



PRESIDENT OBAMA'S CLIMATE ACTION PLAN PROGRESS REPORT

*Cutting carbon pollution,
protecting American communities,
and leading internationally.*

JUNE 2014

The effects of climate change are already being felt across the nation. In the past three decades, the percentage of Americans with asthma has more than doubled, and climate change is putting those Americans at greater risk of landing in the hospital. The impacts of extreme weather events – from more severe droughts and wildfires in the West, to more powerful hurricanes and record heat waves – are hitting communities across the country. These changes come with far-reaching consequences and real economic costs.

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. 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. That’s why one year ago, President Obama laid out a comprehensive Climate Action Plan to cut the carbon pollution that causes climate change and affects public health, prepare the United States for the impacts of climate change, and lead international efforts to combat global climate change.

One year later, the Administration has made real progress in advancing the goals in the President’s Climate Action Plan. Already, the Administration has announced new efficiency standards, permitted renewable energy projects on public lands, and proposed carbon pollution standards for new and existing power plants. Alongside our State, Tribal, local, and private sector partners, we are taking steps to make our communities more resilient to the effects of severe weather; and we are working with other countries to reduce emissions of greenhouse gases internationally. In fact, when fully implemented, the policies put forward just in the past year since the President’s Plan was released will:

- Cut nearly 3 billion tons of carbon pollution between 2020 and 2025, an amount equivalent to taking more than 600 million cars off the road for a year;
- Enable the development of 8,100 megawatts of wind, solar, and geothermal energy, enough to power nearly 2 million homes;
- Train more than 50,000 workers to enter the solar industry;
- Save consumers more than \$60 billion on their energy bills through 2030;
- Improve the energy efficiency of more than 1 billion square feet of city buildings, schools, multifamily housing complexes, and business across the country, an area the size of 17,000 football fields; and
- Protect the health of vulnerable Americans, including children and the elderly, by preventing 150,000 asthma attacks and up to 3,300 heart attacks.

Building on key first term actions like historic fuel economy standards, and other steps still to come, these new actions under the Climate Action Plan put us on track to meet our target of reducing emissions in the range of 17 percent below 2005 levels by 2020. We have proven that the U.S. can and will take the lead on climate action, while lowering household energy bills, creating good paying jobs that cannot be outsourced, and protecting our homes, businesses, and way of life from extreme weather events and climate change.

CUTTING CARBON POLLUTION IN AMERICA

The Administration has taken decisive new steps under the Climate Action Plan to move to cleaner sources of power and improve energy efficiency across our economy. Already, the policies implemented since the President's Plan was released are expected to cut nearly 3 billion tons of carbon pollution between 2020 and 2025. That is an amount equivalent to taking more than 600 million cars off the road for a year. Examples of the initiatives put in place in the past year include:

I. Deploying Clean Energy

Proposing Carbon Pollution Standards for Power Plants: Since the Climate Action Plan's release, the Environmental Protection Agency (EPA) has proposed carbon pollution standards for new and existing power plants that put our nation on track to cut carbon pollution from the power sector by 30 percent and reduce pollutants that contribute to the soot and smog that make people sick by over 25 percent in 2030. The existing power plant standards alone will have substantial health benefits including preventing up to 3,300 heart attacks, 150,000 asthma attacks, and up to 6,600 premature deaths.

Permitting Renewable Energy on Public Lands: The Department of the Interior (DOI) is making progress towards achieving the Climate Action Plan goal of permitting enough renewable energy projects on public lands by 2020 to power more than 6 million homes.

- Since June 2013, the DOI has approved 6 solar energy, 2 wind energy, and 2 geothermal projects. When built, these projects will have a total capacity of up to 1,900 megawatts of electricity, or enough to power over 650,000 homes, and could support more than 3,200 construction and operations jobs.
- DOI also held the first ever competitive lease sales for renewable energy offshore. The first sale was for an area off the coasts of Rhode Island and Massachusetts with the potential to support nearly 3,400 megawatts of wind generation, which if built could power more than one million homes. The second sale resulted in a lease for an area offshore Virginia that has the potential to support up to 2,000 megawatts of wind generation - enough energy to power more than 700,000 homes.

Accelerating Clean Energy in Affordable Housing: The Department of Housing and Urban Development (HUD), the United States Department of Treasury, US Department of Agriculture (USDA), the Department of Energy (DOE), and the EPA are on track to exceed the Climate Action Plan 100 megawatt renewable energy target for federally assisted housing. Already, 27 affordable housing owners and service providers have committed to install more than 150 additional megawatts of solar energy over the next several years, putting us well on our way to exceed the original 100 megawatt target.

