes investment in a range of energy technologies, from advanced biofuels and emerging nuclear technologies – including small modular reactors – to clean coal. To continue America's leadership in clean energy innovation, the Administration will also take the following steps:

- **Spurring Investment in Advanced Fossil Energy Projects:** In the coming weeks, the Department of Energy will issue a Federal Register Notice announcing a draft of a solicitation that would make up to $8 billion in (self-pay) loan guarantee authority available for a wide array of advanced fossil energy projects under its Section 1703 loan guarantee program. This solicitation is designed to support investments in innovative technologies that can cost-effectively meet financial and policy goals, including the avoidance, reduction, or sequestration of anthropogenic emissions of greenhouse gases. The proposed solicitation will cover a broad range of advanced fossil energy projects. Reflecting the Department's commitment to continuous improvement in program management, it will take comment on the draft solicitation, with a plan to issue a final solicitation by the fall of 2013.

- **Instituting a Federal Quadrennial Energy Review:** Innovation and new sources of domestic energy supply are transforming the nation's energy marketplace, creating economic

opportunities at the same time they raise environmental challenges. To ensure that federal energy policy meets our economic, environmental, and security goals in this changing landscape, the Administration will conduct a Quadrennial Energy Review which will be led by the White House Domestic Policy Council and Office of Science and Technology Policy, supported by a Secretariat established at the Department of Energy, and involving the robust engagement of federal agencies and outside stakeholders. This first-ever review will focus on infrastructure challenges, and will identify the threats, risks, and opportunities for U.S. energy and climate security, enabling the federal government to translate policy goals into a set of analytically based, clearly articulated, sequenced and integrated actions, and proposed investments over a four-year planning horizon.

II. Building a 21st-Century Transportation Sector

Increasing Fuel Economy Standards: Heavy-duty vehicles are currently the second largest source of greenhouse gas emissions within the transportation sector. In 2011, the Obama Administration finalized the first-ever fuel economy standards for Model Year 2014-2018 for heavy-duty trucks, buses, and vans. These standards will reduce greenhouse gas emissions by approximately 270 million metric tons and save 530 million barrels of oil. During the President's second term, the Administration will once again partner with industry leaders and other key stakeholders to develop post-2018 fuel economy standards for heavy-duty vehicles to further reduce fuel consumption through the application of advanced cost-effective technologies and continue efforts to improve the efficiency of moving goods across the United States.

The Obama Administration has already established the toughest fuel economy standards for passenger vehicles in U.S. history. These standards require an average performance equivalent of 54.5 miles per gallon by 2025, which will save the average driver more than $8,000 in fuel costs over the lifetime of the vehicle and eliminate six billion metric tons of carbon pollution – more than the United States emits in an entire year.

Developing and Deploying Advanced Transportation Technologies: Biofuels have an important role to play in increasing our energy security, fostering rural economic development, and reducing greenhouse gas emissions from the transportation sector. That is why the Administration supports the Renewable Fuels Standard, and is investing in research and development to help bring next-generation biofuels on line. For example, the United States Navy and Departments of Energy and Agriculture are working with the private sector to accelerate the development of cost-competitive advanced biofuels for use by the military and commercial sectors. More broadly, the Administration will continue to leverage partnerships between the private and public sectors to deploy cleaner fuels, including advanced batteries and fuel cell technologies, in every transportation mode. The Department of Energy's eGallon informs drivers about electric car operating costs in their state – the national average is only $1.14 per gallon of gasoline equivalent, showing the promise for consumer pocketbooks of electric-powered vehicles. In addition, in the coming months, the Department of Transportation will work with other agencies to further explore strategies for integrating alternative fuel vessels into the U.S. flag fleet. Further, the Administration will continue to work with states, cities and towns through the Department of Transportation, the Department of Housing and Urban Development, and the Environmental Protection Agency to improve transportation options, and lower transportation costs while protecting the environment in communities nationwide.

III. Cutting Energy Waste in Homes, Businesses, and Factories

Reducing Energy Bills for American Families and Businesses: Energy efficiency is one of the clearest and most cost-effective opportunities to save families money, make our businesses more competitive, and reduce greenhouse gas emissions. In the President's first term, the Department of Energy and the Department of Housing and Urban Development completed efficiency upgrades in more than one million homes, saving many families more than $400 on their heating and cooling bills in the first year alone. The Administration will take a range of new steps geared towards achieving President Obama's goal of doubling energy productivity by 2030 relative to 2010 levels:

- **Establishing a New Goal for Energy Efficiency Standards:** In President Obama's first term, the Department of Energy established new minimum efficiency standards for dishwashers, refrigerators, and many other products. Through 2030, these standards will cut consumers' electricity bills by hundreds of billions of dollars and save enough electricity to power more than 85 million homes for two years. To build on this success, the Administration is setting a new goal: Efficiency standards for appliances and federal buildings set in the first and second terms combined will reduce carbon pollution by at least 3 billion metric tons cumulatively by 2030 – equivalent to nearly one-half of the carbon pollution from the entire U.S. energy sector for one year – while continuing to cut families' energy bills.

- **Reducing Barriers to Investment in Energy Efficiency:** Energy efficiency upgrades bring significant cost savings, but upfront costs act as a barrier to more widespread investment. In response, the Administration is committing to a number of new executive actions. As soon as this fall, the Department of Agriculture's Rural Utilities Service will finalize a proposed update to its Energy Efficiency and Conservation Loan Program to provide up to $250 million for rural utilities to finance efficiency investments by businesses and homeowners across rural America. The Department is also streamlining its Rural Energy for America program to provide grants and loan guarantees directly to agricultural producers and rural small businesses for energy efficiency and renewable energy systems.

  In addition, the Department of Housing and Urban Development's efforts include a $23 million Multifamily Energy Innovation Fund designed to enable affordable housing providers, technology firms, academic institutions, and philanthropic organizations to test new approaches to deliver cost-effective residential energy. In order to advance ongoing efforts and bring stakeholders together, the Federal Housing Administration will convene representatives of the lending community and other key stakeholders for a mortgage roundtable in July to identify options for factoring energy efficiency into the mortgage underwriting and appraisal process upon sale or refinancing of new or existing homes.

- **Expanding the President's Better Buildings Challenge:** The Better Buildings Challenge, focused on helping American commercial and industrial buildings become at least 20 percent more energy efficient by 2020, is already showing results. More than 120 diverse organizations, representing over 2 billion square feet are on track to meet the 2020 goal: cutting energy use by an average 2.5 percent annually, equivalent to about $58 million in energy savings per year. To continue this success, the Administration will expand the program to multifamily housing – partnering both with private and affordable

building owners and public housing agencies to cut energy waste. In addition, the Administration is launching the Better Buildings Accelerators, a new track that will support and encourage adoption of State and local policies to cut energy waste, building on the momentum of ongoing efforts at that level.

IV. Reducing Other Greenhouse Gas Emissions

Curbing Emissions of Hydrofluorocarbons: Hydrofluorocarbons (HFCs), which are primarily used for refrigeration and air conditioning, are potent greenhouse gases. In the United States, emissions of HFCs are expected to nearly triple by 2030, and double from current levels of 1.5 percent of greenhouse gas emissions to 3 percent by 2020.

To reduce emissions of HFCs, the United States can and will lead both through international diplomacy as well as domestic actions. In fact, the Administration has already acted by including a flexible and powerful incentive in the fuel economy and carbon pollution standards for cars and trucks to encourage automakers to reduce HFC leakage and transition away from the most potent HFCs in vehicle air conditioning systems. Moving forward, the Environmental Protection Agency will use its authority through the Significant New Alternatives Policy Program to encourage private sector investment in low-emissions technology by identifying and approving climate-friendly chemicals while prohibiting certain uses of the most harmful chemical alternatives. In addition, the President has directed his Administration to purchase cleaner alternatives to HFCs whenever feasible and transition over time to equipment that uses safer and more sustainable alternatives.

Reducing Methane Emissions: Curbing emissions of methane is critical to our overall effort to address global climate change. Methane currently accounts for roughly 9 percent of domestic greenhouse gas emissions and has a global warming potential that is more than 20 times greater than carbon dioxide. Notably, since 1990, methane emissions in the United States have decreased by 8 percent. This has occurred in part through partnerships with industry, both at home and abroad, in which we have demonstrated that we have the technology to deliver emissions reductions that benefit both our economy and the environment. To achieve additional progress, the Administration will:

- **Developing an Interagency Methane Strategy:** The Environmental Protection Agency and the Departments of Agriculture, Energy, Interior, Labor, and Transportation will develop a comprehensive, interagency methane strategy. The group will focus on assessing current emissions data, addressing data gaps, identifying technologies and best practices for reducing emissions, and identifying existing authorities and incentive-based opportunities to reduce methane emissions.

- **Pursuing a Collaborative Approach to Reducing Emissions:** Across the economy, there are multiple sectors in which methane emissions can be reduced, from coal mines and landfills to agriculture and oil and gas development. For example, in the agricultural sector, over the last three years, the Environmental Protection Agency and the Department of Agriculture have worked with the dairy industry to increase the adoption of methane digesters through loans, incentives, and other assistance. In addition, when it comes to the oil and gas sector, investments to build and upgrade gas pipelines will not only put more Americans to work, but also reduce emissions and enhance economic productivity. For example, as part of the Administration's effort to improve federal

permitting for infrastructure projects, the interagency Bakken Federal Executive Group is working with industry, as well as state and tribal agencies, to advance the production of oil and gas in the Bakken while helping to reduce venting and flaring. Moving forward, as part of the effort to develop an interagency methane strategy, the Obama Administration will work collaboratively with state governments, as well as the private sector, to reduce emissions across multiple sectors, improve air quality, and achieve public health and economic benefits.

Preserving the Role of Forests in Mitigating Climate Change: America's forests play a critical role in addressing carbon pollution, removing nearly 12 percent of total U.S. greenhouse gas emissions each year. In the face of a changing climate and increased risk of wildfire, drought, and pests, the capacity of our forests to absorb carbon is diminishing. Pressures to develop forest lands for urban or agricultural uses also contribute to the decline of forest carbon sequestration. Conservation and sustainable management can help to ensure our forests continue to remove carbon from the atmosphere while also improving soil and water quality, reducing wildfire risk, and otherwise managing forests to be more resilient in the fact of climate change. The Administration is working to identify new approaches to protect and restore our forests, as well as other critical landscapes including grasslands and wetlands, in the face of a changing climate.

V. Leading at the Federal Level

Leading in Clean Energy: President Obama believes that the federal government must be a leader in clean energy and energy efficiency. Under the Obama Administration, federal agencies have reduced greenhouse gas emissions by more than 15 percent – the equivalent of permanently taking 1.5 million cars off the road. To build on this record, the Administration is establishing a new goal: The federal government will consume 20 percent of its electricity from renewable sources by 2020 – more than double the current goal of 7.5 percent. In addition, the federal government will continue to pursue greater energy efficiency that reduces greenhouse gas emissions and saves taxpayer dollars.

Federal Government Leadership in Energy Efficiency: On December 2, 2011, President Obama signed a memorandum entitled "Implementation of Energy Savings Projects and Performance-Based Contracting for Energy Savings," challenging federal agencies, in support of the Better Buildings Challenge, to enter into $2 billion worth of performance-based contracts within two years. Performance contracts drive economic development, utilize private sector innovation, and increase efficiency at minimum costs to the taxpayer, while also providing long-term savings in energy costs. Federal agencies have committed to a pipeline of nearly $2.3 billion from over 300 reported projects. In coming months, the Administration will take a number of actions to strengthen efforts to promote energy efficiency, including through performance contracting. For example, in order to increase access to capital markets for investments in energy efficiency, the Administration will initiate a partnership with the private sector to work towards a standardized contract to finance federal investments in energy efficiency. Going forward, agencies will also work together to synchronize building codes – leveraging those policies to improve the efficiency of federally owned and supported building stock. Finally, the Administration will leverage the "Green Button" standard – which aggregates energy data in a secure, easy to use format – within federal facilities to increase their ability to manage energy consumption, reduce greenhouse gas emissions, and meet sustainability goals.

PREPARE THE UNITED STATES FOR THE IMPACTS OF CLIMATE CHANGE

As we act to curb the greenhouse gas pollution that is driving climate change, we must also prepare for the impacts that are too late to avoid. Across America, states, cities, and communities are taking steps to protect themselves by updating building codes, adjusting the way they manage natural resources, investing in more resilient infrastructure, and planning for rapid recovery from damages that nonetheless occur. The federal government has an important role to play in supporting community-based preparedness and resilience efforts, establishing policies that promote preparedness, protecting critical infrastructure and public resources, supporting science and research germane to preparedness and resilience, and ensuring that federal operations and facilities continue to protect and serve citizens in a changing climate.

The Obama Administration has been working to strengthen America's climate resilience since its earliest days. Shortly after coming into office, President Obama established an Interagency Climate Change Adaptation Task Force and, in October 2009, the President signed an Executive Order directing it to recommend ways federal policies and programs can better prepare the Nation for change. In May 2010, the Task Force hosted the first National Climate Adaptation Summit, convening local and regional stakeholders and decision-makers to identify challenges and opportunities for collaborative action.

In February 2013, federal agencies released Climate Change Adaptation Plans for the first time, outlining strategies to protect their operations, missions, and programs from the effects of climate change. The Department of Transportation, for example, is developing guidance for incorporating climate change and extreme weather event considerations into coastal highway projects, and the Department of Homeland Security is evaluating the challenges of changing conditions in the Arctic and along our Nation's borders. Agencies have also partnered with communities through targeted grant and technical-assistance programs—for example, the Environmental Protection Agency is working with low-lying communities in North Carolina to assess the vulnerability of infrastructure investments to sea level rise and identify solutions to reduce risks. And the Administration has continued, through the U.S. Global Change Research Program, to support science and monitoring to expand our understanding of climate change and its impacts.

Going forward, the Administration will expand these efforts into three major, interrelated initiatives to better prepare America for the impacts of climate change:

I. Building Stronger and Safer Communities and Infrastructure

By necessity, many states, cities, and communities are already planning and preparing for the impacts of climate change. Hospitals must build capacity to serve patients during more frequent heat waves, and urban planners must plan for the severe storms that infrastructure will need to withstand. Promoting on-the-ground planning and resilient infrastructure will be at the core of our work to strengthen America's communities. Specific actions will include:

Directing Agencies to Support Climate-Resilient Investment: The President will direct federal agencies to identify and remove barriers to making climate-resilient investments; identify and remove counterproductive policies that increase vulnerabilities; and encourage and support smarter, more resilient investments, including through agency grants, technical assistance, and other programs, in sectors from transportation and water management to conservation and

disaster relief. Agencies will also be directed to ensure that climate risk-management considerations are fully integrated into federal infrastructure and natural resource management planning. To begin meeting this challenge, the Environmental Protection Agency is committing to integrate considerations of climate change impacts and adaptive measures into major programs, including its Clean Water and Drinking Water State Revolving Funds and grants for brownfields cleanup, and the Department of Housing and Urban Development is already requiring grant recipients in the Hurricane Sandy–affected region to take sea-level rise into account.

Establishing a State, Local, and Tribal Leaders Task Force on Climate Preparedness: To help agencies meet the above directive and to enhance local efforts to protect communities, the President will establish a short-term task force of state, local, and tribal officials to advise on key actions the federal government can take to better support local preparedness and resilience-building efforts. The task force will provide recommendations on removing barriers to resilient investments, modernizing grant and loan programs to better support local efforts, and developing information and tools to better serve communities.

