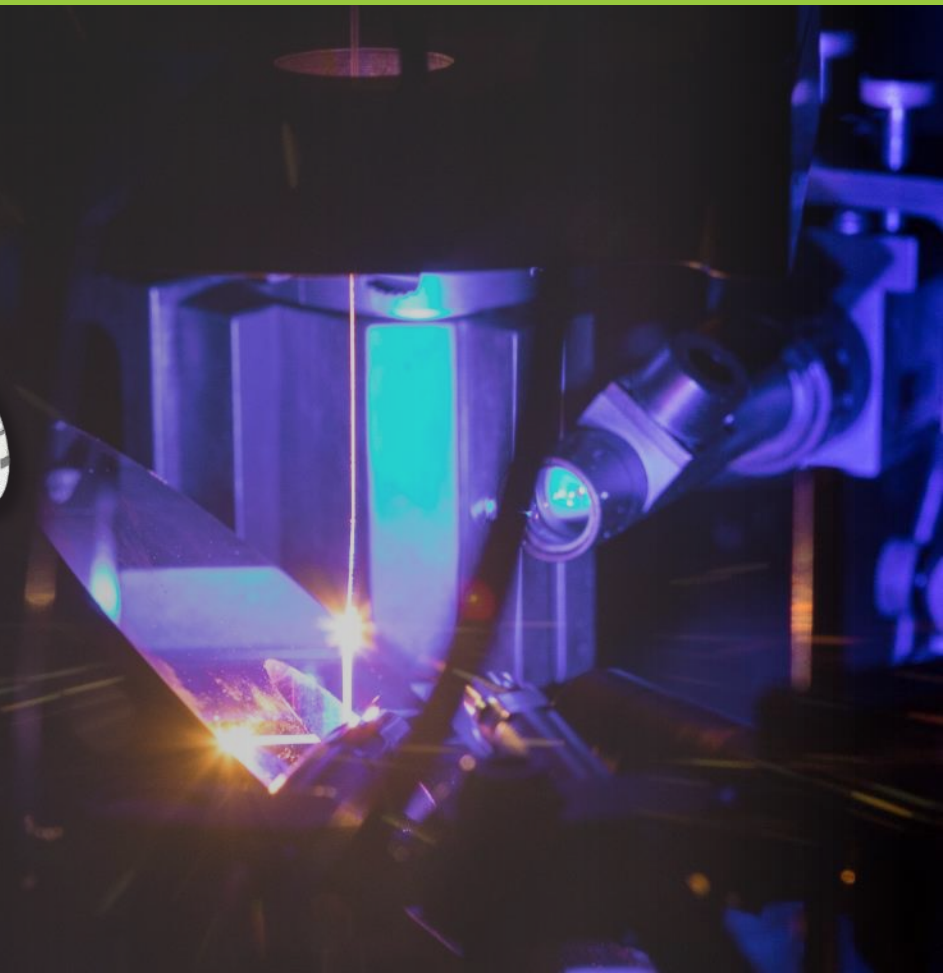
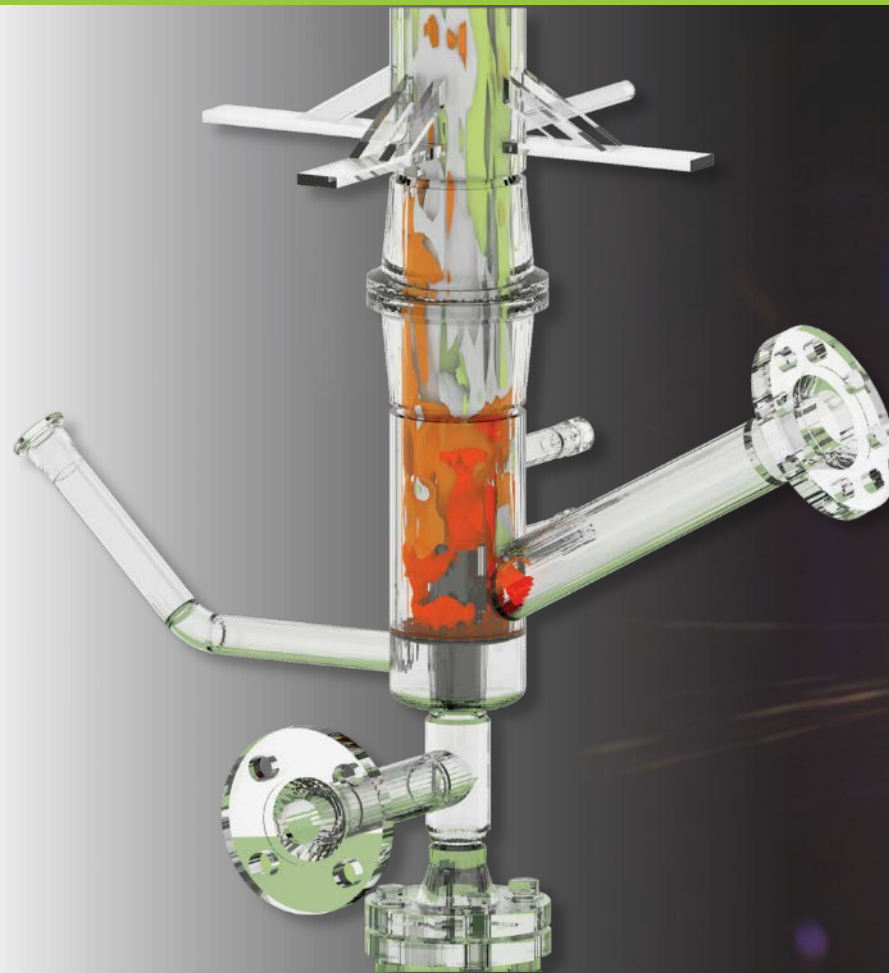


Welcome to the Webinar



NETL Webinar on FE's Minority Serving Institutions Program

Maria Reidpath
Project Manager, Enabling Technologies and Partnerships



November 13, 2019

Welcome and Introductions



- The objective of this Webinar is to assist officials at Minority Serving Institutions (MSIs) by
 - Increasing awareness of NETL's **Historically Black Colleges and Universities and Other Minority Institutions (HBCU/OMI)** Program and its available opportunities
 - Presenting the context for these opportunities: NETL's Mission and Priorities in general and of Crosscutting Research in particular
 - Reviewing NETL's engagement with MSIs and its purpose
 - Briefing participants on the intricacies of doing business with the Federal Government and how to effectively respond to NETL Funding Opportunity Announcements (FOAs)

Welcome and Introductions



- This **Webinar is being recorded and will be posted** (in 7-10 days) on NETL Website: www.netl.doe.gov. Go to the “News and Events” tab on the upper right-hand side and click “Conference Proceedings”.
- If you are using computer audio, you may experience audio issues depending on your internet connection speed. To avoid this, **we recommend the phone call option**.
- Your telephones are muted and we will not be able to hear your questions, so **please use the chat/question box that came up when you logged onto GoToWebinar for your questions**. All questions will be answered, time-permitting, after all the presentations have been made.
- Questions that are not answered during the Webinar will be posted, along with the answers, at the same location as the Webinar recording.

Goals of NETL's HBCU-OMI Program



- To reach the intended population – i.e. U.S. minority students.
- For minority students to **benefit from high-quality learning experiences** by participating in research activities that impact the Nation and potentially, the World.
- For minority students to have the **opportunity to present project progress reports and final results at professional venues** thus gaining valuable exposure and experience.
- For faculty Principal Investigators to **use the research project(s) as teaching tool** for minority students.

Agenda



- 1. Welcome and Introductions**
Maria Reidpath, Project Manager,
Enabling Technologies and Partnerships
- 2. Overview of NETL's Mission and Activities**
Sydni Credle, Technology Manager,
University Training and Research
- 3. Overview of Crosscutting Research Program**
Sydni Credle, Technology Manager,
University Training and Research
- 4. Doing Business with the Federal Government**
Sheldon Funk, Contract Specialist,
Financial Assistance
- 5. Responding to the Areas of Interest (or Topics)**
Sydni Credle, Technology Manager,
University Training and Research
- 6. Funding Opportunity Announcements (FOAs)**
Sheldon Funk, Contract Specialist,
Financial Assistance
- 7. Questions and Answers**

Questions?

VISIT US AT: www.NETL.DOE.gov



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@NETL_DOE



@NationalEnergyTechnologyLaboratory

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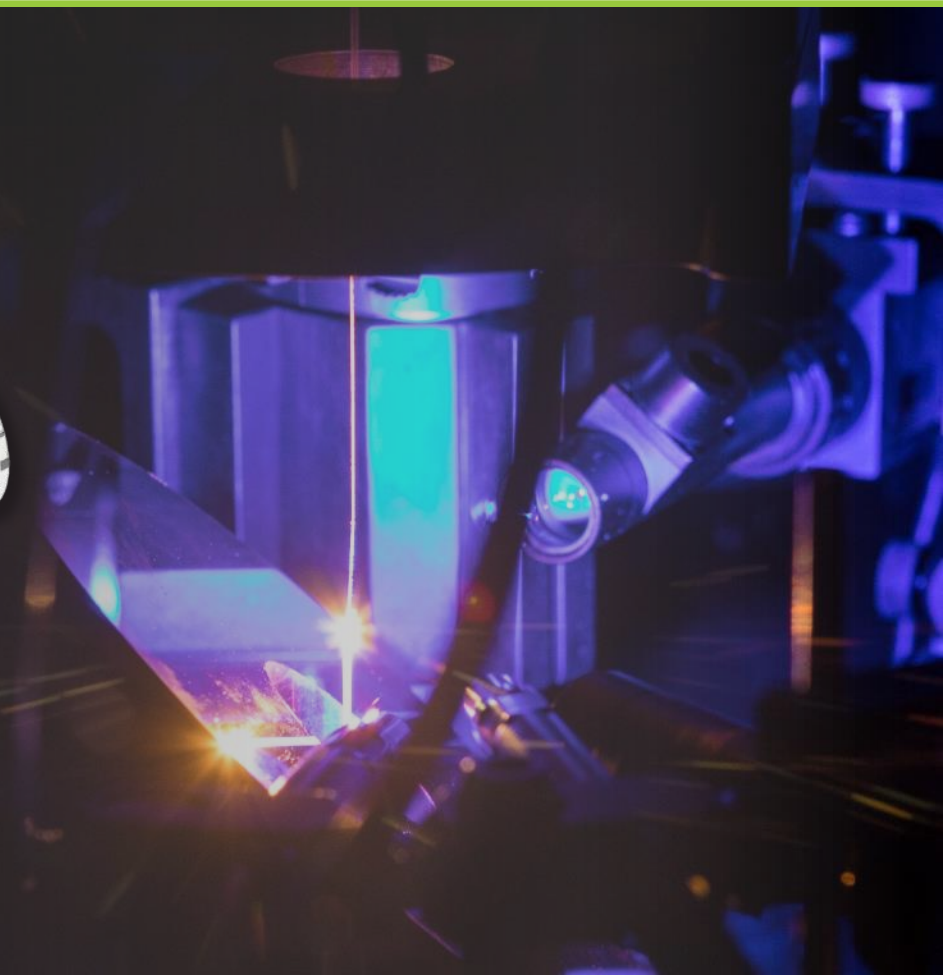
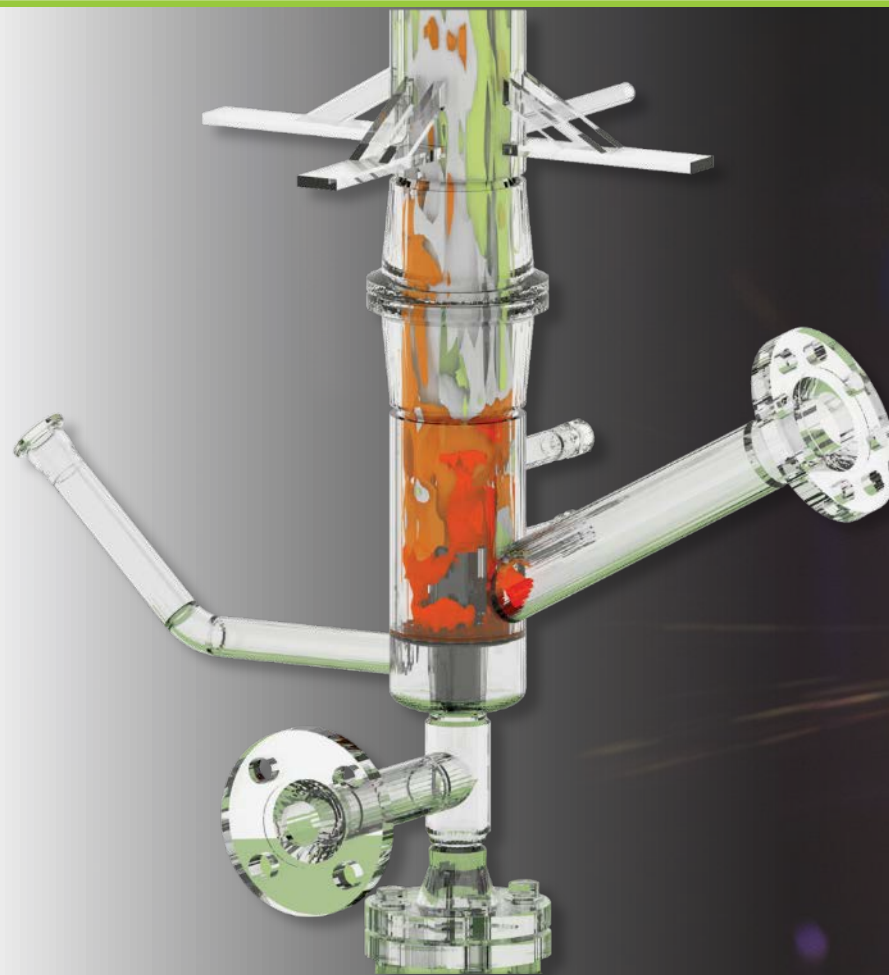
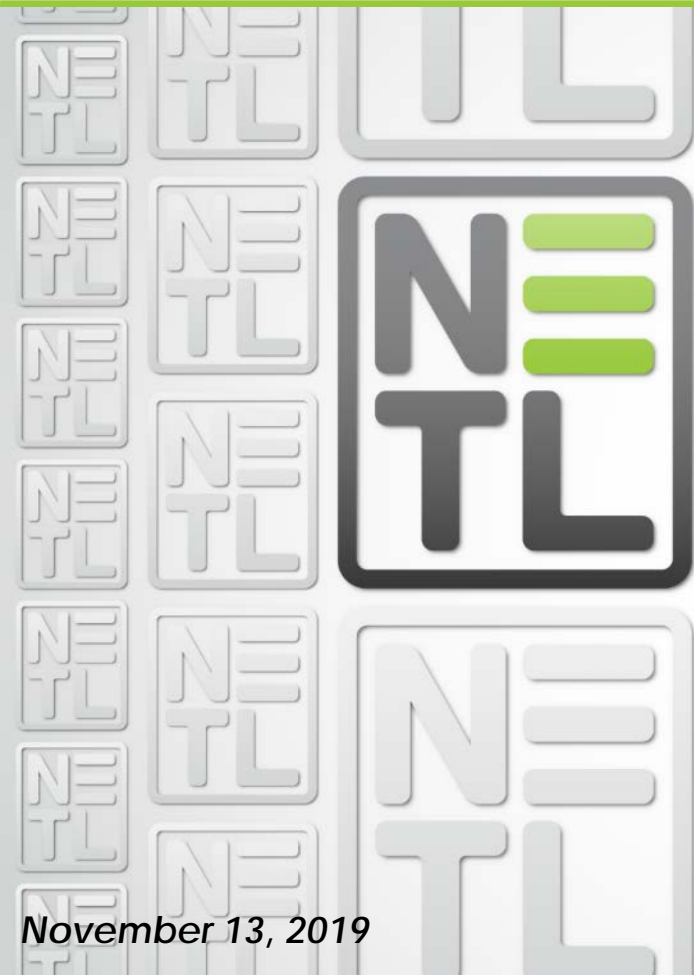
NETL Mission & Activities



NETL Webinar on FE's Minority Serving Institutions Program

Sydni Credle, Ph.D., P.E.