Advancing Hydroelectric Projects: In September 2013, the Red Rock Hydroelectric Plant on the Des Moines River in Iowa was added to the Infrastructure Permitting Dashboard for high-priority projects and expects to break ground this August, a step forward in encouraging the development of hydroelectric power at existing dams. The Department of the Interior's Bureau of Reclamation has also driven significant increases in private hydropower development at its facilities, including bringing online 2 new projects with 9 additional in the pipeline.

Deploying Renewable Energy on Military Installations: The Department of Defense (DOD) is making progress toward the Climate Action Plan goal of deploying 3 gigawatts of renewable energy on military installations by 2025. In the past year, the Air Force developed a 16 megawatt solar array at Davis-Monthan Air Force Base and the Army has broken ground on an 18 megawatt solar array at Fort Huachuca. DOD continues to partner with third party financiers and is currently in the development stage of deploying an additional 150 megawatts of new renewable generation online in the next two years. To date, DOD has deployed over 500 renewable energy projects on its installations.

Bolstering Clean Energy Deployment in Rural America: To increase renewable energy generation in rural American, USDA announced plans to provide rural electric cooperatives up to \$250 million to lend to business and residential customers for energy efficiency improvements and renewable energy systems. In addition, through the 2014 Farm Bill, USDA will invest \$880 million dollars towards renewable energy production such as wind and solar, advanced biofuel production, energy efficiency for rural small businesses and farms as well as research and development for clean fuels. For example, in May 2014, USDA announced the availability of up to \$70 million in grants and loan guarantees for renewable and energy efficiency projects under the Rural Energy for America Program.

Driving Clean Energy Manufacturing: Since the Climate Action Plan was released, the Administration has made substantial progress in driving clean energy manufacturing, including:

- Establishing two Clean Energy Manufacturing Innovation Institutes. One institute, which was launched with over \$140 million of public and private investment in Raleigh, NC, will focus on developing electronics that have applications in solar and wind energy, LEDs, and electric vehicles. The second institute, now under competition, will direct \$140 million of public and private investment to technologies to improve efficiency in wind turbines and other applications.
- Announcing \$150 million in clean energy manufacturing tax credits to 12 U.S. manufacturers and the selection of 18 projects across the country to research innovative, second-generation technologies that will help improve the efficiency and drive down costs of carbon capture processes for new and existing coal-fired power plants.
- Through the Investing in Manufacturing Communities Partnership, the Department of Commerce is coordinating federal resources to pursue economic development strategies focused on building local competitiveness for manufacturing, including for energy and power technologies.

Securing Private Sector Commitments & Announcing Executive Actions to Advance Solar Energy: In May 2014, President Obama announced more than 300 private and public sector commitments to create jobs and cut carbon pollution by advancing solar deployment and energy efficiency. The commitments represent more than 850 megawatts of solar deployed – enough to power nearly 130,000 homes. To enable a skilled workforce to support the growth of solar deployment across America, the DOE’s Solar Instructor Training Network will support training programs at community colleges across the country that will assist 50,000 workers in entering the solar industry by 2020. In support of the President’s announcement, EPA’s Green Power Partnership launched the On-site Renewables Challenge, with a goal to double the use of on-site green power by Green Power Partners by 2020. HUD and DOE are also partnering to advance available educational opportunities in Science, Technology, Engineering, and Mathematics (STEM) fields to support energy literacy and employment opportunities in the solar sector for public housing residents.

Supporting Energy Investments Clean Energy & Demonstrating New Technologies: Since the President released the Climate Action Plan, DOE has supported a number of clean energy projects, including:

- Finalizing \$6 billion in loan guarantees to support construction of the first nuclear power reactors in the U.S. in over three decades;
- Opening up to \$8 billion to advanced fossil energy projects that substantially reduce greenhouse gas – such as carbon capture and low-carbon power systems;
- Announcing the selection of 18 projects across the country to research innovative, second-generation technologies that will help improve the efficiency and drive down costs of carbon capture processes for new and existing coal-fired power plants; and
- In addition, eight utility-scale renewable energy projects in the Department of Energy’s loan program portfolio became fully operational.

Expanding and Modernizing the Electric Grid: To continue upgrading the country's electric grid, while making electricity more reliable and the grid more flexible and resilient, the Administration is refining changes to the Interagency Integrated Pre-Application (IIP) process for transmission lines that require multiple federal authorizations and coordination among agencies. DOI, USDA, and DOE have also issued requests for information to inform various efforts to expedite the permitting process and improve the environmental outcomes associated with transmission project permitting on federal lands. In April 2014, the Department of Energy published a report aimed at helping to inform future reviews and revisions related to energy corridors in both Western and non-Western states.