Supporting Communities as they Prepare for Climate Impacts: Federal agencies will continue to provide targeted support and assistance to help communities prepare for climate-change impacts. For example, throughout 2013, the Department of Transportation's Federal Highway Administration is working with 19 state and regional partners and other federal agencies to test approaches for assessing local transportation infrastructure vulnerability to climate change and extreme weather and for improving resilience. The Administration will continue to assist tribal communities on preparedness through the Bureau of Indian Affairs, including through pilot projects and by supporting participation in federal initiatives that assess climate change vulnerabilities and develop regional solutions. Through annual federal agency "Environmental Justice Progress Reports," the Administration will continue to identify innovative ways to help our most vulnerable communities prepare for and recover from the impacts of climate change. The importance of critical infrastructure independence was brought home in the Sandy response. The Federal Emergency Management Agency and the Department of Energy are working with the private sector to address simultaneous restoration of electricity and fuels supply.

Boosting the Resilience of Buildings and Infrastructure: The National Institute of Standards and Technology will convene a panel on disaster-resilience standards to develop a comprehensive, community-based resilience framework and provide guidelines for consistently safe buildings and infrastructure – products that can inform the development of private-sector standards and codes. In addition, building on federal agencies' "Climate Change Adaptation Plans," the Administration will continue efforts to increase the resilience of federal facilities and infrastructure. The Department of Defense, for example, is assessing the relative vulnerability of its coastal facilities to climate change. In addition, the President's FY 2014 Budget proposes $200 million through the Transportation Leadership Awards program for Climate Ready Infrastructure in communities that build enhanced preparedness into their planning efforts, and that have proposed or are ready to break ground on infrastructure projects, including transit and rail, to improve resilience.

Rebuilding and Learning from Hurricane Sandy: In August 2013, President Obama's Hurricane Sandy Rebuilding Task Force will deliver to the President a rebuilding strategy to be implemented in Sandy-affected regions and establishing precedents that can be followed

elsewhere. The Task Force and federal agencies are also piloting new ways to support resilience in the Sandy-affected region; the Task Force, for example, is hosting a regional "Rebuilding by Design" competition to generate innovative solutions to enhance resilience. In the transportation sector, the Department of Transportation's Federal Transit Administration (FTA) is dedicating $5.7 billion to four of the area's most impacted transit agencies, of which $1.3 billion will be allocated to locally prioritized projects to make transit systems more resilient to future disasters. FTA will also develop a competitive process for additional funding to identify and support larger, stand-alone resilience projects in the impacted region. To build coastal resilience, the Department of the Interior will launch a $100 million competitive grant program to foster partnerships and promote resilient natural systems while enhancing green spaces and wildlife habitat near urban populations. An additional $250 million will be allocated to support projects for coastal restoration and resilience across the region. Finally, with partners, the U.S. Army Corps of Engineers is conducting a $20 million study to identify strategies to reduce the vulnerability of Sandy-affected coastal communities to future large-scale flood and storm events, and the National Oceanic and Atmospheric Administration will strengthen long-term coastal observations and provide technical assistance to coastal communities.

II. Protecting our Economy and Natural Resources

Climate change is affecting nearly every aspect of our society, from agriculture and tourism to the health and safety of our citizens and natural resources. To help protect critical sectors, while also targeting hazards that cut across sectors and regions, the Administration will mount a set of sector- and hazard-specific efforts to protect our country's vital assets, to include:

Identifying Vulnerabilities of Key Sectors to Climate Change: The Department of Energy will soon release an assessment of climate-change impacts on the energy sector, including power-plant disruptions due to drought and the disruption of fuel supplies during severe storms, as well as potential opportunities to make our energy infrastructure more resilient to these risks. In 2013, the Department of Agriculture and Department of the Interior released several studies outlining the challenges a changing climate poses for America's agricultural enterprise, forests, water supply, wildlife, and public lands. This year and next, federal agencies will report on the impacts of climate change on other key sectors and strategies to address them, with priority efforts focusing on health, transportation, food supplies, oceans, and coastal communities.

Promoting Resilience in the Health Sector: The Department of Health and Human Services will launch an effort to create sustainable and resilient hospitals in the face of climate change. Through a public-private partnership with the healthcare industry, it will identify best practices and provide guidance on affordable measures to ensure that our medical system is resilient to climate impacts. It will also collaborate with partner agencies to share best practices among federal health facilities. And, building on lessons from pilot projects underway in 16 states, it will help train public-health professionals and community leaders to prepare their communities for the health consequences of climate change, including through effective communication of health risks and resilience measures.

Promoting Insurance Leadership for Climate Safety: Recognizing the critical role that the private sector plays in insuring assets and enabling rapid recovery after disasters, the Administration will convene representatives from the insurance industry and other stakeholders to explore best practices for private and public insurers to manage their own processes and

investments to account for climate change risks and incentivize policy holders to take steps to reduce their exposure to these risks.

Conserving Land and Water Resources: America's ecosystems are critical to our nation's economy and the lives and health of our citizens. These natural resources can also help ameliorate the impacts of climate change, if they are properly protected. The Administration has invested significantly in conserving relevant ecosystems, including working with Gulf State partners after the Deepwater Horizon spill to enhance barrier islands and marshes that protect communities from severe storms. The Administration is also implementing climate-adaptation strategies that promote resilience in fish and wildlife populations, forests and other plant communities, freshwater resources, and the ocean. Building on these efforts, the President is also directing federal agencies to identify and evaluate additional approaches to improve our natural defenses against extreme weather, protect biodiversity and conserve natural resources in the face of a changing climate, and manage our public lands and natural systems to store more carbon.

Maintaining Agricultural Sustainability: Building on the existing network of federal climate-science research and action centers, the Department of Agriculture is creating seven new Regional Climate Hubs to deliver tailored, science-based knowledge to farmers, ranchers, and forest landowners. These hubs will work with universities and other partners, including the Department of the Interior and the National Oceanic and Atmospheric Administration, to support climate resilience. Its Natural Resources Conservation Service and the Department of the Interior's Bureau of Reclamation are also providing grants and technical support to agricultural water users for more water-efficient practices in the face of drought and long-term climate change.

Managing Drought: Leveraging the work of the National Disaster Recovery Framework for drought, the Administration will launch a cross-agency National Drought Resilience Partnership as a "front door" for communities seeking help to prepare for future droughts and reduce drought impacts. By linking information (monitoring, forecasts, outlooks, and early warnings) with drought preparedness and longer-term resilience strategies in critical sectors, this effort will help communities manage drought-related risks.

Reducing Wildfire Risks: With tribes, states, and local governments as partners, the Administration has worked to make landscapes more resistant to wildfires, which are exacerbated by heat and drought conditions resulting from climate change. Federal agencies will expand and prioritize forest and rangeland restoration efforts in order to make natural areas and communities less vulnerable to catastrophic fire. The Department of the Interior and Department of Agriculture, for example, are launching a Western Watershed Enhancement Partnership – a pilot effort in five western states to reduce wildfire risk by removing extra brush and other flammable vegetation around critical areas such as water reservoirs.

Preparing for Future Floods: To ensure that projects funded with taxpayer dollars last as long as intended, federal agencies will update their flood-risk reduction standards for federally funded projects to reflect a consistent approach that accounts for sea-level rise and other factors affecting flood risks. This effort will incorporate the most recent science on expected rates of sea-level rise (which vary by region) and build on work done by the Hurricane Sandy Rebuilding Task Force, which announced in April 2013 that all federally funded Sandy-related rebuilding projects must meet a consistent flood risk reduction standard that takes into account increased risk from extreme weather events, sea-level rise, and other impacts of climate change.

III. Using Sound Science to Manage Climate Impacts

Scientific data and insights are essential to help government officials, communities, and businesses better understand and manage the risks associated with climate change. The Administration will continue to lead in advancing the science of climate measurement and adaptation and the development of tools for climate-relevant decision-making by focusing on increasing the availability, accessibility, and utility of relevant scientific tools and information. Specific actions will include:

Developing Actionable Climate Science: The President's Fiscal Year 2014 Budget provides more than $2.7 billion, largely through the 13-agency U.S. Global Change Research Program, to increase understanding of climate-change impacts, establish a public-private partnership to explore risk and catastrophe modeling, and develop the information and tools needed by decision-makers to respond to both long-term climate change impacts and near-term effects of extreme weather.

Assessing Climate-Change Impacts in the United States: In the spring of 2014, the Obama Administration will release the third U.S. National Climate Assessment, highlighting new advances in our understanding of climate-change impacts across all regions of the United States and on critical sectors of the economy, including transportation, energy, agriculture, and ecosystems and biodiversity. For the first time, the National Climate Assessment will focus not only on dissemination of scientific information but also on translating scientific insights into practical, useable knowledge that can help decision-makers anticipate and prepare for specific climate-change impacts.

Launching a Climate Data Initiative: Consistent with the President's May 2013 Executive Order on Open Data – and recognizing that freely available open government data can fuel entrepreneurship, innovation, scientific discovery, and public benefits – the Administration is launching a Climate Data Initiative to leverage extensive federal climate-relevant data to stimulate innovation and private-sector entrepreneurship in support of national climate-change preparedness.

Providing a Toolkit for Climate Resilience: Federal agencies will create a virtual climate-resilience toolkit that centralizes access to data-driven resilience tools, services, and best practices, including those developed through the Climate Data Initiative. The toolkit will provide easy access to existing resources as well as new tools, including: interactive sea-level rise maps and a sea-level-rise calculator to aid post-Sandy rebuilding in New York and New Jersey, new NOAA storm surge models and interactive maps from the National Oceanic and Atmospheric Administration that provide risk information by combining tidal data, projected sea levels and storm wave heights, a web-based tool that will allow developers to integrate NASA climate imagery into websites and mobile apps, access to the U.S. Geological Survey's "visualization tool" to assess the amount of carbon absorbed by landscapes, and a Stormwater Calculator and Climate Assessment Tool developed to help local governments assess stormwater-control measures under different precipitation and temperature scenarios.

LEAD INTERNATIONAL EFFORTS TO ADDRESS GLOBAL CLIMATE CHANGE

The Obama Administration is working to build on the actions that it is taking domestically to achieve significant global greenhouse gas emission reductions and enhance climate preparedness through major international initiatives focused on spurring concrete action, including bilateral initiatives with China, India, and other major emitting countries. These initiatives not only serve to support the efforts of the United States and others to achieve our goals for 2020, but also will help us move beyond those and bend the post-2020 global emissions trajectory further. As a key part of this effort, we are also working intensively to forge global responses to climate change through a number of important international negotiations, including the United Nations Framework Convention on Climate Change.

I. Working with Other Countries to Take Action to Address Climate Change

Enhancing Multilateral Engagement with Major Economies: In 2009, President Obama launched the Major Economies Forum on Energy and Climate, a high-level forum that brings together 17 countries that account for approximately 75 percent of global greenhouse gas emissions, in order to support the international climate negotiations and spur cooperative action to combat climate change. The Forum has been successful on both fronts – having contributed significantly to progress in the broader negotiations while also launching the Clean Energy Ministerial to catalyze the development and deployment of clean energy and efficiency solutions. We are proposing that the Forum build on these efforts by launching a major initiative this year focused on further accelerating efficiency gains in the buildings sector, which accounts for approximately one-third of global carbon pollutions from the energy sector.

Expanding Bilateral Cooperation with Major Emerging Economies:
From the outset, the Obama Administration has sought to intensify bilateral climate cooperation with key major emerging economies, through initiatives like the U.S.-China Clean Energy Research Center, the U.S.-India Partnership to Advance Clean Energy, and the Strategic Energy Dialogue with Brazil.

We will be building on these successes and finding new areas for cooperation in the second term, and we are already making progress: Just this month, President Obama and President Xi Jinping of China reached an historic agreement at their first summit to work to use the expertise and institutions of the Montreal Protocol to phase down the consumption and production of HFCs, a highly potent greenhouse gas. The impact of phasing out HFCs by 2050 would be equivalent to the elimination of two years' worth of greenhouse gas emissions from all sources.

Combatting Short-Lived Climate Pollutants: Pollutants such as methane, black carbon, and many HFCs are relatively short-lived in the atmosphere, but have more potent greenhouse effects than carbon dioxide. In February 2012, the United States launched the Climate and Clean Air Coalition to Reduce Short-Lived Climate Pollution, which has grown to include more than 30 country partners and other key partners such as the World Bank and the U.N. Environment Programme. Major efforts include reducing methane and black carbon from waste and landfills. We are also leading through the Global Methane Initiative, which works with 42 partner countries and an extensive network of over 1,100 private sector participants to reduce methane emissions.

Reducing Emissions from Deforestation and Forest Degradation: Greenhouse gas emissions from deforestation, agriculture, and other land use constitute approximately one-third of global emissions. In some developing countries, as much as 80 percent of these emissions come from the land sector. To meet this challenge, the Obama Administration is working with partner countries to put in place the systems and institutions necessary to significantly reduce global land-use-related emissions, creating new models for rural development that generate climate benefits, while conserving biodiversity, protecting watersheds, and improving livelihoods.

In 2012 alone, the U.S. Agency for International Development's bilateral and regional forestry programs contributed to reducing more than 140 million tons of carbon dioxide emissions, including through support for multilateral initiatives such as the Forest Investment Program and the Forest Carbon Partnership Facility. In Indonesia, the Millennium Challenge Corporation is funding a five-year "Green Prosperity" program that supports environmentally sustainable, low carbon economic development in select districts.

The Obama Administration is also working to address agriculture-driven deforestation through initiatives such as the Tropical Forest Alliance 2020, which brings together governments, the private sector, and civil society to reduce tropical deforestation related to key agricultural commodities, which we will build upon.

Expanding Clean Energy Use and Cut Energy Waste: Roughly 84 percent of current carbon dioxide emissions are energy-related and about 65 percent of all greenhouse gas emissions can be attributed to energy supply and energy use. The Obama Administration has promoted the expansion of renewable, clean, and efficient energy sources and technologies worldwide through:

- Financing and regulatory support for renewable and clean energy projects
- Actions to promote fuel switching from oil and coal to natural gas or renewables
- Support for the safe and secure use of nuclear power
- Cooperation on clean coal technologies
- Programs to improve and disseminate energy efficient technologies

In the past three years we have reached agreements with more than 20 countries around the world, including Mexico, South Africa, and Indonesia, to support low emission development strategies that help countries to identify the best ways to reduce greenhouse gas emissions while growing their economies. Among the many initiatives that we have launched are:

- The U.S. Africa Clean Energy Finance Initiative, which aligns grant-based assistance with project planning expertise from the U.S. Trade and Development Agency and financing and risk mitigation tools from the U.S. Overseas Private Investment Corporation to unlock up to $1 billion in clean energy financing.

- The U.S.-Asia Pacific Comprehensive Energy Partnership, which has identified $6 billion in U.S. export credit and government financing to promote clean energy development in the Asia-Pacific region.

