

# U.S. DEPARTMENT OF ENERGY

**FY 2009 Strategic Plan for Minority Education Programs** 

The Office of Minority Economic Impact (OMEI) is committed to serving as the primary advocate for minority education institutions and shepherding the Department's support of these institutions by implementing programs to enhance economic and community development capacities among underrepresented populations.



Prepared by: THE OFFICE OF ECONOMIC IMPACT & DIVERSITY Office of Minority Economic Impact

## Overview: Mission, Core Values and Vision

### **Mission**

The mission of the Department's Office of Minority Economic Impact is to build effective partnerships between the Department and minority institutions, increase the capabilities of such institutions to compete effectively for grants and contracts, and to increase their participation in Department programs.

## **Core Values**

#### Teamwork

We believe that individuals achieve high standards when supported by the collective work of others. We reinforce this value by constantly creating opportunities to collaborate both inside and outside of traditional alliances of our agency, our proximate community, and the nation.

#### Diversity

We believe that our individual differences are a collective strength. We will support and encourage diversity of opinion and of culture, which aids us in building a collective wisdom that results in more powerful and relevant solutions to our challenges.

#### Accountability

We believe that we must hold ourselves to the highest standard when we make commitments. Consistent and measurable follow-through is essential for individual and team progress.

#### Leadership

We believe that leaders are obligated to empower those around them. We are consistent, transparent, and accountable. Through our words and behaviors we encourage others to exhibit these same attributes.

#### Excellence

We believe that excellence is the result of a record in the pursuit of the highest standards. In OMEI, our collective goal is to achieve through commitment to a high ethical standard.

## Vision

Our vision is to foster an agency that is more representative of the country as a whole.

This page intentionally left blank.

## OMEI BACKGROUND AND FEDERAL MANDATE



The Office of Minority Economic Impact (OMEI), which is part of the Office of Economic Impact and Diversity, was established in Fiscal Year (FY) 1979 pursuant to Section 641 Title VI, Part 3 of the National Energy Conservation Policy Act (Public Law 95-619), dated November 9, 1978.

The Department of Energy (DOE) has statutory responsibilities and mandates, through OMEI, to

ensure participation of minority educational institutions in the Department's science and technology programs (42 U.S.C. 7141). Additionally, DOE has a responsibility through various Presidential Executive Orders (E.O.) to increase opportunities for minority educational institutions (MEIs) to participate in and benefit from its energy programs. As defined in 42 U.S.C. 7141(f)(3), MEIs include: Historically Black Colleges and Universities (E.O. 13256), Hispanic-Serving Institutions (E.O. 13230), and Tribal Colleges and Universities (E.O. 13270). These Executive Orders direct DOE and other Federal agencies to develop plans and establish clear goals on how each agency intends to increase the capability of such institutions to compete effectively for grants, contracts, and cooperative agreements, and to encourage such institutions to participate in Federal programs.

Finally, the Department's Science Education Enhancement Act (Pub. L. 101-510) states that the Secretary is authorized to support graduate and undergraduate students pursuing scientific and technical careers, giving priority to activities encouraging the participation of minority students (42 U.S.C. 7381b(a)(12)). Further, the Act requires the Secretary to give priority to activities that are designed to encourage students from under-represented groups to pursue scientific and technical careers. The Act also mandates that the Secretary require each National Laboratory or science facility director to increase the participation of Historically Black Colleges and Universities (HBCUs), Hispanic-Serving Institutions (HSIs), or Tribal Colleges and Universities (TCUs), in activities that increase their educational institutions' capacity to train personnel in science or engineering.

This page intentionally left blank.

## DIRECTOR'S MESSAGE OFFICE OF MINORITY ECONOMIC IMPACT



Theresa Alvillar-Speake

I am pleased to announce the publication of the Department of Energy's FY 2009 Strategic Plan for Minority Education Programs. The Plan sets forth the educational strategies that OMEI intends to take to identify and implement initiatives that will ensure that minorities are afforded greater opportunities to fully participate in the energy programs of the Department.