Driving Biomass Utilization: In September 2013, USDA announced a partnership agreement and more than \$1 million in grants to stimulate the development of wood energy projects and find innovative ways to use leftover wood to create renewable energy and support good jobs in rural America. To demonstrate the architectural and commercial viability of using sustainable wood products in high-rise construction, six months later, Secretary Vilsack announced plans to launch a \$2 million prize competition for developers and design teams. This month, USDA began accepting applications for up to \$12.5 million to support agriculture and forestry producers in providing biomass materials to clean energy facilities. Together these efforts make America more energy independent, help to maintain the role of forests in reducing greenhouse gas emissions, and create jobs in rural America.

Launching a Quadrennial Energy Review: In January 2014, President Obama signed a Presidential Memorandum establishing the Federal government’s first Quadrennial Energy Review (QER) process, fulfilling an important commitment from his Climate Action Plan and ensuring that Federal energy policies continue to meet the nation’s economic, environmental, and security goals. As part of this effort, the Department of Energy has planned extensive opportunities to gather input from a number of stakeholders, including state and local governments, other agencies, industry and the public. DOE has already held QER stakeholder meetings in Washington, DC, Louisiana, and California, and is planning on hosting meetings in Oregon, Pennsylvania, Colorado, North Dakota, Illinois, New Mexico, and Wyoming.

II. Building 21st Century Transportation Sector

Developing Standards for Heavy-Duty Engines and Vehicles: In February 2014, President Obama directed EPA and the Department of Transportation (DOT) to develop and issue the next phase of fuel efficiency and greenhouse gas standards for medium- and heavy-duty vehicles by March 2016. Under

this timeline, both agencies are expected to issue a proposed rule by March 2015. This second round of fuel efficiency standards will build on the first-ever standards for medium- and heavy-duty vehicles for model years 2014 through 2018, which were proposed and finalized by this Administration.

Investing in Cleaner Low-Emission Transportation: The U.S. Department of Transportation's Federal Transit Administration (FTA) is making progress in putting a new generation of advanced, non-polluting transit buses on the road in communities nationwide. In January 2014, FTA announced the availability of up to \$55 million through the new Low or No Emission Vehicle Deployment for public transit agencies to purchase zero emission buses and the infrastructure to support them. Today, Secretary Anthony Foxx announced a \$442,500 Federal Aviation Administration (FAA) grant to Denver International Airport to reduce emissions and improve air quality at the airport through the FAA's Voluntary Airport Low Emission program, saving fuel and reducing carbon pollution.

Reducing Emissions Through Transportation Investment: In May 2014, the DOT transmitted the Administration's proposed Generating Renewal, Opportunity, and Work with Accelerated Mobility, Efficiency, and Rebuilding of Infrastructure and Communities throughout America (GROW AMERICA) Act to Congress, which would increase funding for transit by 70 percent, invest \$19 billion over four years to improve rail infrastructure, and establish a \$1 billion Fixing and Accelerating Surface Transportation (FAST) grants program to incentivize innovative strategies and best practices in transportation that include those that reduce energy use and emissions. The GROW AMERICA Act would expedite the introduction of electric vehicles by supporting the installation of electric charging stations along America's highway rest areas and making it easier for government agencies to offer electric vehicle charging services for employees.

Helping Bring Next-Generation Biofuels On-Line: This month, the US Military's Defense Logistics Agency, on behalf of the Navy, released a solicitation for 37 million gallons of drop-in biofuels to be included in their upcoming bulk fuels purchase. The FAA is also working with partners to expand development and deployment of biofuels for aviation, just this month a new form of drop-in aviation biofuel that can be made from sugar was approved for U.S. commercial air travel. The approval of this fuel was enabled by a coordinated effort of the United States Navy, the United States Air Force, the Federal Aviation Administration, and industry.

III. Cutting Energy Waste in Homes and Businesses

Setting New Energy Efficiency Standards: Since June 25, 2013, the Department of Energy has issued 9 proposed energy conservation standards for appliances and equipment and finalized 8 energy conservation standards. In total, these final rules are expected to reduce carbon pollution by 340 million metric tons through 2030, equivalent to taking nearly 72 million cars off the road for a year, and save consumers more than \$60 billion dollars on their energy bills. When combined with final rules already issued under this Administration, the savings from these rules would surpass 70 percent of the President's goal for projected emissions reductions from energy conservation standards. Altogether, the standards will help cut consumers' electricity bills by hundreds of billions of dollars.

