Minorities in Energy

STRATEGIC PLAN
2015-2018

Expanding Engagement of Diverse Americans

ENERGY ECONOMIC DEVELOPMENT
STEM EDUCATION
CLIMATE CHANGE
In September 2013, the Department of Energy (DOE) launched the Minorities in Energy Initiative (MIE) as a platform to increase engagement of minority and tribal communities in the broader energy sector, with a focus on minority-owned businesses and workers. This document — the MIE Strategic Plan — describes the initiative’s vision and outlines its mission and goals.

In the first year, the Minorities in Energy Initiative gained momentum among minority and tribal communities in expanding STEM education, workforce development, economic opportunities, and engagement in the President’s Climate Action Plan. These are critical areas of the DOE’s mission that help protect the health, security, and prosperity of this Nation. Every community in America depends on energy to power its citizens’ lives and has a stake in addressing the increasing impact of global climate change. Every community appreciates and understands the importance of a good paying job and education opportunities. We can only be successful in achieving our energy goals if we are inclusive of America’s diverse communities.

MIE is a DOE-wide initiative under the leadership of the Department’s Office of Economic Impact and Diversity. The Initiative has attracted 30 high-level Ambassadors from industry, government, academia, and nonprofits to champion the effort across the country, bringing needed focus to the challenge before us: closing the “participation gap” of minorities in the energy sector.

As part of the MIE, we are establishing the Minorities in Energy Initiative Industry Partner Network. Private organizations, nonprofits, and academic institutions are joining the Initiative and pledging to further its goals through measurable public actions. This next year will bring greater engagement of DOE program offices as we implement the actions in this Strategic Plan. Thank you for your participation in fulfilling this important shared responsibility.

Ernest J. Moniz
Secretary
U.S. Department of Energy
November 2014
MESSAGE FROM THE DIRECTOR

I am very pleased to lead the Minorities in Energy Initiative (MIE) on behalf of the Department of Energy. Over the next few years, we are committed to reaching every corner of America and making a difference by providing opportunities for minority community participation in every facet of the energy sector. We will move forward with the momentum that we have already gained through education, outreach, public-private partnerships, placed-based initiatives, and relationships with other federal agencies. Through our partnerships with the Department of Commerce, the Department of Housing and Urban Development, the Department of Education and other agencies, we are changing the lives of many.

Through this plan, Minorities in Energy will harness the richness of our Nation’s diversity by making available our best talent through sustainable initiatives supported by our MIE Ambassadors, corporate partners, and other stakeholders. While continuing traditional K-20 outreach to educational institutions that can address the preparedness of minority students, we will sharpen our focus on community college programs, minority businesses, and energy literacy through a wide range of community efforts. We look forward to an extraordinary team effort, including your support.

LaDoris “Dot” Harris
Director
Office of Economic Impact and Diversity
The Department of Energy’s (DOE) mission includes investing in science and technology research and development, promoting investment in energy infrastructure, developing and commercializing new energy technologies, developing energy policy, and advancing the President’s Climate Action Plan. The impacts of the Department’s activities and investments are substantial at all levels, including community, state, national, and international arenas. In 1977, Congress created the Office of Minority Economic Impact with the mission to “ensure minorities are afforded an opportunity to participate fully in the energy programs of the Department.”

In September 2013, Secretary of Energy Ernest Moniz launched the Minorities in Energy Initiative (MIE) as the Department’s sustainable platform to increase engagement of minority and tribal communities in the broader energy sector. MIE is focused on the participation of minority-owned businesses and workers in the energy sector, as well as educating minority communities on energy efficiency benefits and climate change impacts, and the opportunities to engage in mitigation and resilience activities.