To implement the Plan, OMEI proposes to foster partnerships and advocate for MEIs by engaging all of DOE's program offices, laboratories, and field sites in establishing business relationships with these institutions, including research opportunities, grants, or cooperative agreements. The success of these partnerships will be measured by the increased capability of MEIs to compete effectively for grants and contracts at DOE. Currently, OMEI has established

relationships with a majority of DOE laboratories and program offices. In the upcoming years, we plan to strengthen our relationship with minority institutions by building a database of these institutions that includes a list of the schools' academic specialties, particularly in the areas of science, mathematics, technology, and engineering. This database will help facilitate the partnering of Department program offices and laboratories with MEIs, particularly with smaller, less-known minority institutions. In addition to developing these relationships, OMEI plans to sponsor technical assistance workshops to aid MEIs in applying for and obtaining grants, contracts and cooperative agreements at DOE.

Finally, OMEI proposes to expand DOE's current education programs to include additional scholarships and internships for minority students and students attending MEIs.

The Plan consists of three thematic goals:

- 1. MEI and DOE Laboratory Partnerships
- 2. Outreach, Technical Assistance and Partnering
- 3. Strategic Funding, Tracking and Reporting

In addressing these thematic goals, we are able to better serve minority educational institutions and accomplish the ultimate goal of increasing the involvement of minorities in energy professions.

## OMEI AND DOE STRATEGIC PLAN ALIGNMENT

The OMEI goals are aligned with the National Energy Conservation Act<sup>1</sup> as listed below and expanded on in the following pages.

Thematic Linkages	
National Energy Conservation Act Mandate	OMEI's Goal
Require each National Laboratory or science facility director to increase the participation of HBCUs, HSIs, or TCUs, in activities that increase their educational institutions' capacity to train personnel in science or engineering.	Goal 1 - MEI and DOE Laboratory Partnerships
Support graduate and undergraduate students pursuing scientific and technical careers, giving priority to activities encouraging the participation of minority students.	<u>Goal 2</u> – Outreach, Technical Assistance and Partnering
Increase MEI capability to compete effectively for grants, contracts, and cooperative agreements.	<u><b>Goal 3</b></u> – Strategic Funding, Tracking and Reporting

The OMEI statement of core values is closely aligned with the Department of Energy's operating principles, as outlined in its Strategic Plan, as noted below.

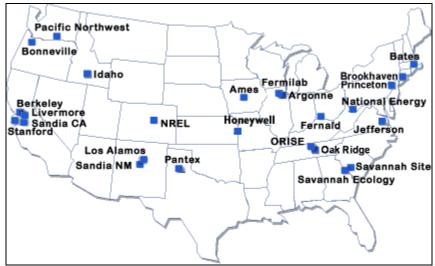
DOE/OMEI Strategic Links	
OMEI Core Value	DOE Operating Principle <sup>2</sup>
Teamwork	Work together
Diversity	<ul> <li>Treat people with dignity and respect</li> <li>Embrace innovation</li> </ul>
Accountability	<ul><li>Always tell the truth</li><li>Keep our commitments</li></ul>
Leadership	<ul><li>Do the right thing</li><li>Make the tough choices</li></ul>
Excellence	<ul> <li>Act with a sense of urgency</li> <li>Ensure safe, secure and environmentally responsible operations</li> </ul>

<sup>&</sup>lt;sup>1</sup> Section 641 Title VI, Part 3 of the National Energy Conservation Policy Act (Public Law 95-619), dated November 9, 1978.

<sup>&</sup>lt;sup>2</sup> DOE Strategic Plan: Operating Principles (January 18, 2007).

## Goal 1 - MEI and DOE Laboratory Partnerships

**Description:** Advance collaborative research and development partnerships between MEIs and DOE National Laboratories and other scientific facilities.