Looking ahead, we will target these and other resources towards greater penetration of renewables in the global energy mix on both a small and large scale, including through our

participation in the Sustainable Energy for All Initiative and accelerating the commercialization of renewable mini-grids. These efforts include:

- **Natural Gas.** Burning natural gas is about one-half as carbon-intensive as coal, which can make it a critical "bridge fuel" for many countries as the world transitions to even cleaner sources of energy. Toward that end, the Obama Administration is partnering with states and private companies to exchange lessons learned with our international partners on responsible development of natural gas resources. We have launched the Unconventional Gas Technical Engagement Program to share best practices on issues such as water management, methane emissions, air quality, permitting, contracting, and pricing to help increase global gas supplies and facilitate development of the associated infrastructure that brings them to market. Going forward, we will promote fuel-switching from coal to gas for electricity production and encourage the development of a global market for gas. Since heavy-duty vehicles are expected to account for 40 percent of increased oil use through 2030, we will encourage the adoption of heavy duty natural gas vehicles as well.

- **Nuclear Power.** The United States will continue to promote the safe and secure use of nuclear power worldwide through a variety of bilateral and multilateral engagements. For example, the U.S. Nuclear Regulatory Commission advises international partners on safety and regulatory best practices, and the Department of Energy works with international partners on research and development, nuclear waste and storage, training, regulations, quality control, and comprehensive fuel leasing options. Going forward, we will expand these efforts to promote nuclear energy generation consistent with maximizing safety and nonproliferation goals.

- **Clean Coal.** The United States works with China, India, and other countries that currently rely heavily on coal for power generation to advance the development and deployment of clean coal technologies. In addition, the U.S. leads the Carbon Sequestration Leadership Forum, which engages 23 other countries and economies on carbon capture and sequestration technologies. Going forward, we will continue to use these bilateral and multilateral efforts to promote clean coal technologies.

- **Energy Efficiency.** The Obama Administration has aggressively promoted energy efficiency through the Clean Energy Ministerial and key bilateral programs. The cost-effective opportunities are enormous: The Ministerial' s Super-Efficient Equipment and Appliance Deployment Initiative and its Global Superior Energy Performance Partnership are helping to accelerate the global adoption of standards and practices that would cut energy waste equivalent to more than 650 mid-size power plants by 2030. We will work to expand these efforts focusing on several critical areas, including: improving building efficiency, reducing energy consumption at water and wastewater treatment facilities, and expanding global appliance standards.

Negotiating Global Free Trade in Environmental Goods and Services: The U.S. will work with trading partners to launch negotiations at the World Trade Organization towards global free trade in environmental goods, including clean energy technologies such as solar, wind, hydro and geothermal. The U.S. will build on the consensus it recently forged among the 21 Asia-Pacific Economic Cooperation (APEC) economies in this area. In 2011, APEC economies agreed to reduce tariffs to 5 percent or less by 2015 on a negotiated list of 54 environmental goods. The

APEC list will serve as a foundation for a global agreement in the WTO, with participating countries expanding the scope by adding products of interest. Over the next year, we will work towards securing participation of countries which account for 90 percent of global trade in environmental goods, representing roughly $481 billion in annual environmental goods trade. We will also work in the Trade in Services Agreement negotiations towards achieving free trade in environmental services.

Phasing Out Subsidies that Encourage Wasteful Consumption of Fossil Fuels: The International Energy Agency estimates that the phase-out of fossil fuel subsidies – which amount to more than $500 billion annually – would lead to a 10 percent reduction in greenhouse gas emissions below business as usual by 2050. At the 2009 G-20 meeting in Pittsburgh, the United States successfully advocated for a commitment to phase out these subsidies, and we have since won similar commitments in other fora such as APEC. President Obama is calling for the elimination of U.S. fossil fuel tax subsidies in his Fiscal Year (FY) 2014 budget, and we will continue to collaborate with partners around the world toward this goal.

Leading Global Sector Public Financing Towards Cleaner Energy: Under this Administration, the United States has successfully mobilized billions of dollars for clean energy investments in developing countries, helping to accelerate their transition to a green, low-carbon economy. Building on these successes, the President calls for an end to U.S. government support for public financing of new coal plants overseas, except for (a) the most efficient coal technology available in the world's poorest countries in cases where no other economically feasible alternative exists, or (b) facilities deploying carbon capture and sequestration technologies. As part of this new commitment, we will work actively to secure the agreement of other countries and the multilateral development banks to adopt similar policies as soon as possible.

Strengthening Global Resilience to Climate Change: Failing to prepare adequately for the impacts of climate change that can no longer be avoided will put millions of people at risk, jeopardizing important development gains, and increasing the security risks that stem from climate change. That is why the Obama Administration has made historic investments in bolstering the capacity of countries to respond to climate-change risks. Going forward, we will continue to:

- Strengthen government and local community planning and response capacities, such as by increasing water storage and water use efficiency to cope with the increased variability in water supply

- Develop innovative financial risk management tools such as index insurance to help smallholder farmers and pastoralists manage risk associated with changing rainfall patterns and drought

- Distribute drought-resistant seeds and promote management practices that increase farmers' ability to cope with climate impacts.

Mobilizing Climate Finance: International climate finance is an important tool in our efforts to promote low-emissions, climate-resilient development. We have fulfilled our joint developed country commitment from the Copenhagen Accord to provide approximately $30 billion of climate assistance to developing countries over FY 2010-FY 2012. The United States contributed approximately $7.5 billion to this effort over the three year period. Going forward, we will seek

to build on this progress as well as focus our efforts on combining our public resources with smart policies to mobilize much larger flows of private investment in low-emissions and climate resilient infrastructure.

II. Leading Efforts to Address Climate Change through International Negotiations

The United States has made historic progress in the international climate negotiations during the past four years. At the Copenhagen Conference of the United Nations Framework Convention on Climate Change (UNFCCC) in 2009, President Obama and other world leaders agreed for the first time that all major countries, whether developed or developing, would implement targets or actions to limit greenhouse emissions, and do so under a new regime of international transparency. And in 2011, at the year-end climate meeting in Durban, we achieved another breakthrough: Countries agreed to negotiate a new agreement by the end of 2015 that would have equal legal force and be applicable to all countries in the period after 2020. This was an important step beyond the previous legal agreement, the Kyoto Protocol, whose core obligations applied to developed countries, not to China, India, Brazil or other emerging countries.
The 2015 climate conference is slated to play a critical role in defining a post-2020 trajectory. We will be seeking an agreement that is ambitious, inclusive and flexible. It needs to be ambitious to meet the scale of the challenge facing us. It needs to be inclusive because there is no way to meet that challenge unless all countries step up and play their part. And it needs to be flexible because there are many differently situated parties with their own needs and imperatives, and those differences will have to be accommodated in smart, practical ways.

At the same time as we work toward this outcome in the UNFCCC context, we are making progress in a variety of other important negotiations as well. At the Montreal Protocol, we are leading efforts in support of an amendment that would phase down HFCs; at the International Maritime Organization, we have agreed to and are now implementing the first-ever sector-wide, internationally applicable energy efficiency standards; and at the International Civil Aviation Organization, we have ambitious aspirational emissions and energy efficiency targets and are working towards agreement to develop a comprehensive global approach.

Syllabus

NOTE: Where it is feasible, a syllabus (headnote) will be released, as is being done in connection with this case, at the time the opinion is issued. The syllabus constitutes no part of the opinion of the Court but has been prepared by the Reporter of Decisions for the convenience of the reader. See *United States* v. *Detroit Timber & Lumber Co.,* 200 U. S. 321, 337.

SUPREME COURT OF THE UNITED STATES

Syllabus

UTILITY AIR REGULATORY GROUP *v.* ENVIRONMENTAL PROTECTION AGENCY ET AL.

CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE DISTRICT OF COLUMBIA CIRCUIT

No. 12–1146. Argued February 24, 2014—Decided June 23, 2014 *

The Clean Air Act imposes permitting requirements on stationary sources, such as factories and powerplants. The Act's "Prevention of Significant Deterioration" (PSD) provisions make it unlawful to construct or modify a "major emitting facility" in "any area to which [the PSD program] applies" without a permit. §§7475(a)(1), 7479(2)(C). A "major emitting facility" is a stationary source with the potential to emit 250 tons per year of "any air pollutant" (or 100 tons per year for certain types of sources). §7479(1). Facilities seeking to qualify for a PSD permit must, *inter alia,* comply with emissions limitations that reflect the "best available control technology" (BACT) for "each pollutant subject to regulation under" the Act. §7475(a)(4). In addition, Title V of the Act makes it unlawful to operate any "major source," wherever located, without a permit. §7661a(a). A "major source" is a stationary source with the potential to emit 100 tons per year of "any air pollutant." §§7661(2)(B), 7602(j).

In response to *Massachusetts* v. *EPA*, 549 U. S. 497, EPA promulgated greenhouse-gas emission standards for new motor vehicles, and

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*Together with No. 12–1248, *American Chemistry Council et al.* v. *Environmental Protection Agency et al.,* No. 12–1254, *Energy-Intensive Manufacturers Working Group on Greenhouse Gas Regulation et al.* v. *Environmental Protection Agency et al.,* No. 12–1268, *Southeastern Legal Foundation, Inc., et al.* v. *Environmental Protection Agency et al.,* No. 12–1269, *Texas et al.* v. *Environmental Protection Agency et al.,* and No. 12–1272, *Chamber of Commerce of United States States et al.* v. *Environmental Protection Agency et al.,* also on certiorari to the same court.

made stationary sources subject to the PSD program and Title V on the basis of their potential to emit greenhouse gases. It recognized, however, that requiring permits for all sources with greenhouse-gas emissions above the statutory thresholds would radically expand those programs and render them unadministrable. So EPA purported to "tailor" the programs to accommodate greenhouse gases by providing, among other things, that sources would not become newly subject to PSD or Title V permitting on the basis of their potential to emit greenhouse gases in amounts less than 100,000 tons per year.

Numerous parties, including several States, challenged EPA's actions in the D. C. Circuit, which dismissed some of the petitions for lack of jurisdiction and denied the remainder.

Held: The judgment is affirmed in part and reversed in part.

684 F. 3d 102, affirmed in part and reversed in part.

JUSTICE SCALIA delivered the opinion of the Court with respect to Parts I and II, concluding:

1. The Act neither compels nor permits EPA to adopt an interpretation of the Act requiring a source to obtain a PSD or Title V permit on the sole basis of its potential greenhouse-gas emissions. Pp. 10–24.

(a) The Act does not compel EPA's interpretation. *Massachusetts* held that the Act-wide definition of "air pollutant" includes greenhouse gases, 549 U. S., at 529, but where the term "air pollutant" appears in the Act's operative provisions, including the PSD and Title V permitting provisions, EPA has routinely given it a narrower, context-appropriate meaning. *Massachusetts* did not invalidate those longstanding constructions. The Act-wide definition is not a command to regulate, but a description of the universe of substances EPA may consider regulating under the Act's operative provisions. Though Congress's profligate use of "air pollutant" is not conducive to clarity, the presumption of consistent usage " 'readily yields' " to context, and a statutory term "may take on distinct characters from association with distinct statutory objects calling for different implementation strategies." *Environmental Defense* v. *Duke Energy Corp.*, 549 U. S. 561, 574. Pp. 10–16.

(b) Nor does the Act permit EPA's interpretation. Agencies empowered to resolve statutory ambiguities must operate "within the bounds of reasonable interpretation," *Arlington* v. *FCC*, 569 U. S. ___, ___. EPA has repeatedly acknowledged that applying the PSD and Title V permitting requirements to greenhouse gases would be inconsistent with the Act's structure and design. A review of the relevant statutory provisions leaves no doubt that the PSD program and Title V are designed to apply to, and cannot rationally be extended beyond, a relative handful of large sources capable of shouldering heavy sub-

stantive and procedural burdens. EPA's interpretation would also bring about an enormous and transformative expansion in EPA's regulatory authority without clear congressional authorization. *FDA* v. *Brown & Williamson Tobacco Corp.*, 529 U. S. 120, 160. Pp. 16–20.

(c) EPA lacked authority to "tailor" the Act's unambiguous numerical thresholds of 100 or 250 tons per year to accommodate its greenhouse-gas-inclusive interpretation of the permitting triggers. Agencies must always " 'give effect to the unambiguously expressed intent of Congress.' " *National Assn. of Home Builders* v. *Defenders of Wildlife*, 551 U. S. 644, 665. The power to execute the laws does not include a power to revise clear statutory terms that turn out not to work in practice. Pp. 20–24.

2. EPA reasonably interpreted the Act to require sources that would need permits based on their emission of conventional pollutants to comply with BACT for greenhouse gases. Pp. 24–29.

(a) Concerns that BACT, which has traditionally been about end-of-stack controls, is fundamentally unsuited to greenhouse-gas regulation, which is more about energy use, are not unfounded. But an EPA guidance document states that BACT analysis should consider options other than energy efficiency, including "carbon capture and storage," which EPA contends is reasonably comparable to more traditional, end-of-stack BACT technologies. Moreover, assuming that BACT may be used to force improvements in energy efficiency, important limitations on BACT may work to mitigate concerns about "unbounded" regulatory authority. Pp. 24–27.

(b) EPA's decision to require BACT for greenhouse gases emitted by sources otherwise subject to PSD review is, as a general matter, a permissible interpretation of the statute under *Chevron U. S. A. Inc.* v. *Natural Resources Defense Council, Inc.*, 467 U. S. 837. The specific phrasing of the BACT provision—which requires BACT "for each pollutant subject to regulation under" the Act, §7475(a)(4)—does not suggest that the provision can bear a narrowing construction. And even if the text were not clear, applying BACT to greenhouse gases is not so disastrously unworkable, and need not result in such a dramatic expansion of agency authority, as to make EPA's interpretation unreasonable. Pp. 27–29.

SCALIA, J., announced the judgment of the Court and delivered an opinion, Parts I and II of which were for the Court. ROBERTS, C. J., and KENNEDY, J., joined that opinion in full; THOMAS and ALITO, JJ., joined as to Parts I, II–A, and II–B–1; and GINSBURG, BREYER, SOTOMAYOR, and KAGAN, JJ., joined as to Part II–B–2. BREYER J., filed an opinion concurring in part and dissenting in part, in which GINSBURG, SOTOMAYOR, and KAGAN, JJ., joined. ALITO, J., filed an opinion concurring in part and dissenting in part, in which THOMAS, J., joined.

SUPREME COURT OF THE UNITED STATES

Nos. 12–1146, 12–1248, 12–1254, 12–1268, 12–1269, and 12–1272

UTILITY AIR REGULATORY GROUP,
PETITIONER
12–1146 *v.*
ENVIRONMENTAL PROTECTION AGENCY, ET AL.;

AMERICAN CHEMISTRY COUNCIL, ET AL.,
PETITIONERS
12–1248 *v.*
ENVIRONMENTAL PROTECTION AGENCY, ET AL.;

ENERGY-INTENSIVE MANUFACTURERS WORKING
GROUP ON GREENHOUSE GAS REGULATION,
ET AL., PETITIONERS
12–1254 *v.*
ENVIRONMENTAL PROTECTION AGENCY, ET AL.;

SOUTHEASTERN LEGAL FOUNDATION, INC.,
ET AL., PETITIONERS
12–1268 *v.*
ENVIRONMENTAL PROTECTION AGENCY, ET AL.;

TEXAS, ET AL., PETITIONERS
12–1269 *v.*
ENVIRONMENTAL PROTECTION AGENCY,
ET AL.; AND

CHAMBER OF COMMERCE OF THE UNITED STATES, ET AL., PETITIONERS

12–1272 *v.*

ENVIRONMENTAL PROTECTION AGENCY, ET AL.;

ON WRITS OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE DISTRICT OF COLUMBIA CIRCUIT

[June 23, 2014]

JUSTICE SCALIA announced the judgment of the Court and delivered the opinion of the Court with respect to Parts I and II.