Expanding the Better Buildings Challenge: The President's Better Buildings Challenge, which is focused on helping American commercial, industrial and multifamily buildings become at least 20 percent more energy efficient by 2020, continues to drive progress. Since the Climate Action Plan was

released, 80 new cities, school districts, and businesses across the country made commitments to join the Better Buildings Challenge and improve the energy efficiency of more than 1 billion square feet, an area the size of 17,000 football fields. This includes 65 new Multifamily Partners, representing over 300,000 households that have joined the Better Buildings Partnership since June 2013.

Launching Better Buildings Accelerators: December 2013, marked the launch of Better Buildings Accelerators, a new track of the Better Buildings program designed to support state- and local government-led as well as other efforts to cut energy waste and eliminate market and technical barriers to greater building and industrial efficiency. The public sector organizations participating in the Accelerators, including states, cities, and school districts, are committing to develop and demonstrate streamlined performance contracting practices and to offer more than \$1.6 billion in performance contracting over the next 3 years as well as improve the availability of information on building energy efficiency and increase the adoption of high efficiency outdoor lighting.

Strengthen Building Codes: In May 2014, DOE preliminarily affirmed the industry's latest commercial building energy code, which cuts up to 30 percent more energy waste than today's predominant state energy codes. The updated code will help states and the Federal government save money and energy on building operations and cut emissions by 230 million metric tons of CO₂ by 2030.

IV. Reducing Potent Greenhouse Gas Emissions & Enhancing our Carbon Sink

Issuing a Strategy to Reduce Methane Emissions: To build on our progress to date and take steps to further cut methane emissions in landfills, coal mining, agriculture, and oil and gas systems, in March 2014, the Administration released a Strategy to Reduce Methane Emissions. The Strategy outlines cost-effective voluntary actions and common-sense standards to reduce methane emissions. Since the strategy was released:

- DOE hosted four stakeholder roundtables to identify and highlight best practices, technology solutions, and policies for securing reductions in methane emissions from midstream and downstream segments of natural gas systems;
- EPA issued a series of white papers to help identify sources of methane and volatile organic compound (VOC) emissions in the oil and natural gas industry and to solidify the agency's understanding of these potentially significant methane sources;
- EPA also released a proposed framework for a new, expanded element of the successful voluntary Natural Gas STAR Program, *Gas STAR Gold*, and continues to hold discussions with stakeholders to get feedback on designing an effective program;
- DOI released an Advanced Notice of Proposed Rulemaking (ANPRM) to gather public input on the development of a program for the capture, sale, or disposal of waste mine methane on lands leased by the Federal Government;
- DOE announced a new initiative that will make up to \$30 million available to develop low-cost technologies that can help detect and measure methane emissions from oil and natural gas systems; and
- DOI held a series of public outreach meetings with stakeholders to discuss potential options for reducing gas venting and flaring from conventional energy development on public lands.

Reducing Hydrofluorocarbons: As early as this week, EPA plans to propose a rule to expand the list of climate-friendly alternatives to transition away from ozone-depleting substances and certain hydrofluorocarbons (HFCs). The President's Climate Action Plan called on EPA to use its authority under the Significant New Alternatives Policy (SNAP) 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.

Preserving the Role of Forests in Mitigating 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. The newly established Climate Natural Resources Working Group is developing interagency recommendations for enhancing the climate resilience of land and waters and identify solutions to improve the Nation's carbon sink.

V. Leading at the Federal Level

Strengthening Federal Energy Management: On December 5, President Obama signed the Presidential Memorandum Federal Leadership on Energy Management directing the Federal Government to buy at least 20 percent of its electricity from renewable sources by 2020 – more than double the current level. To improve agencies' ability to manage energy consumption and reduce costs, the Memorandum directs Federal agencies to use Green Button, a tool developed by industry in response to a White House call-to-action that provides utility customers with easy and secure access to their energy usage information in a consumer-friendly format.

Driving \$2 Billion in Energy Efficiency Investments for Federal Buildings: In May 2014, President Obama announced an additional \$2 billion goal in energy efficiency upgrades to Federal buildings over the next 3 years. The challenge, in combination with the initial commitment of \$2 billion in 2011, will result in a total of \$4 billion in energy efficiency performance contracts in the Federal sector through 2016. These investments will save Americans billions in energy costs, promote energy independence, and, according to independent estimates, create tens of thousands of jobs in the hard-hit construction sector. The \$2 billion investment extends and expands the President's commitment to energy upgrades of Federal buildings using long-term energy savings to pay for up-front costs, at no net cost to taxpayers.

