

Department of Energy

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MEMORANDUM FOR PROGRAM SECRETARIAL OFFICERS AND HEADS OF FIELD ELEMENTS

FROM:

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DIRECTOR

OFFICE OF LEGACY MANAGEMENT

SUBJECT:

Department of Energy (DOE) FY 2015 Annual Environmental

Justice Implementation Progress Report

The February 11, 1994, Presidential Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations tasked each federal agency with making environmental justice (EJ) part of its mission.

This memorandum distributes the FY 2015 Annual Environmental Justice Implementation Progress Report. This report was prepared using DOE office input on Environmental Justice (EJ) activities. The report structure follows a template designed by the U.S. Environmental Protection Agency for use by the Interagency Working Group (IWG) on EJ. All IWG agencies prepared an annual EJ implementation progress report, as required under the Memorandum of Understanding on Environmental Justice and the President's Climate Action Plan.

We encourage you to see the breadth and depth of the Department's Environmental Justice activities. Please address any comments or questions regarding this report to Melinda Downing. She can be reached at (202) 586-7703, or by email at melinda.downing@hq.doe.gov.

Attachment



Fiscal Year 2015 Annual Environmental Justice Implementation Progress Report

May 2016



Foreword

The U.S. Department of Energy has been committed to environmental justice since the February 11, 1994 signing of Presidential Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations.

Environmental justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to development, implementation, and enforcement of environmental laws, regulations, and policies.

Meaningful involvement means that:

- People have an opportunity to participate in decisions about activities that may affect their environment and/or health;
- The public's contribution can influence the regulatory agency's decision;
- Their concerns will be considered in the decision-making process; and
- Decision-makers seek out and facilitate the involvement of those potentially affected.

Environmental justice will be achieved when everyone enjoys the same degree of protection from environmental and health hazards and has equal access to the decision-making process to enjoy a healthy, sustainable environment in which to live, learn, work, and play.

The Department's *Environmental Justice Strategy* (Strategy) and its Implementation Plans integrate the requirements of EO 12898 into DOE operations. DOE activities focus attention on human health and the environment in low-income communities and communities of color, including tribal communities; provide for public participation in decision-making; conduct capacity-building programs; and assist communities through technical support, education, environmental justice, and tribal training.

I am proud to present this report on implementation of the Department's Environmental Justice Strategy. This report includes our activities for fiscal year (FY) 2015 and spans the full range of DOE's mission and goals from basic science, to clean energy, environmental stewardship, and nuclear security. I appreciate the contributions of the DOE programs and the many participating communities, non-governmental organizations, academic institutions, the private sector, and various stakeholders who have acted together to make the Department's environmental justice efforts a success.

David W. Geiser

Director

Office of Legacy Management

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THEME: Strengthening Integration of Environmental Justice (EJ) and Infrastructure in Agencies' Missions Since 2011

Since 2011, the Memorandum of Understanding (MOU) on EJ directs agencies to "periodically review and update their Environmental Justice Strategies and..." "...provide a concise report on progress during the previous fiscal year." Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (EO 12898) addresses how "...each federal agency shall make achieving environmental justice part of its mission."

I. INTRODUCTION/OVERVIEW

On February 11, 1994, President William J. Clinton signed EO 12898, which states, among other things, that each federal agency shall develop an agency-wide EJ Strategy that identifies and addresses disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority and low-income populations.

The U.S. Department of Energy (DOE or Department) is committed to achieving EJ by making a visible difference as we conduct our day-to-day activities. DOE strives to create opportunities to improve the environment and human health in all communities in which DOE works, while ensuring that no population suffers a disproportionate share of adverse environmental effects.

The Department continues to deliver innovative and transformative scientific and technological solutions to energy, security, economic and environmental challenges facing the United States in the 21st century. Using the best practices of some of the more established programs, we continue to seek new ways to implement and advance our overall EJ goals. By continuing the effort to plan and implement our commitments, we will encourage all DOE program offices to integrate EJ into their policies, programs, and activities. The Department continues to highlight these efforts and serve as a model for the federal government.

The work that happens every day across DOE and at the national laboratories is critical to our goals of serving:

- 1) Science and Energy
- 2) Nuclear Security
- 3) Management and Performance

The relationship between EJ and DOE goals can be summed up as: commitment, fairness, and collaboration through educational, motivating, and innovative initiatives. These priorities are critical to advancing the nation's energy and security goals, strengthening our economy, and providing a safe and healthy environment for minority and low-income populations, including tribal populations. Our goal is to achieve EJ and foster non-discrimination in programs that substantially affect human health and the environment.

DOE's EJ Strategy Implementation Plan provides an overarching vision that is reflected in our EJ goals. We have identified key priorities that will increase capacity building, public participation, and opportunities for minority and low-income populations, including tribal populations, as well as identifying the best ways to achieve results. We have purposely developed broad goals to guide the Department's implementation of the plan, with specific targets adapted to appropriate responsibilities and priorities. DOE is committed to addressing the complexity of EJ in a timely, deliberate, and coordinated manner.

We actively participate with the Interagency Working Group on Environmental Justice (IWG EJ) and collaborate with other federal agencies on joint efforts to achieve EJ. Through this process, we will continually assess the quality of DOE's services to the public and seek ways to improve performance. Goals and activities are based on clear priorities and tangible benefits that consider programmatic, legislative, and regulatory responsibilities,

and emphasize community participation, empowerment, and stakeholder involvement. In addition, they encourage new approaches to occupational and environmental science research for high-risk communities and workers, embrace interagency coordination to facilitate EJ, and heighten manager and staff sensitivity to EJ throughout the Department.

This report includes activities over the past year and spans the full range of mission and goals, from basic science to clean energy, environmental stewardship, and nuclear security, as well as remaining consistent with the DOE mission. DOE programs and participating communities, tribal, non-governmental organizations, academic institutions, and private-sector partners have collaborated to make the Department's EJ efforts successful.



President Barak Obama announces the nominations of DOE Secretary Ernest Moniz, EPA Administrator Gina McCarthy, and then-Office of Management and Budget Director Sylvia Burwell.