Acting pursuant to the Clean Air Act, 69 Stat. 322, as amended, 42 U. S. C. §§7401–7671q, the Environmental Protection Agency recently set standards for emissions of "greenhouse gases" (substances it believes contribute to "global climate change") from new motor vehicles. We must decide whether it was permissible for EPA to determine that its motor-vehicle greenhouse-gas regulations automatically triggered permitting requirements under the Act for stationary sources that emit greenhouse gases.

I. Background

A. Stationary-Source Permitting

The Clean Air Act regulates pollution-generating emissions from both stationary sources, such as factories and powerplants, and moving sources, such as cars, trucks, and aircraft. This litigation concerns permitting obligations imposed on stationary sources under Titles I and V of the Act.

Title I charges EPA with formulating national ambient air quality standards (NAAQS) for air pollutants. §§7408–7409. To date, EPA has issued NAAQS for six pollutants: sulfur dioxide, particulate matter, nitrogen dioxide, carbon monoxide, ozone, and lead. Clean Air Act Handbook 125 (J. Domike & A. Zacaroli eds., 3d ed. 2011); see generally 40 CFR pt. 50 (2013). States have primary responsibility

for implementing the NAAQS by developing "State implementation plans." 42 U. S. C. §7410. A State must designate every area within its borders as "attainment," "nonattainment," or "unclassifiable" with respect to each NAAQS, §7407(d), and the State's implementation plan must include permitting programs for stationary sources that vary according to the classification of the area where the source is or is proposed to be located. §7410(a)(2)(C), (I).

Stationary sources in areas designated attainment or unclassifiable are subject to the Act's provisions relating to "Prevention of Significant Deterioration" (PSD). §§7470–7492. EPA interprets the PSD provisions to apply to sources located in areas that are designated attainment or unclassifiable for *any* NAAQS pollutant, regardless of whether the source emits that specific pollutant. Since the inception of the PSD program, every area of the country has been designated attainment or unclassifiable for at least one NAAQS pollutant; thus, on EPA's view, all stationary sources are potentially subject to PSD review.

It is unlawful to construct or modify a "major emitting facility" in "any area to which [the PSD program] applies" without first obtaining a permit. §§7475(a)(1), 7479(2)(C). To qualify for a permit, the facility must not cause or contribute to the violation of any applicable air-quality standard, §7475(a)(3), and it must comply with emissions limitations that reflect the "best available control technology" (or BACT) for "each pollutant subject to regulation under" the Act. §7475(a)(4). The Act defines a "major emitting facility" as any stationary source with the potential to emit 250 tons per year of "any air pollutant" (or 100 tons per year for certain types of sources). §7479(1). It defines "modification" as a physical or operational change that causes the facility to emit more of "any air pollutant."

§7411(a)(4).[1]

In addition to the PSD permitting requirements for construction and modification, Title V of the Act makes it unlawful to *operate* any "major source," wherever located, without a comprehensive operating permit. §7661a(a). Unlike the PSD program, Title V generally does not impose any substantive pollution-control requirements. Instead, it is designed to facilitate compliance and enforcement by consolidating into a single document all of a facility's obligations under the Act. The permit must include all "emissions limitations and standards" that apply to the source, as well as associated inspection, monitoring, and reporting requirements. §7661c(a)–(c). Title V defines a "major source" by reference to the Act-wide definition of "major stationary source," which in turn means any stationary source with the potential to emit 100 tons per year of "any air pollutant." §§7661(2)(B), 7602(j).

B. EPA's Greenhouse-Gas Regulations

In 2007, the Court held that Title II of the Act "authorize[d] EPA to regulate greenhouse gas emissions from new motor vehicles" if the Agency "form[ed] a 'judgment' that

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[1] Although the statute sets numerical thresholds (100 or 250 tons per year) for emissions that will make a facility "major," it does not specify by how much a physical or operational change must increase emissions to constitute a permit-requiring "modification." Nor does it say how much of a given regulated pollutant a "major emitting facility" must emit before it is subject to BACT for that pollutant. EPA, however, has established pollutant-specific numerical thresholds below which a facility's emissions of a pollutant, and increases therein, are considered *de minimis* for those purposes. See 40 CFR §§51.166(b)(2)(i), (23), (39), (j)(2)–(3), 52.21(b)(2)(i), (23), (40), (j)(2)–(3); see also *Alabama Power Co.* v. *Costle*, 636 F. 2d 323, 360–361, 400, 405 (CADC 1979) (recognizing this authority in EPA); cf. *Wisconsin Dept. of Revenue* v. *William Wrigley, Jr., Co.*, 505 U. S. 214, 231 (1992) ("*[D]e minimis non curat lex* . . . is part of the established background of legal principles against which all enactments are adopted").

such emissions contribute to climate change." *Massachusetts* v. *EPA*, 549 U. S. 497, 528 (quoting §7521(a)(1)). In response to that decision, EPA embarked on a course of regulation resulting in "the single largest expansion in the scope of the [Act] in its history." Clean Air Act Handbook, at xxi.

EPA first asked the public, in a notice of proposed rulemaking, to comment on how the Agency should respond to *Massachusetts*. In doing so, it explained that regulating greenhouse-gas emissions from motor vehicles could have far-reaching consequences for stationary sources. Under EPA's view, once greenhouse gases became regulated under any part of the Act, the PSD and Title V permitting requirements would apply to all stationary sources with the potential to emit greenhouse gases in excess of the statutory thresholds: 100 tons per year under Title V, and 100 or 250 tons per year under the PSD program depending on the type of source. 73 Fed. Reg. 44420, 44498, 44511 (2008). Because greenhouse-gas emissions tend to be "orders of magnitude greater" than emissions of conventional pollutants, EPA projected that numerous small sources not previously regulated under the Act would be swept into the PSD program and Title V, including "smaller industrial sources," "large office and residential buildings, hotels, large retail establishments, and similar facilities." *Id.,* at 44498–44499. The Agency warned that this would constitute an "unprecedented expansion of EPA authority that would have a profound effect on virtually every sector of the economy and touch every household in the land," yet still be "relatively ineffective at reducing greenhouse gas concentrations." *Id.,* at 44355.[2]

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[2] Comments from other Executive Branch agencies reprinted in the notice echoed those concerns. See, *e.g.,* 73 Fed. Reg. 44360 (Departments of Agriculture, Commerce, Transportation, and Energy noting EPA would "exercis[e] de facto zoning authority through control over thousands of what formerly were local or private decisions, impacting

In 2009, EPA announced its determination regarding the danger posed by motor-vehicle greenhouse-gas emissions. EPA found that greenhouse-gas emissions from new motor vehicles contribute to elevated atmospheric concentrations of greenhouse gases, which endanger public health and welfare by fostering global "climate change." 74 Fed. Reg. 66523, 66537 (hereinafter Endangerment Finding). It denominated a "single air pollutant" the "combined mix" of six greenhouse gases that it identified as "the root cause of human-induced climate change": carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. *Id.,* at 66516, 66537. A source's greenhouse-gas emissions would be measured in "carbon dioxide equivalent units" (CO_2e), which would be calculated based on each gas's "global warming potential." *Id.,* at 66499, n. 4.

Next, EPA issued its "final decision" regarding the prospect that motor-vehicle greenhouse-gas standards would trigger stationary-source permitting requirements. 75 Fed. Reg. 17004 (2010) (hereinafter Triggering Rule). EPA announced that beginning on the effective date of its greenhouse-gas standards for motor vehicles, stationary sources would be subject to the PSD program and Title V on the basis of their potential to emit greenhouse gases. As expected, EPA in short order promulgated greenhouse-gas emission standards for passenger cars, light-duty

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the construction of schools, hospitals, and commercial and residential development"); *id.,* at 44383 (Council of Economic Advisers and Office of Science and Technology Policy stating that "[s]mall manufacturing facilities, schools, and shopping centers" would be subject to "full major source permitting"); *id.,* at 44385 (Council on Environmental Quality noting "the prospect of essentially automatic and immediate regulation over a vast range of community and business activity"); *id.,* at 44391 (Small Business Administration finding it "difficult to overemphasize how potentially disruptive and burdensome such a new regulatory regime would be to small entities" such as "office buildings, retail establishments, hotels, . . . schools, prisons, and private hospitals").

trucks, and medium-duty passenger vehicles to take effect on January 2, 2011. 75 Fed. Reg. 25324 (hereinafter Tailpipe Rule).

EPA then announced steps it was taking to "tailor" the PSD program and Title V to greenhouse gases. 75 Fed. Reg. 31514 (hereinafter Tailoring Rule). Those steps were necessary, it said, because the PSD program and Title V were designed to regulate "a relatively small number of large industrial sources," and requiring permits for all sources with greenhouse-gas emissions above the statutory thresholds would radically expand those programs, making them both unadministrable and "unrecognizable to the Congress that designed" them. *Id.,* at 31555, 31562. EPA nonetheless rejected calls to exclude greenhouse gases entirely from those programs, asserting that the Act is not "ambiguous with respect to the need to cover [greenhouse-gas] sources under either the PSD or title V program." *Id.,* at 31548, n. 31. Instead, EPA adopted a "phase-in approach" that it said would "appl[y] PSD and title V at threshold levels that are as close to the statutory levels as possible, and do so as quickly as possible, at least to a certain point." *Id.,* at 31523.

The phase-in, EPA said, would consist of at least three steps. During Step 1, from January 2 through June 30, 2011, no source would become newly subject to the PSD program or Title V solely on the basis of its greenhouse-gas emissions; however, sources required to obtain permits anyway because of their emission of conventional pollutants (so-called "anyway" sources) would need to comply with BACT for greenhouse gases if they emitted those gases in significant amounts, defined as at least 75,000 tons per year CO_2e. *Ibid.* During Step 2, from July 1, 2011, through June 30, 2012, sources with the potential to emit at least 100,000 tons per year CO_2e of greenhouse gases would be subject to PSD and Title V permitting for their construction and operation and to PSD permitting

for modifications that would increase their greenhouse-gas emissions by at least 75,000 tons per year CO_2e. *Id.,* at 31523–31524.[3] At Step 3, beginning on July 1, 2013, EPA said it might (or might not) further reduce the permitting thresholds (though not below 50,000 tons per year CO_2e), and it might (or might not) establish permanent exemptions for some sources. *Id.,* at 31524. Beyond Step 3, EPA promised to complete another round of rulemaking by April 30, 2016, in which it would "take further action to address small sources," which might (or might not) include establishing permanent exemptions. *Id.,* at 31525.

EPA codified Steps 1 and 2 at 40 CFR §§51.166(b)(48) and 52.21(b)(49) for PSD and at §§70.2 and 71.2 for Title V, and it codified its commitments regarding Step 3 and beyond at §§52.22, 70.12, and 71.13. See Tailoring Rule 31606–31608. After the decision below, EPA issued its final Step 3 rule, in which it decided not to lower the thresholds it had established at Step 2 until at least 2016. 77 Fed. Reg. 41051 (2012).

C. Decision Below

Numerous parties, including several States, filed petitions for review in the D. C. Circuit under 42 U. S. C. §7607(b), challenging EPA's greenhouse-gas-related actions. The Court of Appeals dismissed some of the petitions for lack of jurisdiction and denied the remainder. *Coalition for Responsible Regulation, Inc.* v. *EPA*, 684 F. 3d 102 (2012) (*per curiam*). First, it upheld the Endangerment Finding and Tailpipe Rule. *Id.,* at 119, 126. Next, it held that EPA's interpretation of the PSD permitting requirement as applying to "any regulated air pollu-

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[3] EPA stated that its adoption of a 75,000-tons-per-year threshold for emissions requiring BACT and modifications requiring permits was not an exercise of its authority to establish *de minimis* exceptions and that a truly *de minimis* level might be "well below" 75,000 tons per year. Tailoring Rule 31560; cf. n. 1, *supra*.

tant," including greenhouse gases, was "compelled by the statute." *Id.,* at 133–134. The court also found it "crystal clear that PSD permittees must install BACT for greenhouse gases." *Id.,* at 137. Because it deemed petitioners' arguments about the PSD program insufficiently applicable to Title V, it held they had "forfeited any challenges to EPA's greenhouse gas-inclusive interpretation of Title V." *Id.,* at 136. Finally, it held that petitioners were without Article III standing to challenge EPA's efforts to limit the reach of the PSD program and Title V through the Triggering and Tailoring Rules. *Id.,* at 146. The court denied rehearing en banc, with Judges Brown and Kavanaugh each dissenting. No. 09–1322 etc. (Dec. 20, 2012), App. 139, 2012 WL 6621785.

We granted six petitions for certiorari but agreed to decide only one question: "'Whether EPA permissibly determined that its regulation of greenhouse gas emissions from new motor vehicles triggered permitting requirements under the Clean Air Act for stationary sources that emit greenhouse gases.'" 571 U. S. ____ (2013).

II. Analysis

This litigation presents two distinct challenges to EPA's stance on greenhouse-gas permitting for stationary sources. First, we must decide whether EPA permissibly determined that a source may be subject to the PSD and Title V permitting requirements on the sole basis of the source's potential to emit greenhouse gases. Second, we must decide whether EPA permissibly determined that a source already subject to the PSD program because of its emission of conventional pollutants (an "anyway" source) may be required to limit its greenhouse-gas emissions by employing the "best available control technology" for greenhouse gases. The Solicitor General joins issue on both points but evidently regards the second as more important; he informs us that "anyway" sources account

for roughly 83% of American stationary-source greenhouse-gas emissions, compared to just 3% for the additional, non-"anyway" sources EPA sought to regulate at Steps 2 and 3 of the Tailoring Rule. Tr. of Oral Arg. 52.

We review EPA's interpretations of the Clean Air Act using the standard set forth in *Chevron U. S. A. Inc.* v. *Natural Resources Defense Council, Inc.*, 467 U. S. 837, 842–843 (1984). Under *Chevron*, we presume that when an agency-administered statute is ambiguous with respect to what it prescribes, Congress has empowered the agency to resolve the ambiguity. The question for a reviewing court is whether in doing so the agency has acted reasonably and thus has "stayed within the bounds of its statutory authority." *Arlington* v. *FCC*, 569 U. S. ___, ___ (2013) (slip op., at 5) (emphasis deleted).

A. The PSD and Title V Triggers

We first decide whether EPA permissibly interpreted the statute to provide that a source may be required to obtain a PSD or Title V permit on the sole basis of its potential greenhouse-gas emissions.

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EPA thought its conclusion that a source's greenhouse-gas emissions may necessitate a PSD or Title V permit followed from the Act's unambiguous language. The Court of Appeals agreed and held that the statute "compelled" EPA's interpretation. 684 F. 3d, at 134. We disagree. The statute compelled EPA's greenhouse-gas-inclusive interpretation with respect to neither the PSD program nor Title V.[4]

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[4] The Court of Appeals held that petitioners' arguments applied only to the PSD program and that petitioners had therefore "forfeited any challenges to EPA's greenhouse gas-inclusive interpretation of Title V." 684 F. 3d, at 136. The Solicitor General does not defend the Court of Appeals' ruling on forfeiture, and he concedes that some of the argu-

The Court of Appeals reasoned by way of a flawed syllogism: Under *Massachusetts*, the general, Act-wide definition of "air pollutant" includes greenhouse gases; the Act requires permits for major emitters of "any air pollutant"; therefore, the Act requires permits for major emitters of greenhouse gases. The conclusion follows from the premises only if the air pollutants referred to in the permit-requiring provisions (the minor premise) are the same air pollutants encompassed by the Act-wide definition as interpreted in *Massachusetts* (the major premise). Yet no one—least of all EPA—endorses that proposition, and it is obviously untenable.