Providing Innovative Financing for Deploying Solar: Building on the success of the Defense Department's coordinated efforts to purchase renewables – and leverage its buying power to deploy clean energy technologies like solar – the General Services Administration (GSA) is identifying opportunities for potential Federal Aggregated Solar Procurements in both the National Capital Region and Northern California. The effort seeks to bring together multiple Federal agencies to capitalize on economies of scale with the goal of lower electricity bills for individual sites, and increased renewable energy production, while reducing internal agency overhead costs by sharing procurement and project management resources. In the National Capital Region both GSA and the Department of Navy plan to release Requests for Proposal later this year.

PREPARING THE UNITED STATES FOR THE IMPACTS OF CLIMATE CHANGE

Even as we take new steps to cut carbon pollution, we must also prepare for the impacts of a changing climate that are already being felt across the country. Since the President's address, the Administration has launched a number of initiatives to protect families, small businesses, and communities from the risks posed by extreme weather events and climate change.

I. Building Stronger and Safer Communities

Supporting Climate Resilient Investment: In order to ensure that our communities and economy are secure and our investments are sound in the face of a changing climate, at the President's direction, Federal agencies are working to modernize their programs to encourage and support more resilient economic development. Building on work done to rebuild the region affected by Hurricane Sandy and reduce vulnerabilities to future risk, agencies are building criteria into their programs that take into account the risks posed by climate change. For example, in February 2014, the President announced that the U.S. Department of Transportation was making available \$600 million in TIGER competitive grants to fund transportation projects. Priority will be placed on those projects that expand ladders of opportunity for communities across the country, specifically including projects that "improve the resilience of a transportation asset or the transportation system." This will help communities better prepare for flooding, storm damage, and disruption of the transportation network. Also, the GROW AMERICA Act would require state and regional long range transportation plans to take into account the need to reduce risks from extreme weather events and create more resilient infrastructure. Similarly, the EPA is increasingly including climate change resilience criteria in requirements for entities that obtain federal grants for cleanup and environmental restoration projects. In April 2014, EPA announced that it added a resilience requirement to its brownfields cooperative agreements, and in May, the draft action plan for the Great Lakes Restoration Initiative included a focus on developing climate resilience criteria that will help grantees plan for impacts of climate change.

Releasing an Executive Order on Preparedness: In November 2013, President Obama signed Executive Order 13653, directing agencies to help American communities strengthen their resilience to extreme weather and prepare for climate impacts. Under the EO, agencies are working to modernize Federal programs to better support local preparedness for climate change impacts, manage our natural lands and waters to improve resilience, and develop information, data, and tools for use by decision makers.

Establishing a State, Local, and Tribal Leaders Task Force on Climate Preparedness and Resilience: The EO also established a State, Local and Tribal Leaders Task Force on Climate Preparedness and Resilience, which is comprised of 26 elected officials from across the country. The Task Force has met three times and is working to advise the Administration on how the Federal Government can remove barriers to climate change resilient investments; modernize Federal programs, grants, and loans to better support local efforts; and develop the tools necessary to help communities prepare for climate change at the local level.

Rebuilding and Learning from Hurricane Sandy: In August 2013 the Hurricane Sandy Rebuilding Task Force released its rebuilding strategy to serve as a model for communities across the nation facing greater risks from extreme weather and to continue helping the Sandy-affected region rebuild. The Department of Housing and Urban Development and the Task Force also implemented the Rebuild by Design competition, which connected the world's most talented researchers and designers with the

Sandy-affected area's stakeholders to develop new ideas for making their communities more resilient. The winners of the competition were announced in June 2014. Also in June 2014, the Department of Interior announced more than \$100 million in competitive grants to support 54 projects on the Atlantic coast to restore wetlands and other natural areas, better manage stormwater using green infrastructure and assist states, tribes and local communities in protecting themselves from major storms. In May 2014, the Department of Energy announced the creation of a Northeast Regional Refined Petroleum Product Reserve of 1 million barrels of gasoline that will help mitigate the impacts of sudden and unexpected supply interruptions.

Driving More Resilient Transportation Infrastructure Post-Hurricane Sandy: The Federal Transit Administration has awarded more than \$5.6 billion in recovery and resilience and mitigation project funds to Sandy-impacted communities, including \$1.3 billion in formula funds for resilience projects, and will be announcing awards for an additional \$3 billion in competitive transit resilience project grants in the wake of the worst public transportation emergency in the nation's history. These investments ensure that not only are damaged infrastructure and transportation systems rebuilt from Sandy, but that they are stronger and more resilient against increasingly frequent extreme weather events and will not require frequent taxpayer investments to rebuild over again.