Technology Manager, University Training and Research



November 13, 2019

MISSION

Discover, integrate and mature technology solutions to enhance the Nation's energy foundation and protect the environment for future generations

- Effective Resource Development
- Efficient Energy Conversion
- Environmental Sustainability

VISION

Be the Nation's renowned fossil-energy science and engineering resource, delivering world-class technology solutions today and tomorrow

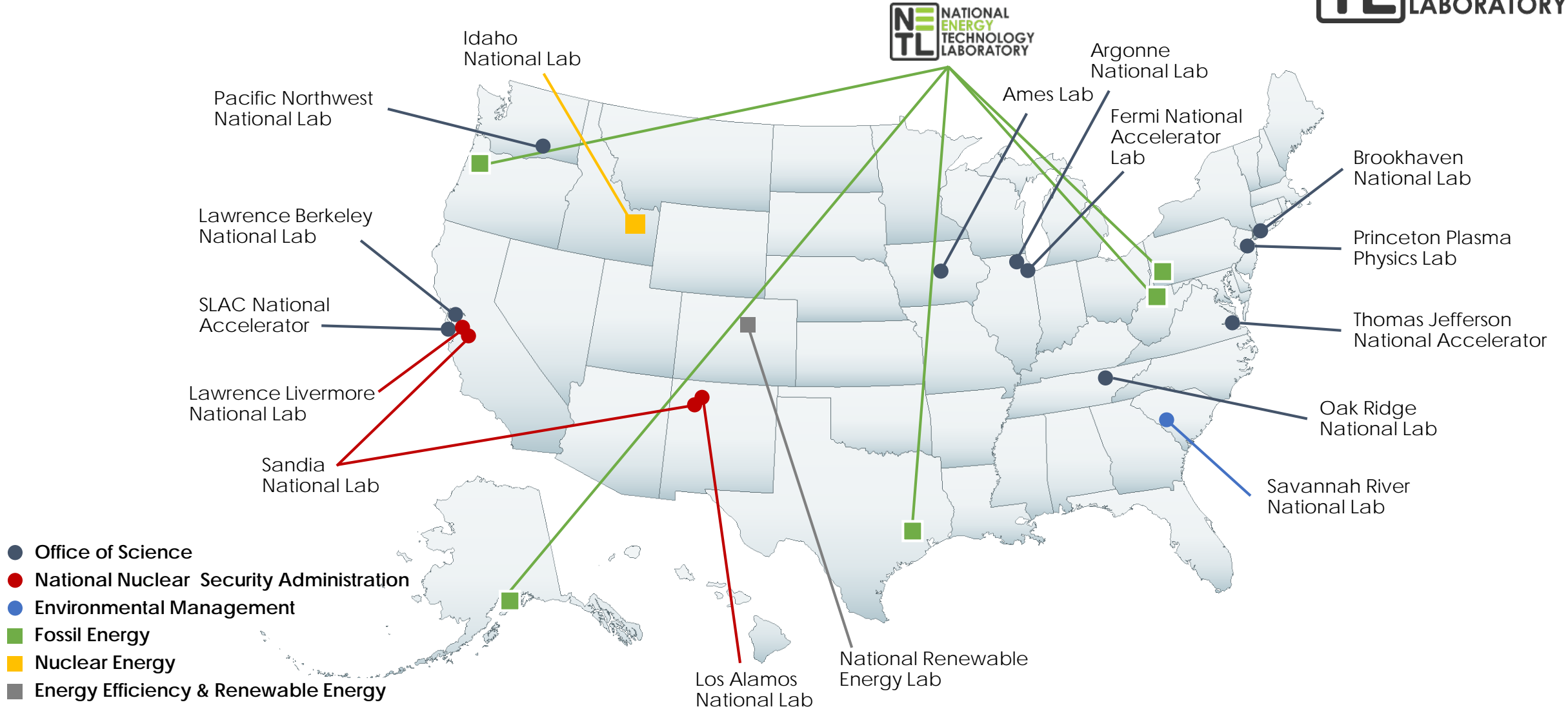
- Technology Convener
- Knowledge and Technology Generation Center
- Responsible Steward



U.S. DEPARTMENT OF
ENERGY



The National Laboratory System



Research Focus by Site

Multiple Sites Operating as 1 LAB System



OREGON

- Materials Performance
- Multi-environment Materials Characterization
- Alloy Development/Manufacture
- Geospatial Data Analysis



PENNSYLVANIA

- Process Systems Engineering
- Decision Science
- Functional Materials
- Environmental Sciences
- Energy Systems Optimization



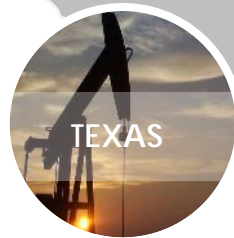
WEST VIRGINIA

- Energy Conversion Devices
- Modeling, Simulation and Analysis
- In-Situ Materials Characterization
- Supercomputer Infrastructure
- Diagnostics, Sensors, and Controls



ALASKA

Oil and Gas Strategic Office



TEXAS

Oil and Gas Strategic Office

By the Numbers

3 labs across the U.S.

900+ R&D projects in 50 states

\$6.3B total award value

\$991M FY19 budget

Workforce

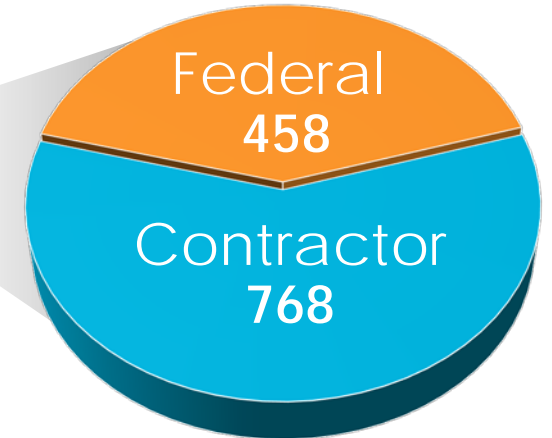
1,226 Full Time Equivalent Employees (FTEs)

70 Joint Faculty

109 Postdoctoral Researchers

54 Graduate Students

40 Undergraduate Students



NETL possesses an array of authorities to manage & implement complex R&D programs

- Program planning, development, and execution
- Legal, Financial, Procurement and Head of Contracting Authority (HCA)
- Project Management Expertise

NETL Budget



FY19 Budget/FY20 CR \$991M

Coal Program

| | |
|------------------------|--------|
| Carbon Capture | \$101M |
| Carbon Storage | \$ 98M |
| Adv. Energy Systems | \$130M |
| Crosscutting | \$ 56M |
| NETL Coal R&D | \$ 36M |
| Rare Earth Elements | \$ 18M |
| STEP | \$ 22M |
| Transform. Coal Pilots | \$ 25M |

Oil & Gas Program

| | |
|---------------------|--------|
| Natural Gas Tech. | \$ 51M |
| Unconvent. FE Tech. | \$ 46M |

FE Program Support

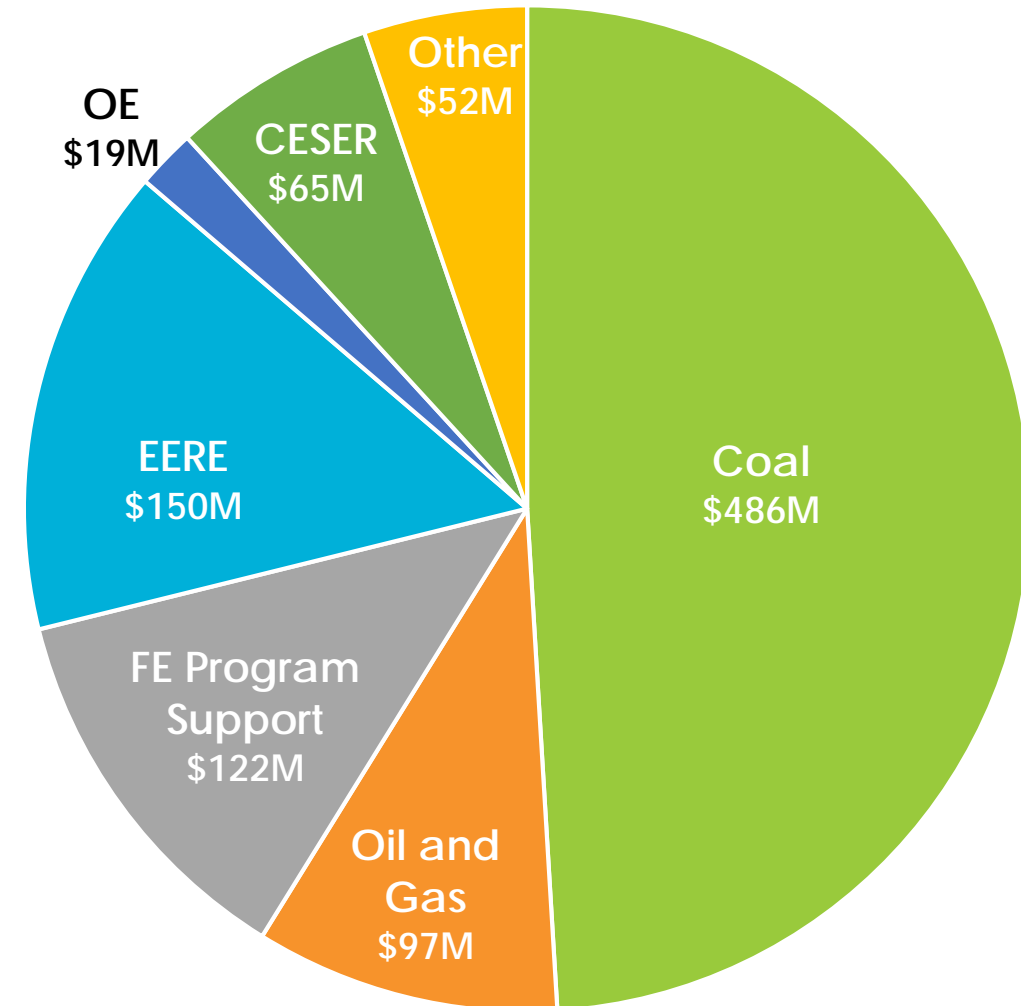
| | |
|----------------------|--------|
| Program Direction | \$ 27M |
| NETL Research & Ops. | \$ 50M |
| NETL Infrastructure | \$ 45M |

Non-Fossil Programs

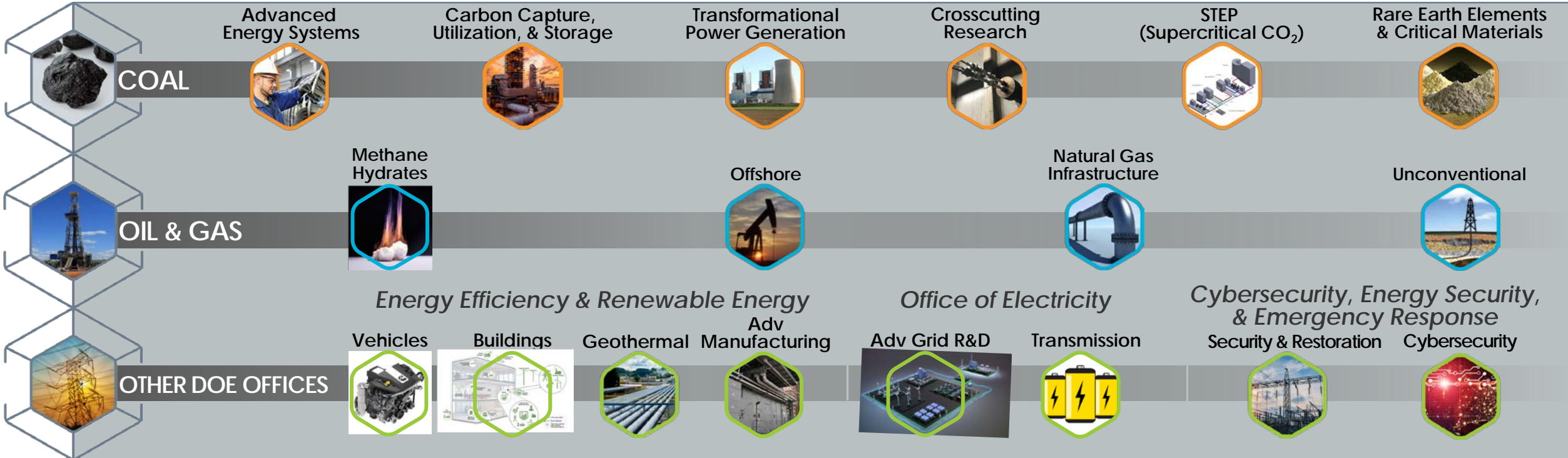
| | |
|-------|--------|
| EERE | \$150M |
| OE | \$ 19M |
| CESER | \$ 65M |

Strategic Partnerships

| | |
|-------|--------|
| Other | \$ 52M |
|-------|--------|



Core Competencies & Technology Thrusts



Technology Development Pathway

An Active Portfolio from Concept to Market Readiness

COMMERCIALIZATION

Technology available for wide-scale deployment

TRL 9

DEMONSTRATION

System demonstrated in operational environment

TRL 8

SYSTEM TESTING

System performance confirmed at pilot-scale

TRL 6-7

DEVELOPMENT

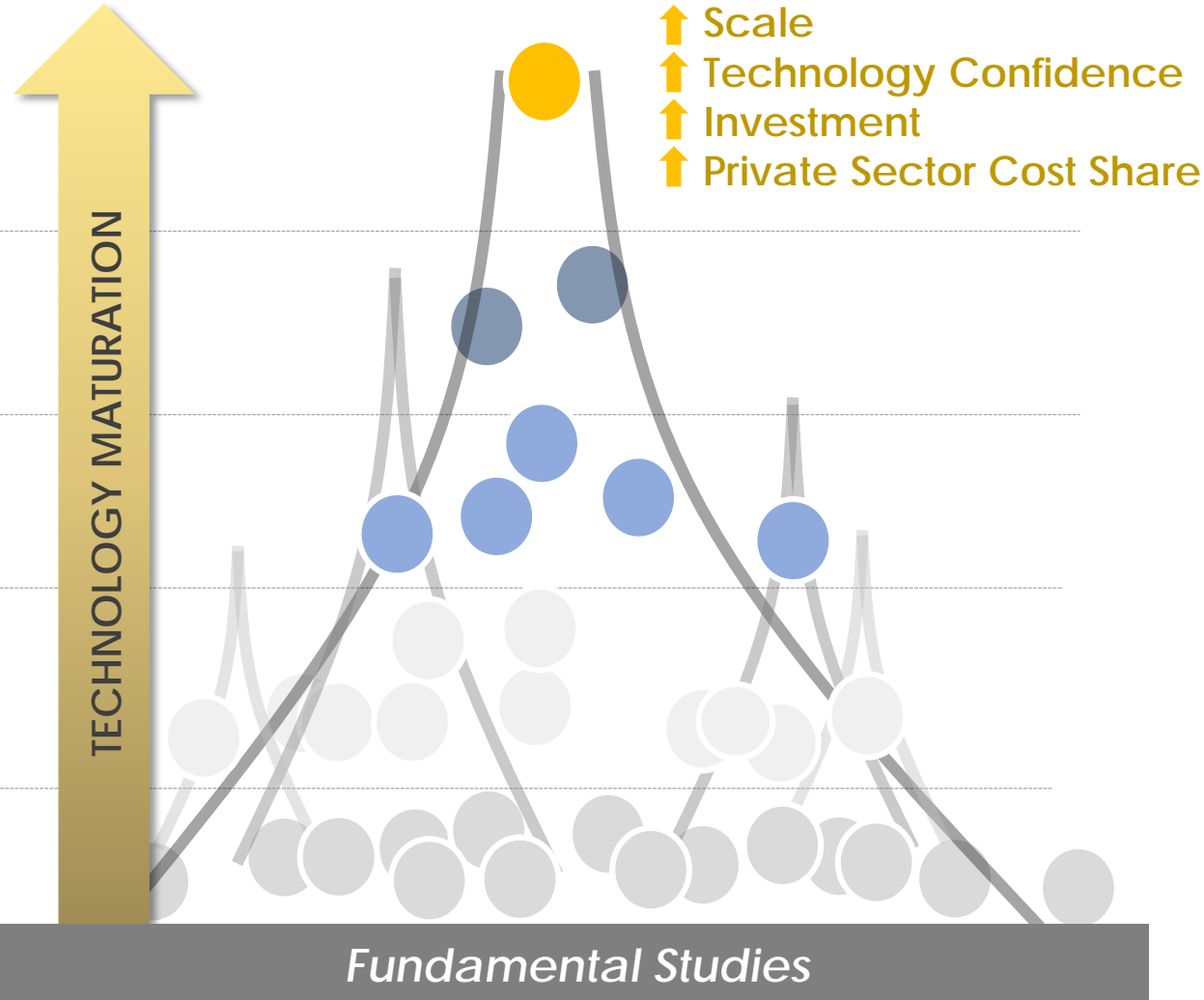
Technology component validated/integrated