Launching such an initiative in 2013 was imperative because the country was, and still is, undergoing widespread energy transformation and is forecasted to be almost energy self-sufficient in net terms by 2035. The rapid growth of energy production in the U.S., including on federal and tribal lands, will result in an increase of new jobs and infrastructure investments. Exacerbating the need to fill newly created energy jobs are the coming mass retirements of baby boomers, which will create an urgent shortage of qualified workers to meet energy sector workforce demands. These factors, plus the changing demographics of the country, demand that we fully engage minorities in science, technology, engineering, and math (STEM) education and workforce training programs. According to the U.S. Census Bureau, minority children under age 18 will be the majority by 2020, and by 2043 there will no longer be a majority of any particular racial or ethnic group in the U.S.

Government and industry are increasingly focused on climate change mitigation and resilience. Minority, tribal, and low-income communities are disproportionately impacted by climate change. Climate change mitigation and infrastructure resilience efforts present new opportunities for minority-owned businesses and workers. Accordingly, the energy sector as a whole will benefit by increasing engagement of diverse communities.

The importance of the energy sector to the country cannot be overstated—energy is the lifeblood of the country’s infrastructure, security, and economy. Access to reliable and affordable energy is a staple of quality of life for families and communities, and an economic opportunity for minority-owned businesses and individuals.

MIE has several foundational pillars which are fundamental practices that cut across all goal areas and are necessary to achieving the MIE Objectives and Mission. As described below, these include Ambassadors, DOE Champions, Industry Partners, and an MIE Awards program that recognizes up-and-coming leaders in the energy sector.

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1 The Office of Minority Economic Impact (OMEI) was established in Fiscal Year 1979 pursuant to Section 641 Title VI, Part 3 of the National Energy Conservation Policy Act (P.L. 95-619), dated November 9, 1978. This office was later renamed the Office of Economic Impact and Diversity (ED).


Ambassadors are diverse senior leaders in a variety of sectors committed to promoting MIE’s goal areas of science, technology, engineering and math (STEM) education and workforce development, energy economic development, and climate change. Champions are DOE leaders who also promote MIE’s objectives through stakeholder engagement.

Through our MIE Industry Partnership, DOE collaborates with companies, nonprofits, and professional organizations to develop an engagement strategy in-line with the Partner’s interests and MIE goal areas.

The MIE Awards Program recognizes leaders in a variety of fields that are leading innovative efforts to promote minority engagement and success in one of the goal areas of MIE.

**MIE’s Three Goal Areas:**

1. **STEM Education and Workforce Development**: Critical demographic trends related to the growing minority population and an aging baby boomer generation requires a national effort to strengthen the STEM workforce and draw on the minds and talents of all Americans, including those communities currently underrepresented in STEM fields.

2. **Energy Economic Development**: Energy is a $6 trillion market worldwide, and there are billions of dollars of energy infrastructure investment planned. This presents an immense opportunity for minority and tribally-owned businesses.

3. **Climate Change**: The effects of climate change will continue to impact minority, tribal, and low-income communities disproportionately. These communities are often ill-equipped to adapt to the impacts of weather patterns and are often less capable of recovering from weather-related disasters. Additionally, mitigation and resilience activities offer great economic development opportunities.

**Stakeholder Engagement in Plan Focus**

Over the summer and fall months of 2013, DOE sought out opinions and recommendations from numerous individuals and organizations knowledgeable of minority and tribal community concerns, as well as the broader energy sector. Additionally, the Department convened hundreds of stakeholders at three events, including the MIE Launch event at the Department in September 2013, along with the Congressional Forum and the White House Forum, both held in November 2013.

**Executive Summary of Plan Elements**

The Minorities in Energy Initiative links together diverse community organizations, academia, business, industry, and federal agencies to address challenges related to minority participation in science, technology, engineering and math (STEM) education, energy workforce development, energy economic development, and climate change.

**MISSION**

To advance the Nation’s energy goals by increasing awareness and engagement of diverse Americans in the energy sector through a focus on science, technology, engineering and math (STEM) education, workforce development, energy economic development, and climate change objectives.