Locations of DOE Laboratories and Facilities

#### STRATEGIES TO REACH THIS GOAL

In order for MEIs to become involved in research and development activities at the Department, they must demonstrate their capability to compete in mainstream research at DOE National Laboratories. To do this, minority schools must have access to state-of-the-art laboratory equipment, as well as provide laboratory-related training and internships for students. In addition, DOE must facilitate increased participation and open dialogue with program offices and National Laboratories.

#### **Collaborative Research**

OMEI will collaborate with program offices and their respective National Laboratories to encourage support for faculty and undergraduate students at MEIs to conduct scientific investigations in areas of interests to DOE program office missions. This support will stimulate the growth of a research and development environment at these minority institutions, further increasing the number of underrepresented minority graduates who can participate in relevant DOE laboratory research activities.



#### State-of-the-art Laboratory Equipment

In collaboration with DOE's Office of Science Laboratory Equipment Donation Program, OMEI will provide MEIs with access to available laboratory equipment. This equipment will enable the minority institutions to conduct nationally competitive research in the areas supported by Departmental program offices.



#### Laboratory-related Training and Internships

OMEI will continue to facilitate placement of faculty and students from MEIs in research appointments and internships at DOE laboratories. Efforts will be made to encourage formation of faculty and students teams at MEIs to facilitate hands-on research opportunities at DOE laboratories and facilities.

#### Database of Minority Institutions' Research Capabilities

To further strengthen the relationship between DOE and minority institutions, OMEI plans to develop a database of minority institutions' research specialty fields, specifically in the areas of science, mathematics, technology and engineering. This database will facilitate Department program offices, facilities and laboratories in partnering with smaller, less-known minority institutions; thus, providing MEIs greater access to DOE grants, contracts, and cooperative agreements.

## <u>Goal 2</u> – Outreach, Technical Assistance and Partnering

**Description:** Develop systematic outreach and recruitment programs to identify and inform MEIs, community-based education organizations, and minority students about scientific/technical careers at the Department. Support programs that encourage participation of under-represented students and faculty in activities at DOE laboratories and facilities.

#### STRATEGIES TO REACH THIS GOAL

#### **Outreach Activities/Conference Attendance**

OMEI will convene quarterly outreach sessions for MEIs and DOE program offices to discuss areas of mutual interest. These sessions will enable MEIs to meet with DOE program office representatives to discuss specific areas of programs and funding opportunities and provide MEIs with opportunities to highlight their research and development capabilities.

OMEI will also facilitate DOE participation in MEI outreach conferences and workshops to highlight opportunities for MEIs at the Department. OMEI will both sponsor and attend conferences focused on scientific/technical groups, setting up tables and booths to promote opportunities for minority institutions and students at DOE. MEIs and minority students will be invited to attend these events.

#### In-reach Activities

OMEI staff will establish regular communications with DOE headquarters and field program managers to promote the Department's minority education programs and initiatives, provide guidance on establishing partnerships with MEIs, as well as assist in developing comprehensive minority education plans.

#### Internet Communication and Notification

OMEI will provide links on its website to all DOE programs. These links will include information such as DOE program offices points of contact; information about prospective grants, contracts and cooperative agreements; and technical assistance workshops. OMEI will also link to the Office of Human Capital to promote scientific/technical careers at DOE.

Notification for the Minority Educational Institution Student Partnership Program (MEISPP) summer internship program and other internship programs will be available online and through the DOE website and other search engines. In addition, brochures for MEISPP will be distributed to the MEI student career offices, minority educational organizations, and to the appropriate White House Initiatives Offices on minority education.

OMEI will advertise through technical magazines and newsletters on MEI campuses to foster interest in careers and internships at DOE laboratories and facilities.

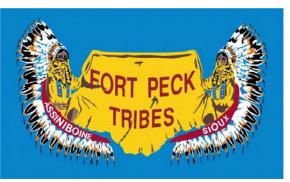
#### **Technical Assistance Workshops**

OMEI staff will conduct training for MEIs, working with other agencies and the White House Initiative Office staff, to prepare proposals for funding, to identify grant opportunities, and to identify contact persons within each of the program offices.