TRL 4-5

DISCOVERY

Concept identified/proven at laboratory-scale

TRL 1-3



KNOWLEDGE-BASED DECISION MAKING

- **Systems Engineering and Integration**
 - Engineering analysis
 - Pre-FEED/FEED studies
 - NEPA
- **Decision Science and Analysis**
 - Screening studies
 - Techno-economic analysis
 - Technology Readiness Assessments

Established & Expanding Partnerships



An Active Portfolio from Concept to Market Readiness

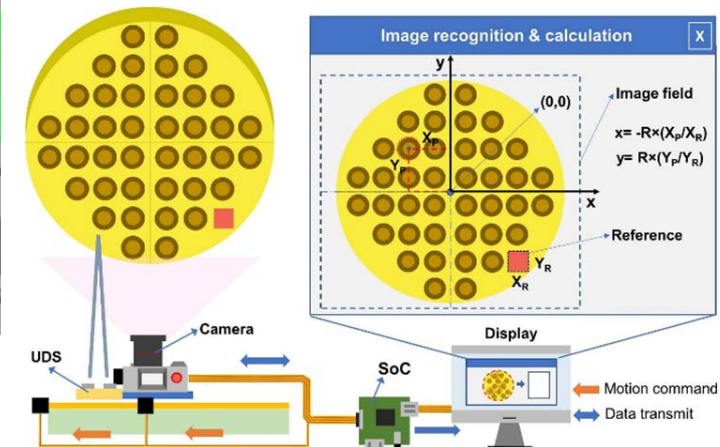
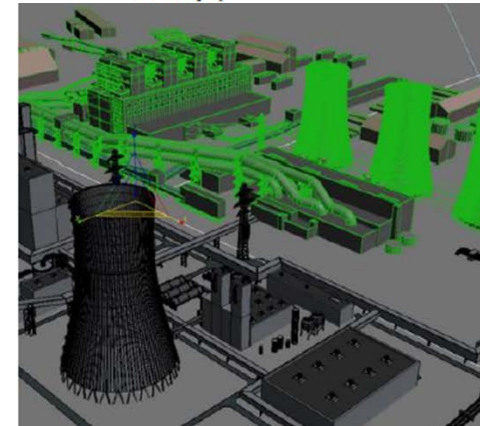
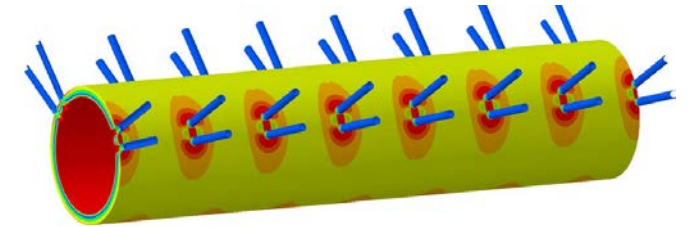
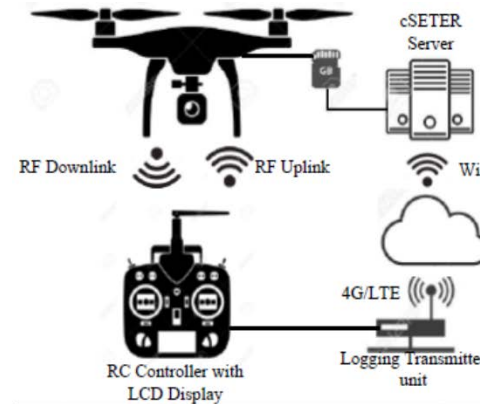
600+ partnerships with industry, academia & govt organizations

900+ research and development projects nationwide



Conclusions

- DOE's Office of Fossil Energy and the National Energy Technology Laboratory are **aligned with the priorities of the America First Energy Plan.**
 - R&D, STEM, and Workforce
- **NETL manages a variety of research programs** on behalf of DOE's Office of Fossil Energy
 - Including an HBCU-OMI program targeting fossil energy



Questions?

VISIT US AT: www.NETL.DOE.gov



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@NationalEnergyTechnologyLaboratory

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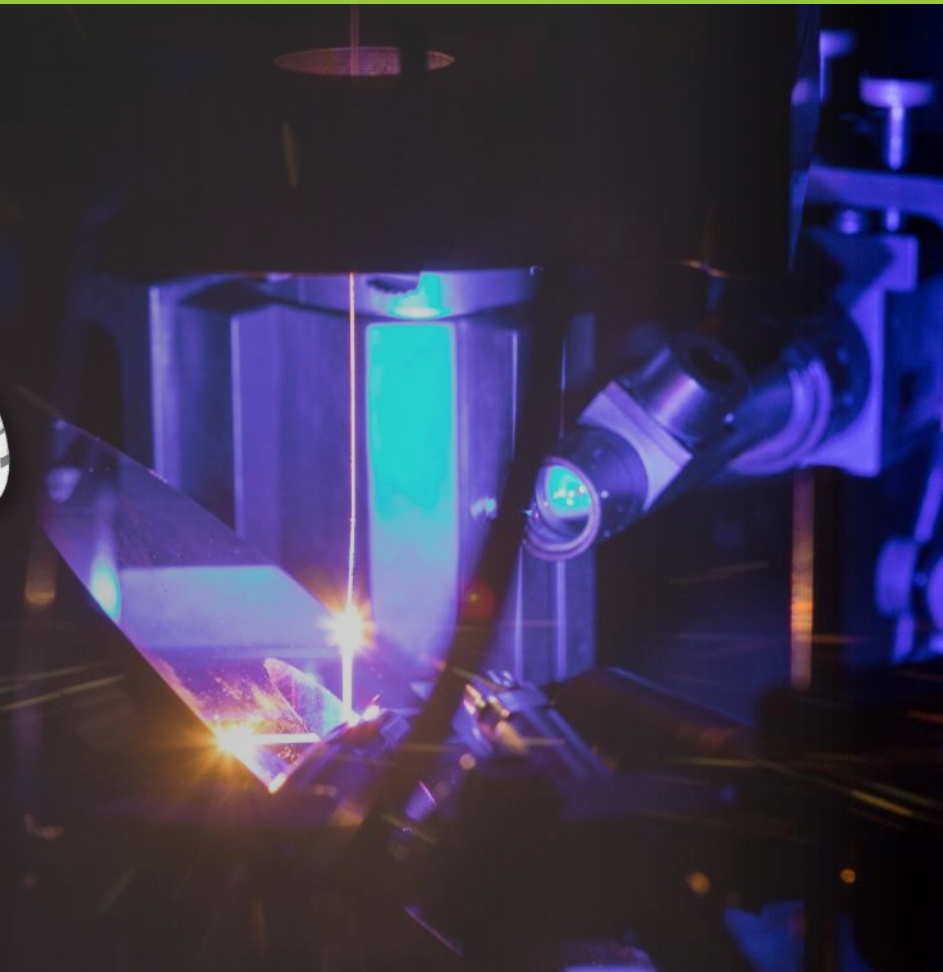
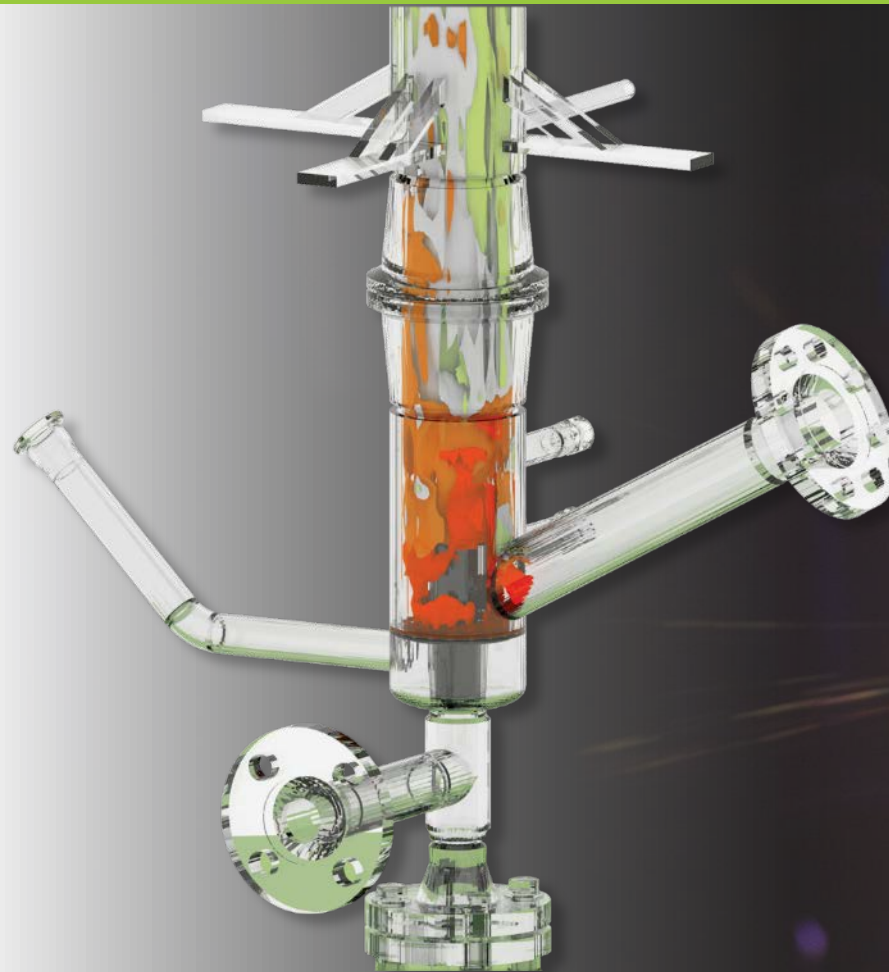
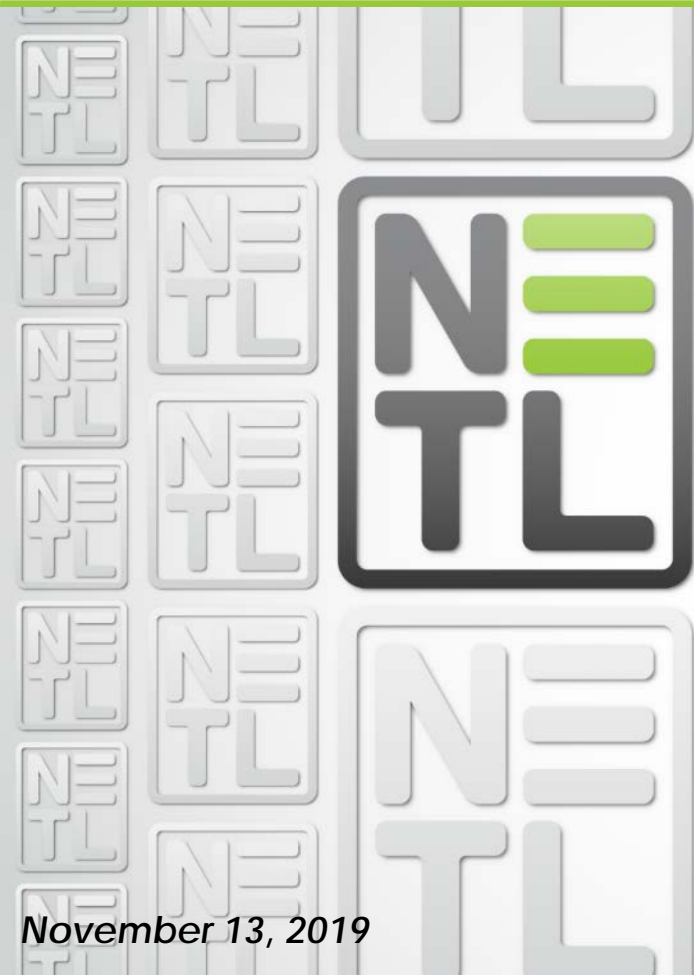
Crosscutting Research



NETL Webinar on FE's Minority Serving Institutions Program

Sydni Credle, Ph.D., P.E.