**VISION**

Minority and tribal communities have the opportunity to fully participate in the energy sector.
GOAL 1 — STEM EDUCATION AND WORKFORCE DEVELOPMENT

Establish and implement a framework for achieving enduring growth of minority participation in the energy sector through enhanced public awareness of energy-related careers and the promotion of both STEM education and workforce development.

Objective 1.1 – Implement sustainable initiatives that support STEM preparation and energy literacy of K through 12 students.

Objective 1.2 – Develop sustainable initiatives that strengthen the STEM capabilities of the Nation’s accredited Minority Serving Institutions (MSIs) and other institutions having significant minority enrollments.4

Objective 1.3 – Build awareness among minority high school and college students of the career opportunities in the energy sector and develop pathways for students to connect with energy sector employers.

Objective 1.4 – Build partnerships that advance minority and tribal participation in community colleges, certificate programs, trade associations, and labor unions that support employment opportunities in the energy industry.

GOAL 2 — ENERGY ECONOMIC DEVELOPMENT

Establish and implement an energy economic development framework for increased minority-owned business growth and participation in innovation and commercialization, access to capital, and investment in the energy sector, including energy research and development, production and distribution, manufacturing, and services.

Objective 2.1 – Increase participation of minority-owned businesses in the energy sector and the emerging technology sector.

Objective 2.2 – Partner with National Laboratories to increase outreach and technical assistance to minority-owned businesses and provide education on DOE opportunities and programs.

Objective 2.3 – Execute federal place-based initiatives that specifically support minority-owned business opportunities in energy and emerging technologies.5

GOAL 3 — CLIMATE CHANGE

Establish and implement a framework to engage minority and tribal communities on awareness, policy development, and technological solutions to advancing climate change mitigation and resilience.

Objective 3.1 – Increase minority and tribal community awareness of climate change impact and policies, and courses of action.

Objective 3.2 – Engage minority and tribal businesses and other stakeholders in the adaptation market and resilience efforts.

Objective 3.3 – Promote energy efficiency measures in minority and tribal communities.

4Significant minority enrollment is 25% or more of the student body.
5Federal Place Based Initiatives are an Administration policy strategy that aims to improve coordination amongst federal agencies, state, and local governments to better leverage resources and increase positive impacts at the local level. Strong Cities, Strong Communities: http://www.whitehouse.gov/the-press-office/2012/03/15/executive-order-establishing-white-house-council-strong-cities-strong-co.
MIE FOUNDATIONAL PILLARS

The following are fundamental practices that cut across all goal areas and are necessary to achieving the MIE Objectives and Mission.

» MIE is a vehicle for DOE to be a convening authority to facilitate communication and collaboration between minority and tribal communities and federal policymakers, DOE program offices, educational institutions, and industry to increase engagement of these communities in the energy sector.

» DOE and National Laboratories will collaborate and endeavor to better engage and support minority and tribal communities to achieve the MIE Strategic Plan Goals.

» The Department will hold an Annual MIE Symposium to convene minority and tribal community stakeholders, industry, policy makers, and Departmental leadership to share best practices, discuss accomplishments, and plan for the coming year.

» The Department will seek opportunities for minority and tribal participation in Administration and Departmental activities and advocate for minority and tribal communities in policymaking within the Department and across the federal government.

» The Department will utilize a communications strategy to raise awareness of the energy sector in minority and tribal communities and amplify the messaging of DOE offices.

» The Department will leverage MIE Ambassadors and DOE Champions to elevate the conversation of minority engagement in energy around the country through speaking engagements, public appearances, and other activities.

» The Department will execute the MIE Industry Partners Engagement Strategy that will leverage professional networks, expertise, and financial resources of the private sector to build the capacity of minorities to compete for work and business opportunities in the energy sector.

» The Department will issue an Annual Report to the Secretary on Minorities in Energy to capture the Department’s progress toward achieving MIE goals and objectives.