Announcing a National Disaster Resilience Competition: In June 2014, responding to demand from state, local, and tribal leaders who are working to increase the safety and security of their communities, President Obama announced the National Disaster Resilience Competition for communities that have experienced major natural disasters in the past several years to compete for funds to help rebuild more resiliently. The nearly \$1 billion competition will support innovative resilience projects at the local level, while encouraging communities to adopt policy changes and activities that plan for the impacts of extreme weather and climate change and rebuild affected areas to be more resilient for the future.

II. Protecting our Economy and Natural Resources

Driving Climate Resilient Agriculture: In February 2014, the U.S. Department of Agriculture (USDA) announced the creation of the first ever Regional Agricultural Hubs for Risk Adaptation and Mitigation to Climate Change at seven locations around the country. Since the launch of the Hubs, USDA's National Institute of Food and Agriculture has awarded \$6 million to 10 universities to study the effects of climate change on agriculture production and to develop strategies that will provide farmers and ranchers with the solutions they need to supply the nation with quality food.

Releasing a Wildfire Strategy: In April 2014, USDA and DOI released a National Cohesive Wildland Fire Management Strategy, which outlines new approaches to coordinate and integrate efforts to restore and maintain healthy landscapes, prepare communities for fire season, and better address the nation's wildland fire threats. In June 2014, the President and Senior Administration Officials participated in a briefing with the Western Governors Association on the federal government's wildfire responses and plans. USDA and DOI also continue implementation of the Western Watershed Enhancement Partnership by engaging with local municipalities and towns to reduce hazardous fuels in critical water supply watersheds that fuel wildfires.

Launching a National Drought Resilience Partnership: In November 2013, the White House launched a cross-agency National Drought Resilience Partnership to make it easier for communities seeking help to

prepare for future droughts and reduce drought impacts. This Partnership enhances the efforts of Federal agencies already working with communities, businesses, and farmers and ranchers to build resilience to drought and help prepare their communities for future drought events. In January 2014, the President met with Governors from across the West to discuss how to improve drought resilience, and Federal agencies have followed up in drought-stricken states across a broad area. One prime example is in California, where the Bureau of Reclamation and the Natural Resources Conservation Service have committed \$14 million to improving water efficiency in drought-stricken areas. Additionally, the White House, Federal agencies, and California state agencies continue to coordinate in real time to reduce the economic impacts of the drought and find ways to use water supplies more efficiently.

Promoting Insurance Leadership for Climate Safety: Following through on the Climate Action Plan commitment to engage the insurance industry on climate preparedness, senior Administration officials and key insurance industry leaders met at the White House on June 24, 2014 to explore opportunities to collaborate in identifying, communicating, and reducing the impacts of extreme weather and climate change on communities and economic sectors across the country.

III. Using Sound Science to Manage Climate Impacts

Releasing a National Climate Assessment: In May 2014, the Administration released the Third U.S. National Climate Assessment (NCA), the most authoritative and comprehensive source of scientific information to date about the domestic impacts of climate change. The NCA—which was developed by more than 300 experts and informed by numerous public comments and stakeholder workshops—confirms that climate change is already affecting all regions of the United States and key sectors of the economy. The NCA serves as a valuable resource for informing climate preparedness and response decisions across the Nation.

Launching a Climate Data Initiative: In March 2014, the Administration – led by NOAA and NASA – launched the Climate Data Initiative, an ambitious new effort bringing together extensive open government data with commitments from the private and philanthropic sectors to develop planning and resilience resources for local communities. This effort will help give communities across America the information and tools they need to plan for current and future climate impacts.

Identifying Vulnerabilities of Key Sectors to Climate Change: Agencies are analyzing the impacts of climate change on key sectors of our economy. Last summer, DOE released a report outlining the impacts of climate change on the energy sector, which included recognition of the threats that sea level rise, increasing intensity of storms, floods, heat waves, droughts and wildfires pose to the Nation’s energy infrastructure. DOE and the Council of Economic Advisors (CEA) also released a report on electric grid resilience, *Economic Benefits of Increasing Electric Grid Resilience*, which evaluated the current capacity of the grid to maintain power during natural disasters, analyzed the economic impacts of grid failure, and provided recommendations on how to better protect the grid. In conjunction with states and local water users, the Bureau of Reclamation is conducting Basin Studies to identify and address water supply imbalances due to drought and climate change. Reclamation has completed 5 basin studies and has 17 others underway. NOAA, along with Federal and non-Federal partners, developed and released *Oceans and Marine Resources in a Changing Climate*, a comprehensive look at the effects of climate change on our oceans and marine ecosystems.

Ensuring the Resiliency of Our Future Water and Energy Systems: In June 2014, the Department of Energy released “*The Water-Energy Nexus: Challenges and Opportunities*” – a report that examines the crucial interaction between our present-day energy and water systems and lays out several technical and operational challenges at local, regional and national scales.