Technology Manager, University Training and Research



November 13, 2019

Crosscutting Research Program Areas

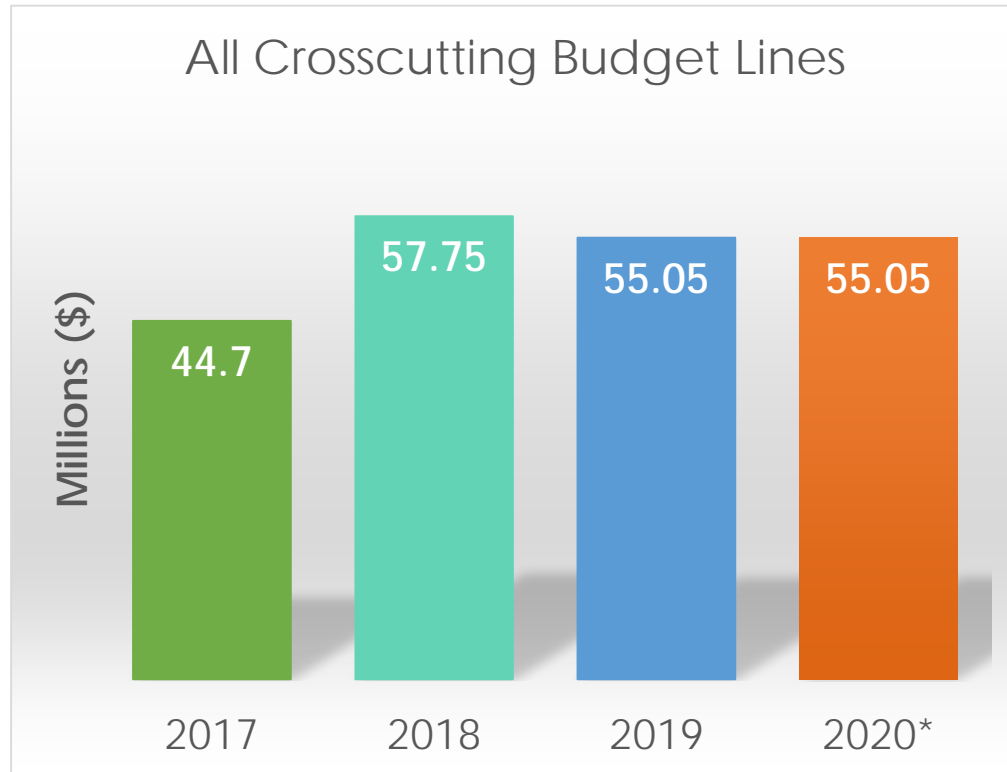
Broad Applicability, Multiplier Impact

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Briggs White, Ph.D.
Technology Manager
Water Management
High Performance Materials
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briggs.white@netl.doe.gov



Budget



| Budget Lines | FY17 | FY18 | FY19 | FY20* |
|--------------------|----------------|-----------------|---------------|---------------|
| Sensors & Controls | \$3.65M | \$7.5M | \$8M | \$8M |
| Modeling | \$20.85M | \$20M | \$14M | \$14M |
| Water Management | \$9.8M | \$7M | \$8M | \$8M |
| Materials | \$8M | \$20M | \$20M | \$20M |
| HBCU | \$1M | \$1M | \$2.05M | \$2.05M |
| UCR | \$1.4M | \$2.25M | \$3M | \$3M |
| Total | \$44.7M | \$57.75M | 55.05M | 55.05M |

*Continuing Resolution

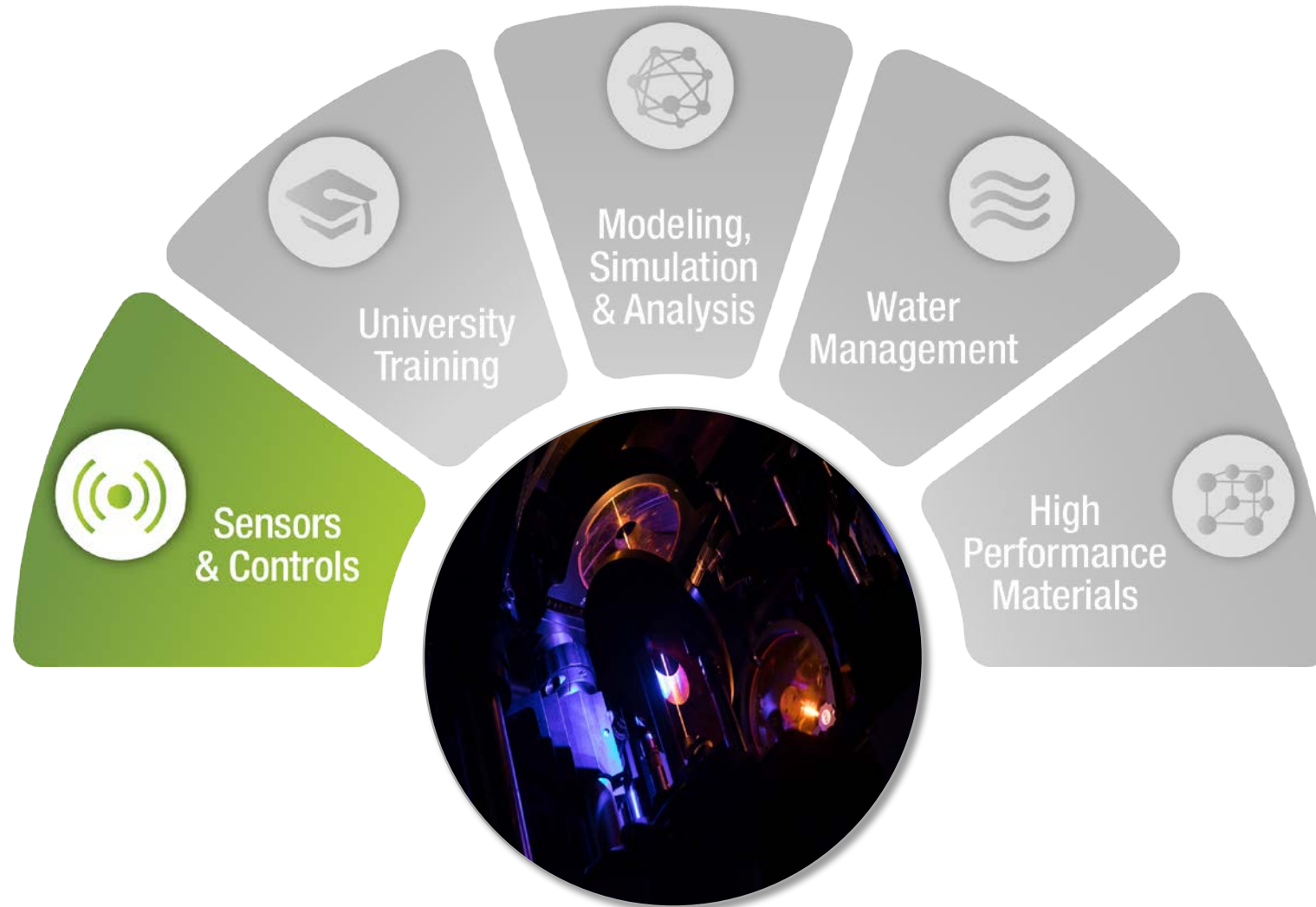
New FOA Awards in FY19



29 new Crosscutting Research projects received \$24 million in federal funding

| Topic | FOA | Details |
|---|----------------|--|
| Advanced Materials for High-Efficiency, Flexible and Reliable Coal-Fueled Power Plants | DE-FOA-0002002 | 5 projects DOE Funding: \$4,469,403 |
| Advanced Manufacturing of Embedded Sensors | DE-FOA-0002001 | 3 projects DOE Funding: \$2,999,002 |
| Coal Power Plant Cooling Technology - Cooling Tower Enhancement | DE-FOA-0002001 | 3 projects DOE Funding: \$3,385,718 |
| Modeling Existing Coal Plant Challenges | DE-FOA-0002001 | 4 projects DOE Funding: \$2,909,485 |
| Application of Novel Analytic Method(s) to Determine Arsenic and/or Selenium Concentrations in Fly Ash Waste Streams Generated from Coal Combustion | DE-FOA-0001991 | 2 projects DOE Funding: \$799,706 |
| Coal Plant Effluent Water Reuse | DE-FOA-0001991 | 1 project DOE Funding: \$400,000 |
| Cybersecure Sensors for Fossil Power Generation | DE-FOA-0001991 | 4 projects DOE Funding: \$1,600,000 |
| Modeling Existing Coal Plant Challenges using High Performance Computing | DE-FOA-0001991 | 3 projects DOE Funding: \$1,199,238 |
| Adaptive Data-Driven Approaches featuring Physics-Based Attributes for Improved Flexibility, Reliability, and Performance | DE-FOA-0001989 | 3 projects DOE Funding: \$4,286,228 |
| Artificial Intelligence for Enhanced Data Analytics and Control of Coal-based Power Plants | DE-FOA-0001989 | 1 projects DOE Funding: \$1,999,837 |

Program Areas



<https://netl.doe.gov/coal/sensors-and-controls>

Real-Time Monitoring and Diagnostics



Condition-Based Maintenance



Distributed Intelligent Controls



Cyber-Security



Mission: Test and mature novel sensor and control systems operable in coal-fired power plants for real-time measurement capability, improved overall plant efficiencies, more effective ramp rates, and increased flexibility.

Program Areas



<https://netl.doe.gov/coal/university-training>

- **Historically Black Colleges & Universities and Other Minority Institutions (HBCU/OMI)**
 - Provide and promote opportunities for HBCU/OMI in science and engineering.
 - Foster private sector participation and interaction with HBCU/OMI in fossil energy related programs.
 - Provide a forum to facilitate technology transfer, strengthen educational training, and develop/enhance the research infrastructure capabilities of HBCU/OMI.
- **University Coal Research (UCR)**
 - Sustain a national university program of fossil energy research that focuses on innovative and fundamental investigations pertinent to fossil fuel conversion and utilization
 - Support development of future scientists and engineers through exposure to research in fossil energy technologies
 - Improve our fundamental scientific and technical understanding of chemical and physical processes involved in the conversion and utilization of fossil fuels

University Training and Research

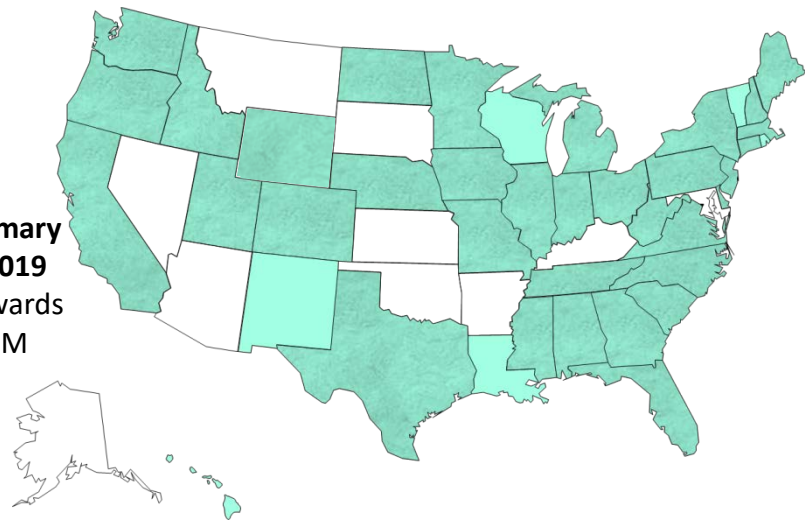
Workforce & Talent Development

\$32.3M and 101 grants
3,000 student researchers
Fossil Energy research
STEM training addresses workforce gap

\$500,000 per award
No cost share requirement

UCR Summary 2010 – 2019

- 66 Awards
- \$23.1M



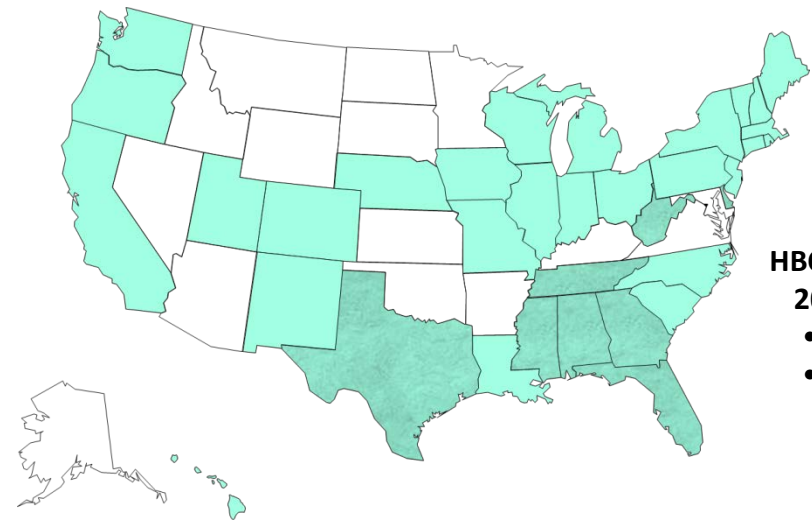
Since Program Inception Through 2018

UCR Program Results:

- 1000+ Technical Papers
- 10+ Technical Awards
- 7 Patents Issued to Date

HBCU Program Results:

- 500+ Technical Papers
- 5+ Technical Awards
- 2 Patents Issued to Date



HBCU Summary 2010 – 2019

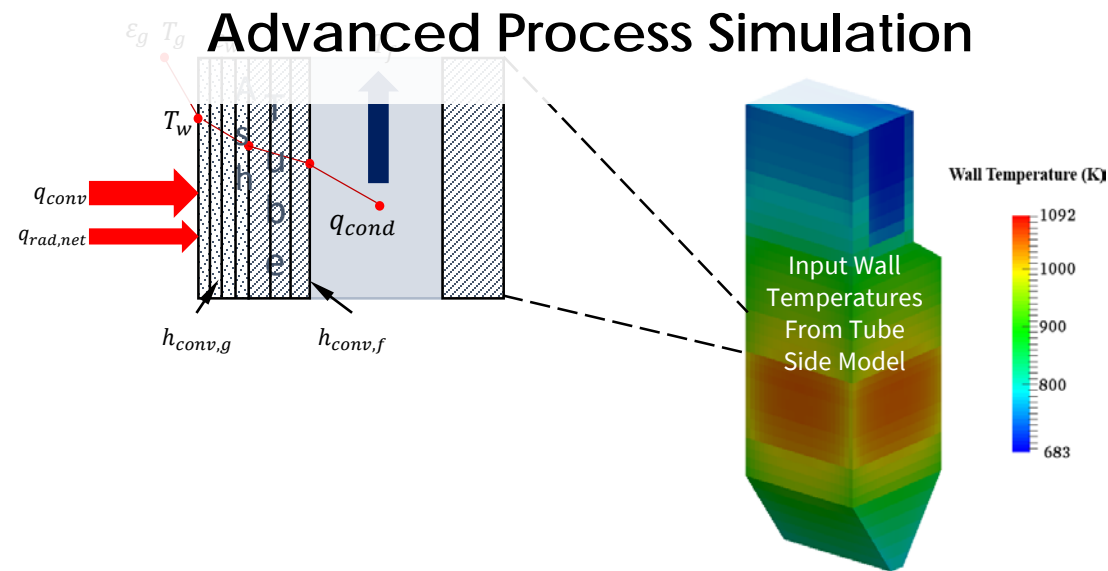
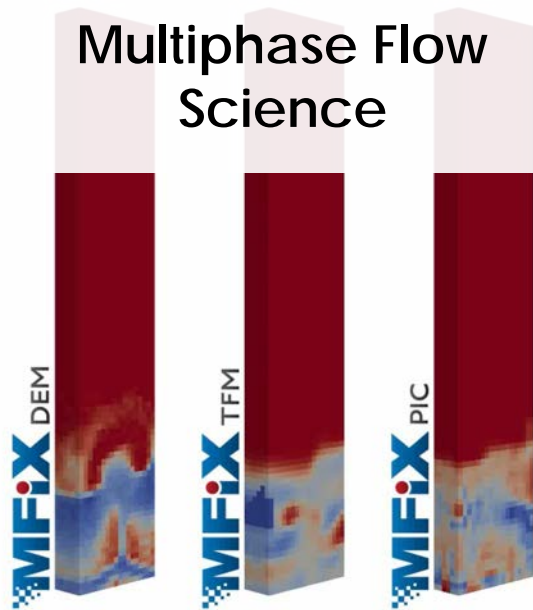
- 35 Awards
- \$9.2M

Program Areas



<https://netl.doe.gov/coal/modeling-simulation-analysis>

Mission: Simulate coal fleet challenges to lift-up technology solutions, apply computational tools at multiple scales to accelerate development and deployment.