» An MIE Awards Program will be developed in 2015 that will highlight the efforts of individuals and organizations that have achieved tangible results in increasing the engagement of minority communities in the energy sector through achievements in MIE goal areas.
GOAL AREA 1 – STEM EDUCATION AND WORKFORCE DEVELOPMENT

Workforce demographic trends prescribe a national effort to strengthen the STEM workforce through participation of underrepresented minorities. President Obama has issued a challenge to the Nation to prepare 100,000 STEM teachers and graduate one million students in STEM disciplines by 2021. The MIE STEM education and workforce development outreach efforts will promote increasing minority participation in STEM disciplines, with emphasis on the fields that directly or indirectly support the energy sector.

Currently, the majority of children born in the U.S. are from minority communities. Additionally, the communities most underrepresented in STEM fields are also some of the fastest growing in the general population. Our workforce development focus includes graduates of high schools, community colleges, and higher level degree-granting institutions.

**MIE GOAL 1:** Establish and implement a framework for achieving enduring growth of minority participation in the energy sector through enhanced public awareness of energy-related careers and the promotion of both STEM education and workforce development.

**Objective 1.1** – Implement sustainable initiatives that support STEM preparation and energy literacy of K-12 students.

**Performance Measure:** Number and effectiveness of K-12 initiatives.

**Key Initiatives:**

» Promote the use of DOE Energy Literacy framework and connect K-12 educators to other energy education resources.

» Support pre-college STEM enrichment programs for minority students.

» Increase the diversity and number of students participating in DOE science competitions such as the Regional and National Science Bowl.

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Leverage DOE staff and Champions, Industry Partners, and Ambassadors to carry out programming in K-12 schools to increase awareness of STEM and the energy sector.

**Objective 1.2** — Develop sustainable initiatives that strengthen the STEM capabilities of the Nation’s Minority Serving Institutions (MSIs) and other institutions having significant minority enrollments.\(^7\)

**Performance Measure:** Number and effectiveness of MSI and other institution initiatives.

**Key Initiatives:**

- Facilitate partnerships between MSIs and mainstream institutions to promote capacity building and infrastructure for MSIs and to increase research opportunities for MSI students.
- Partner with other federal agencies to identify best practices through Memoranda of Understanding (MOUs) and other constructive relationships, as appropriate, and with federally funded MSIs to enhance support of minority participation in energy-related disciplines.
- Foster professional relationships between STEM programs at MSIs and institutions that have significant minority enrollments with DOE program offices, DOE National Laboratories, and private industry to promote minority participation in internships and other programming.
- Provide internships and research opportunities to MSI students through established DOE programs.
- Establish an MSI Consortium of MSIs and other educational institutions to provide technical assistance and funding to increase engagement and retention of students in STEM disciplines.

**Objective 1.3** — Build awareness among minority college students of the career opportunities in the energy sector and develop pathways for students to connect with energy sector employers.

**Performance Measure:** Number of students reached and DOE professionals, Industry Partners, and Ambassadors involved.

**Key Initiatives:**

- Promote the involvement of DOE Champions and DOE professionals, MIE Industry Partners and Ambassadors, and energy sector professionals in college career days and other events to raise minority student awareness of career opportunities in the energy sector.
- Support development of partnerships between higher education institutions and the Department and its labs to promote STEM careers via site visits, guest lectures by STEM professionals, and mentoring programs.
- Leverage the Industry Partner Network to encourage the development of college-level and post-graduate level internships and fellowships with energy sector employers.

\(^7\) Significant minority enrollment is 25% or more of the student body.
Objective 1.4 – Build partnerships that advance minority and tribal participation in community colleges, certificate programs, trade associations, and labor unions that support employment opportunities in the energy industry.

Performance Measure: Number of partnerships developed that support technical and skill program initiatives.

Key Initiatives:

» Convene industry, employers, associations, and worker representatives to identify critical workforce needs and the skills minority and tribal workers need for energy-related jobs. Communicate skills and training requirements to education policy makers, training providers, workforce leaders, and job seekers.