IMPLEMENTING ENVIRONMENTAL JUSTICE STRATEGY AND II. IMPLEMENTATION PLANS

DOE developed and implemented an Environmental Justice Five-Year Implementation Plan (Plan) to execute the goals of our EJ Strategy and to fully carry out our responsibilities pursuant to EO 12898 in 2008. Several DOE program offices identified and committed to develop and implement up to five EJ commitments over the five-year period of the plan. Their progress achieving these goals is compiled on an annual basis and released as the DOE Environmental Justice Five-Year Implementation Plan Annual Progress Report.

The DOE EJ Program is continually monitoring Departmental activities to determine whether they present a disproportionately high and adverse human health or environmental effect on minority and low-income populations, including tribal populations. In addition to DOE's annual progress reports, we conducted an independent assessment of the EJ Program at four of our key sites. The independent review (A Review of the U.S. Department of Energy's Implementation of Executive Order 12898 and Recommendations for a Second Five-Year Strategic Plan) found that DOE management and strategy had been effective in implementing EO 12898 through:

- Community capacity building
- Developing training programs

- Building partnerships for education and training
- Utilizing technology
- Identifying and addressing EJ issues as they arise
- Reviewing recommendations largely centered on expanding existing DOE projects

Additional recommendations were made to establish new performance measures for existing programs and promote public/private partnerships as tools for EJ solutions. In addition, a number of stakeholder interviews were held in conjunction with the *National Environmental Justice Conference and Training Program* (NEJC). The report and interviews were posted on the DOE EJ website.

December 2013 marked the end of our first five-year implementation plan. A final report of the plan will be released later this year. We are also in the process of updating the Department's 2008 EJ Strategy. The updated strategy will go through a program review and approval process. The revised version will incorporate many of the comments and recommendations compiled from the EJ Program assessments. We will also include many of the recommendations and comments from the DOE report, *A Decade of Progress*. Once the EJ strategy is released, we will begin preparing our second *Environmental Justice Five-Year Implementation Plan*.

III. NOTABLE AND INNOVATIVE PLACED-BASED INTERAGENCY COLLABORATIVE PROJECTS and/or INNOVATIVE FEDERAL TOOLS

DOE continues to collaborate with federal, state, local, tribal, and other partners on place-based initiatives to help overburdened communities proactively address emerging environmental challenges in ways that build long-term sustainability.

Examples of these activities follow.

The Interagency Working Group on Environmental Justice (IWG EJ)



Texas Fish and Wildlife-supported student panelists discuss EJ issues at the 2015 NEJC meeting.

The team presented "GreenSchools!

Green Ambassadors – Transforming Houston's

Urban Food Deserts into Sustainable Food Forests in Partnership with USDA Forest Service –

Latino Legacy."

IWG EJ has supported and assisted agencies in better connecting, leveraging, and integrating EJ principles into their existing resources and efforts to promote sustainable economic growth and equitable development for minority and low-income communities, including tribal communities, through existing "place-based" or geographically located, initiatives. IWG provided a valuable venue in 2015 for agencies to discuss best practices, current issues, and successful projects across the country. (See Section VII for additional information on IWG EJ initiatives.)

The National Environmental Justice Conference and Training Program (NEJC)

DOE, the IWG EJ, Howard University School of Law, and various corporate entities sponsored an event that brought together members of federal, state and local government, members of Congress, academia, tribal nations, communities, and business leaders to discuss and share ideas on EJ issues.

The 2015 NEJC, held in Washington, DC, March 11 through 13, offered 3 days of high-quality educational programming and

panel discussions to more than 450 registrants. This year's NEJC conference focused on "Climate Change and Climate Justice" and proved to be a highly successful meeting to share EJ best practices, challenges, and lessons learned. NEJC's first ever Youth/Emerging Leaders' Summit, with over 50 student participants, was overwhelmingly well received.

During the conference, attendees had the opportunity to interact with a diverse group of representatives from federal and state agencies, local governments, tribes, community groups, businesses, and community leaders. Environmental Protection Agency (EPA) Administrator Gina McCarthy served as the Keynote Speaker on day two of the conference. She was joined by other acclaimed leaders in the EJ industry and experts on climate change, including Dr. Jonathan Pershing, Principal Deputy Director, Office of Energy Policy and Systems Analysis at DOE; Dr. John Balbo, Senior Advisor for Public Health to the Director of the National Institute of Environmental Health Sciences; Dr. Jalon L. White-Newsome, EJ Federal Policy Analyst, WE ACT for Environmental Justice; The Honorable Congressman James E. Clyburn, Assistant Democratic Leader (D-SC); and The Honorable Donna M. Christensen, M.D., former Congresswoman (D-US VI).

The 2015 NEJC's agenda provided workshops, panel discussions, question and answer segments, and training opportunities, as well as networking lunches and receptions. It explored an abundance of topics including the growing presence of youth in EJ and the future of the EJ movement; incorporating EJ into the National Environmental Policy Act (NEPA) process; increasing the use of film, storytelling, and social media; and the use of Title VI of the 1964 Civil Rights Act to address EJ. NEJC focused on interactive and innovative ways to enhance communities and presented ways to improve productivity and efficiency. The conference provided an array of networking opportunities among students, faculty, community, business, and government leaders and also included EJ presentations from citizens of Germany, Taiwan, and Australia.

In addition to a variety of panel presentations, conference attendees were able to participate in technical-assistance workshops and training programs, such as grant writing; NEPA utilization; multimedia art to strengthen EJ efforts; and rural development, access to justice and access to opportunities.



Student attendees at NEJC, with Melinda Downing, DOE EJ Program Manager (fourth from left).

DOE National Laboratories Impact Initiative

DOE National Laboratories are premier national-security research institutions that deliver scientific and engineering solutions for the nation's most crucial and complex problems. In addition to meeting our mission requirements of safeguarding our nation's nuclear reactors, nuclear non-proliferation, and to power the U.S. Nuclear Navy, DOE National Laboratories also advance earth and environmental sciences. For instance, the Los Alamos National Laboratory (LANL) produced the *LANL Sustainable Design Guide*, which recommends selecting property development opportunities with minimal environmental impacts, including brownfields, with regard to extensive community outreach activities in minority and low-income communities.