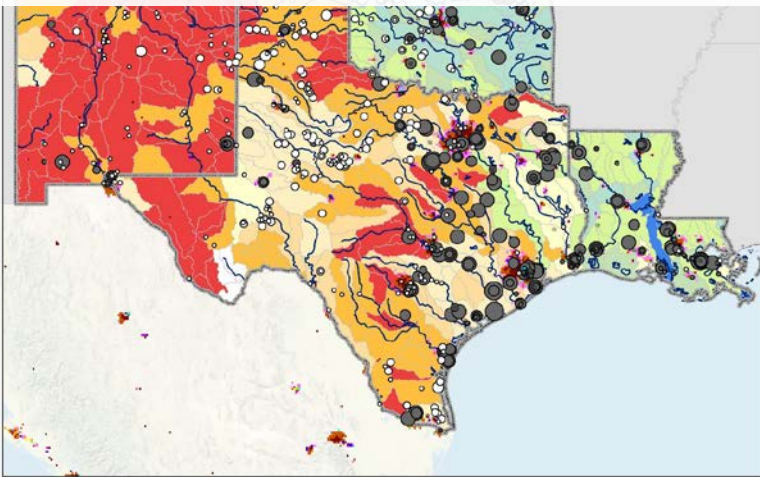
Program Areas



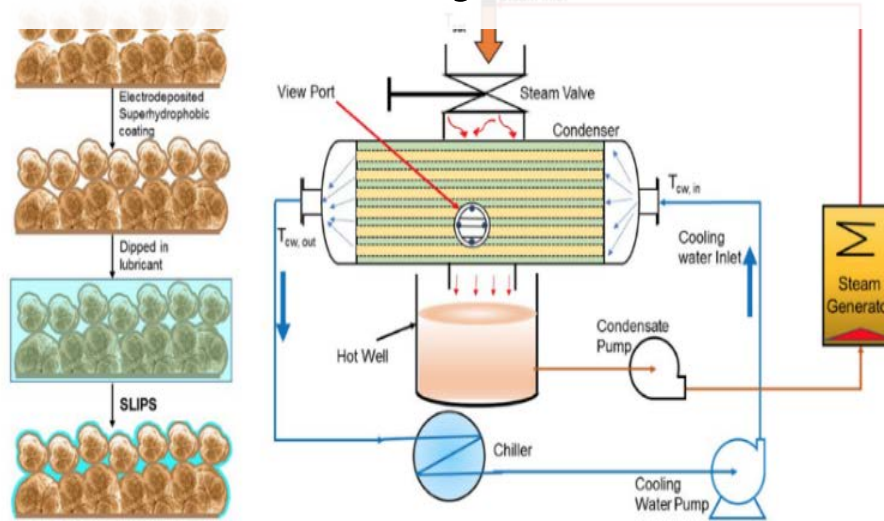
<https://netl.doe.gov/coal/water-management>

Mission: Provide leadership, raise awareness, and offer cost-effective technical solutions to potential national issues in water quality and availability.

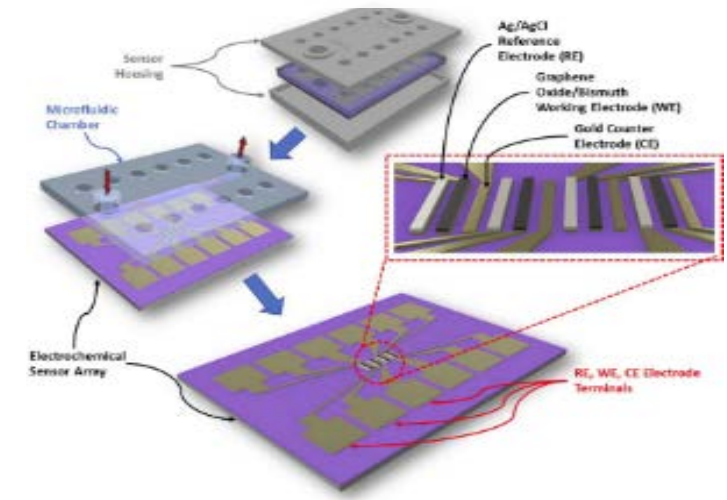
Energy Water Analysis



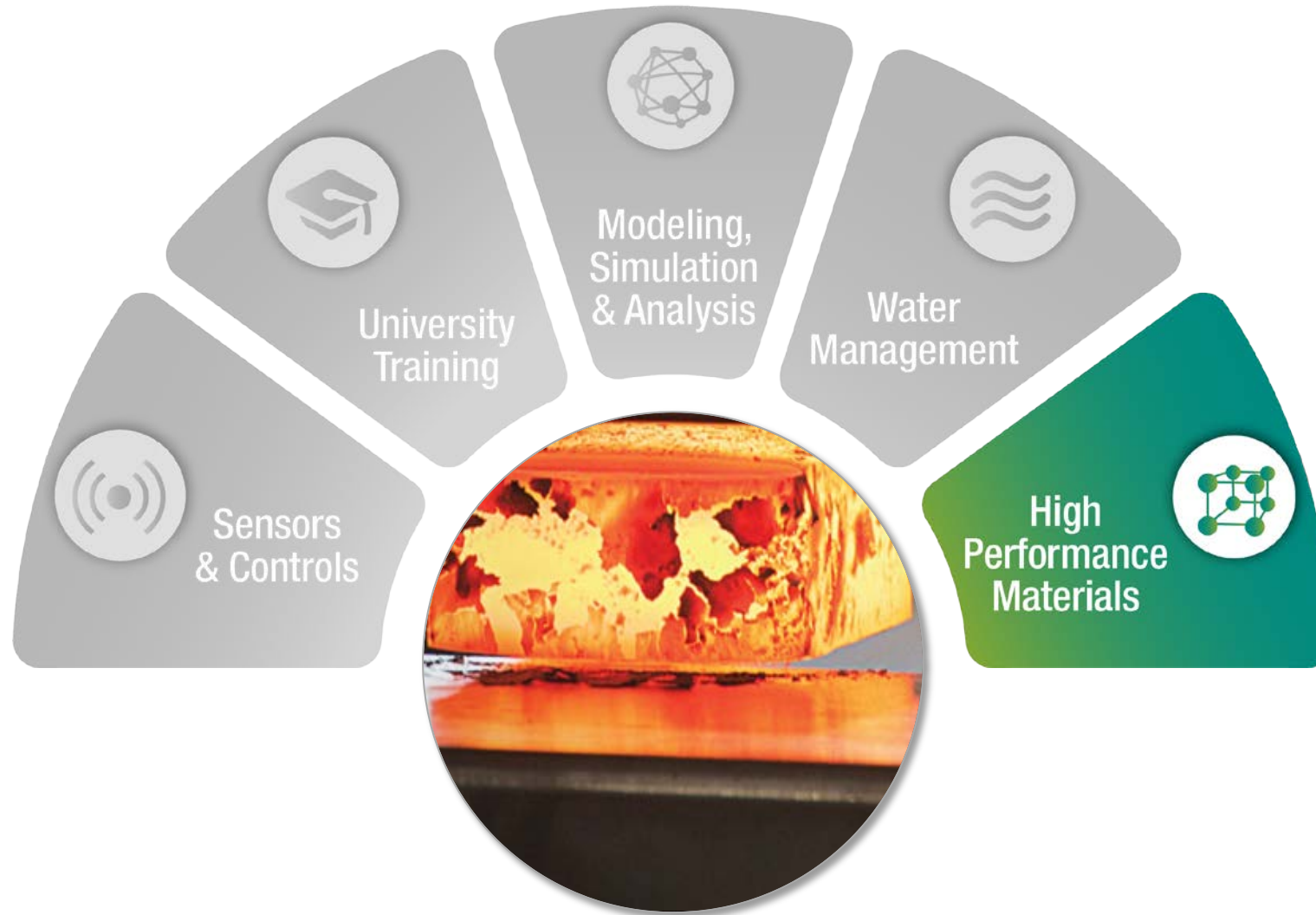
Water Efficiency and Reuse



Flexibility & Cost



Program Areas

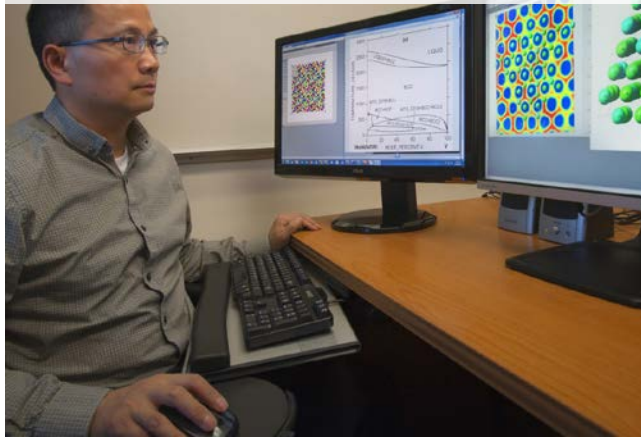


<https://netl.doe.gov/coal/high-performance-materials>

High Performance Materials

Mission: Characterize, produce, and certify cost-effective alloys and high performance materials suitable for extreme environments found in coal power generation to support existing and new plants.

Computational Materials Design



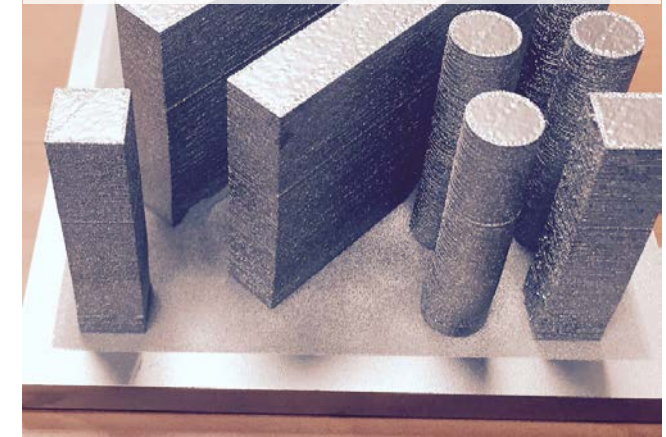
Advanced Structural Materials



Functional Materials for Process Performance



Advanced Manufacturing



Annual Crosscutting Project Review Meeting

April 21-23, 2020

Omni-William Penn Hotel, Pittsburgh PA

Links to Proceedings of Previous Project Review Meetings

[2019](#)

[2016](#)

[2018](#)

[2015](#)

[2017](#)

[2014](#)



Useful Links

NETL

- www.netl.doe.gov

Office of Fossil Energy

- www.energy.gov/fe

Crosscutting Research

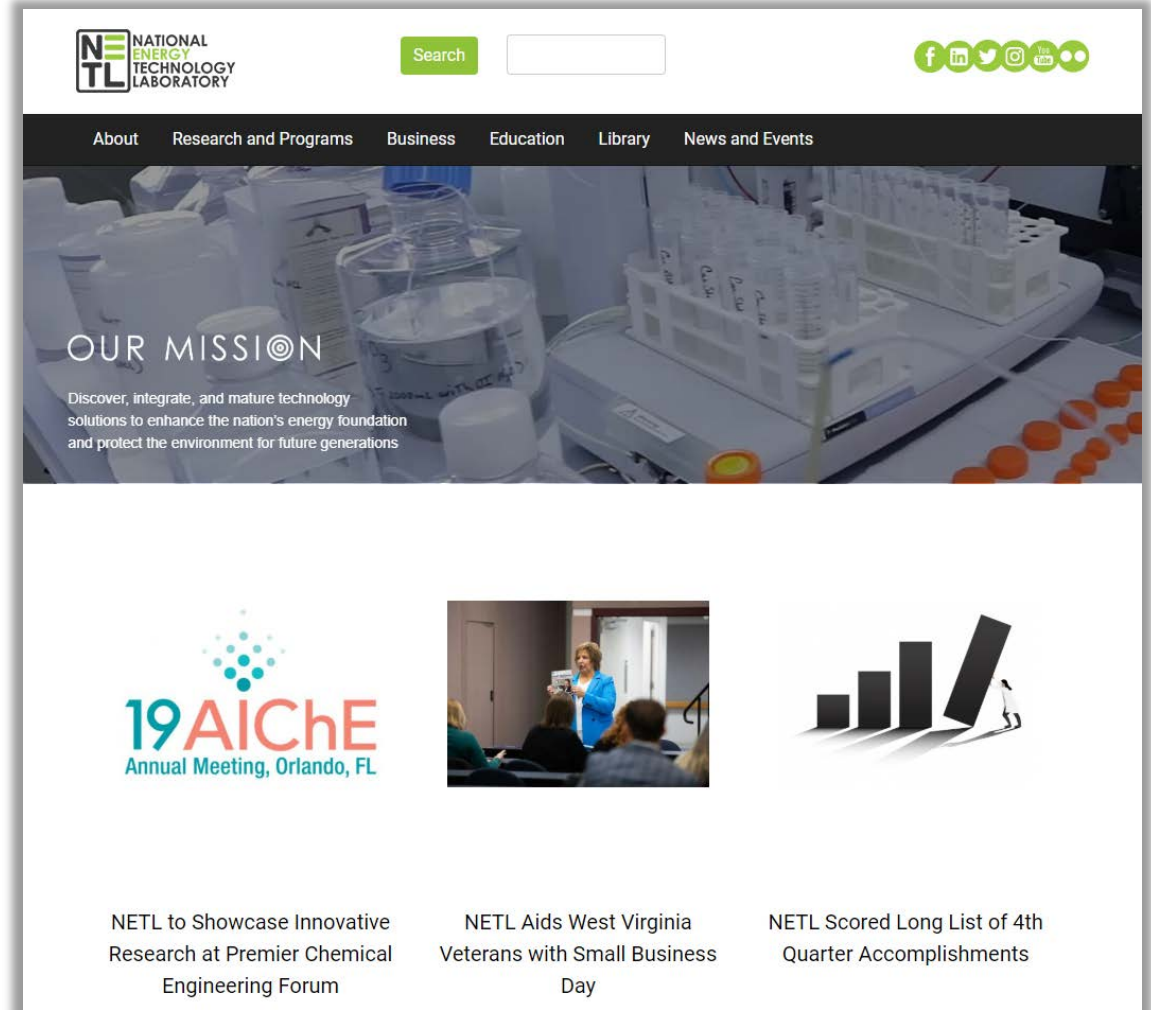
- www.netl.doe.gov/research/coal/crosscutting

Project Information

- <https://www.netl.doe.gov/node/2476>

Project Portfolios/Publications

- <https://netl.doe.gov/crosscutting/publications>



The screenshot shows the NETL website homepage. At the top left is the NETL logo. To its right is a search bar with a green 'Search' button. Further right are social media icons for Facebook, LinkedIn, Twitter, Instagram, YouTube, and a generic profile icon. Below the header is a navigation menu with links for 'About', 'Research and Programs', 'Business', 'Education', 'Library', and 'News and Events'. The main content area features a large image of laboratory equipment with the text 'OUR MISSION' and a description: 'Discover, integrate, and mature technology solutions to enhance the nation's energy foundation and protect the environment for future generations.' Below this are three featured news items, each with a logo, a small image, and a title: 1. '19AIChE Annual Meeting, Orlando, FL' with a logo of blue dots and a photo of a woman presenting. 2. 'NETL Aids West Virginia Veterans with Small Business Day' with a photo of a woman in a blue jacket. 3. 'NETL Scored Long List of 4th Quarter Accomplishments' with a bar chart icon.

Questions?