» Work directly with industry and post-secondary institutions with significant numbers of minority or tribal students (including MSIs) to promote programs that focus on relevant skills that meet the needs of the energy industry.8

» Encourage regional partnerships among industry, educators, trade associations, labor unions, nonprofits, and the workforce system to prepare, support, and train youth and adults for career path advancement in the energy sector.

» Encourage industry and nonprofit organizations to dedicate STEM scholarships to equip minority and tribal community college students with the technical skills and credentials necessary to obtain jobs in the energy sector.

» Facilitate industry mentorship of minority and tribal students in post-secondary institutions.

GOAL AREA 2 - ENERGY ECONOMIC DEVELOPMENT

The U.S. economy will remain dynamic with energy as a key economic driver for the indefinite future. The country is undergoing an energy transformation and expects to be almost energy self-sufficient in net terms by 2035. DOE is committed to advancing the President’s Climate Action Plan by supporting prudent development, deployment, and efficient use of “all of the above” energy resources that also create new jobs and industries for minority and tribal communities and businesses. The exploding growth of energy production in the U.S. will result in hundreds of thousands of new jobs and billions of dollars in infrastructure investment. With growing energy demands, both domestically and abroad, along with innovations in energy technologies, the importance of increasing minority participation in the energy sector is paramount. The MIE economic development focus is to support a framework for increasing minority-owned business participation in all aspects of the energy sector.

MIE GOAL 2: Establish and implement an energy economic development framework for increased minority-owned business growth and participation in innovation and commercialization, access to capital, and investment in the energy sector, including energy research and development, production and distribution, manufacturing, and services.

Objective 2.1 – Increase participation of minority-owned businesses in the energy sector and the emerging technology sector.

Performance Measure: Number of partnerships and initiatives developed that provide minority-owned business access to energy sector opportunities.

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8 Significant numbers of minority or tribal students is 25% or more of the student body.
Key Initiatives:

» Research and provide information on energy market trends and workforce projections, and commission studies on high growth industries and technology transfer.

» Build partnerships with other federal agencies, industry, associations, community organizations, and local officials where there are strong opportunities to contribute to the development and growth of minority-owned businesses in the energy sector.

» In collaboration with stakeholders, launch targeted initiatives to increase minority and tribal participation in the energy sector and related emerging technologies.

» Work with business associations and business assistance centers to provide training and capacity building to expand the growth of minority-owned businesses in the energy sector.

» Leverage private sector financing for deployment of “all of the above” energy technologies via public-private partnerships, to the extent permitted by law.

» Work with universities and industry to facilitate minority and tribal business participation in technology commercialization activities.

» Develop educational tools and work with partners to provide training on energy market opportunities and entrepreneurship.

Objective 2.2 – Partner with National Laboratories to increase outreach and technical assistance to minority businesses, and provide education on DOE opportunities and programs.

Performance Measure: Offices and labs engaged with minority business assistance organizations and minority-owned businesses and documented minority-owned business support.

Key Initiatives:

» Develop relationships with National Laboratories to strengthen their outreach and technical assistance to enhance minority-owned business opportunities and build capacity to participate in the energy sector.

» Track DOE and laboratory support of minority-owned businesses and minority business assistance organizations, and provide information on how to replicate best practices for minority-owned business engagement and assistance.

» Work with the DOE National Laboratories to facilitate minority-owned business participation in technology commercialization activities.

» Coordinate with the Office of Small and Disadvantaged Business Utilization to support engagement of minority businesses through DOE’s subcontract program, Mentor Protégé Program, and other DOE initiatives and procurement strategies.

» Provide information and education on the technological developments, resources, and opportunities related to the DOE National Laboratories and other science-based research efforts.
Minority-Owned Firms

Growth & Global Reach

www.mbeusa.org
Washington, DC 20030
1-800-372-1600, ext. 332
www.mbeusa.org
Objective 2.3 – Execute Federal place-based initiatives that specifically support minority-owned business opportunities in energy and emerging technologies.