Since 2009, the three DOE nuclear security laboratories—Lawrence Livermore National Laboratory, Sandia National Laboratories, and LANL—have procured over \$654 million in goods and services from American Indian- and Alaska Native-owned businesses.

Urban Waters Federal Partnership (UWFP)

DOE is the premier institution for renewable energy and energy-efficiency research and development in the United States. DOE works in three major areas: reducing our dependence on imported oil; finding ways to make cost-competitive electricity from renewable resources; and optimizing the efficiency of our homes, buildings, and factories.

As a member of UWFP, the Department supports clean energy deployment around urban waterways, which helps to strengthen the relationship between DOE and local leaders in partnership communities. Our staff provides tier-one customer support to UWFP communities to help them navigate DOE's programs and more easily access resources that can help them achieve their city's clean-energy objectives. Since joining the partnership in October 2012, DOE staff has participated in an Urban Waters National Training Workshop and conducted introductory phone calls with partnership pilot communities.

There are six primary mechanisms in which DOE engages with local officials that will bring value to UWFP's efforts.

- 1. The Solution Center
- 2. Clean Cities
- 3. Solar Energy Resource Center
- 4. Wind Power America
- 5. State and Local Energy Efficiency Action Network
- 6. Better Buildings Challenge

More information on these mechanisms can be found at: http://energy.gov/eere/office-energy-efficiency-renewable-energy.

45th Congressional Black Caucus (CBC) Annual Legislative Conference, Environmental Justice Braintrust

The Annual CBC EJ Braintrust, chaired by Congressman James E. Clyburn (D-SC) was held in September 2015 in Washington, DC. The Braintrust focused on the timely topic of climate change and its effect on communities, particularly those with minority and low-income populations, including tribal populations. Panelists assessed the current changes being witnessed and those we might see in the future. The panel also discussed enhancing the unique relationships between human health, EJ, and economic development, as well as how to improve the quality of life in challenged communities nationwide. Tribal and National Oceanic and Atmospheric Administration representatives were present.

The Native American community was featured at the Braintrust, which highlighted ongoing efforts to ensure liberty and justice for all with regards to EJ in communities, particularly those with minority and low-income populations. The panel discussed enhancing the unique relationships between human health, EJ, and economic development and how to improve the quality of life in challenged communities nationwide.

Columbia Basin

Through its environment and fish and wildlife programs DOE is committed to protecting and improving the Columbia Basin ecosystem (Pacific northwest region) as mitigation for federal dams and the transmission system. The Columbia Basin is home to many minority and low-income populations, including tribal populations. A significant amount of DOE's ecosystem work is implemented through tribal partners under contracts and agreements. Direct funding to tribes from the DOE Fish and Wildlife Program amounts to \$130 million for 2015. Tribal projects included hydro, habitat, and hatchery actions, as well as research and monitoring. Since 2004, DOE funds enabled tribes to treat over 14 thousand acres of habitat and provided access to more than one thousand miles of fish habitat.

Superfund Activities

One of DOE's initiatives includes working with the EPA to collaborate on Comprehensive Environmental Response, Compensation, and Liability Act, or Superfund, activities in Tennessee. The Superfund site is located in close proximity to a community and it is also on the National Priority List (NPL). DOE is the lead agency responsible for implementing cleanup of the NPL site. EPA and the Tennessee Department of Environment and Conservation oversee DOE activities, pursuant to the Federal Facility Agreement (FFA). The FFA establishes priorities for cleanup and an annual enforceable schedule for addressing those cleanup priorities. EJ principles applied, as part of these priorities, ensured greater public participation and promoted enforcement of all health and environmental statutes in areas with minority, low-income, and tribal populations.

DOE has also established an annual grant with the Clinch River Environmental Studies Organization (CRESO), which promotes environmental literacy in middle, high school, and undergraduate students through field research and learning experiences. Additionally, CRESO recently received \$150 thousand to construct artificial wetlands to educate students on the value of wetlands in their area. DOE continues to value local environmental improvements as opportunities to educate the next generation of environmental scientists.

IV. COMMUNITY ENGAGEMENT ACTIVITIES AND RESULTS/IMPACTS

Environmental Waste Management Education and Community Involvement

Public participation is one of the cornerstones of EJ. Public participation and community involvement strategies must include a proactive public involvement process that provides complete information, timely public notice, full public access to key decisions, and support early and continuing public involvement in developing plans, programs, and research. This activity has created a model for community involvement and public accountability that can be replicated nationally. Through this partnership, the voices of traditionally disenfranchised communities have been successfully brought to DOE's decision-making and planning table. The project made it possible for grassroots working people to become involved with a difficult and complex set of issues and activities. This partnership has made strides in promoting academic excellence. Students have been trained in research internships. A new course, "Radiation in the Environment," was introduced as a core course for environmental science majors, and two state-of-the-art laboratories were established.

The community outreach activity, "Teaching Radiation, Energy, and Technology" (TREAT) workshop goal is to educate kindergarten through 12th grade mathematics and science teachers and local community leaders who reside near the DOE facility about related topics.

Other goals and objectives include:

- Providing environmental education
- Mentoring environmental scholars
- Establishing analytical laboratory facilities for students and communities
- Mentoring and preparing students for graduate studies in environmental science, environmental health science, and environmental engineering areas
- Training and educating communities and community leaders on environmental health and water management issues, including environmental radiation, through various workshops
- Preparing students for an active role in citizen's advisory board meetings and workshops



Dr. Kenneth Sajwan (left), professor and coordinator of the Environmental Science Program at Savannah State University, with participants in the TREAT Workshops.

Additional TREAT workshop subject matter included radiation, sources of radiation, radioactivewaste management, the effect of radiation on environmental health, and the negative impact of environmental radiation exposure on humans. The workshop is designed to educate teachers so they can take the radiation education message to their students and ultimately to the community. Two

TREAT workshops (one in Aiken, South Carolina, for kindergarten through 12th grade science and math teachers, and one in Augusta, Georgia, for community leaders) were held in 2015.