VISIT US AT: www.NETL.DOE.gov



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@NationalEnergyTechnologyLaboratory

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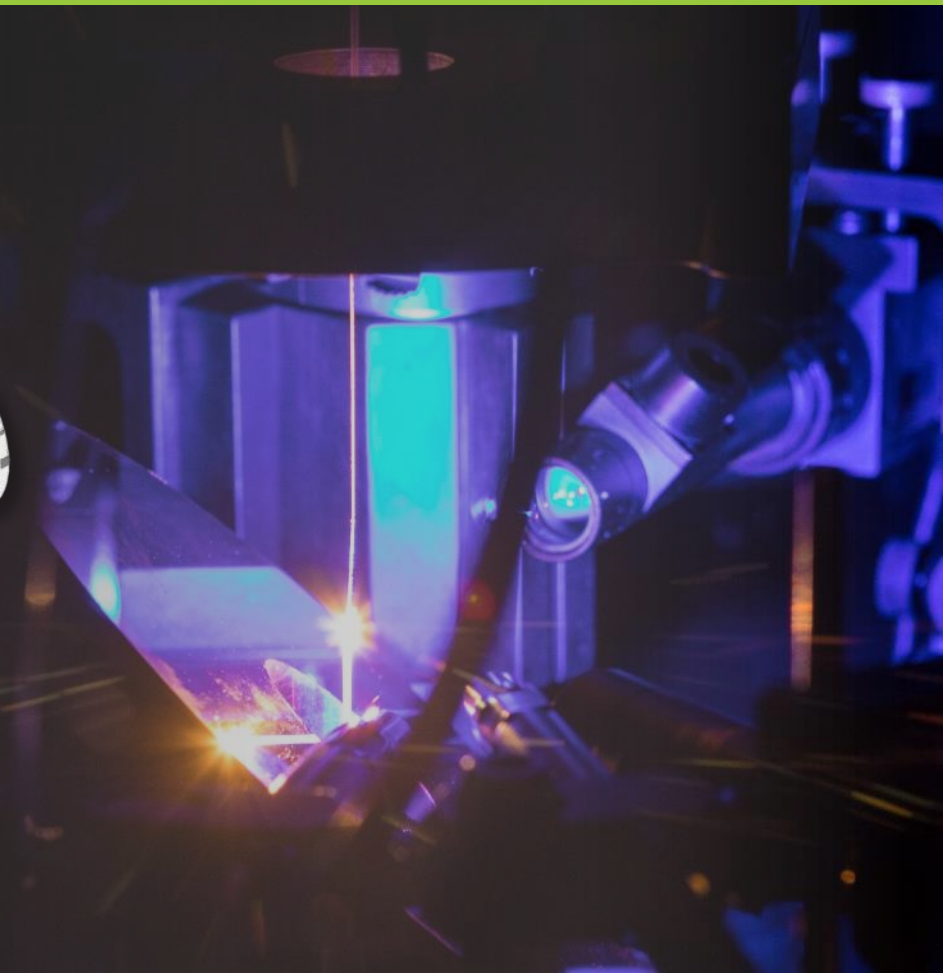
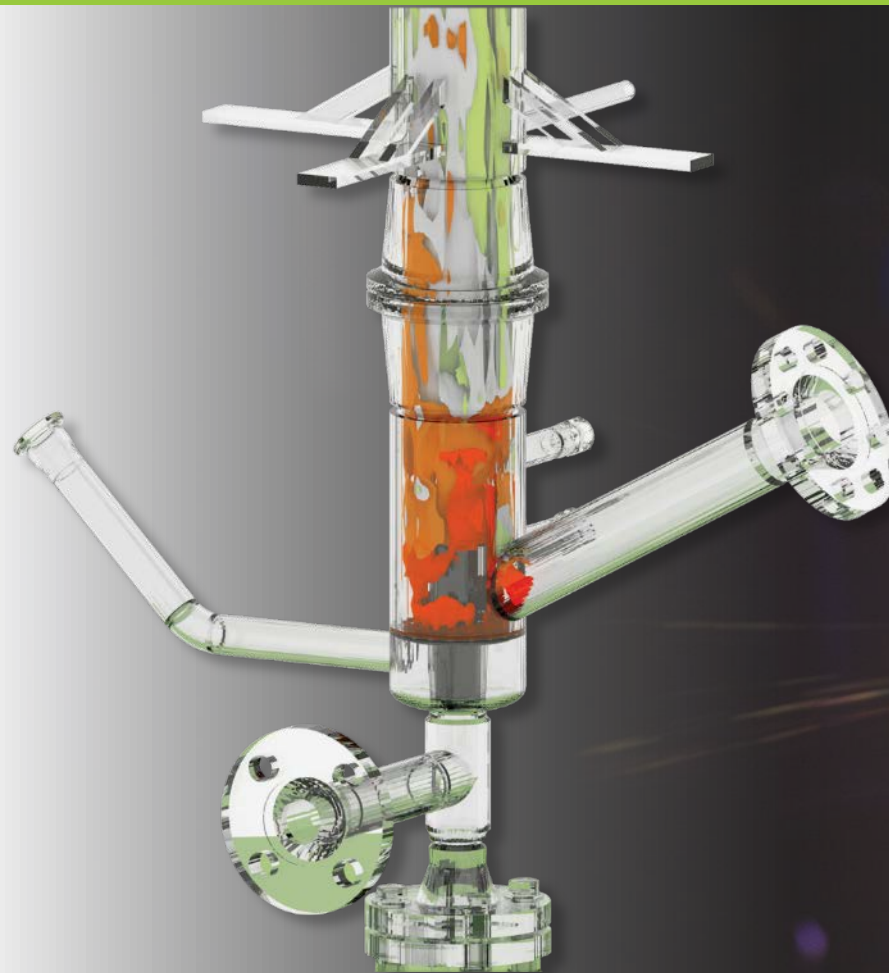
Doing Business with the Federal Government



NETL Webinar on FE's Minority Serving Institutions Program

Sheldon Funk

Contract Specialist, Finance & Acquisition Center



November 13, 2019

Steps to Apply for an NETL Grant



- Identify opportunity of interest through **Funding Opportunity Announcement (FOA)**
 - Discussed in detail later in presentation
- Meet registration requirements
- Prepare and submit application

The Funding Opportunity Announcement (FOA)



- A publicly available document by which a Federal agency makes known its intentions to award discretionary grants or cooperative agreements, usually as a result of competition for funds
- May be known as **program announcements, requests for applications, notices of funding availability, solicitations, or other names** depending on the agency and type of program
- See most recent DE-FOA-0001991
 - **FUNDING IS CLOSED; FOR EXAMPLE USE ONLY**
 - <http://www.fedconnect.net/fedconnect/?doc=DE-FOA-0001991&agency=DOE>

FINANCIAL ASSISTANCE FUNDING OPPORTUNITY ANNOUNCEMENT



Department of Energy (DOE)
Office of Fossil Energy (FE)

UNIVERSITY TRAINING AND RESEARCH FOR FOSSIL ENERGY APPLICATIONS

Funding Opportunity Announcement (FOA) Number: DE-FOA-0001991

FOA Type: Initial

CFDA Number: 81.089 Fossil Energy Research and Development

| | |
|--|------------------------|
| Submission Deadline for Full Applications: | 02/25/2019 08:00 PM ET |
| Expected Date for Selection Notifications: | May 2019 |

Some key administrative item(s) related to this Funding Opportunity Announcement that may be different from previous years are found in Sections III.D and III.E.

Registration/Submission Requirements



- Obtain a **Dun and Bradstreet Data Universal Numbering System (DUNS)** number (dnb.com/duns-number.html)
- Register with the **System for Award Management (SAM)** (sam.gov/SAM)
- Register with grants.gov
- Register with fedconnect.net

- Register with Grants.gov
 - **There are 3 steps to this process:**
 1. The **Authorized Organizational Representative (AOR)** must register
 2. An email is sent to the **E-Business (E-Biz) POC listed in SAM**. The E-Biz POC must approve the AOR registration using their MPIN from their SAM registration
 3. **AOR verifies that registration was completed** at [Grants.gov](https://www.grants.gov)
- [Grants.gov](https://www.grants.gov) is where you will submit your application package

- Applicants must register with FedConnect (fedconnect.net) to submit questions
- View and download announcement documents or amendments
- Communicate with Federal representatives managing the announcement
- **Allow at least 44 days to complete entire registration process**

Questions

- Questions related to the registration process, system requirements or how an application form works must be directed to grants.gov; 1-800-518-4726; or support@grants.gov
- Questions related to the content of the announcement must be submitted to the FedConnect portal
- Must be registered with FedConnect to submit questions and view responses

Application Preparation and Submission



- Applicants must download application package, forms and instructions at [grants.gov](https://www.grants.gov)
- Applications must be submitted through [FedConnect](https://www.fedconnect.gov) or [grants.gov](https://www.grants.gov) (this will be indicated in the solicitation document)
 - **Must register at FedConnect or Grants.gov!**
 - Update SAM annually
- Applications must be submitted through [grants.gov](https://www.grants.gov) by a **qualified HBCU/OMI (Minority Serving Institution) authorized representative**

Accessing NETL FOAs in FedConnect



- In an internet browser, enter the FedConnect URL fedconnect.net
- On the Main Page, click on **Search Public Opportunities Only**

FedConnect
The Government Acquisition & Grants Portal

ALERT: SAM.gov will be down for scheduled maintenance Saturday, 11/09/2019, from 8:00 AM to 3:00 PM. This outage may impact the registration process in FedConnect.

Do you want the US federal government to buy your products or services? Or, are you seeking grants or assistance funding?

FedConnect can help. Every day, FedConnect helps over 100,000 vendors and grant applicants, find, respond to and win opportunities for contracts, grants, and other types of assistance funding. To learn more about how FedConnect works, click here to review the tutorial.

Do you work for a federal agency?

FedConnect is the perfect complement to FedBizOpps and Grants.gov. FedConnect goes beyond the basic features of those systems to provide full lifecycle support including the ability to post opportunities, receive responses, deliver awards, and communicate throughout the pre-award, award, and post-award phases using FedConnect's secure 2-way messaging. Click here to learn more.

Sign In - Full Access →

Search Public Opportunities Only →

Register for Free Account →

Internet Explorer Compatibility Notice: If you are using Internet Explorer 9 (IE9) or above, Compatibility View must be on. Contact support with additional questions.

Need help?

- FedConnect: Ready, Set, Go! Tutorial
- **Updated!** Reverse Auction Vendor Tip Sheet
- Check Registration Status
- Password Reset
- Contact Your Organization's FedConnect Administrator
- Contact FedConnect Support

Want to learn more?

- Participating Government Agencies
- Accessibility Features

Accessing NETL FOAs in FedConnect (cont.)



- Under **Search Criteria**, select **Issuing Office**, type "**National Energy Technology Lab**", and click on **Search**

FedConnect. Help

public opportunities

This is a list of publicly posted opportunities. To view a particular opportunity, click the hyperlink under the title. For more details on using this page, click Help.

Search Criteria | [Advanced Options](#)

Issuing Office National Energy Technology Lab Search

| Title | Type | Agency | Issuing Office | Issue Date | Response Due Date | PSC / FSC | NAICS | Reference Number |
|--|--------------|------------|-------------------------------------|------------|--------------------------------|-----------|--------|-------------------|
| ROMO Beaver Meadows Visitor Center HVAC | Solicitation | DOI - NPS | NPS, IMR - Lakewood MABO | 11/7/2019 | 11/25/2019 04:00 PM US/Eastern | Z2AZ | 236220 | 140P1219R0020 |
| HABITAT RESTORATION | Solicitation | DOI - USGS | USGS OAG SACRAMENTO ACQUISITION BR. | 11/7/2019 | 11/14/2019 12:00 PM US/Eastern | R425 | 115112 | 140G0320Q0006 |
| Duct Cleaning YELL | Solicitation | DOI - NPS | NPS, IMR - Northern Rockies MABO | 11/7/2019 | 11/21/2019 05:00 PM US/Eastern | J045 | 561790 | 140P1420Q0006 |
| Replace Eight (8) Each, Heat Exchanger Tubing Bund | Solicitation | DOI - BOR | Bureau of Reclamation | 11/7/2019 | 11/21/2019 08:00 PM US/Eastern | 4420 | 332410 | 140R1720Q0005 |
| RFQ for Disconnect Switches | Solicitation | DOE - DOE | WAPA (DSW) | 11/7/2019 | 11/14/2019 08:00 PM US/Eastern | 5930 | 335313 | 89503120QWA000081 |

Accessing NETL FOAs in FedConnect (cont.)



- Click the [hyperlink](#) under the title to view

FedConnect.

Help

public opportunities

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[Search Criteria](#) | [Advanced Options](#)

Issuing Office:

| Title | Type | Agency | Issuing Office | Issue Date | Response Due Date | PSC / FSC | NAICS | Reference Number |
|--|-------------------------|-----------|--------------------------------|-----------------------|--------------------------------|-----------|--------|-------------------|
| Purchase of M15-400 Assy. RP Consistometer M15-40 | Special Notice | DOE - DOE | National Energy Technology Lab | 11/7/2019 10:05:42 AM | | 6635 | 811310 | 89243320RFE000029 |
| Notice of Intent to Sole Source to FEI Houston Com | Special Notice | DOE - DOE | National Energy Technology Lab | 11/4/2019 11:02:25 AM | 11/15/2019 12:00 PM US/Eastern | 7030 | 334516 | 89243320QFE000146 |
| RFI: Energy Storage for Fossil Fuel Energy Systems | Funding Opportunity | DOE - DOE | National Energy Technology Lab | 10/30/2019 | 12/16/2019 08:00 PM US/Eastern | | | DE-FOA-0002209 |
| Security Support Services for the Office of the As | Sources Sought | DOE - DOE | National Energy Technology Lab | 10/25/2019 8:20:52 AM | 11/22/2019 08:00 PM US/Eastern | R430 | 561612 | 89243320NAU000002 |
| Revised Sources Sought Critical Minerals Market An | Pre-solicitation Notice | DOE - DOE | National Energy Technology Lab | 10/18/2019 2:45:14 PM | 11/15/2019 02:00 PM US/Eastern | R425 | 541720 | 89243320NFE000030 |

Accessing NETL FOAs in FedConnect (cont.)

- Click on the **FOA Reference Number** under **Funding Opportunity** to view the FOA instructions
- To view Amendments to the FOA, click on the **FOA Reference Number** under **Amendment 1**

FedConnect.

Videos | Help

Opportunity: Crosscutting Research for Coal-Fueled Power Plants

Description

The purpose of Amendment 000001 is to re-open the FOA to receive applications in response to the second closing date, to change the second application closing due date to 12/12/2019, and to incorporate revisions. Please read the FOA document carefully when preparing your application.

Overview

Reference number: DE-FOA-0002001
Issue date: 09/23/2019
Response due: 12/12/2019 11:59 PM US/Eastern

Set Aside:
NAICS:
PSC / FSC:

Agency: DOE

Contracting office:

National Energy Technology Lab
U.S. Department of Energy
Morgantown Campus
3610 Collins Ferry Road
P.O. Box 880
Morgantown, WV 26507-0880

Place of Performance:

What do I do now?

This is the opportunity summary page. To the left you will see a description and an overview of this opportunity. To the right you will see a list of the attached documentation. To view any of the attachments, simply click the attachment name.

Registered Users

To register interest in this opportunity or to electronically respond, you must first sign in. Click the Sign In button below.

Sign In

Non Registered Users

You can view this or any other public opportunity. However, registered users have numerous added benefits including the ability to submit questions to the agency, receive emails concerning updates and amendments, create and manage a response team and submit responses directly through this site.

Becoming a registered user is fast, free and takes only a few minutes. To get started, click the Register Now button below.

Register Now

Documentation

- DE-FOA-0002001
 - Funding Opportunity
 - Overview
 - DE-FOA-0002001
 - Budget Justification File
 - Amendment 1
 - Overview
 - DE-FOA-0002001 - Amendment 000001

Accessing NETL FOAs in FedConnect (cont.)

- **Help** buttons are available on each page to assist you navigate FedConnect
- To submit questions about this FOA or submit an application, Registered Users click on **Sign In**
- Click on **Register Now** to receive notifications and agency alerts, and view the message center

FedConnect.

Videos Help

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Documentation

- DE-FOA-0002001
 - Funding Opportunity
 - Overview
 - DE-FOA-0002001
 - Budget Justification File
 - Amendment 1
 - Overview
 - DE-FOA-0002001 - Amendment 000001

- NETL Research Programs use the websites below to post solicitations/funding opportunity announcements, receive proposals/applications, and disseminate other information for competitive awards. **Entities wishing to participate in these solicitations must register at these websites.**
 - Fedconnect <https://www.fedconnect.net/>
 - Grants.gov <https://grants.gov/>
- **Proposals will only be accepted through FedConnect or [Grants.gov](https://grants.gov/)** (this will be indicated in the solicitation document). Each website has the ability to send email messages to potential applicants when a new solicitation from NETL is posted.
- Additional information can also be found at NETL Business website: <https://netl.doe.gov/business/solicitations>

Questions?