The Act-wide definition says that an air pollutant is "any air pollution agent or combination of such agents, including any physical, chemical, biological, [or] radioactive . . . substance or matter which is emitted into or otherwise enters the ambient air." §7602(g). In *Massachusetts*, the Court held that the Act-wide definition includes greenhouse gases because it is all-encompassing; it "embraces all airborne compounds of whatever stripe." 549 U. S., at 529. But where the term "air pollutant" appears in the Act's operative provisions, EPA has routinely given it a narrower, context-appropriate meaning.

That is certainly true of the provisions that require PSD and Title V permitting for major emitters of "any air pollutant." Since 1978, EPA's regulations have interpreted "air pollutant" in the PSD permitting trigger as limited to *regulated* air pollutants, 43 Fed. Reg. 26403, codified, as amended, 40 CFR §52.21(b)(1)–(2), (50)—a class much narrower than *Massachusetts*' "all airborne compounds of

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ments petitioners have made before this Court apply to Title V as well as the PSD program. See Brief for Federal Respondents 56. We agree, and we are satisfied that those arguments were also made below. See, *e.g.,* Brief for State Petitioners et al. in No. 10–1073 etc. (CADC), pp. 59–73; Brief for Non-State Petitioners et al. in No. 10–1073 etc. (CADC), pp. 46–47.

whatever stripe," 549 U. S., at 529. And since 1993 EPA has informally taken the same position with regard to the Title V permitting trigger, a position the Agency ultimately incorporated into some of the regulations at issue here. See Memorandum from Lydia N. Wegman, Deputy Director, Office of Air Quality Planning and Standards, to Air Division Director, Regions I–X, pp. 4–5 (Apr. 26, 1993); Tailoring Rule 31607–31608 (amending 40 CFR §§70.2, 71.2). Those interpretations were appropriate: It is plain as day that the Act does not envision an elaborate, burdensome permitting process for major emitters of steam, oxygen, or other harmless airborne substances. It takes some cheek for EPA to insist that it cannot possibly give "air pollutant" a reasonable, context-appropriate meaning in the PSD and Title V contexts when it has been doing precisely that for decades.

Nor are those the only places in the Act where EPA has inferred from statutory context that a generic reference to air pollutants does not encompass every substance falling within the Act-wide definition. Other examples abound:

- The Act authorizes EPA to enforce new source performance standards (NSPS) against a pre-existing source if, after promulgation of the standards, the source undergoes a physical or operational change that increases its emission of "any air pollutant." §7411(a)(2), (4), (b)(1)(B). EPA interprets that provision as limited to air pollutants *for which EPA has promulgated new source performance standards*. 36 Fed. Reg. 24877 (1971), codified, as amended, 40 CFR §60.2; 40 Fed. Reg. 58419 (1975), codified, as amended, 40 CFR §60.14(a).

- The Act requires a permit for the construction or operation in a nonattainment area of a source with the potential to emit 100 tons per year of "any air

pollutant." §§7502(c)(5), 7602(j). EPA interprets that provision as limited to pollutants *for which the area is designated nonattainment*. 45 Fed. Reg. 52745 (1980), promulgating 40 CFR §51.18(j)(2), as amended, §51.165(a)(2).

- The Act directs EPA to require "enhanced monitoring and submission of compliance certifications" for any source with the potential to emit 100 tons per year of "any air pollutant." §§7414(a)(3), 7602(j). EPA interprets that provision as limited to *regulated* pollutants. 62 Fed. Reg. 54941 (1997), codified at 40 CFR §§64.1, 64.2.

- The Act requires certain sources of air pollutants that interfere with visibility to undergo retrofitting if they have the potential to emit 250 tons per year of "any pollutant." §7491(b)(2)(A), (g)(7). EPA interprets that provision as limited to *visibility-impairing* air pollutants. 70 Fed. Reg. 39160 (2005), codified at 40 CFR pt. 51, App. Y, §II.A.3.

Although these limitations are nowhere to be found in the Act-wide definition, in each instance EPA has concluded—as it has in the PSD and Title V context—that the statute is not using "air pollutant" in *Massachusetts*' broad sense to mean any airborne substance whatsoever.

Massachusetts did not invalidate all these longstanding constructions. That case did not hold that EPA must always regulate greenhouse gases as an "air pollutant" everywhere that term appears in the statute, but only that EPA must "ground its reasons for action *or inaction* in the statute," 549 U. S., at 535 (emphasis added), rather than on "reasoning divorced from the statutory text," *id.,* at 532. EPA's inaction with regard to Title II was not sufficiently grounded in the statute, the Court said, in part

because nothing in the Act suggested that regulating greenhouse gases under that Title would conflict with the statutory design. Title II would not compel EPA to regulate in any way that would be "extreme," "counterintuitive," or contrary to "'common sense.'" *Id.,* at 531. At most, it would require EPA to take the modest step of adding greenhouse-gas standards to the roster of new-motor-vehicle emission regulations. *Ibid.*

Massachusetts does not strip EPA of authority to exclude greenhouse gases from the class of regulable air pollutants under other parts of the Act where their inclusion would be inconsistent with the statutory scheme. The Act-wide definition to which the Court gave a "sweeping" and "capacious" interpretation, *id.,* at 528, 532, is not a command to regulate, but a description of the universe of substances EPA may *consider* regulating under the Act's operative provisions. *Massachusetts* does not foreclose the Agency's use of statutory context to infer that certain of the Act's provisions use "air pollutant" to denote not every conceivable airborne substance, but only those that may sensibly be encompassed within the particular regulatory program. As certain *amici* felicitously put it, while *Massachusetts* "rejected EPA's categorical contention that greenhouse gases *could not* be 'air pollutants' for any purposes of the Act," it did not "embrace EPA's current, equally categorical position that greenhouse gases *must* be air pollutants for all purposes" regardless of the statutory context. Brief for Administrative Law Professors et al. as *Amici Curiae* 17.[5]

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[5] Our decision in *American Elec. Power Co.* v. *Connecticut*, 564 U. S. ___ (2011), does not suggest otherwise. We there held that the Act's authorization for EPA to establish performance standards for power-plant greenhouse-gas emissions displaced any federal-common-law right that might otherwise have existed to seek abatement of those emissions. *Id.,* at ___ (slip op., at 10). The authorization to which we referred was that given in the NSPS program of §7411, a part of the Act

To be sure, Congress's profligate use of "air pollutant" where what is meant is obviously narrower than the Act-wide definition is not conducive to clarity. One ordinarily assumes "'that identical words used in different parts of the same act are intended to have the same meaning.'" *Environmental Defense* v. *Duke Energy Corp.*, 549 U. S. 561, 574 (2007). In this respect (as in countless others), the Act is far from a *chef d'oeuvre* of legislative draftsmanship. But we, and EPA, must do our best, bearing in mind the "'fundamental canon of statutory construction that the words of a statute must be read in their context and with a view to their place in the overall statutory scheme.'" *FDA* v. *Brown & Williamson Tobacco Corp.*, 529 U. S. 120, 133 (2000). As we reiterated the same day we decided *Massachusetts*, the presumption of consistent usage "'readily yields'" to context, and a statutory term—even one defined in the statute—"may take on distinct characters from association with distinct statutory objects calling for different implementation strategies." *Duke Energy*, *supra*, at 574.

We need not, and do not, pass on the validity of all the limiting constructions EPA has given the term "air pollutant" throughout the Act. We merely observe that taken together, they belie EPA's rigid insistence that when interpreting the PSD and Title V permitting requirements it is bound by the Act-wide definition's inclusion of greenhouse gases, no matter how incompatible that inclusion is with those programs' regulatory structure.

In sum, there is no insuperable textual barrier to EPA's interpreting "any air pollutant" in the permitting triggers of PSD and Title V to encompass only pollutants emitted in quantities that enable them to be sensibly regulated at the statutory thresholds, and to exclude those atypical

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not at issue here and one that no party in *American Electric Power* argued was ill suited to accommodating greenhouse gases.

pollutants that, like greenhouse gases, are emitted in such vast quantities that their inclusion would radically transform those programs and render them unworkable as written.[6]

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Having determined that EPA was mistaken in thinking the Act *compelled* a greenhouse-gas-inclusive interpretation of the PSD and Title V triggers, we next consider the Agency's alternative position that its interpretation was justified as an exercise of its "discretion" to adopt "a reasonable construction of the statute." Tailoring Rule 31517. We conclude that EPA's interpretation is not permissible.

Even under *Chevron*'s deferential framework, agencies must operate "within the bounds of reasonable interpretation." *Arlington*, 569 U. S., at ___ (slip op., at 5). And reasonable statutory interpretation must account for both "the specific context in which . . . language is used" and "the broader context of the statute as a whole." *Robinson* v. *Shell Oil Co.*, 519 U. S. 337, 341 (1997). A statutory

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[6] During the course of this litigation, several possible limiting constructions for the PSD trigger have been proposed. Judge Kavanaugh argued below that it would be plausible for EPA to read "any air pollutant" in the PSD context as limited to the six NAAQS pollutants. See *Coalition for Responsible Regulation, Inc.* v. *EPA*, No. 09–1322 etc. (CADC, Dec. 20, 2012), App. 171–180, 2012 WL 6621785, *15–*18 (opinion dissenting from denial of rehearing en banc). Some petitioners make a slightly different argument: that because PSD permitting is required only for major emitting facilities "in any area to which [the PSD program] applies," §7475(a), the relevant pollutants are only those NAAQS pollutants for which the area in question is designated attainment or unclassifiable. That approach would bring EPA's interpretation of the PSD trigger in line with its longstanding interpretation of the permitting requirements for nonattainment areas. Others maintain that "any air pollutant" in the PSD provision should be limited to air pollutants with localized effects on air quality. We do not foreclose EPA or the courts from considering those constructions in the future, but we need not do so today.

"provision that may seem ambiguous in isolation is often clarified by the remainder of the statutory scheme . . . because only one of the permissible meanings produces a substantive effect that is compatible with the rest of the law." *United Sav. Assn. of Tex.* v. *Timbers of Inwood Forest Associates, Ltd.*, 484 U. S. 365, 371 (1988). Thus, an agency interpretation that is "inconsisten[t] with the design and structure of the statute as a whole," *University of Tex. Southwestern Medical Center* v. *Nassar*, 570 U. S. ___, ___ (2013) (slip op., at 13), does not merit deference.

EPA itself has repeatedly acknowledged that applying the PSD and Title V permitting requirements to greenhouse gases would be inconsistent with—in fact, would overthrow—the Act's structure and design. In the Tailoring Rule, EPA described the calamitous consequences of interpreting the Act in that way. Under the PSD program, annual permit applications would jump from about 800 to nearly 82,000; annual administrative costs would swell from $12 million to over $1.5 billion; and decade-long delays in issuing permits would become common, causing construction projects to grind to a halt nationwide. Tailoring Rule 31557. The picture under Title V was equally bleak: The number of sources required to have permits would jump from fewer than 15,000 to about 6.1 million; annual administrative costs would balloon from $62 million to $21 billion; and collectively the newly covered sources would face permitting costs of $147 billion. *Id.,* at 31562–31563. Moreover, "the great majority of additional sources brought into the PSD and title V programs would be small sources that Congress did not expect would need to undergo permitting." *Id.,* at 31533. EPA stated that these results would be so "contrary to congressional intent," and would so "severely undermine what Congress sought to accomplish," that they necessitated as much as a 1,000-fold increase in the permitting thresholds set forth in the statute. *Id.,* at 31554, 31562.

Like EPA, we think it beyond reasonable debate that requiring permits for sources based solely on their emission of greenhouse gases at the 100- and 250-tons-per-year levels set forth in the statute would be "incompatible" with "the substance of Congress' regulatory scheme." *Brown & Williamson*, 529 U. S., at 156. A brief review of the relevant statutory provisions leaves no doubt that the PSD program and Title V are designed to apply to, and cannot rationally be extended beyond, a relative handful of large sources capable of shouldering heavy substantive and procedural burdens.

Start with the PSD program, which imposes numerous and costly requirements on those sources that are required to apply for permits. Among other things, the applicant must make available a detailed scientific analysis of the source's potential pollution-related impacts, demonstrate that the source will not contribute to the violation of any applicable pollution standard, and identify and use the "best available control technology" for each regulated pollutant it emits. §7475(a)(3), (4), (6), (e). The permitting authority (the State, usually) also bears its share of the burden: It must grant or deny a permit within a year, during which time it must hold a public hearing on the application. §7475(a)(2), (c). Not surprisingly, EPA acknowledges that PSD review is a "complicated, resource-intensive, time-consuming, and sometimes contentious process" suitable for "hundreds of larger sources," not "tens of thousands of smaller sources." 74 Fed. Reg. 55304, 55321–55322.

Title V contains no comparable substantive requirements but imposes elaborate procedural mandates. It requires the applicant to submit, within a year of becoming subject to Title V, a permit application and a "compliance plan" describing how it will comply with "all applicable requirements" under the Act; to certify its compliance annually; and to submit to "inspection, entry, monitoring,

. . . and reporting requirements." §§7661b(b)–(c), 7661c(a)–(c). The procedural burdens on the permitting authority and EPA are also significant. The permitting authority must hold a public hearing on the application, §7661a(b)(6), and it must forward the application and any proposed permit to EPA and neighboring States and respond in writing to their comments, §7661d(a), (b)(1). If it fails to issue or deny the permit within 18 months, any interested party can sue to require a decision "without additional delay." §§7661a(b)(7), 7661b(c). An interested party also can petition EPA to block issuance of the permit; EPA must grant or deny the petition within 60 days, and its decision may be challenged in federal court. §7661d(b)(2)–(3). As EPA wrote, Title V is "finely crafted for thousands," not millions, of sources. Tailoring Rule 31563.