DOE Tribal Assistance

DOE is involved with cleaning up nuclear waste at nationwide sites and facilities. The waste, a result of nuclear weapons production, has affected sovereign tribal nations located near these facilities. The tribal nations have been impacted by different types of waste contamination, and their participation in the Department's mission is critical.

• DOE maintained 10 cooperative agreements with specific tribes located around sites/facilities and along routes used to transport wastes and materials. DOE provided funding for the State and Tribal Government Working Group to hold two large national meetings in FY 2015 including the National Tribal Energy Summit. In all cases, these meetings were with tribal leaders, staff, and with senior management discussing and addressing various issues of concern. Additionally, DOE provided support to the National Transportation Stakeholders Forum Tribal Caucus and two meetings related specifically to transportation issues. Support included meeting costs and travel for tribal representatives and their staff, showing the Department's commitment to resolve various issues of concern. DOE also provided substantial staff support to the Office of Indian Energy Policy and Programs and its Indian Country Energy Infrastructure Working Group.

- DOE, through cooperative efforts of multiple sub-agency offices, jointly funds a program that allows four tribal governments, located near DOE sites, to develop and maintain environmental monitoring programs in their respective reservation area and community and to provide technical input to the DOE decision-making processes. The program also funds a community-based education (CBE) initiative at the Santa Fe Indian School—an Indian-owned, residence high school. CBE incorporates community-based subject matter into Science, Technology, Engineering and Mathematics (STEM) curriculum.
- DOE maintains a cooperative agreement with the Navajo Nation Uranium Mill Tailings Remedial Action (UMTRA) Program. This agreement helps to provide staff support for independent inspections of four sites. The four sites are: Monument Valley, Arizona, Processing Site; Mexican Hat, Utah, Disposal Site; Shiprock, New Mexico, Disposal Site; and Tuba City, Arizona, Disposal Site.
- DOE provides funding to the Pueblo Indians, a federally recognized tribe, to assist with preparing a proposal to conduct a Santa Clara-specific human-health risk assessment.
- DOE co-sponsored three EJ and tribal trainings related to compliance with DOE Order 144.1,
 Department of Energy American Indian Tribal Government Interactions and Policy, and EO 12898.
 Participants included DOE federal and contractor personnel, and other federal agencies. DOE also cosponsored the 2015 Joint DOE/DOE-Contractor Environmental Attorneys training that contained an EJ component.



DOE Headquarters EJ and Tribal Training

DOE, through the Western Area Power Administration's (WAPA) Renewable Resource Program, offers
tribal organizations technical assistance, in partnership with the DOE Office of Indian Energy Policy and
Programs. In FY 2015, WAPA conducted five tribal pre-feasibility transmission and utility formation
studies. Several of the studies resulted in tribes moving forward with the next level of effort to develop
renewable energy projects or form an electric utility.

Community Commitment Plan

This plan invests "at risk" fee earnings into regional community outreach activities, including education, economic development, and community giving. Seven northern New Mexico counties, most of which are low-income and minority populations, benefit from the outreach. DOE's funding through the Community Commitment Plan to its subcontractors' granted work exceeded \$2.5 million. The areas of outreach include education, economic development, and community giving. The governing board, management, and operating contractor extended the Community Commitment Plan by 12 months.

In the spirit of this goal, DOE procured \$29 million of goods and services from 179 businesses that were owned by federally recognized American Indian Tribes or Alaska Native corporations and those owned by their members.

Site-Specific Advisory Board (SSAB)

The DOE SSAB, established in 1994, involves stakeholders directly in cleanup decisions. The Federal Advisory Council Act chartered a DOE SSAB—consisting of eight local boards—under its umbrella charter. The following eight boards (often referred to as Citizen Advisory Boards) have been organized: Hanford Advisory Board, Idaho National Laboratory Citizens Advisory Board, Northern New Mexico Citizens' Advisory Board, Nevada SSAB, Oak Ridge SSAB, Savannah River Site Citizens Advisory Board, Portsmouth SSAB, and Paducah Citizens Advisory Board. It is DOE's policy to conduct its programs in an open and responsive manner, thereby encouraging and providing the opportunity for public participation in its planning and decision-making processes. The boards continue to solicit and receive advice that is factored into government decisions and continue efforts to assure that SSAB membership reflects diverse viewpoints in affected communities and regions.

Publication of important and relevant information continues to be posted on the DOE website and updated throughout 2015. The content of all of DOE's public reading rooms was assessed and verified to be complete and accurate. Operation of a database and search engine ensures ongoing public access to cleanup and operations activities.

Support for Environmental Justice Communities

DOE and the Dr. Samuel P. Massie Chairs of Excellence (Massie Chairs) program provide technical support and grant writing assistance to EJ communities, including tribal populations, located near DOE sites. The Massie Chairs assist in developing brownfields strategies, drafting concepts, writing portions of proposals, and conducting research to support project needs.

National Historic Preservation Act (NHPA)

In FY 2015, DOE, through the Southwestern Power Administration (SWPA), initiated consultation under Section 106 of the NHPA responsibilities for a proposed multi-state cultural resources programmatic agreement. State historic preservation offices, tribes, Advisory Council on Historic Preservation, and other parties or agencies were formally invited to participate in the process of combining the current three, separate state-based cultural resource programmatic agreements into a combined multi-state cultural resource programmatic agreement for SWPA's maintenance and operations activities. Six out of sixteen tribes consulted have agreed to participate in the project, which continued throughout FY 2015.

V. TARGETED RESOURCES TO OVERBURDENED, UNDERSERVED, AND ECONOMICALLY-DISTRESSED COMMUNITIES

The following activities address the importance of targeting resources to overburdened communities, highlighting agency efforts to identify, modify, and align resources so that the Department can better serve the needs of its communities.

Community Capacity Building Through Technology

Since 1998, DOE has been involved in projects to create community capacity through technology. DOE has collaborated with EPA, US Department of Agriculture, General Services Administration, Howard University, Tennessee State University, and others to provide training, technical assistance, and to distribute computers to disadvantaged communities across the country. The collaboration has supplied excess and surplus computers to numerous small towns and community groups for use in community technology centers and in city halls. Thus far, more than 5,000 computers have been distributed.