VISIT US AT: www.NETL.DOE.gov



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@NationalEnergyTechnologyLaboratory

CONTACT:

Sheldon Funk

Contract Specialist, Finance & Acquisition Center

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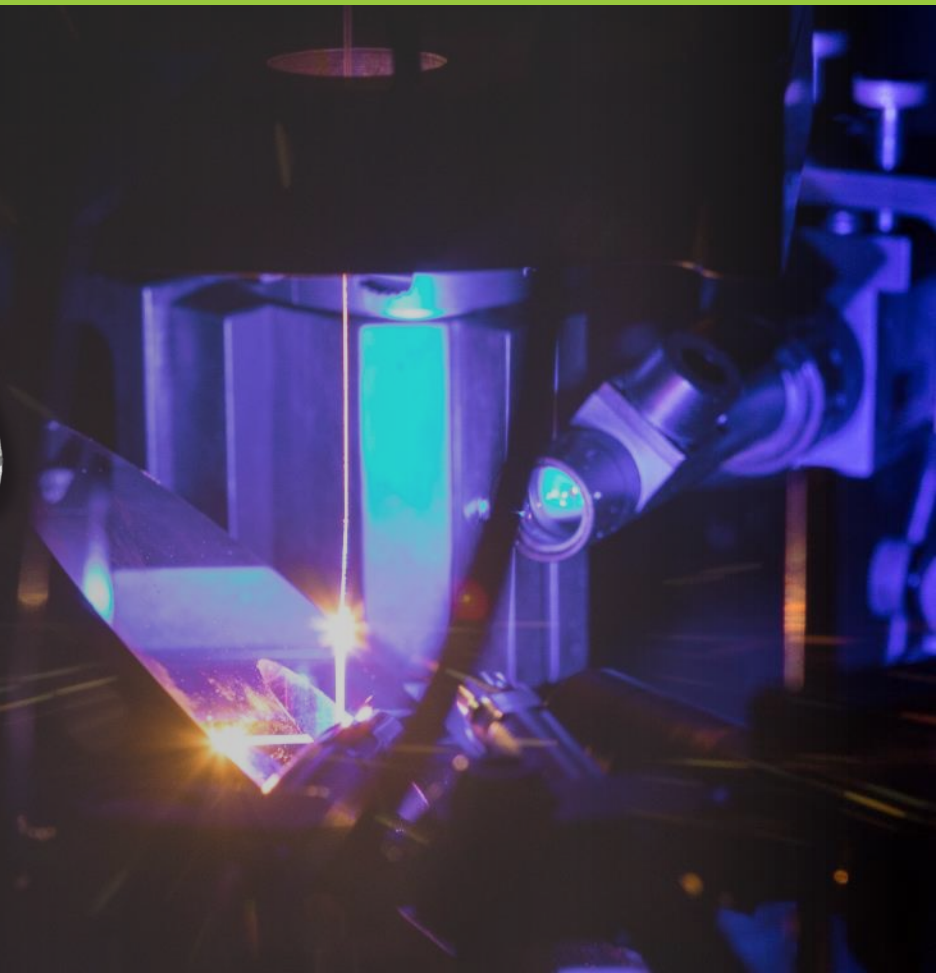
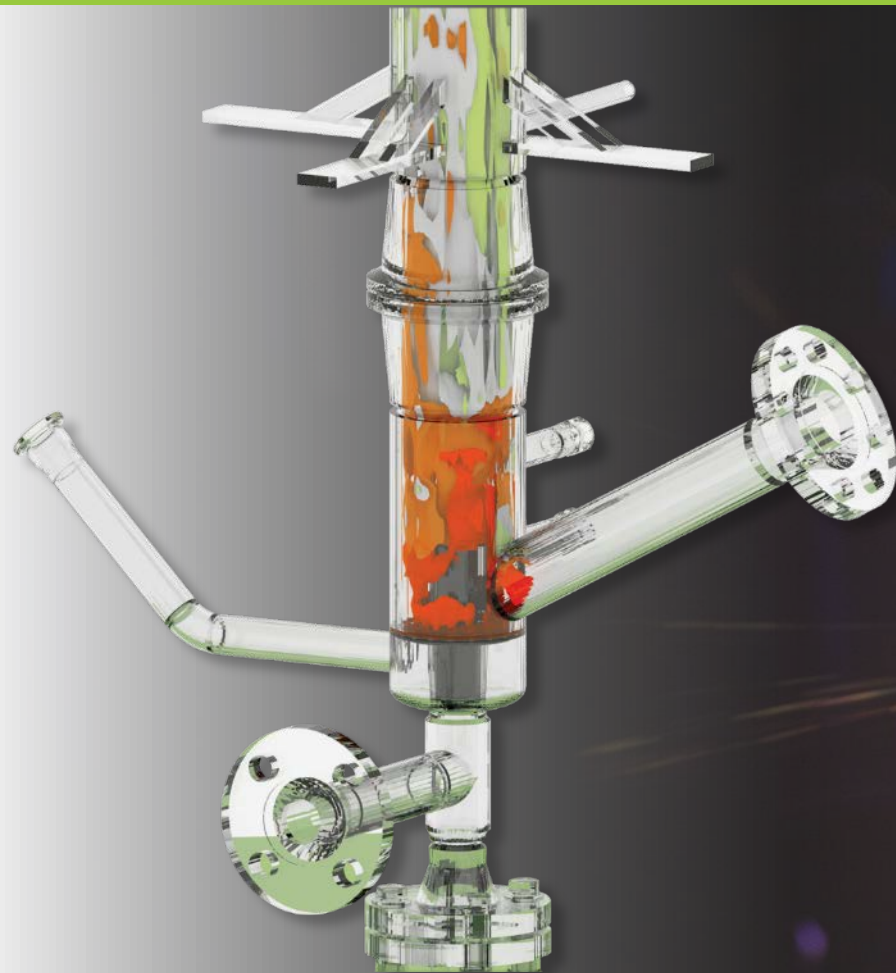
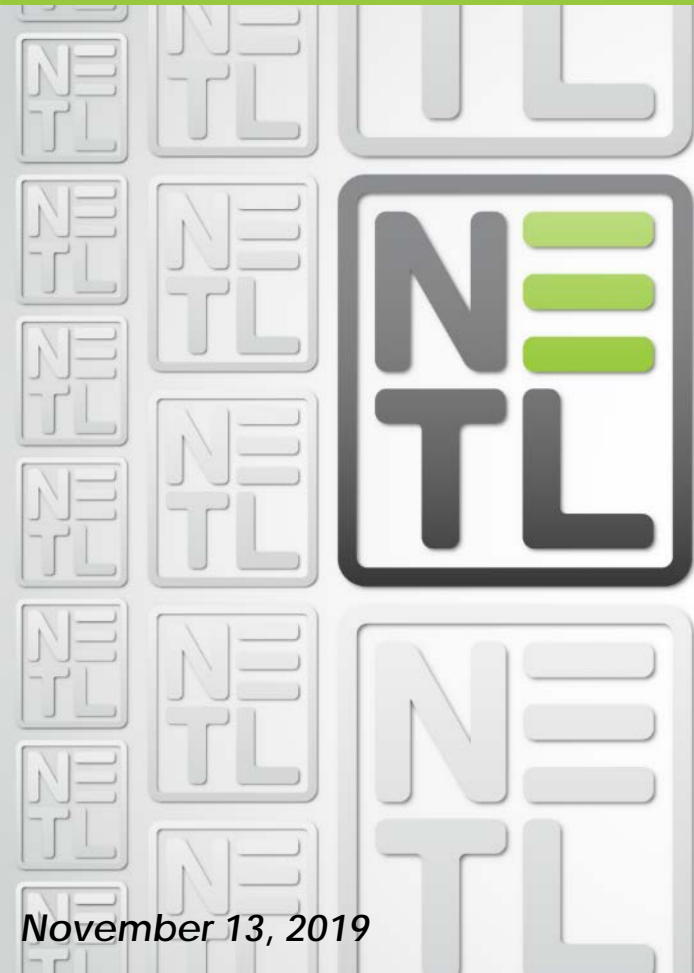
Responding to Areas of Interest (AOIs)

NETL Webinar on FE's Minority Serving Institutions Program



Sydni Credle, Ph.D., P.E.

Technology Manager, University Training and Research



November 13, 2019

- Fossil energy R&D that supports program goals while **educating and training next generation highly-skilled scientists and engineers** in advanced technology systems with knowledge of, and sensitivity for, cultural diversity
- **Identify student roles** when/where possible
- **Research crosscuts many different technology areas** (sensors, materials, simulation, water management, etc.)

The FOA provides background materials regarding the topics often called “Areas of Interest” (AOIs)

Areas of Interest

Describe in detail each area of research where NETL is seeking proposals

Should be carefully considered as a potential topic for research proposals

Number/types of areas of interest are dependent on funding in particular areas, DOE mission goals, and technology maturity

Areas of Interest change annually

May also include descriptions of research that are NOT being sought in the FOA

Previous Areas of Interest



Application of Novel Analytic Method(s) to Determine Arsenic and/or Selenium Concentrations in Fly Ash Waste Streams Generated from Coal Combustion

Cybersecure Sensors for Fossil Power Generation

Modeling Existing Coal Plant Challenges using High Performance Computing

Coal Plant Effluent Water Reuse

Coal Contaminant Partitioning in Power Plant Wastewater

Automated Plant Component Inspection, Analysis, and Repair Enabled by Robotics

Improved Ab Initio Models of High Performance Structural Alloys for Existing and Advanced Technologies Fossil Energy (FE) Power Plants

Improved Water Usage at Existing Power Generation Facilities

Read the FOA Carefully

- Understand the Background/Description
- Understand the specific Objectives
- Understand the topics NETL is interested in funding

Read AOI Language Closely

- Understand where your research strengths best fit with NETL AOIs
- Look for specific thresholds or requirements
- Determine items that are not of interest within that topic area/area of interest

Recycling Applications is Generally NOT a Successful Approach

Get Organized Early

- Create a Proposal Team
- Identify key research team members
- Consider teaming with another institutions
 - Provide letters of support
 - Financial investment if applicable
 - Be as specific as possible
- Develop Application Preparation Schedule and Key Submittal Dates

Ask Questions

- Use FedConnect to ask questions while FOA is open
 - **Can be used for technical, administrative, or FOA clarification** (differences between milestones, success criteria, deliverables, etc.)
- See if your questions have already been asked/answered on the server

Identify Required Submittals

- SF-424, Narrative, Abstract, Project Management Plan, Budget Justifications etc.
- Address **ALL** Areas
 - Follow the review criteria and ensure that all aspects are clearly addressed by your application

 Address the “Cake” prior to the “Icing” 

Submit All Documentation

- Ensure that all required documentation is submitted
- **Failure to do so can result in a non-responsive application**
- Ensure Page limits, margins, spacing, font size (all specified within the FOA)
- Ensure cohesiveness and consistency between documentation (budgets, narrative, SOPO, PMP, etc.)

Verify that the final application complies with ALL FOA requirements

Questions?

VISIT US AT: www.NETL.DOE.gov



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@NationalEnergyTechnologyLaboratory

CONTACT:

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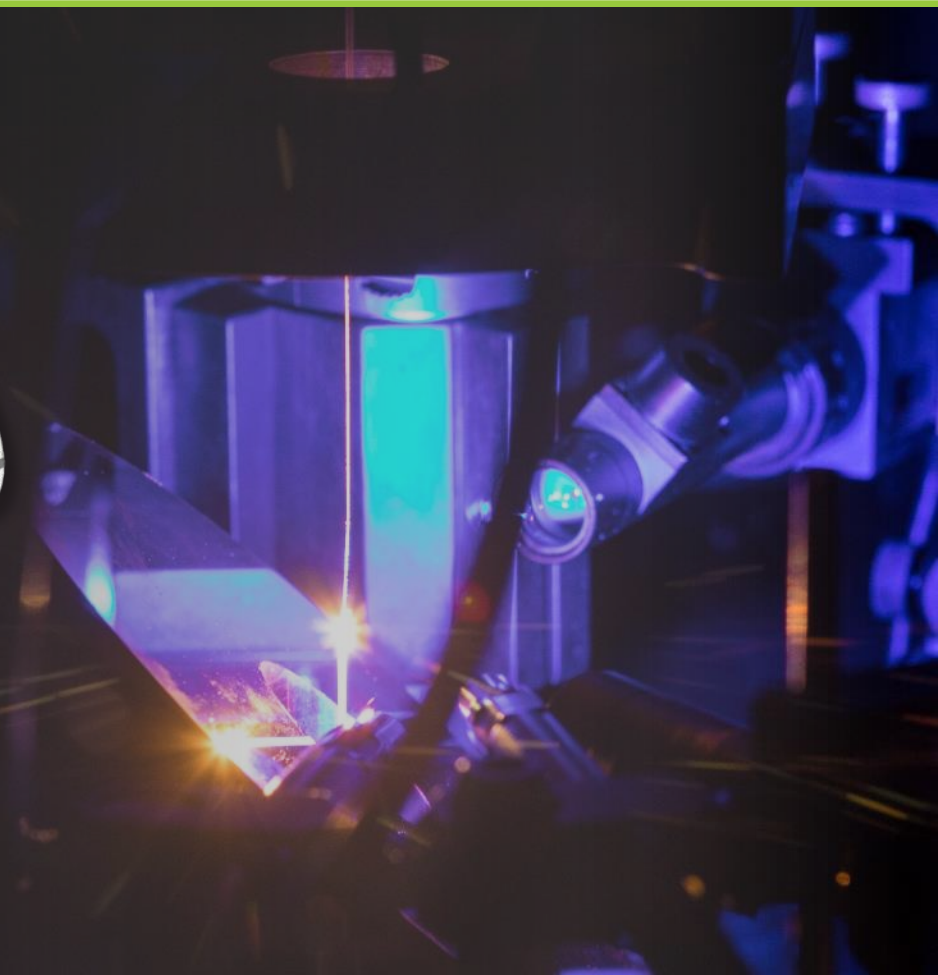
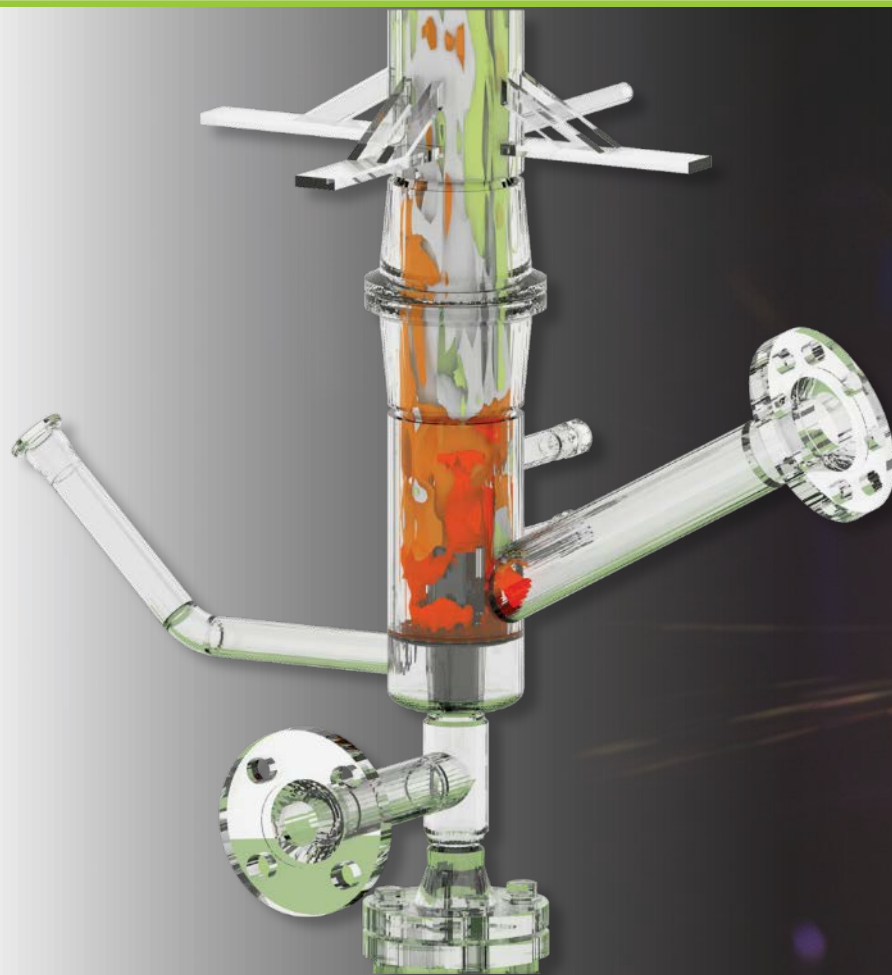
Funding Opportunity Announcements (FOAs)

NETL Webinar on FE's Minority Serving Institutions Program



Sheldon Funk

Contract Specialist, Finance & Acquisition Center



November 13, 2019

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- A typical FOA issued for Minority Serving Institutions (usually referred to as HBCU-OMI) tends to follow a standard format
- Some FOA sections **provide information to the applicant**
 - Who is eligible
 - How to submit
 - Contact information
- Other FOA sections **offer critical guidance on how to create a responsive application**
 - What information should be provided
 - What are the review criteria that will be used to evaluate an application?