The fact that EPA's greenhouse-gas-inclusive interpretation of the PSD and Title V triggers would place plainly excessive demands on limited governmental resources is alone a good reason for rejecting it; but that is not the only reason. EPA's interpretation is also unreasonable because it would bring about an enormous and transformative expansion in EPA's regulatory authority without clear congressional authorization. When an agency claims to discover in a long-extant statute an unheralded power to regulate "a significant portion of the American economy," *Brown & Williamson*, 529 U. S., at 159, we typically greet its announcement with a measure of skepticism. We expect Congress to speak clearly if it wishes to assign to an agency decisions of vast "economic and political significance." *Id.,* at 160; see also *MCI Telecommunications Corp.* v. *American Telephone & Telegraph Co.*, 512 U. S. 218, 231 (1994); *Industrial Union Dept., AFL–CIO* v. *American Petroleum Institute*, 448 U. S. 607, 645–646 (1980) (plurality opinion). The power to require permits for the construction and modification of tens of thousands,

and the operation of millions, of small sources nationwide falls comfortably within the class of authorizations that we have been reluctant to read into ambiguous statutory text. Moreover, in EPA's assertion of that authority, we confront a singular situation: an agency laying claim to extravagant statutory power over the national economy while at the same time strenuously asserting that the authority claimed would render the statute "unrecognizable to the Congress that designed" it. Tailoring Rule 31555. Since, as we hold above, the statute does not compel EPA's interpretation, it would be patently unreasonable—not to say outrageous—for EPA to insist on seizing expansive power that it admits the statute is not designed to grant.[7]

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EPA thought that despite the foregoing problems, it could make its interpretation reasonable by adjusting the levels at which a source's greenhouse-gas emissions would

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[7] A few additional points bear mentioning. The Solicitor General conjectures that EPA might eventually alter its longstanding interpretation of "potential to emit" in order to reduce the number of sources required to have permits at the statutory thresholds. But neither he nor the Agency has given us any reason to believe that there exists a plausible reading of "potential to emit" that EPA would willingly adopt and that would eliminate the unreasonableness of EPA's interpretation. Nor have we been given any information about the ability of other possible "streamlining" techniques alluded to by EPA—such as "general" or "electronic" permitting—to reduce the administrability problems identified above; and in any event, none of those techniques would address the more fundamental problem of EPA's claiming regulatory authority over millions of small entities that it acknowledges the Act does not seek to regulate. Finally, the Solicitor General suggests that the incompatibility of greenhouse gases with the PSD program and Title V results chiefly from the inclusion of carbon dioxide in the "aggregate pollutant" defined by EPA. We decide these cases on the basis of the pollutant "greenhouse gases" as EPA has defined and regulated it, and we express no view on how our analysis might change were EPA to define it differently.

oblige it to undergo PSD and Title V permitting. Although the Act, in no uncertain terms, requires permits for sources with the potential to emit more than 100 or 250 tons per year of a relevant pollutant, EPA in its Tailoring Rule wrote a new threshold of *100,000* tons per year for greenhouse gases. Since the Court of Appeals thought the statute unambiguously made greenhouse gases capable of triggering PSD and Title V, it held that petitioners lacked Article III standing to challenge the Tailoring Rule because that rule did not injure petitioners but merely relaxed the pre-existing statutory requirements. Because we, however, hold that EPA's greenhouse-gas-inclusive interpretation of the triggers was *not* compelled, and because EPA has essentially admitted that its interpretation would be unreasonable without "tailoring," we consider the validity of the Tailoring Rule.

We conclude that EPA's rewriting of the statutory thresholds was impermissible and therefore could not validate the Agency's interpretation of the triggering provisions. An agency has no power to "tailor" legislation to bureaucratic policy goals by rewriting unambiguous statutory terms. Agencies exercise discretion only in the interstices created by statutory silence or ambiguity; they must always "'give effect to the unambiguously expressed intent of Congress.'" *National Assn. of Home Builders* v. *Defenders of Wildlife*, 551 U. S. 644, 665 (2007) (quoting *Chevron*, 467 U. S., at 843). It is hard to imagine a statutory term less ambiguous than the precise numerical thresholds at which the Act requires PSD and Title V permitting. When EPA replaced those numbers with others of its own choosing, it went well beyond the "bounds of its statutory authority." *Arlington*, 569 U. S., at ___ (slip op., at 5) (emphasis deleted).

The Solicitor General does not, and cannot, defend the Tailoring Rule as an exercise of EPA's enforcement discretion. The Tailoring Rule is not just an announcement of

EPA's refusal to enforce the statutory permitting requirements; it purports to *alter* those requirements and to establish with the force of law that otherwise-prohibited conduct will not violate the Act. This alteration of the statutory requirements was crucial to EPA's "tailoring" efforts. Without it, small entities with the potential to emit greenhouse gases in amounts exceeding the statutory thresholds would have remained subject to citizen suits—authorized by the Act—to enjoin their construction, modification, or operation and to impose civil penalties of up to $37,500 per day of violation. §§7413(b), 7604(a), (f)(4); 40 CFR §19.4. EPA itself has recently affirmed that the "independent enforcement authority" furnished by the citizen-suit provision cannot be displaced by a permitting authority's decision not to pursue enforcement. 78 Fed. Reg. 12477, 12486–12487 (2013). The Solicitor General is therefore quite right to acknowledge that the availability of citizen suits made it necessary for EPA, in seeking to mitigate the unreasonableness of its greenhouse-gas-inclusive interpretation, to go beyond merely exercising its enforcement discretion. See Tr. of Oral Arg. 87–88.

For similar reasons, *Morton* v. *Ruiz*, 415 U. S. 199 (1974)—to which the Solicitor General points as the best case supporting the Tailoring Rule, see Tr. of Oral Arg. 71, 80–81—is irrelevant. In *Ruiz*, Congress had appropriated funds for the Bureau of Indian Affairs to spend on providing assistance to "'Indians throughout the United States'" and had not "impose[d] any geographical limitation on the availability of general assistance benefits." *Id.,* at 206–207, and n. 7. Although we held the Bureau could not deny benefits to off-reservation Indians because it had not published its eligibility criteria, we stated in dictum that the Bureau could, if it followed proper administrative procedures, "create reasonable classifications and eligibility requirements in order to allocate the limited funds available." *Id.,* at 230–231. That dictum stands only for

the unremarkable proposition that an agency may adopt policies to prioritize its expenditures *within the bounds established by Congress*. See also *Lincoln* v. *Vigil*, 508 U. S. 182, 192–193 (1993). Nothing in *Ruiz* remotely authorizes an agency to modify unambiguous requirements imposed by a federal statute. An agency confronting resource constraints may change its own conduct, but it cannot change the law.

Were we to recognize the authority claimed by EPA in the Tailoring Rule, we would deal a severe blow to the Constitution's separation of powers. Under our system of government, Congress makes laws and the President, acting at times through agencies like EPA, "faithfully execute[s]" them. U. S. Const., Art. II, §3; see *Medellín* v. *Texas*, 552 U. S. 491, 526–527 (2008). The power of executing the laws necessarily includes both authority and responsibility to resolve some questions left open by Congress that arise during the law's administration. But it does not include a power to revise clear statutory terms that turn out not to work in practice. See, *e.g., Barnhart* v. *Sigmon Coal Co.*, 534 U. S. 438, 462 (2002) (agency lacked authority "to develop new guidelines or to assign liability in a manner inconsistent with" an "unambiguous statute").

In the Tailoring Rule, EPA asserts newfound authority to regulate millions of small sources—including retail stores, offices, apartment buildings, shopping centers, schools, and churches—and to decide, on an ongoing basis and without regard for the thresholds prescribed by Congress, how many of those sources to regulate. We are not willing to stand on the dock and wave goodbye as EPA embarks on this multiyear voyage of discovery. We reaffirm the core administrative-law principle that an agency may not rewrite clear statutory terms to suit its own sense of how the statute should operate. EPA therefore lacked authority to "tailor" the Act's unambiguous numerical

thresholds to accommodate its greenhouse-gas-inclusive interpretation of the permitting triggers. Instead, the need to rewrite clear provisions of the statute should have alerted EPA that it had taken a wrong interpretive turn. Agencies are not free to "adopt . . . unreasonable interpretations of statutory provisions and then edit other statutory provisions to mitigate the unreasonableness." App. 175, 2012 WL 6621785, *16 (Kavanaugh, J., dissenting from denial of rehearing en banc). Because the Tailoring Rule cannot save EPA's interpretation of the triggers, that interpretation was impermissible under *Chevron*.[8]

B. BACT for "Anyway" Sources

For the reasons we have given, EPA overstepped its statutory authority when it decided that a source could

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[8]JUSTICE BREYER argues, *post,* at 10 (opinion concurring in part and dissenting in part), that when the statutory permitting thresholds of 100 or 250 tons per year do not provide a "sensible regulatory line," EPA is entitled to "read an unwritten exception" into "the particular number used by the statute"—by which he apparently means that the Agency is entitled to substitute a dramatically higher number, such as 100,000. We are aware of no principle of administrative law that would allow an agency to rewrite such a clear statutory term, and we shudder to contemplate the effect that such a principle would have on democratic governance.

JUSTICE BREYER, however, claims to perceive no difference between (a) reading the statute to exclude greenhouse gases from the term "any air pollutant" in the permitting triggers, and (b) reading the statute to exclude sources emitting less than 100,000 tons per year from the statutory phrase "any . . . source with the potential to emit two hundred and fifty tons per year or more." See *post,* at 7. The two could scarcely be further apart. As we have explained (and as EPA agrees), statutory context makes plain that the Act's operative provisions use "air pollutant" to denote less than the full range of pollutants covered by the Act-wide definition. See Part II–A–1, *supra*. It is therefore incumbent on EPA to specify the pollutants encompassed by that term in the context of a particular program, and to do so reasonably in light of that program's overall regulatory scheme. But there is no ambiguity whatsoever in the specific, numerical permitting thresholds, and thus no room for EPA to exercise discretion in selecting a different threshold.

become subject to PSD or Title V permitting by reason of its greenhouse-gas emissions. But what about "anyway" sources, those that would need permits based on their emissions of more conventional pollutants (such as particulate matter)? We now consider whether EPA reasonably interpreted the Act to require those sources to comply with "best available control technology" emission standards for greenhouse gases.

1

To obtain a PSD permit, a source must be "subject to the best available control technology" for "each pollutant subject to regulation under [the Act]" that it emits. §7475(a)(4). The Act defines BACT as "an emission limitation based on the maximum degree of reduction of each pollutant subject to regulation" that is "achievable . . . through application of production processes and available methods, systems, and techniques, including fuel cleaning, clean fuels, or treatment or innovative fuel combustion techniques." §7479(3). BACT is determined "on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs." *Ibid.*

Some petitioners urge us to hold that EPA may never require BACT for greenhouse gases—even when a source must undergo PSD review based on its emissions of conventional pollutants—because BACT is fundamentally unsuited to greenhouse-gas regulation. BACT, they say, has traditionally been about end-of-stack controls "such as catalytic converters or particle collectors"; but applying it to greenhouse gases will make it more about regulating energy use, which will enable regulators to control "every aspect of a facility's operation and design," right down to the "light bulbs in the factory cafeteria." Brief for Petitioner Energy-Intensive Manufacturers Working Group on Greenhouse Gas Regulation et al. in No. 12–1254, p. 7; see Joint Reply Brief for Petitioners in No. 12–1248 etc., pp.

14–15 ("BACT for [greenhouse gases] becomes an unbounded exercise in command-and-control regulation" of everything from "efficient light bulbs" to "basic industrial processes"). But see Brief for Calpine Corp. as *Amicus Curiae* 10 ("[I]n Calpine's experience with 'anyway' sources, the [greenhouse-gas] analysis was only a small part of the overall permitting process").

EPA has published a guidance document that lends some credence to petitioners' fears. It states that at least initially, compulsory improvements in energy efficiency will be the "foundation" of greenhouse-gas BACT, with more traditional end-of-stack controls either not used or "added as they become more available." PSD and Title V Permitting Guidance for Greenhouse Gases 29 (Mar. 2011) (hereinafter Guidance); see Peloso & Dobbins, Greenhouse Gas PSD Permitting: The Year in Review, 42 Tex. Env. L. J. 233, 247 (2012) ("Because [other controls] tend to prove infeasible, energy efficiency measures dominate the [greenhouse-gas] BACT controls approved by the states and EPA"). But EPA's guidance also states that BACT analysis should consider options *other than* energy efficiency, such as "carbon capture and storage." Guidance 29, 32, 35–36, 42–43. EPA argues that carbon capture is reasonably comparable to more traditional, end-of-stack BACT technologies, *id.,* at 32, n. 86, and petitioners do not dispute that.

Moreover, assuming without deciding that BACT may be used to force some improvements in energy efficiency, there are important limitations on BACT that may work to mitigate petitioners' concerns about "unbounded" regulatory authority. For one, BACT is based on "control technology" for the applicant's "proposed facility," §7475(a)(4); therefore, it has long been held that BACT cannot be used to order a fundamental redesign of the facility. See, *e.g., Sierra Club* v. *EPA*, 499 F. 3d 653, 654–655 (CA7 2007); *In re Pennsauken Cty., N. J., Resource*

Recovery Facility, 2 E. A. D. 667, 673 (EAB 1988). For another, EPA has long interpreted BACT as required only for pollutants that the source itself emits, see 44 Fed. Reg. 51947 (1979); accordingly, EPA acknowledges that BACT may not be used to require "reductions in a facility's demand for energy from the electric grid." Guidance 24. Finally, EPA's guidance suggests that BACT should not require every conceivable change that could result in minor improvements in energy efficiency, such as the aforementioned light bulbs. *Id.,* at 31. The guidance explains that permitting authorities should instead consider whether a proposed regulatory burden outweighs any reduction in emissions to be achieved, and should concentrate on the facility's equipment that uses the largest amounts of energy. *Ibid.*

2

The question before us is whether EPA's decision to require BACT for greenhouse gases emitted by sources otherwise subject to PSD review is, as a general matter, a permissible interpretation of the statute under *Chevron*. We conclude that it is.

The text of the BACT provision is far less open-ended than the text of the PSD and Title V permitting triggers. It states that BACT is required "for each pollutant subject to regulation under this chapter" (*i.e.,* the entire Act), §7475(a)(4), a phrase that—as the D. C. Circuit wrote 35 years ago—"would not seem readily susceptible [of] misinterpretation." *Alabama Power Co.* v. *Costle*, 636 F. 2d 323, 404 (1979). Whereas the dubious breadth of "any air pollutant" in the permitting triggers suggests a role for agency judgment in identifying the subset of pollutants covered by the particular regulatory program at issue, the more specific phrasing of the BACT provision suggests that the necessary judgment has already been made by Congress. The wider statutory context likewise does not

suggest that the BACT provision can bear a narrowing construction: There is no indication that the Act elsewhere uses, or that EPA has interpreted, "each pollutant subject to regulation under this chapter" to mean anything other than what it says.

Even if the text were not clear, applying BACT to greenhouse gases is not so disastrously unworkable, and need not result in such a dramatic expansion of agency authority, as to convince us that EPA's interpretation is unreasonable. We are not talking about extending EPA jurisdiction over millions of previously unregulated entities, but about moderately increasing the demands EPA (or a state permitting authority) can make of entities already subject to its regulation. And it is not yet clear that EPA's demands will be of a significantly different character from those traditionally associated with PSD review. In short, the record before us does not establish that the BACT provision as written is incapable of being sensibly applied to greenhouse gases.

We acknowledge the potential for greenhouse-gas BACT to lead to an unreasonable and unanticipated degree of regulation, and our decision should not be taken as an endorsement of all aspects of EPA's current approach, nor as a free rein for any future regulatory application of BACT in this distinct context. Our narrow holding is that nothing in the statute categorically prohibits EPA from interpreting the BACT provision to apply to greenhouse gases emitted by "anyway" sources.