Specific activities associated with this objective that will benefit small towns and the communities include:

- Supporting community technology centers to give communities access to federal agencies
- Conducting training programs that include computer-based and Internet tools to access data related to toxic release, chemical hazards, risk assessment information, and community economics
- Supervising community use of the training and tools received
- Supporting youth leadership institutes
- Providing economic development tools, entrepreneurship training, and other resources such as proposal writing and grants management to make the centers economically self-sufficient
- Providing technical assistance from Historically Black Colleges and Universities (HBCUs),
 Hispanic-Serving Institutions (HSIs), Tribal Colleges and Universities (TCUs), and Minority Serving Institutions (MSIs)
- Providing support to existing centers and facilities
- Providing additional resources that will serve low-income and disadvantaged communities adjacent to DOE sites, to enhance community access and participation in environmental decision-making processes

Community Leaders Institute (CLI) and Technical Assistance Workshops

A critical factor in the success of community development programs is a well-informed community. Action occurs when those with authority assume an informed and active leadership role. The purpose of a CLI is to help these leaders know how to access and obtain the information necessary for making sound decisions and communicating that information to the citizenry. The focus of a CLI is the unique relationship between environmental protection, human health, EJ, and economic development. Initially, this project served small towns and rural communities around DOE sites in the southeast.

Historically these CLIs address the following areas:

- Role of federal, state and local governments;
- Youth issues and challenges;

- Economic development, transportation, housing and community development; and
- Health disparities and health issues.



CLI Panelists at Johns Island, South Carolina

In addition, CLIs provide technical assistance workshops across the country and emphasize the need for expanded use of partnerships and greater federal collaboration on EJ initiatives.

In 2010, CLIs were expanded to serve Native Americans and Alaska Natives around the country. All of the institutes are developed in conjunction with community members to ensure buy-in and participation.

College/Underserved Community Partnership Program (CUPP)

DOE has been at the forefront of the CUPP effort and through our partnership with HBCUs, we will continue to support this initiative. The benefits of CUPP include a creative, collaborative effort between underserved communities and local colleges and universities to provide consistent technical support in underserved communities at no cost to the communities. Students benefit by utilizing their learned curriculum to gain practical experience that can serve as a resume builder, while earning course credit(s) through their academic institutions. Underserved communities benefit from the investment of innovative technical assistance and approaches provided by top students attending academic institutions in the southeast. Federal agencies benefit from the interagency collaboration by seeing an improvement in the effective and efficient use of resources.

Science, Technology, Engineering and Mathematics (STEM) Education Investment and Internship Opportunities and Education Partnerships

In 2015, the Department continued to invest a significant amount of time and resources into developing educational opportunities, particularly for low-income and minority populations, including tribal populations. These investments have come in different forms, including significant investment in research and development programs at MSIs; scholarships, internships and mentor programs at DOE sites across the country; and STEM-development roundtable discussions.

Examples of DOE investment in STEM education in 2015 include:

- Providing \$1.8 million to an HSI for research and development projects and programs, such as high-efficiency, inexpensive, and thin-film III-V photovoltaics;
- Providing \$750 thousand to establish a tribal college network in advanced manufacturing, where a
 cohort of five TCUs is working collaboratively to build capacity and develop appropriate curriculum in
 advanced manufacturing;

- Running a mentor-protégé agreement with Southern University, an HBCU. This program helps develop research partnerships in materials science, computational science, manufacturing, and biofuels;
- Managing internship programs and scholarships on a variety of subjects at several DOE sites and
 offices, many of which occur through partnerships with nearby MSIs. This involves hundreds of interns
 each year. Some of these interns are converted to year-round status as interns, or are hired as full-time
 federal employees or contractors;
- Hosting two "STEM in Indian Country" roundtables in 2015 that brought together over 100 educators; policy makers; local, national, and tribal elected leaders; several federal agencies; and national Indian education organizations to raise awareness of the importance of STEM education to tribal communities and to prepare Native students for STEM studies and careers.
- Ensuring incorporation of EJ awareness in the annual Joint DOE/DOE Contractor Environmental Attorney's Training, which, in 2015, attracted 60 participants from DOE and the National Nuclear Security Administration (NNSA); and
- Establishing and supporting, under the MSIs partnership program, four consortium-based teams
 consisting of participants from select HBCUs and NNSA laboratories. These four consortiums are the
 Consortium for K-20 Cyber Security Workforce Pipeline, the Consortium on Materials and Energy
 Sciences, the Research Consortium for Research on the Science and Engineering of Signatures, and the
 Consortium for Advanced Manufacturing.

Tri-Party Agreement (TPA)

DOE continued operation of the TPA-enhanced database and search engine to assure ongoing and effective public access to cleanup and operations information. During 2015, the TPA continued to be regularly modified. DOE focused on assuring public input was solicited and incorporated into changes that were proposed or made. Most of the repositories have now transitioned to information access via electronic databases, thus enhancing access ease and the volume of information that is readily available.

VI. CLIMATE CHANGE ADAPTATION

Several initiatives under the Climate Action Plan, particularly those related to preparedness and resilience and energy efficiency, have positive impacts on EJ communities.

Relevant Climate Vulnerabilities to EJ Communities

The Intergovernmental Panel on Climate Change Fifth Assessment Report (2014) discusses a range of observed climate changes that may impact communities vulnerable to EJ issues. These include:

- Shifts in water resource quantity and quality due to precipitation and glacial-melt changes
- Species range shifts
- Increasing occurrence of negative crop-yield impacts
- Increased heat-related mortality
- Various climate-related extremes, such as wildfires and extreme weather patterns

"People who are socially, economically, culturally, politically, institutionally, or otherwise marginalized are especially vulnerable to climate change and also to some adaptation and mitigation responses." In the United

¹ Intergovernmental Panel on Climate Change *Fifth Assessment Report, Working Group II, Summary for Policy Makers*, 2015, 6.