Typical FOA Organization

- Funding Opportunity Description
- Award Information
- Eligibility Information
- Application and Submission Information
- Application Review Information
- Award Administration Information
- Questions/Agency Contacts
- Other Information

Award Information

- Type of Application
- Type of Award Instrument
 - Grant
- Estimated Funding
- Expected Number of Awards
- Anticipated Award Size
- Maximum DOE Share
- Estimated Period of Performance

- The **Principal Investigator and/or Co-Principal Investigator(s) must be teaching professors at an HBCU/OMI**. Other participants who do not hold teaching or student positions may be included in the research team.
- Applications from university-affiliated research institutions must be submitted through the college or university with which they are affiliated
- At least one student registered at the university is to receive compensation for performing research related to a grant
- The scope of work to be performed by subcontractors may not be more significant than what's to be performed by the Applicant

Application and Submission Information



- Form and Content Requirements
- Full Applications
- Post-Selection Information Requests
- Submission Dates And Times
- Intergovernmental Review
- Other Submission And Registration Requirements
- Funding Restrictions
- Pre-Award Costs
- Pre-Award Costs Related to National Environmental Policy Act (NEPA) Requirements
- Performance of Work in the United States
- Foreign Travel
- Equipment and Supplies
- Lobbying
- Additional Application and Submission Requirements

- **Applications usually include online forms such as**
 - SF 424 – Application for Federal Assistance
 - Project/Performance Site Location(s)
 - SF-LLL Disclosure of Lobbying Activities
- **Attachments to the online forms project narrative file**
 - Project Summary / Abstract File
 - Resume File
 - SF 424A Excel, Budget Information – Non-Construction Programs File
 - Budget Justification File
 - Subaward Budget File(s)
 - Project Management Plan
 - Environmental Questionnaire

- **Complete this form first to populate data in other forms**
- Complete all required fields in accordance with the pop-up instructions on the form
- The list of **certifications and assurances** referenced in **Field 21** can be **found on DOE Financial Assistance Forms Page** at <https://www.energy.gov/management/office-management/operational-management/financial-assistance/financial-assistance-forms> under Certifications and Assurances

Project/Performance Site Location(s)



- Use this form to indicate the primary site where the work will be performed. **If a portion of the project will be performed at any other site(s), identify the site location(s) in the blocks provided**
- Note that the Project/Performance Site Congressional District is entered using a 2-digit state code followed by a dash and a 3-digit Congressional district code. For example VA-001

Project Summary/Abstract File

- Self-contained, one (1) page document
- Summary of the proposed activity for public dissemination
- Identifies:
 - name of the applicant
 - project director/principal investigator(s)
 - project title
 - objectives of the project
 - description of the project
 - methods to be employed
 - potential impact (i.e., benefits, outcomes)
 - major participants
- **Must not include any proprietary or business sensitive information**

- **Resumes of each key person proposed including sub-awardees and consultants are required.**
 - A key person is any individual who contributes in a substantive, measurable way to the project
- Each resume **should not exceed 2 pages** including (if applicable):
 - **Education and Training:** provide institution, major/area, degree, and year (Undergraduate, graduate, and postdoctoral training)
 - **Professional Experience:** Beginning with the current position, list in chronological order, include brief description of professional/academic positions
 - **Publications:** Provide a list of up to 10 publications most closely related to the proposed project. For each publication, identify the names of all authors (in the same sequence in which they appear in the publication), the article title, book or journal title, volume number, page numbers, year of publication, and website address (if available).
 - Patents, copyrights, and software systems developed may be provided in addition to or substituted for publications
 - **Synergistic Activities:** List no more than 5 professional and scholarly activities related to the effort proposed
- All resumes are saved in a single file

SF 424-A, Budget Information – Non-Construction Programs File



- A separate budget for each year of support requested and a cumulative budget for the total project period are usually required
- Use the SF 424A Excel, "Budget Information - Non Construction Programs" form on the DOE Financial Assistance Forms Page at <https://www.energy.gov/management/office-management/operational-management/financial-assistance/financial-assistance-forms> under DOE budget forms

- **Justify the costs proposed in each Object Class Category/Cost Classification category.** For example:
 - Identify key persons and personnel categories and the estimated costs for each person or category
 - Provide a list and cost of equipment
 - Identify proposed subaward/consultant work and cost of each subaward/consultant
 - Describe purpose of proposed travel, number of travelers, and number of travel days
 - List general categories of supplies and cost for each category

Project Management Plan

- This plan typically includes the following sections:
 - Executive Summary
 - Risk Management
 - Milestone Log
 - Funding and Costing Profile
 - Project Timeline
 - Success Criteria at Decision Points

Environmental Questionnaire



- Environmental questionnaire for each geographic site where project activities will take place must be completed
- The form is located at https://www.netl.doe.gov/sites/default/files/2018-02/451_1-1-3_0.pdf

Application Review Information



- Review Criteria
- Other Selection Factors
 - Program Policy Factors
- Other Review Requirements
 - Risk Assessment
 - Reporting Matters Related to Recipient Integrity and Performance
- Review and Selection Process
- Anticipated Notice of Selection and Award Dates

- **Initial Review Criteria** determine if:
 - the applicant is eligible for an award
 - the information required by the FOA has been submitted
 - the proposed project is responsive to the objectives of the FOA
- **Merit Review Criteria** to evaluate and score each application can include:
 - Scientific and Technical Merit
 - Technical Approach and Understanding
 - Applicant/Team Capabilities, Facilities, and Equipment
- Other selection factors such as program policy are sometimes considered by the Selection Official

Review and Selection Process

- Merit Review
 - Applications that pass an initial review **will undergo a merit review**
- Selection Official Consideration
 - Selection Official can consider the **merit review recommendation, program policy factors**, and the **amount of funds available**
- Government Discussions with Applicant
 - The Government may enter into discussions with a selected applicant for any reason deemed necessary
 - **Failure to resolve satisfactorily the issues identified by the Government will preclude award to the applicant**

- **Award Notices**
 - Ineligible Submissions
 - Full Application Notifications
 - Successful Applicants
 - Unsuccessful Applicants
 - Alternate Selection Determinations
 - Notice of Award
- **Administrative and National Policy Requirements**
 - Administrative Requirements
 - DOE Special Terms and Conditions for Use in Most Grants and Cooperative Agreements
 - National Policy Requirements
 - Intellectual Property Provisions
 - DUNS and SAM Requirements
 - Other Requirements
- **Reporting**

- Questions
 - Questions regarding the content of the announcement **must be submitted through the FedConnect portal**
 - Questions relating to the registration process, system requirements, how an application form works, or the submittal process **must be directed to Grants.gov. DOE/NNSA cannot answer these questions**
- Agency Contact*
 - Name/E-mail:

* As noted above, the typical FOA will note that applicant **questions must be submitted through FedConnect or at [grants.gov](https://www.grants.gov)**, as appropriate, and shall not be submitted to the Agency Contact. **Questions submitted directly to the Agency Contact will not be answered**, but party asking the question will be advised to submit such question(s) via the appropriate portal. No response to questions via email.

Other Information

- Modifications
- Government Right to Reject or Negotiate
- Commitment of Public Funds
- Treatment of Application Information
- Evaluation and Administration by Non-Federal Personnel
- Intellectual Property Developed Under This Program
- Notice Regarding Eligible/Ineligible Activities
- Notice of Right to Conduct a Review of Financial Capability
- Notice of Potential Disclosure Under Freedom of Information Act (FOIA)
- Requirement for Full and Complete Disclosure
- Other Information

Two Keys to Writing Effective Applications

- **Adhere to FOA Guidance** on key submittal items such as:
 - Project Narrative
 - Statement of Project Objectives (SOPO)
 - Project Management Plan
 - Project Summary/ Abstract
- **Specifically Address Merit Review Criteria as they relate to the FOA Areas of Interest**

Project Narrative – Address each item!

- Project Narratives Can Include:
 - Project Objectives
 - Merit Review Criterion Discussion
 - Relevance and Outcomes/Impacts
 - Roles & Responsibilities of Participants
 - Decision-making and Communication Strategy
 - Management Capabilities
 - Multiple Principal Investigators
 - Facilities And Other Resources
 - Equipment
 - Bibliography And References
 - Statement of Project Objectives (SOPO)

Project Objectives

- The project objective in a project narrative should provide a **clear, concise statement of the specific objectives/aims of the proposed project**

- Applications are evaluated and scored in accordance with the **merit review criteria and weights provided in the FOA**
- It is critical to **provide sufficient information** so reviewers can evaluate applications in accordance with the merit review criteria provided in the FOA
- Only applications that **address each merit review criterion and sub-criterion separately** will be considered and evaluated
- Applications that avoid substantial discussion of requested information by referring to other publications, project narrative appendices, and/or attachments outside the project narrative **can be judged as nonresponsive to the criterion.**
 - Referenced publications, project narrative appendices, and attachments are to be supplied to validate the discussion

Relevance and Outcomes/Impacts

- Should explain the project's relevance to the objectives in the FOA and the expected outcomes and/or impacts
- Justification for the proposed project should **include a clear statement of the importance in terms of the utility of the outcomes and the target community of beneficiaries**

Roles & Responsibilities of Participants



- A project narrative will often require multi-organizational or multi-investigator projects to **describe the roles and the work to be performed** by each participant/investigator, business agreements between the applicant and participants, and how the various efforts will be integrated and managed

- This section provides a discussion of how communication and decision-making will occur within the context of the organizational structure, with particular **emphasis on scientific/technical direction and mechanisms for controlling project scope, cost, and schedule.**

- Provide information relevant to the capabilities and experience of the PI and project team in managing technical projects of similar nature and complexity.
 - Include examples that demonstrate the ability to successfully meet research objectives within **scope**, **budget**, and **schedule**.

Multiple Principal Investigators

- Project narratives can require applicants to indicate if the project will include multiple PIs
 - This decision is solely the responsibility of the applicant

- Project narratives typically identify the facilities (e.g., office, laboratory, computer, etc.) to be used at each performance site listed
 - If appropriate, **indicate their capacities, pertinent capabilities, relative proximity, and extent of availability to the project**
 - Describe only those resources that are directly applicable to the proposed work
 - Provide any information describing other resources available to the project such as machine and electronics shops

- Project narratives may request a list of important items of equipment already available for this project
- If you are proposing to acquire equipment, **describe comparable equipment, if any, already at your organization and explain why it cannot be used**

Bibliography and References

- If applicable, provide a bibliography for any references cited in the Project Narrative section
- This section must include only bibliographic citations
- This section is not typically included in the page limitation of the project narrative

Other Project Narrative Considerations

- Project narratives will typically specify a “not to exceed” length, e.g. “20 pages, (single spaced)”
 - This includes cover page, table of contents, charts, graphs, maps, photographs, and other pictorial presentations
 - **Evaluators will review only the number of pages specified**
- There may be instructions on how to mark proprietary information in the application

Statement of Project Objectives (SOPO)



- The project narrative will likely request a single, detailed SOPO that addresses how the project objectives will be met
- The SOPO should contain a **clear, concise description of all activities to be completed** during project performance and follow the structure discussed below
- Typically the SOPO **cannot contain proprietary or confidential business information**
- The SOPO typically will count as part of the page limitation on the project narrative for the proposed work
- The FOA may include a prescribed format for the SOPO

Common SOPO Format

- Title of work to be performed, divided into four sections
- **Objectives**
 - One paragraph on the overall objective(s) of the work is usually sufficient
 - Objective(s) for each phase of the work should also be included
- **Scope of work**
 - The scope of work in a typical SOPO should summarize the effort and approach to achieve the objective(s) of the work for each proposed phase
 - **This section often may not exceed one-half page**
- **Tasks to be performed**
 - In a typical SOPO the proposed tasks should be provided in a concisely written, logical sequence
 - This section usually provides a brief summary of the planned approach each task and subtask (if applicable) in a format based on the task structure
 - The SOPO should be divided into the phases of the project, as appropriate
- **Deliverables**

- **Scientific and Technical Merit**

- The application is evaluated to determine the overall technical merit and quality of the proposed concept

- **Technical Approach and Understanding**

- The application can be evaluated to determine the overall quality, soundness, and reasonableness of the technical approach to fulfill the requirements of the proposed work

- **Applicant/Team Capabilities, Facilities, and Equipment**

- Applications can be evaluated in terms of the qualifications and experience of key personnel the qualifications of the participating organizations, the proposed management of the effort, and the facilities and equipment

- Scientific and Technical Merit
 - The application is **evaluated to determine the overall technical merit and quality of the proposed concept**. This can include the following:
 - The degree to which development of the proposed technology can be expected to contribute to a developmental breakthrough for the challenges described in the topic area
 - The thoroughness and relevance of the scientific, engineering, and technical information and data provided to support readiness of the proposed technology
 - The degree to which the proposed work is based on sound scientific and engineering principles

- Technical Approach and Understanding
 - The application is **evaluated to determine the overall quality, soundness, and reasonableness of the technical approach** to fulfill the requirements of the proposed work. This can include the following:
 - The likelihood that the overall approach will result in successful achievement of the objectives and deliverables described in the applicable topic area
 - The proposed approach must satisfy the requirements, goals and objectives of the applicable topic area
 - Adequacy and completeness of project risks should be identified with mitigation strategies including technical, organizational, cost share support and other risks affecting the potential for success

- Applicant/Team Capabilities, Facilities, and Equipment
 - Applications can be **evaluated in terms of the qualifications and experience of key personnel, qualifications of participating organizations, proposed management of the effort, facilities, and equipment**
 - If appropriate, emphasize the following:
 - scientific mastery of the described technology,
 - pertinent systems operations and analysis experience,
 - project management experience, and
 - demonstrated R&D experience and capabilities relevant to the proposed work.

Typical Merit Review Criteria (cont.)



- Emphasize prior university experience in managing projects of **similar type, size and complexity**, and in successfully completing similar R&D projects
- Present the project organization showing responsibilities. Lines of authority should be clearly described and optimized to assure successful project execution.
- Discuss the **appropriateness and availability of facilities, equipment, and their relevance** to technology development and/or commercial applications as applicable

Questions?

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