LEADING INTERNATIONAL EFFORTS TO ADDRESS GLOBAL CLIMATE CHANGE

No country is immune from the impacts of climate change and no country can meet the challenge of climate change alone. Since the President released the Climate Action Plan, the Administration has made significant progress in leading multilateral and bilateral efforts to reduce global greenhouse gas emissions and to help prepare the world’s most vulnerable to the impacts of climate change, including working to advance international climate negotiations.

I. Working with other Countries to Take Action to Address Global Climate Change

Engaging with Major Economies: President Obama has made climate change a key issue in our most important bilateral relations, including:

- Highlighting climate change at the annual U.S.-China Strategic and Economic Dialogue in 2013, where the U.S.-China Climate Change Working Group launched five major initiatives to promote clean energy and clean transportation in our countries;
- Working closely with China towards an ambitious and inclusive 2015 global climate agreement;
- Agreeing on new cooperative measures on heavy-duty vehicle pollution and fossil fuel subsidy peer review during Vice President Biden’s visit to Beijing in December 2013;
- Launching a new large-scale off-grid clean energy initiative with India to help bring clean energy to those under-served by the electricity grid, as well as an initiative to help India deploy advanced space cooling technology; and
- Committing, in partnership with Mexico and Canada, to strong common-sense standards for fuel quality, emissions, and efficiency of heavy-duty vehicles.

The United States continues its chairmanship of the Major Economies Forum on Energy and Climate (MEF), a group bringing together climate ministers from 17 of the world’s largest economies. The MEF convened in Mexico City in May 2014, to discuss plans for putting forward ambitious national contributions for the 2015 agreement, and will meet again in Paris in July. The United States also provides core support for the Clean Energy Ministerial (CEM), which held its 5th minister-level meeting in Korea in May 2014, during which energy ministers identified tangible steps toward advancing clean energy policy, deployment, and cooperation.

Leading Global Public Sector Financing Towards Cleaner Energy: The Administration has made substantial progress in implementing the President’s announcement to end public U.S. financing for new conventional coal plants overseas, except in the poorest countries. In October, the Treasury Department issued revised guidance governing U.S. votes on coal projects in the multilateral development banks. In December, the Export-Import Bank of the United States (Ex-Im Bank) revised its supplemental guidelines for high carbon intensity projects, bringing them in line with the President’s announcement. Already, seven countries have announced that they would join the U.S. coal finance policy, including the United Kingdom, the five Nordic countries, and the Netherlands. The World Bank, European Bank for

Reconstruction and Development, and European Investment Bank all announced similar policies in the second half of 2013. Additionally, the United States, the United Kingdom, and the Netherlands have proposed that the OECD Export Credit Group work towards the adoption of a carbon emissions performance standard that limits export credit agency support of high-carbon power plants.

Combating Short-Lived Climate Pollutants: Building on their June 2013, breakthrough agreement on HFCs in Sunnylands, CA, President Obama and Chinese President Xi Jinping agreed to continue working together on HFC phase down, including toward establishing a contact group under the Montreal Protocol.

- In May 2014, the United States, Canada and Mexico submitted a proposed amendment to phase down consumption and production of HFCs under the Montreal Protocol;
- In June 2014, the G7 countries reaffirmed their determination to phase down HFCs under the Montreal Protocol and committed to promote the rapid deployment of climate-friendly and safe alternatives to HFCs in motor vehicle air-conditioning and to promote public procurement of climate-friendly HFC alternatives; and
- The Climate and Clean Air Coalition (CCAC) to reduce short-lived climate pollutants has expanded to 91 partners, including 40 countries as well as non-state partners, such as the World Bank, the United Nations Environment Program, and the World Health Organization. CCAC partners are hard at work implementing 10 initiatives to reduce emissions of SLCPs from a variety of sources including landfills, agriculture, the oil and gas sector, refrigeration and air conditioning, cookstoves, and diesel engines.

Mobilizing Climate Finance: The United States created and has driven a donor country initiative to expand the scale and variety of tools to mobilize private investment in clean technologies in developing countries. The United States committed \$2.7 billion in climate finance in Fiscal Year 2013 to help developing countries reduce carbon pollution, promote clean energy, protect forests, and improve resilience to climate change. In June 2014, the United States, United Kingdom, and Germany launched a public-private platform called the Global Innovation Lab for Climate Finance. The Lab brings together senior decision-makers in government, private investment, and multilateral financial institutions from both developed and developing countries to identify, stress-test, and promote the implementation of the next generation of climate finance instruments aimed at helping developing countries tackle and adapt to climate change.