However, EPA may require an "anyway" source to comply with greenhouse-gas BACT only if the source emits more than a *de minimis* amount of greenhouse gases. As noted above, the Tailoring Rule applies BACT only if a source emits greenhouse gases in excess of 75,000 tons per year CO_2e, but the Rule makes clear that EPA did not arrive at that number by identifying the *de minimis* level. See nn. 1, 3, *supra*. EPA may establish an appropriate *de*

minimis threshold below which BACT is not required for a source's greenhouse-gas emissions. We do not hold that 75,000 tons per year CO_2e necessarily exceeds a true *de minimis* level, only that EPA must justify its selection on proper grounds. Cf. *Alabama Power*, *supra,* at 405.[9]

* * *

To sum up: We hold that EPA exceeded its statutory authority when it interpreted the Clean Air Act to require PSD and Title V permitting for stationary sources based on their greenhouse-gas emissions. Specifically, the Agency may not treat greenhouse gases as a pollutant for purposes of defining a "major emitting facility" (or a "modification" thereof) in the PSD context or a "major source" in the Title V context. To the extent its regulations purport to do so, they are invalid. EPA may, however, continue to treat greenhouse gases as a "pollutant subject to regulation under this chapter" for purposes of requiring BACT for "anyway" sources. The judgment of the Court of Appeals is affirmed in part and reversed in part.

It is so ordered.

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[9] JUSTICE ALITO argues that BACT is "fundamentally incompatible" with greenhouse gases for two reasons. *Post,* at 4 (opinion concurring in part and dissenting in part). First, BACT requires consideration of "ambient air quality at the proposed site and in areas which may be affected by emissions from [the proposed] facility for each pollutant subject to regulation under this chapter," §7475(e)(1); see also §7475(e)(3)(B); and it is not obvious how that requirement should apply, or even whether it can apply, to greenhouse gases. *Post*, at 4–5. But the possibility that that requirement may be inoperative as to greenhouse gases does not convince us that they must be categorically excluded from BACT even though they are indisputably a "pollutant subject to regulation." Second, JUSTICE ALITO argues that EPA's guidance on how to implement greenhouse-gas BACT is a recipe for "arbitrary and inconsistent decisionmaking." *Post,* at 8. But we are not reviewing EPA's guidance in these cases, and we cannot say that it is impossible for EPA and state permitting authorities to devise rational ways of complying with the statute's directive to determine BACT for greenhouse gases "on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs." §7479(3).

SUPREME COURT OF THE UNITED STATES

Nos. 12–1146, 12–1248, 12–1254, 12–1268, 12–1269, and 12–1272

UTILITY AIR REGULATORY GROUP,
PETITIONER
12–1146 *v.*
ENVIRONMENTAL PROTECTION AGENCY, ET AL.;

AMERICAN CHEMISTRY COUNCIL, ET AL.,
PETITIONERS
12–1248 *v.*
ENVIRONMENTAL PROTECTION AGENCY, ET AL.;

ENERGY-INTENSIVE MANUFACTURERS WORKING
GROUP ON GREENHOUSE GAS REGULATION,
ET AL., PETITIONERS
12–1254 *v.*
ENVIRONMENTAL PROTECTION AGENCY, ET AL.;

SOUTHEASTERN LEGAL FOUNDATION, INC.,
ET AL., PETITIONERS
12–1268 *v.*
ENVIRONMENTAL PROTECTION AGENCY, ET AL.;

TEXAS, ET AL., PETITIONERS
12–1269 *v.*
ENVIRONMENTAL PROTECTION AGENCY,
ET AL.; AND

CHAMBER OF COMMERCE OF THE UNITED
STATES, ET AL., PETITIONERS
12–1272 *v.*

ENVIRONMENTAL PROTECTION AGENCY, ET AL.;

ON WRITS OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE DISTRICT OF COLUMBIA CIRCUIT

[June 23, 2014]

JUSTICE BREYER, with whom JUSTICE GINSBURG, JUSTICE SOTOMAYOR, and JUSTICE KAGAN join, concurring in part and dissenting in part.

In *Massachusetts* v. *EPA*, 549 U. S. 497 (2007), we held that greenhouse gases fall within the Clean Air Act's general definition of the term "air pollutant," 42 U. S. C. §7602(g). 549 U. S., at 528–529. We also held, consequently, that the Environmental Protection Agency is empowered and required by Title II of the Act to regulate greenhouse gas emissions from mobile sources (such as cars and trucks) if it decides that greenhouse gases "contribute to . . . air pollution which may reasonably be anticipated to endanger public health or welfare," §7521(a)(1). 549 U. S., at 532–533. The EPA determined that greenhouse gases endanger human health and welfare, 74 Fed. Reg. 66496 (2009) (Endangerment Finding), and so it issued regulations for mobile emissions, 75 Fed. Reg. 25324 (2010) (Tailpipe Rule).

These cases take as a given our decision in *Massachusetts* that the Act's *general definition* of "air pollutant" includes greenhouse gases. One of the questions posed by these cases is whether those gases fall within the scope of the phrase "any air pollutant" as that phrase is used in the more specific provisions of the Act here at issue. The Court's answer is "no." *Ante,* at 10–24. I disagree.

The Clean Air Act provisions at issue here are Title I's Prevention of Significant Deterioration (PSD) program, §7470 *et seq.*, and Title V's permitting regime, §7661 *et seq*. By contrast to Title II, Titles I and V apply to stationary sources, such as power plants and factories. Un-

der the PSD program, "major emitting facilities" constructed in the United States must meet certain requirements, including obtaining a permit that imposes emissions limitations, §7475(a)(1), and using "the best available control technology for each pollutant subject to regulation under [the Act] emitted from" the facility, §7475(a)(4). Title V requires each "major source" to obtain an operating permit. §7661a(a).

These cases concern the definitions of "major emitting facility" and "major source," each of which is defined to mean any stationary source that emits more than a threshold quantity of "any air pollutant." See §7479(1) ("major emitting facility"); §§7602(j), 7661(2)(B) ("major source"). To simplify the exposition, I will refer only to the PSD program and its definition of "major emitting facility"; a parallel analysis applies to Title V.

As it is used in the PSD provisions,

> "[t]he term 'major emitting facility' means any of [a list of specific categories of] stationary sources of air pollutants which emit, or have the potential to emit, one hundred tons per year or more of any air pollutant . . . . Such term also includes any other source with the potential to emit two hundred and fifty tons per year or more of any air pollutant." §7479(1).

To simplify further, I will ignore the reference to specific types of source that emit at least 100 tons per year (tpy) of any air pollutant. In effect, we are dealing with a statute that says that the PSD program's regulatory requirements must be applied to

> "any stationary source that has the potential to emit two hundred fifty tons per year or more of any air pollutant."

The interpretive difficulty in these cases arises out of the definition's use of the phrase "two hundred fifty tons

per year or more," which I will call the "250 tpy threshold." When applied to greenhouse gases, 250 tpy is far too low a threshold. As the Court explains, tens of thousands of stationary sources emit large quantities of one greenhouse gas, carbon dioxide. See *ante,* at 17–20, and n. 7. To apply the programs at issue here to all those sources would be extremely expensive and burdensome, counterproductive, and perhaps impossible; it would also contravene Congress's intent that the programs' coverage be limited to those large sources whose emissions are substantial enough to justify the regulatory burdens. *Ibid.* The EPA recognized as much, and it addressed the problem by issuing a regulation—the Tailoring Rule—that purports to raise the coverage threshold for greenhouse gases from the statutory figure of 250 tpy to 100,000 tpy in order to keep the programs' coverage limited to "a relatively small number of large industrial sources." 75 Fed. Reg. 31514, 31555 (2010); see *id.,* at 31523–31524.

The Tailoring Rule solves the practical problems that would have been caused by the 250 tpy threshold. But what are we to do about the statute's language? The statute specifies a definite number—250, not 100,000—and it says that facilities that are covered by that number must meet the program's requirements. The statute says nothing about agency discretion to change that number. What is to be done? How, given the statute's language, can the EPA exempt from regulation sources that emit more than 250 but less than 100,000 tpy of greenhouse gases (and that also do not emit other regulated pollutants at threshold levels)?

The Court answers by (1) pointing out that regulation at the 250 tpy threshold would produce absurd results, (2) refusing to read the statute as compelling such results, and (3) consequently interpreting the phrase "*any* air pollutant" as containing an implicit exception for greenhouse gases. (Emphasis added.) Put differently, the

Court reads the statute as defining "major emitting facility" to mean "stationary sources that have the potential to emit two hundred fifty tons per year or more of any air pollutant *except for those air pollutants, such as carbon dioxide, with respect to which regulation at that threshold would be impractical or absurd or would sweep in smaller sources that Congress did not mean to cover*." See *ante,* at 15–16 ("[T]here is no insuperable textual barrier to EPA's interpreting 'any air pollutant' in the permitting triggers of PSD and Title V to encompass only pollutants emitted in quantities that enable them to be sensibly regulated at the statutory thresholds, and to exclude those atypical pollutants that, like greenhouse gases, are emitted in such vast quantities that their inclusion would radically transform those programs and render them unworkable as written").

I agree with the Court that the word "any," when used in a statute, does not normally mean "any in the universe." Cf. *FCC* v. *NextWave Personal Communications Inc.*, 537 U. S. 293, 311 (2003) (BREYER, J., dissenting) ("'Tell all customers that . . .' does not refer to every customer of every business in the world"). Rather, "[g]eneral terms as used on particular occasions often carry with them implied restrictions as to scope," *ibid.*, and so courts must interpret the word "any," like all other words, in context. As Judge Learned Hand pointed out when interpreting another statute many years ago, "[w]e can best reach the meaning here, as always, by recourse to the underlying purpose, and, with that as a guide, by trying to project upon the specific occasion how we think persons, actuated by such a purpose, would have dealt with it, if it had been presented to them at the time." *Borella* v. *Borden Co.*, 145 F. 2d 63, 64 (CA2 1944). The pursuit of that underlying purpose may sometimes require us to "abandon" a "literal interpretation" of a word like "any." *Id.,* at 64–65.

The law has long recognized that terms such as "any" admit of unwritten limitations and exceptions. Legal philosophers like to point out that a statute providing that "'[w]hoever shall willfully take the life of another shall be punished by death'" need not encompass a man who kills in self-defense; nor must an ordinance imposing fines upon those who occupy a public parking spot for more than two hours penalize a driver who is unable to move because of a parade. See Fuller, The Case of the Speluncean Explorers, 62 Harv. L. Rev. 616, 619, 624 (1949); see also *United States* v. *Kirby*, 7 Wall. 482, 485–487 (1869) (holding that a statute forbidding knowing and willful obstruction of the mail contains an implicit exception permitting a local sheriff to arrest a mail carrier). The maxim *cessante ratione legis cessat ipse lex*—where a law's rationale ceases to apply, so does the law itself—is not of recent origin. See, *e.g., Zadvydas* v. *Davis*, 533 U. S. 678, 699 (2001) (citing 1 E. Coke, Institutes *70b); *Green* v. *Liter*, 8 Cranch 229, 249 (1814) (Story, J.) ("*cessante ratione, cessat ipsa lex*").

I also agree with the Court's point that "a generic reference to air pollutants" in the Clean Air Act need not "encompass every substance falling within the Act-wide definition" that we construed in *Massachusetts*, §7602(g). See *ante,* at 12–13. As the Court notes, the EPA has interpreted the phrase "any air pollutant," which is used several times in the Act, as limited to "air pollutants *for which EPA has promulgated [new source performance standards]*" in the portion of the Act dealing with those standards, as limited to "*visibility-impairing* air pollutants" in the part of the Act concerned with deleterious effects on visibility, and as limited to "pollutants *for which the area is designated nonattainment*" in the part of the Act aimed at regions that fail to attain air quality standards. *Ibid.*

But I do not agree with the Court that the only way to

avoid an absurd or otherwise impermissible result in these cases is to create an atextual greenhouse gas exception to the phrase "any air pollutant." After all, the word "any" makes an earlier appearance in the definitional provision, which defines "major emitting facility" to mean "*any* . . . source with the potential to emit two hundred and fifty tons per year or more of any air pollutant." §7479(1) (emphasis added). As a linguistic matter, one can just as easily read an implicit exception for small-scale greenhouse gas emissions into the phrase "any source" as into the phrase "any air pollutant." And given the purposes of the PSD program and the Act as a whole, as well as the specific roles of the different parts of the statutory definition, finding flexibility in "any source" is far more sensible than the Court's route of finding it in "any air pollutant."

The implicit exception I propose reads almost word for word the same as the Court's, except that the location of the exception has shifted. To repeat, the Court reads the definition of "major emitting facility" as if it referred to "any source with the potential to emit two hundred fifty tons per year or more of any air pollutant *except for those air pollutants, such as carbon dioxide, with respect to which regulation at that threshold would be impractical or absurd or would sweep in smaller sources that Congress did not mean to cover*." I would simply move the implicit exception, which I've italicized, so that it applies to "source" rather than "air pollutant": "any *source* with the potential to emit two hundred fifty tons per year or more of any air pollutant *except for those sources, such as those emitting unmanageably small amounts of greenhouse gases, with respect to which regulation at that threshold would be impractical or absurd or would sweep in smaller sources that Congress did not mean to cover*."

From a legal, administrative, and functional perspective—that is, from a perspective that assumes that Congress was not merely trying to arrange words on paper but

was seeking to achieve a real-world *purpose*—my way of reading the statute is the more sensible one. For one thing, my reading is consistent with the specific purpose underlying the 250 tpy threshold specified by the statute. The purpose of that number was not to prevent the regulation of dangerous air pollutants that cannot be sensibly regulated at that particular threshold, though that is the effect that the Court's reading gives the threshold. Rather, the purpose was to limit the PSD program's obligations to larger sources while exempting the many small sources whose emissions are low enough that imposing burdensome regulatory requirements on them would be senseless.

Thus, the accompanying Senate Report explains that the PSD program "is reasonable and necessary for very large sources, such as new electrical generating plants or new steel mills. But the procedure would prove costly and potentially unreasonable if imposed on construction of storage facilities for a small gasoline jobber or on the construction of a new heating plant at a junior college." S. Rep. No. 95–127, p. 96 (1977). And the principal sponsor of the Clean Air Act amendments at issue here, Senator Edmund Muskie, told the Senate that the program would not cover "houses, dairies, farms, highways, hospitals, schools, grocery stores, and other such sources." 123 Cong. Rec. 18013, 18021 (1977).

The EPA, exercising the legal authority to which it is entitled under *Chevron U. S. A. Inc.* v. *Natural Resources Defense Council, Inc.*, 467 U. S. 837 (1984), understood the threshold's purpose in the same light. It explained that Congress's objective was

> "to limit the PSD program to large industrial sources because it was those sources that were the primary cause of the pollution problems in question and because those sources would have the resources to com-

> ply with the PSD requirements. Congress's mechanism for limiting PSD was the 100/250 tpy threshold limitations. Focused as it was primarily on NAAQS pollutants [that is, those air pollutants for which the EPA has issued a national ambient air quality standard under Title I of the Act, see *EPA* v. *EME Homer City Generation, L. P.*, 572 U. S. ___, ___ (2014) (slip op., at 4)], Congress considered sources that emit NAAQS pollutants in those quantities generally to be the large industrial sources to which it intended PSD to be limited." Tailoring Rule, 75 Fed. Reg. 31555.

The Court similarly acknowledges that "the PSD program and Title V are designed to apply to, and cannot rationally be extended beyond, a relative handful of large sources capable of shouldering heavy substantive and procedural burdens." *Ante,* at 18; see also *Alabama Power Co.* v. *Costle*, 636 F. 2d 323, 353 (CADC 1979) ("Congress's intention was to identify facilities which, due to their size, are financially able to bear the substantial regulatory costs imposed by the PSD provisions and which, as a group, are primarily responsible for emission of the deleterious pollutants that befoul our nation's air").