Performance Measure: Number of initiatives and specific opportunities provided.

Key Initiatives:

» Identify communities or regions for place-based initiatives that have demonstrated energy economic development activity for creating economic growth in the energy sector or in related emerging technologies.

» In conjunction with state and regional entities, coordinate planning and implementation of federal, state, and local programs and resources to foster successful clusters of energy and technology related businesses.

» In conjunction with state and regional entities, develop a framework for implementing energy-related economic growth place-based initiatives that reflect the nation’s diversity both in rural and metropolitan areas.

» Collaborate at the local or regional level to link, leverage, and align federal, state, local, and regional resources to promote energy-related economic growth.

GOAL AREA 3 - CLIMATE CHANGE

Extensive research indicates that greenhouse gas emissions from energy production and other human activities are adversely affecting the global climate. Our responsibility to future generations is to reduce greenhouse gas emissions to the atmosphere by transitioning to a sustainable energy future. As the country takes steps to address climate change through mitigation and resilience efforts, we can expect business and workforce opportunities to follow. Additional evidence indicates that climate change will continue to disproportionately impact minority, tribal, and low-income communities in a negative manner. Examples include: 1) susceptibility to the impact of extreme heat or cold conditions based on living conditions aligned with socioeconomic status; 2) the impact of higher energy costs on minority and tribal communities that already pay up to fifty percent more per square foot for energy; and 3) minority and tribal communities often experience more hardship due to damage to housing structures and slower responses to weather-based disasters. The MIE climate change focus includes engaging minority and tribal communities on climate change awareness, policy development, and technological solutions to advance climate change mitigation and resilience.

Objective 3.1 – Increase minority and tribal community awareness of climate change impact, policies, and courses of action.

Performance Measure: Quality of partnerships and number of minority and tribal communities engaged and number of partnerships.

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9 "Demonstrated energy economic development" activity can be evidenced by permit applications, other regulatory approvals, and secured financing for projects among other indicators.


http://www.epa.gov/climatechange/ghgemissions/usinventoryreport.html
Key Initiatives:

» Research climate change impacts and policies, and develop communication and outreach activities relevant to members of minority and tribal communities.

» Identify federal partners, national organizations, and regional and local associations and community groups for partnerships, as appropriate, leading to increased awareness and resource opportunities.

» Leverage federal place-based initiatives to inform stakeholders at local and regional levels of location-specific climate change information, along with mitigation and resilience opportunities.

Objective 3.2 — Engage minority and tribal businesses and other stakeholders in the adaptation market and resilience efforts.

Performance Measure: Effectiveness of the strategy and number of stakeholders informed.

Key Initiatives:

» Research and track potential minority-owned business opportunities related to climate change mitigation and adaptation, and federal and local resilience investments.

» Research and document business expertise and credentials needed to be competitive for climate change mitigation, adaptation, and resilience opportunities.

» Establish a network of stakeholders to be informed of climate change and resilience business opportunities.

» Leverage DOE and other federal resources to support participation of minority communities in business opportunities related to climate change and resilience.

Objective 3.3 — Promote energy efficiency measures in minority and tribal communities.

Performance Measure: Effectiveness of the strategy and number of communities informed.

Key Initiatives:

» Research challenges to implementing energy efficiency measures in low-income, rural, minority, and tribal communities.

» Research the efficacy and actual impact of DOE programs to promote energy efficiency in minority and tribal communities.

» Advance policy solutions for increasing energy efficiency in low-income minority and tribal communities, including rental properties.

» Leverage federal place-based initiatives to promote energy efficiency awareness and implementation.
U.S. Greenhouse Gas Emissions in 2012

Total Emissions in 2012 = 6,526 Million Metric Tons of CO₂ equivalent

Source: http://www.epa.gov/climatechange/ghgemissions/usinventoryreport.html