States, recent examples of extreme weather and other impacts—including Hurricane Katrina, Hurricane Sandy, the California drought, and others—have exposed many communities to hardships. Such incidents are not limited to EJ communities, but their impacts may be greater or longer lasting. In the context of the energy sector, the most significant impact related to climate change or extreme weather is the vulnerability of energy infrastructure and systems that provide fuel or services to EJ communities. The increased costs associated with energy service disruptions may also compound the increased burden on EJ communities because they pay a higher share of their income for those services.

DOE Efforts on Climate Change and EJ

Climate change is real and will have significant impacts that must be addressed. It will have major consequences for the energy sector, and it is likely to disproportionately affect poor and minority communities. The emissions that drive change, and therefore the solutions to the problem, are largely in the energy arena. If properly designed, our emission reduction strategies can create multiple economic and social benefits, such as cleaner air, sustainable communities, new jobs, and energy security.

Federal policies must continue to follow existing guidelines regarding EJ, including EO 12898:

By effectively implementing environmental laws, we can improve quality of life and expand economic opportunity in overburdened communities. And recognizing these same communities may suffer disproportionately due to climate change, we must cut carbon emissions, develop more homegrown clean energy, and prepare for the impacts of a changing climate that we are already feeling across our country.

-President Obama's Proclamation on the 20th Anniversary of EO 12898 on EJ

In terms of siting new energy infrastructure, EJ issues are assessed by first quantifying the percent of a proposed transmission route that occurs within areas of disproportionate minority or low-income populations, including tribal populations. These areas are defined, according to the Council on Environmental Quality (CEQ) guidance for EJ, under NEPA. Robust public engagement is essential for the credibility of the siting, permitting, and review process. Major infrastructure projects, such as high-voltage transmission lines and pipelines are likely to trigger potentially conflicting stakeholder interests and have significant impacts on local communities and the environment due to their complexity and scale. Robust stakeholder engagement is necessary to avoid, minimize, and mitigate these potential impacts and is likely to reduce delays in reaching a decision.

Energy Efficiency and Renewable Energy

The Department's work on energy efficiency has broad relevance to EJ communities. Cost savings associated with our work on buildings and appliances increase affordability. Weatherization programs enable low-income families to permanently reduce their energy bills by making their homes efficient with insulation, more efficient appliances, and other methods. DOE's work on renewable energy and vehicle technologies may also reduce air pollution affecting EJ communities. The cumulative emission reductions these programs and technologies achieve also contribute to our climate targets and, by extension, our efforts to address EJ issues.

DOE's Weatherization Assistance Program (WAP) is critical to addressing the energy needs of low-income families, including those who reside in EJ communities. Since its founding in 1976, WAP has helped more than 7 million families reduce their energy bills through cost-effective energy efficiency measures including those that encompass the building envelope, heating and cooling systems, electrical systems, and electricity-consuming appliances. WAP serves low-income families free of charge at an average expenditure of

\$6.5 thousand per residence, yielding a value of 2.2 times greater than the cost of the weatherization improvements.

Additionally, the Energy Efficiency and Conservation Block Grant (EECBG) Program provided \$3.2 billion in Recovery Act block grants to cities, communities, states, U.S. Territories, and Indian tribes. The EECBG Program represents the largest nationwide direct investment in DOE technologies at the community level in U.S. history, rapidly increasing the number of communities directly engaged with DOE on programs that increased renewable energy capacity, technical knowledge, and deployment of energy efficiency projects at the local level.

Indian Energy Policy and Programs

Tribal governments and communities are treated differently in the context of EJ due to their sovereign status, the relevance of statutes and programs administered by the U.S. Department of the Interior, and other considerations. At the same time, some of the considerations that apply to EJ communities also apply to Native American and Alaska Native communities, particularly those related to energy affordability and reliability, local pollution related to energy production, and climate impacts such as sea-ice recession and permafrost thaw in the Arctic, increased temperatures and drought in the Southwest.

The Department issued its *Tribal Energy System Vulnerabilities to Climate Change and Extreme Weather* report in September 2015 showing that threats to tribal energy infrastructure are expected to increase as climate change impacts extreme weather conditions. The Department also announced a \$6 million grant opportunity to establish clean energy projects and energy efficiency projects on Indian lands that will help support economic opportunities and combat the effects of climate change on tribal lands.

The report assesses how climate change and extreme weather vulnerabilities specific to tribal energy infrastructure and systems in the contiguous United States and Alaska are projected to affect energy availability to Native American lands.

"The wide-ranging effects of climate change—from more intense storms, harsher droughts, sea-level rise, and escalating summer temperatures—pose an increasing threat to America's energy systems and crucial infrastructure," said Lynn Orr, DOE's Under Secretary for Science and Energy. "The initiatives launched by DOE continue our work with states, local governments, and tribal governments to understand the challenges posed by climate change and support the development of resilient infrastructure and the deployment of clean energy."

Climate-related events are already affecting the way that Indian tribes in the United States use, receive, and produce energy. Higher temperatures, water shortages, and more frequent and intense disasters—such as flooding, wildfires, heat waves, and droughts—are threatening the economic and energy security of what are among the nation's most impoverished communities. Other increasingly severe extreme weather events, such as thunderstorms, tornadoes and winter storms, can also severely damage the infrastructure that tribes rely on to deliver power and fuel.

The *Tribal Energy Systems Vulnerabilities to Climate Change and Extreme Weather* report was developed in response to President Obama's Climate Action Plan outlining executive actions to prepare the United States for the impacts of climate change (EO 13653), directing federal agencies to help communities strengthen their resilience to extreme weather and prepare for climate change, and State, Local, and Tribal Leaders Task Force on Climate Preparedness and Resiliency recommendations for supporting communities' climate preparedness and resiliency efforts. It is intended to serve as an authoritative resource to assist tribal leaders, federal, state, and local governments, regulators and utility commissions, and energy-asset owners and operators to strengthen tribal energy systems.