An implicit source-related exception would serve this statutory purpose while going no further. The implicit exception that the Court reads into the phrase "any air pollutant," by contrast, goes well beyond the limited congressional objective. Nothing in the statutory text, the legislative history, or common sense suggests that Congress, when it imposed the 250 tpy threshold, was trying to undermine its own deliberate decision to use the broad language "any air pollutant" by removing some substances (rather than some facilities) from the PSD program's coverage.

For another thing, a source-related exception serves the flexible nature of the Clean Air Act. We observed in *Mas-*

sachusetts that "[w]hile the Congresses that drafted" the Act "might not have appreciated the possibility that burning fossil fuels could lead to global warming, they did understand that without regulatory flexibility, changing circumstances and scientific developments would soon render the Clean Air Act obsolete." 549 U. S., at 532. We recognized that "[t]he broad language of" the Act-wide definition of "air pollutant" "reflects an intentional effort to confer the flexibility necessary to forestall such obsolescence." *Ibid.*

The Court's decision to read greenhouse gases out of the PSD program drains the Act of its flexibility and chips away at our decision in *Massachusetts*. What sense does it make to read the Act as generally granting the EPA the authority to regulate greenhouse gas emissions and then to read it as denying that power with respect to the programs for large stationary sources at issue here? It is anomalous to read the Act to require the EPA to regulate air pollutants that pose previously unforeseen threats to human health and welfare where "250 tons per year" is a sensible regulatory line but not where, by chemical or regulatory happenstance, a higher line must be drawn. And it is anomalous to read an unwritten exception into the more important phrase of the statutory definition ("any air pollutant") when a similar unwritten exception to less important language (the particular number used by the statute) will do just as well. The implicit exception preferred by the Court produces all of these anomalies, while the source-related exception I propose creates none of them.

In addition, the interpretation I propose leaves the EPA with the sort of discretion as to interstitial matters that Congress likely intended it to retain. My interpretation gives the EPA nothing more than the authority to *exempt* sources from regulation insofar as the Agency reasonably determines that applying the PSD program to them would

expand the program so much as to contravene Congress's intent. That sort of decision, which involves the Agency's technical expertise and administrative experience, is the kind of decision that Congress typically leaves to the agencies to make. Cf. *Barnhart* v. *Walton*, 535 U. S. 212, 222 (2002) (enumerating factors that we take to indicate that Congress intends the agency to exercise the discretion provided by *Chevron*). To read the Act to grant that discretion here is to read it as furthering Congress's (and the public's) interest in more effective, less wasteful regulation.

Last, but by no means least, a source-related exception advances the Act's overall purpose. That broad purpose, as set forth at the beginning of the statute, is "to protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare and the productive capacity of its population." §7401(b)(1); see also §7470(1) (A purpose of the PSD program in particular is "to protect public health and welfare from any actual or potential adverse effect which in the Administrator's judgment may reasonably be anticipate[d] to occur from air pollution"); §7602(h) ("All language [in the Act] referring to effects on welfare includes . . . effects on . . . weather . . . and climate"). The expert agency charged with administering the Act has determined in its Endangerment Finding that greenhouse gases endanger human health and welfare, and so sensible regulation of industrial emissions of those pollutants is at the core of the purpose behind the Act. The broad "no greenhouse gases" exception that the Court reads into the statute unnecessarily undercuts that purpose, while my narrow source-related exception would leave the Agency with the tools it needs to further it.

* * *

I agree with the Court's holding that stationary sources

that are subject to the PSD program because they emit other (non-greenhouse-gas) pollutants in quantities above the statutory threshold—those facilities that the Court refers to as "anyway" sources—must meet the "best available control technology" requirement of §7475(a)(4) with respect to greenhouse gas emissions. I therefore join Part II–B–2 of the Court's opinion. But as for the Court's holding that the EPA cannot interpret the language at issue here to cover facilities that emit more than 100,000 tpy of greenhouse gases by virtue of those emissions, I respectfully dissent.

SUPREME COURT OF THE UNITED STATES

Nos. 12–1146, 12–1248, 12–1254, 12–1268, 12–1269, and 12–1272

UTILITY AIR REGULATORY GROUP,
PETITIONER
12–1146 *v.*
ENVIRONMENTAL PROTECTION AGENCY, ET AL.;

AMERICAN CHEMISTRY COUNCIL, ET AL.,
PETITIONERS
12–1248 *v.*
ENVIRONMENTAL PROTECTION AGENCY, ET AL.;

ENERGY-INTENSIVE MANUFACTURERS WORKING
GROUP ON GREENHOUSE GAS REGULATION,
ET AL., PETITIONERS
12–1254 *v.*
ENVIRONMENTAL PROTECTION AGENCY, ET AL.;

SOUTHEASTERN LEGAL FOUNDATION, INC.,
ET AL., PETITIONERS
12–1268 *v.*
ENVIRONMENTAL PROTECTION AGENCY, ET AL.;

TEXAS, ET AL., PETITIONERS
12–1269 *v.*
ENVIRONMENTAL PROTECTION AGENCY,
ET AL.; AND

CHAMBER OF COMMERCE OF THE UNITED
STATES, ET AL., PETITIONERS
12–1272 *v.*

ENVIRONMENTAL PROTECTION AGENCY, ET AL.;

ON WRITS OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE DISTRICT OF COLUMBIA CIRCUIT

[June 23, 2014]

JUSTICE ALITO, with whom JUSTICE THOMAS joins, concurring in part and dissenting in part.

In *Massachusetts* v. *EPA*, 549 U. S. 497 (2007), this Court considered whether greenhouse gases fall within the Clean Air Act's general definition of an air "pollutant." *Id.,* at 528–529. The Environmental Protection Agency cautioned us that "key provisions of the [Act] cannot cogently be applied to [greenhouse gas] emissions," Brief for Federal Respondent in *Massachusetts* v. *EPA*, O. T. 2006, No. 05–1120, p. 22, but the Court brushed the warning aside and had "little trouble" concluding that the Act's "sweeping definition" of a pollutant encompasses greenhouse gases. 549 U. S., at 528–529. I believed *Massachusetts* v. *EPA* was wrongly decided at the time, and these cases further expose the flaws with that decision.

I

As the present cases now show, trying to fit greenhouse gases into "key provisions" of the Clean Air Act involves more than a "little trouble." These cases concern the provisions of the Act relating to the "Prevention of Significant Deterioration" (PSD), 42 U. S. C. §§7470–7492, as well as Title V of the Act, §7661. And in order to make those provisions apply to greenhouse gases in a way that does not produce absurd results, the EPA effectively amended the Act. The Act contains specific emissions thresholds that trigger PSD and Title V coverage, but the EPA crossed out the figures enacted by Congress and substituted figures of its own.

I agree with the Court that the EPA is neither required nor permitted to take this extraordinary step, and I there-

fore join Parts I and II–A of the Court's opinion.

II

I do not agree, however, with the Court's conclusion that what it terms "anyway sources," *i.e.*, sources that are subject to PSD and Title V permitting as the result of the emission of conventional pollutants, must install "best available control technology" (BACT) for greenhouse gases. As is the case with the PSD and Title V thresholds, trying to fit greenhouse gases into the BACT analysis badly distorts the scheme that Congress adopted.

The Court gives two main reasons for concluding that BACT applies to "anyway" sources, one based on text and one based on practical considerations. Neither is convincing.

A

With respect to the text, it is curious that the Court, having departed from a literal interpretation of the term "pollutant" in Part II–A, turns on its heels and adopts a literal interpretation in Part II–B. The coverage thresholds at issue in Part II–A apply to any "pollutant." The Act's general definition of this term is broad, and in *Massachusetts* v. *EPA*, *supra*, the Court held that this definition covers greenhouse gases. The Court does not disturb that holding, but it nevertheless concludes that, as used in the provision triggering PSD coverage, the term "pollutant" actually means "pollutant, other than a greenhouse gas."

In Part II–B, the relevant statutory provision says that BACT must be installed for any "pollutant subject to regulation under [the Act]." §7475(a)(4). If the term "pollutant" means "pollutant, other than a greenhouse gas," as the Court effectively concludes in Part II–A, the term "pollutant subject to regulation under [the Act]" in §7475(a)(4) should mean "pollutant, other than a green-

house gas, subject to regulation under [the Act], and that is subject to regulation under [the Act]." The Court's literalism is selective, and it results in a strange and disjointed regulatory scheme.

Under the Court's interpretation, a source can emit an unlimited quantity of greenhouse gases without triggering the need for a PSD permit. Why might Congress have wanted to allow this? The most likely explanation is that the PSD permitting process is simply not suited for use in regulating this particular pollutant. And if that is so, it makes little sense to require the installation of BACT for greenhouse gases in those instances in which a source happens to be required to obtain a permit due to the emission of a qualifying quantity of some other pollutant that is regulated under the Act.

B

The Court's second reason for holding that BACT applies to "anyway" sources is its belief that this can be done without disastrous consequences. Only time will tell whether this hope is well founded, but it seems clear that BACT analysis is fundamentally incompatible with the regulation of greenhouse-gas emissions for at least two important reasons.

1

First, BACT looks to the effects of covered pollutants in the area in which a source is located. The PSD program is implemented through "emission limitations and such other measures" as are "necessary . . . to prevent significant deterioration of air quality *in each region*." §7471 (emphasis added). The Clean Air Act provides that BACT must be identified "on a case-by-case basis," §7479(3), and this necessarily means that local conditions must be taken into account. For this reason, the Act instructs the EPA to issue regulations requiring an analysis of "the ambient air

quality . . . *at the site of the proposed major emitting facility and in the area potentially affected* by the emissions from such facility for each pollutant regulated under [the Act]." §7475(e)(3)(B) (emphasis added). The Act also requires a public hearing on "the air quality *at the proposed site and in areas which may be affected* by emissions from such facility for each pollutant subject to regulation under [the Act] which will be emitted from such facility." §§7475(a)(2), (e)(1) (emphasis added). Accordingly, if BACT is required for greenhouse gases, the Act demands that the impact of these gases in the area surrounding a site must be monitored, explored at a public hearing, and considered as part of the permitting process. The effects of greenhouse gases, however, are global, not local. See PSD and Title V Permitting Guidance for Greenhouse Gases 41–42 (Mar. 2011) (hereinafter Guidance). As a result, the EPA has declared that PSD permit applicants and permitting officials may disregard these provisions of the Act. 75 Fed. Reg. 31520 (2010).

2

Second, as part of the case-by-case analysis required by BACT, a permitting authority must balance the environmental benefit expected to result from the installation of an available control measure against adverse consequences that may result, including any negative impact on the environment, energy conservation, and the economy. And the EPA itself has admitted that this cannot be done on a case-by-case basis with respect to greenhouse gases.

The Clean Air Act makes it clear that BACT must be determined on a "case-by-case basis, taking into account energy, environmental, and economic impacts and other costs." §7479(3). To implement this directive, the EPA adopted a five-step framework for making a BACT determination. See New Source Review Workshop Manual: Prevention of Significant Deterioration and Nonattain-

ment Area Permitting (Oct. 1990).[1] Under the fourth step of this analysis, potentially applicable and feasible control technologies that are candidates for selection as BACT for a particular source are eliminated from consideration based on their "collateral impacts," such as any adverse environmental effects or adverse effects on energy consumption or the economy.

More recently, the EPA provided guidance to permitting authorities regarding the treatment of greenhouse-gas emissions under this framework, and the EPA's guidance demonstrates the insuperable problem that results when an attempt is made to apply this framework to greenhouse gas emissions. As noted above, at step 4 of the framework, a permitting authority must balance the positive effect likely to result from requiring a particular source to install a particular technology against a variety of negative effects that are likely to occur if that step is taken. But in the case of greenhouse gases, how can a permitting authority make this individualized, source-specific determination?

The EPA instructs permitting authorities to take into

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[1] The EPA describes these steps as follows:

(1) The applicant must identify all available control options that are potentially applicable by consulting EPA's BACT clearinghouse along with other reliable sources.

(2) The technical feasibility of the control options identified in step 1 are eliminated based on technical infeasibility.

(3) The control technologies are ranked based on control effectiveness, by considering: the percentage of the pollutant removed; expected emission rate for each new source review (NSR) pollutant; expected emission reduction for each regulated NSR pollutant; and output based emissions limit.

(4) Control technologies are eliminated based on collateral impacts, such as: energy impacts; other environmental impacts; solid or hazardous waste; water discharge from control device; emissions of air toxics and other non-NSR regulated pollutants; and economic impacts.

(5) The most effective control option not eliminated in step 4 is proposed as BACT for the pollutant and emission unit under review.

consideration all the adverse effects that the EPA has found to result from *the overall increase* in greenhouse gases in the atmosphere. These include an increased risk of dangerous heat waves, hurricanes, floods, wildfires, and drought, as well as risks to agriculture, forestry, and water resources. Guidance 40–41. But the EPA admits that it is simply not possible for a permitting authority to calculate in any meaningful way the degree to which any potential reduction in greenhouse gas emissions from any individual source might reduce these risks. And without making such a calculation in even a very rough way, a permitting authority cannot do what the Clean Air Act and the EPA's framework demand—compare the benefits of some specified reduction in the emission of greenhouse gases from a particular source with any adverse environmental or economic effects that might result from mandating such a reduction.

Suppose, for example, that a permitting authority must decide whether to mandate a change that both decreases a source's emission of greenhouse gases and increases its emission of a conventional pollutant that has a negative effect on public health. How should a permitting authority decide whether to require this change? Here is the EPA's advice:

> "[W]hen considering the trade-offs between the environmental impacts of a particular level of GHG [greenhouse gas] reduction and a collateral increase in another regulated NSR pollutant,[2] rather than attempting to determine or characterize specific environmental impacts from GHGs emitted at particular locations, EPA recommends that permitting authorities focus on the amount of GHG emission reductions

[2] "New source review pollutants" are those pollutants for which a National Ambient Air Quality standard has been set and a few others, such as sulphur dioxide. See 40 CFR 51.165(a)(1)(xxxvii) (2013).

> that may be gained or lost by employing a particular control strategy and how that compares to the environmental or other impacts resulting from the collateral emissions increase of other regulated NSR pollutants." Guidance 42.

As best I can make out, what this means is that permitting authorities should not even try to assess the net impact on public health. Instead of comparing the positive and negative public health effects of a particular option, permitting authorities are instructed to compare the adverse public health effects of increasing the emissions of the conventional pollutants with the amount of the reduction of the source's emissions of greenhouse gases. But without knowing the positive effects of the latter, this is a meaningless comparison.

The EPA tries to ameliorate this problem by noting that permitting authorities are entitled to "a great deal of discretion," Guidance 41, but without a comprehensible standard, what this will mean is arbitrary and inconsistent decisionmaking. That is not what the Clean Air Act contemplates.[3]

* * *

BACT analysis, like the rest of the Clean Air Act, was developed for use in regulating the emission of conventional pollutants and is simply not suited for use with respect to greenhouse gases. I therefore respectfully dissent from Part II–B–2 of the opinion of the Court.

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[3] While I do not think that BACT applies at all to "anyway sources," if it is to apply, the limitations suggested in Part II–B–1 might lessen the inconsistencies highlighted in Part II of this opinion, and on that understanding I join Part II–B–1.