To encourage, promote and assist MEIs in participating in research, development, and contract activities of the Department, technical assistance workshops will be provided to MEI staff on an annual basis. OMEI, in conjunction with other federal agencies or minority organizations, will sponsor these workshops to provide minority institutions with the requisite tools and knowledge to apply for and receive DOE grants and funding. These workshops will highlight the various ways MEIs can conduct business with the Department, including how to apply for grants, contracts, or enter into cooperative agreements. To address the decrease in funding of HBCUs and TCUs over the last few fiscal years, OMEI will sponsor technical assistance workshops geared specifically at these institutions to ensure adequate DOE funding is made available to these schools.

#### Partnering with Schools and Non-Profit Organizations

- Through cooperative agreements with non-profit organizations, OMEI will
  promote activities and programs dedicated to encouraging students to pursue
  careers in science, technology, engineering or mathematics. An example of
  such a cooperative agreement is one between OMEI and the Hispanic College
  Fund that supports the Youth Symposia Scholars Program. Nation-wide,
  approximately 1000 students participate in the Program each year, and a select
  few receive academic scholarships for use at institutions of higher education.
  In 2008 alone, OMEI provided 30 scholarships to students in the Program.
  - OMEI will promote cooperative agreements with MEIs, including HBCUs, HSIs and TCUs, to provide students opportunities for research and learning in the area of alternative energy resource development and to provide opportunities for students to interact with DOE executives to enhance their long-term career planning strategies. Funding for



these activities would come from various DOE offices. An example of such a cooperative agreement is one between OMEI and the Fort Peck Community College and Salish Kootenai College, to assist in educating and training academically talented Native American students in the Workforce Development in Alternative Energy Resources Program.

 OMEI will promote cooperative agreements with MEIs for programs offered to assist high school students interested in careers in mathematics, engineering, and science. Funding for these programs would come from various DOE offices. Examples of such agreements include the Mathematics, Engineering, and Science-related Career Orientation (MESCO) Program, administered at Howard University, which provides students with day-to-day interactive work experiences with engineers, scientists, and other senior DOE professionals; training in technical report writing and presentations; and energy-related career exploration projects. This program is designed specifically to increase minority students' awareness of energy-related careers through actual work experience at DOE Headquarters facilities. In the upcoming years, OMEI will work with sponsor organizations/schools to advertise and promote the MESCO program targeting high school students in Washington, D.C.

- OMEI will encourage the formation of formal mentor protégé arrangements with DOE management and operating contractors and small businesses.
- OMEI will support various non-profit organizations to help highly academically talented students pursue college degrees in energy-related careers. Funding for these activities will come from the various DOE offices. An example of these efforts would be the Thurgood Marshall Scholarship Fund, which provides financial support to academically talented students attending public HBCUs. Specifically, the Fund provides merit scholarships to 10 students majoring in science, technology, engineering, and mathematics.

#### Student Programs

#### Regional Science Bowl

OMEI will coordinate the Regional Science Bowl for high school students in Washington, D.C. This program will be expanded in 2009 to include all DC public and charter high schools. These regional bowl winners will participate in the National Science Bowl. This event is held annually and represents an academic competition that encourages student involvement in math and science activities and improves awareness of career options in science and technology at the Department.



2008 National Science Bowl Winners

#### Internship Program

OMEI will continue to sponsor the Minority Educational Institution Student Partnership Program (MEISPP). This internship program will provide students attending MEIs with



2007 MEISPP Interns and Secretary

8 weeks of substantive professional and technical career experience. During the internship, students will work side-by-side with assigned mentors, who are subject matter experts in DOE. Mentors will help students tailor their practical work experience to the larger context of their professional interests and needs.

Applicants are selected from a variety of academic majors, such as biology, physics, engineering, business, international relations economics, etc. All internships will include paid lodging; roundtrip airfare; monetary stipend; field trips to a DOE site and/or facility; summer workshops; and social activities.