The key findings of the report for tribal consideration are the following:

- Climate change and extreme weather are likely to impact energy systems on Tribal Trust Lands and Alaska Native villages in a number of ways, including:
 - Increasing electricity expenses as higher temperatures are likely to increase demand for air conditioning in the summer
 - Greater likelihood of power outages due to damage to electric grid and generation infrastructure
 - More frequent disruptions in fuel supply due to damage to transportation infrastructure or delays in rail, barge, or truck operations during severe weather
 - Reduced electricity generation capacity for some power plants on Tribal Trust Lands, depending on the type of generating facility and location
- Few Tribal Trust Lands or Alaska Native villages directly own and operate the energy infrastructure that their communities depend on; tribal energy systems are primarily vulnerable to off-site risks such as supply disruptions and higher energy costs passed down from external utility providers.
- Tribal Trust Lands and Alaska Native Villages that own and operate energy infrastructure are subject
 to similar vulnerabilities as energy assets located outside of their boundaries. In these instances,
 tribal communities have greater self-determination in building the resilience of energy systems that
 they control.
- Interdependencies across energy subsectors could amplify the effects of climate change on the energy sector as a whole, and interdependencies between the energy sector and other sectors of the economy further complicate the effects of climate change on energy.

The Department promotes tribal energy sufficiency and fosters economic development and employment on tribal lands through development of renewable energy and energy efficiency technologies. Over the years, the Department has invested nearly \$50 million in 183 tribal clean-energy projects, provided financial and technical assistance to tribes for the evaluation and development of their resources, deployment of technologies, and education and training to help build the knowledge and skills essential for sustainable energy projects.

Energy Policy and Systems Analysis (EPSA)

Through its work on the Quadrennial Energy Review and assessment of United States energy system vulnerabilities from climate change, EPSA primarily considers EJ impacts in terms of resilience and preparedness. The vulnerabilities report assessed climate change and extreme impacts to energy infrastructure. Failure of, or damage to, energy infrastructure due to these impacts may disproportionately affect EJ communities in the service area by disrupting transportation fuel supplies and the ability to move goods to these communities, interrupting the service of electricity or heating fuels, incurring costs for disaster recovery, or in other ways.

Partnership for Energy Sector Climate Resilience (Partnership)

EPSA continues to develop preparedness and resilience materials focused on the energy system and its ability to provide services reliably, adapt to change over time, and recover from immediate impacts. The Department also recently launched the Partnership, an initiative to enhance United States energy security by improving the resilience of energy infrastructure to extreme weather and climate change impacts. The Partnership currently includes 17 utilities across the Unites States, ranging from investor-owned utilities to municipal cooperatives

and others. These partner organizations agree to commit to identifying priority climate vulnerabilities, developing resilience strategies, and working with DOE to share best practices and develop and deploy tools for assessing vulnerabilities and promoting resilience solutions. By increasing the climate resilience of utilities serving some EJ communities, Partnership efforts will better safeguard against service disruptions, increased costs, and other impacts associated with extreme weather events.

Quadrennial Energy Review (QER)

The first installment of the QER, released in April 2015, focused on energy transmission, storage, and distribution (TS&D) infrastructure across the liquid fuels, natural gas, and electricity sectors. Within this context, the QER discusses EJ directly by referring to EO 12898 and related administrative actions and in its discussion of emissions from TS&D infrastructure and other environmental impacts. Many additional topics covered by the QER relate to EJ communities indirectly—whether discussing the impacts of disruptions on TS&D infrastructure or, conversely, the resilience, reliability, and other aspects of TS&D infrastructure that enable them to prevent or respond to disruptions.

There are clear effects from climate impacts on disadvantaged communities such as EJ communities. The preparedness and resilience of these communities to such impacts can be lower, and the impacts themselves can be more direct and harmful. Unless direct consideration for these communities is incorporated into our policy development and program actions, these circumstances are unlikely to change. Apart from those policies targeting low-income end users, few energy and climate policies under DOE's portfolio have direct impacts on EJ communities. One recent example of a policy that does is the QER recommendation to establish a competitive program to accelerate pipeline replacement and enhance maintenance programs for natural gas distribution systems that would offset incremental costs to low-income households.

QER Recommendation:

Establish a competitive program to accelerate pipeline replacement and enhance maintenance programs for natural gas distribution systems. DOE should establish a program to provide financial assistance to states to incentivize cost-effective improvements in the safety and environmental performance of natural gas distribution systems, through targeted funding to offset incremental costs to low-income households and funding for enhanced direct inspection and maintenance programs. The estimated cost for this program is \$2.5 to \$3.5 billion over 10 years.

Minorities in Energy Initiative (MIEI)

This initiative is a public and private collaboration aimed at increasing minority and tribal participation in the energy sector. It seeks to empower, equip, and prepare businesses, communities, schools, and individuals to partake in the technical, procurement, engagement, workforce, and energy literacy resources of DOE and the overall energy sector. The MIEI will include an all-of-the-above approach to energy platforms covering fossil, nuclear, efficient, and renewable energy systems as it pertains to underrepresented communities. This will be a continuous dialogue, with DOE at the helm, between several federal agencies and private partners.

VII. INTERAGENCY WORKING GROUP ON ENVIRONMENTAL JUSTICE (IWG EJ) FRAMEWORK FOR COLLABORATION

IWG EJ Making a Visible Difference in Overburdened Communities

In FY 2015, the IWG EJ devoted time to building an infrastructure for federal agencies to directly address the environmental, social, economic, and public health burdens in minority, low-income, indigenous, and tribal communities. The 2011 IWG Charter was revised to include a governance structure and a requirement for

Senior Leadership to meet twice yearly to discuss agency collaborative efforts and commitments that will help achieve EJ.

The IWG EJ's governance structure includes the following standing (permanent) committees:

- Public participation
- Regional IWGs
- Strategy and implementation progress reports
- Title VI of the Civil Rights Act of 1964

In addition, consistent with the Presidential Memorandum issued with the EO, and based on public recommendations, every three years the IWG EJ determines if there are additional focus areas for federal agencies to consider and address.

During fiscal years 2016 through 2018, the IWG EJ will maintain committees to address the following five focus areas:

- Native Americans/indigenous peoples
- Rural communities
- Impacts from climate change
- Impacts from commercial transportation (goods movement)
- National Environmental Policy Act

These committees consist of senior-level agency staff and are responsible for working together with state and local governments, tribes, and local communities to improve the health of communities and protect the environment across the United States.