Negotiating Global Free Trade in Environmental Goods: Global trade in environmental goods is estimated at nearly one trillion dollars annually and some World Trade Organization members charge tariffs as high as 35 percent. To make these sorts of goods – such as technologies that keep our air and water clean – cheaper and more accessible, a U.S.-led coalition of countries including the European Union and China announced that it would work towards eliminating tariffs on a range of environmental goods. The Administration notified Congress in March 2014 of its intent to launch World Trade Organization negotiations on this topic, and the first round of talks is expected to occur this summer.

Reducing Emissions from Deforestation and Forest Degradation: In November, the United States, along with Norway and the U.K., launched the Initiative for Sustainable Forest Landscapes, a \$300 million public-private partnership to support forest and land use initiatives in developing countries that will promote reduced greenhouse gas emissions from the land sector, more sustainable agriculture, and smarter

land use planning and policies. The Forest Carbon Partnership Facility (FCPF) has built a pipeline of eight national or subnational programs to reduce emissions from deforestation and forest degradation; these programs may be eligible for results-based payments through the pioneering FCPF Carbon Fund. USAID's Development Credit Authority announced an innovative partial credit guarantee to the Althelia Climate Fund to help leverage \$133.8 million in commercial financing for forest conservation and sustainable land use, and help remove as much as 100 million tons of carbon dioxide from the atmosphere.

Expanding Clean Energy Use and Cutting Energy Waste: The United States works with developing countries throughout the world that have a high potential for reducing current or future greenhouse gas emissions and those with promising opportunities for clean energy.

- As of 2014, the U.S. established partnerships with 25 developing countries to advance low carbon economic growth, as part of the Enhancing Capacity for Low Emission Development Strategies (LEDS). LEDS partnerships draw upon expertise from multiple federal agencies to help countries build the enabling environments and local expertise to reduce their long-term greenhouse gas emissions across their economies;
- The U.S.-Africa Clean Energy Finance Initiative (ACEF), launched in 2013 to provide project preparation support for clean energy projects in sub-Saharan Africa, has proven to be an effective catalyst for large-scale private investment flows. To date, more than 200 clean energy projects in sub-Saharan Africa have sought ACEF support, and 16 of these have been selected for support, ranging from a biomass power plant in Tanzania, to a solar power plant in Rwanda, to a smart grid company in Ethiopia; and
- The United States chairs the Carbon Sequestration Leadership Forum (CSLF), which held its fifth ministerial meeting in Washington, D.C., in November 2013, resulting in new activities focused on financing, development of large carbon capture and storage projects, and data exchange through test centers. Most recently, in June 2014 the CSLF Policy Group met in London and formed core leadership teams for these activities; the U.S. will lead efforts on global collaboration on large-scale CCS projects, and supporting development of 2nd and 3rd generation CCS technologies.

Strengthening Global Resilience to Climate Change: U.S. international adaptation assistance has increased eight-fold since 2009. Having provided roughly \$1.8 billion in adaptation finance between Fiscal Year 2010 and Fiscal Year 2013, the United States is helping vulnerable countries and communities understand what to expect from climate change and what can be done to adapt and build resilience in key sectors. Our bilateral programs prioritize vulnerable Least Developed Countries, Africa, Small Island Developing States, and glacier-dependent countries.

II. Leading Efforts to Address Climate Change through International Negotiations

The United States is currently working through the UN Framework Convention on Climate Change (UNFCCC) to negotiate a new climate change agreement by 2015 that will come into effect from 2020. The United States is seeking an agreement that will result in significant greenhouse gas emissions reductions and that is inclusive of all countries, particularly the largest carbon emitters.

At the annual U.N. climate conference in Warsaw in November, countries decided on steps designed to lead to an ambitious global climate agreement in Paris in December 2015. Countries ready to do so will submit their post-2020 nationally determined contributions no later than March 2015. For its part, the

United States is actively working on its post-2020 contribution to reduce greenhouse gas emissions and intends to submit its contribution no later than the first quarter of 2015.

Consistent with progress reporting agreed to by all major economies, in January 2014, the Department of State submitted the 2014 U.S. Climate Action Report to the UNFCCC. The Report demonstrates how U.S. action on climate change puts the United States on a path to reach the ambitious but achievable goal of reducing U.S. greenhouse gas emissions in the range of 17 percent below 2005 levels by 2020.

The United States, along with 16 other International Civil Aviation Organization (ICAO) countries, is developing a proposal in cooperation with the international aviation sector for decision at the next ICAO Assembly in 2016. This market-based mechanism would be used- in concert with new aircraft technology, air traffic management efficiencies, and sustainable alternative fuels- to ensure carbon neutral growth of international aviation beginning in 2020.