Since 2004, the number of MEISPP interns has doubled to 58 interns in Fiscal Year 2008. In order to increase the number of interns, OMEI will continue to work with DOE program offices and its contractors to obtain the necessary funding for the program. For 2009, OMEI plans to increase the number MEISPP participants to 70 students.

The goals of MEISPP include:

- 1. Promoting internships and future career opportunities for students attending HBCUs, HSIs, and TCUs;
- 2. Assisting the Department in developing a pipeline of potential candidates for accomplishing its diversity goals;
- 3. Developing highly qualified and marketable students who are well-prepared to enter the Department and/or federal workforce upon graduation; and
- 4. Increasing opportunities for HBCUs, HSIs, and TCUs to participate in and benefit from federal programs.

#### Adopt-a-School

In the upcoming year, OMEI plans to adopt a high school and enlist DOE staff to participate in various programs at the school to elicit interest in careers in science and technology. This effort may also be enhanced through partnerships with other Federal Agencies. The goal of this program is to educate minority students about the various careers in science and technology, and to encourage students, through mentorship and tutoring, that such careers are within reach. This partnership may be extended to include a co-op type program, offering employment at DOE Headquarters for seniors attending school for half-day. Only students with superior academic achievement in the STEM-related areas will be selected for this program.

#### Internal DOE Database of Student Resumes

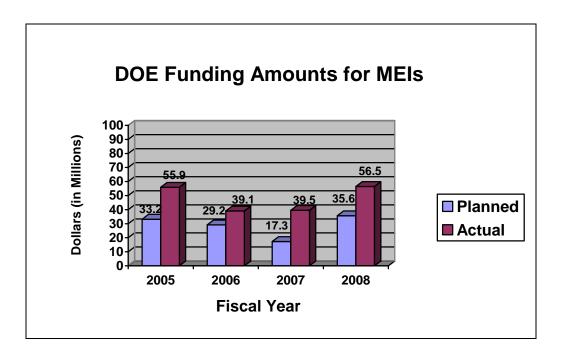
To increase the likelihood of retaining a diverse workforce and to increase our attractiveness as an employer to students, we plan to establish an electronic database of resumes of interested students and educational institutions for use by all of the Departmental program offices. OMEI is currently working with a contractor and various program offices to develop this database.

## <u>Goal 3</u> – Strategic Funding, Tracking and Reporting

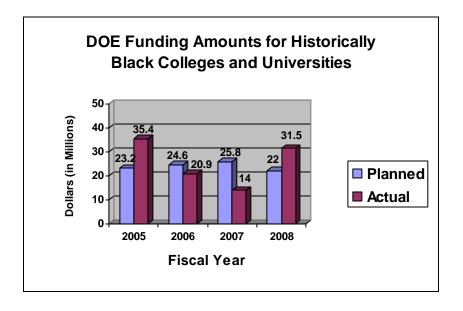
**Description:** Establish and promote Department-wide funding goals for MEIs, working with the Department program offices to track and report funding types and levels on a quarterly basis to the White House Initiatives Offices on Historically Black Colleges and Universities, Tribal Colleges and Universities, and Educational Excellence for Hispanic Americans, as required by Executive Orders 13256, 13270, and 13230, respectively.

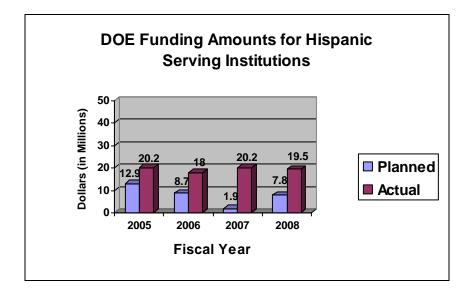
In FY 2001, in conjunction with the Department's program offices, OMEI established a long-term plan of increasing funding for all minority institutions by five percent each year.