Collaboration and Interagency Governance Structure

The draft FY 2016 through 2018 IWG EJ Action Agenda Framework was disseminated for public comment. (As a result of one of the public comments, the IWG EJ has changed the name of the document to "IWG EJ FY 2016–2018 Framework for Collaboration.") The framework builds on decades of EJ work to focus federal agency collective efforts on improving the quality of life and supporting economic opportunities in overburdened and under-resourced communities. The framework is available at http://www3.epa.gov/environmentaljustice/interagency/index.html.

Collaborative efforts include.

- Completion of significant NEPA work products: Draft Report on Promising Practices for EJ
 Methodologies in NEPA Reviews and a companion training module based on the promising practices.
 The draft report provides a framework for meaningful engagement, developing and selecting
 alternatives and identifying minority and low-income populations.
- Launch of the Educate, Motivate, and Innovate (EMI) Climate Justice Youth Leadership Initiative.
 The EMI initiative will showcase innovative climate justice projects, and their impacts, that are being done across the country by students attending MSIs.
- Structure development for a Goods Movement Resource Compendium. The compendium will outline
 agency legal authorities, roles, and responsibilities and serve as a resource for communities addressing
 goods movement concerns.

 Strengthened collaboration with communities through formation of regional interagency working groups and featuring innovative community-based interagency collaborative projects at monthly IWG EJ meetings.

Outreach

- Public outreach was increased by holding three webinars, which attracted over 350 participants, seeking public comment on the Draft FY 2016–2018 IWG EJ Action Agenda Framework.
- Collaboration on climate justice topics was advanced by featuring a series of leading climate justice advocates at the March 2015 NEJC.
- Delivery of technical assistance to small, underserved communities was strengthened through the CUPP.

Increased coordination and cooperation among federal agencies will promote holistic community-based solutions to EJ issues and ensure that the public has meaningful opportunities for participation in the decision-making process. For a full range of the IWG EJ activities, please visit http://www3.epa.gov/environmentaljustice/interagency/index.html.

DOE NEPA Initiatives, Agency Consideration of EJ in NEPA Activities

In addition to NEPA Committee efforts, DOE has undertaken the following efforts to advance consideration of EJ in NEPA activities:

- DOE encourages program and field offices to incorporate EJ considerations into the NEPA process.
 DOE CEQ guidance states, "...EJ issues may arise at any step of the NEPA process and agencies should consider these issues at each and every step of the process, as appropriate." Consistent with CEQ guidance, DOE begins with the scoping process and continues through the end of the NEPA process, including any potential mitigation actions, as appropriate.
- In DOE NEPA documents impact analyses, the Department assesses environmental and/or human-health impacts on minority and low-income populations, including tribal populations, by specifically considering the impacts of a proposed action and alternatives on these populations. The analyses can include, if appropriate, assessing when these specific populations, have different ways than the general population of being affected by an action (e.g., special exposure pathways or cultural use of natural resources).
- In order to enhance the public participation process, DOE seeks to effectively involve minority and low-income populations—including tribal populations—by taking into consideration cultural differences; by using a variety of communication methods; by consulting with potentially affected populations; and, where appropriate, providing announcements, documents, and meeting minutes in the non-English local language. DOE has Environmental Impact Statements (EISs) that illustrate our commitment to incorporate EJ into the NEPA process.
- DOE continues to use the NEPA process to identify and evaluate disproportionately high and adverse human health or environmental effects in minority, low-income, and tribal populations, within the context of EO 12898. Examples include:
 - Hawaii Clean Energy Programmatic Environmental Impact Statement (PEIS)
 - DOE adapted the analysis to the unique Hawaiian population by using guidance prepared by the State of Hawaii. The PEIS includes helpful notes to explain methodology in laymen's terms and uses native language to explain the unique

relationship the Hawaiian culture has with the land. The EIS also integrates analysis of traditional cultural beliefs and practices.

- Great Northern Transmission Line EIS
 - DOE expanded the EJ analysis in the EIS to include analysis of subsistence activities (e.g. hunting and trapping, fishing, gathering) undertaken in the project area by minority populations not living within the project area. This analysis identified potential adverse impacts, which led to the development of best management practices to protect those activities.



Agencies and Tribal Nations conduct review and comment meetings to fulfill DOE's Environmental Justice mission.

ACRONYMS

CBC Congressional Black Caucus
CBE Community Based Education

CEQ Council on Environmental Quality
CLI Community Leaders Institute

CRESO Clinch River Environmental Studies Organization

CUPP College/Underserved Community Partnership Program

Department or DOE U.S. Department of Energy

EECBG Energy Efficiency and Conservation Block Grant

EIS Environmental Impact Statements

EJ Environmental Justice

EMI Educate, Motivate and Innovate

EO Executive Order

EO 12898 Executive Order 12898

EPA U.S. Environmental Protection Agency
EPSA Energy Policy and Systems Analysis

FFA Federal Facility Agreement
HSIs Hispanic Serving Institutions

HBCU Historically Black College and University

IWG EJ Interagency working Group on Environmental Justice

LANL Los Alamos National Laboratory
MOU Memorandum of Understanding
MIEI Minorities in Energy Initiative
MSI Minority Serving Institution

NEJC National Environmental Justice Conference Training Program

NEPA National Environmental Policy Act
NNSA National Nuclear Security Act

Partnership Partnership for Energy Sector Climate Resilience
PEIS Programmatic Environmental Impact Statement

QER Quadrennial Energy Review SSAB Site-Specific Advisory Board

STEM Science, Technology, Engineering and Mathematics

SWPA Southwestern Power Administration
TCUs Tribal Colleges and Universities

TPA Tri-Party Agreement

TREAT Teaching Radiation, Energy, and Technology Workshop

TS&D Transmission, Storage and Distribution
UMTRA Uranium Mill Tailings Remedial Action
UWFP Urban Waters Federal Partnership
WAP Weather Assistance Program

WAPA Western Area Power Administration

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