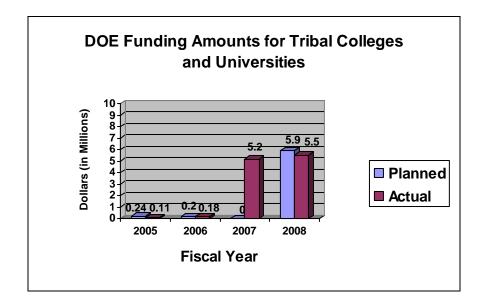
The following graph depicts that DOE has exceeded its overall proposed goals for MEIs over the last four fiscal years.



A breakdown of DOE funds allocated to HBCUs, HSIs, and TCUs over the last four fiscal years, however, indicates that HBCU and TCU funding have not consistently reached their proposed goals.







#### STRATEGIES TO REACH THIS GOAL

#### Department-wide Funding Strategy

OMEI will develop and implement, with full participation of Departmental program offices, a Department-wide funding strategy to support research programs with MEIs. This process will require Departmental program offices to allocate annual funding to support their respective offices' research activities, as outlined in an agency-wide announcement. The announcement will be developed in partnership with Departmental program offices to encourage the submission of applications to support specific research activities and collaborations of mutual benefit, further strengthening the integration of the university research community with DOE laboratories and facilities.

## Coordination with Departmental Elements in Minority Education Program Funding

In the upcoming years, OMEI will continue to work with DOE program offices to increase their involvement in supporting various programs for minority students pursuing internships and careers in the energy, science, and technology industries.

All DOE program elements will be required to provide annual funding plans for MEIs. The plans will include funding allocated for establishing employment, research or training opportunities for students attending minority institutions. OMEI staff will provide assistance to program offices in establishing and tracking the goals.

Annually, OMEI will develop and submit to the Department elements their individual achievements with a request for a corrective action plan if the office failed to meet their funding goal.

#### Minority Education Awards System

OMEI will continue to manage the Minority Education Awards System, a database that tracks awards granted to MEIs by various Departmental program offices. Representatives from each program office submit planned awards to such institutions via the database. Each award is recorded as a single education award given to a specific institution, per specified category.

OMEI will continue to work with program offices in developing and preparing minority education forecasts and monitoring and tracking the assigned goals. OMEI will submit quarterly accomplishment reports and prepare annual plans for institutions based on established dates.

#### **Reporting Requirements**

#### Internal DOE Quarterly Reports

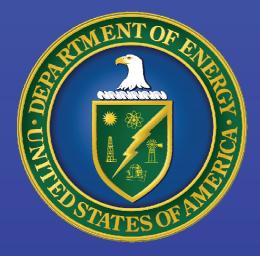
In coordination with the Department's Office of the Chief Financial Officer, Program Analysis and Evaluation, OMEI will analyze and review goals by DOE offices/elements on their minority education achievements on an annual basis. Department program offices will receive quarterly scorecard ratings based on their ability to meet their minority education goals.

#### Executive Order Reports

To strengthen the capacity of MEIs to provide excellence in education and achieve academic competitiveness, the Department of Energy's White House Initiatives Offices have implemented several initiatives relating to minority institutions, as stipulated in Presidential Executive Order (E.O.) 13230, "President's Advisory Commission on Educational Excellence for Hispanic Americans"; E.O. 13256, "White House Initiative on Historically Black Colleges and Universities"; and E.O. 13270, "Tribal Colleges and Universities." Based on these Orders, DOE will provide annual reports on funding for MEIs. The reports will identify the amounts allocated to MEIs, including HBCUs, HSIs, and TCUs.

#### Congressionally Mandated Reports

OMEI will respond to all congressionally mandated requests regarding the status of the Department's minority education programs and initiatives. For example, in FY 2008, OMEI submitted a report to Congress on Section 3167 of the Department of Energy Science Education Enhancement Act, related to education. This report documented the activities and programs established at DOE's National Laboratories to increase participation of HBCUs, HSIs, and TCUs in activities that increase the capacity of these minority institutions to train personnel in science or engineering.



## **DEPARTMENT OF ENERGY**

Office of Economic Impact & Diversity Office of Minority Economic Impact