

# NETL: Delivering Energy Solutions

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U.S. DEPARTMENT OF  
**ENERGY**



## Carbon-Free Economy

### CLIMATE GOALS:

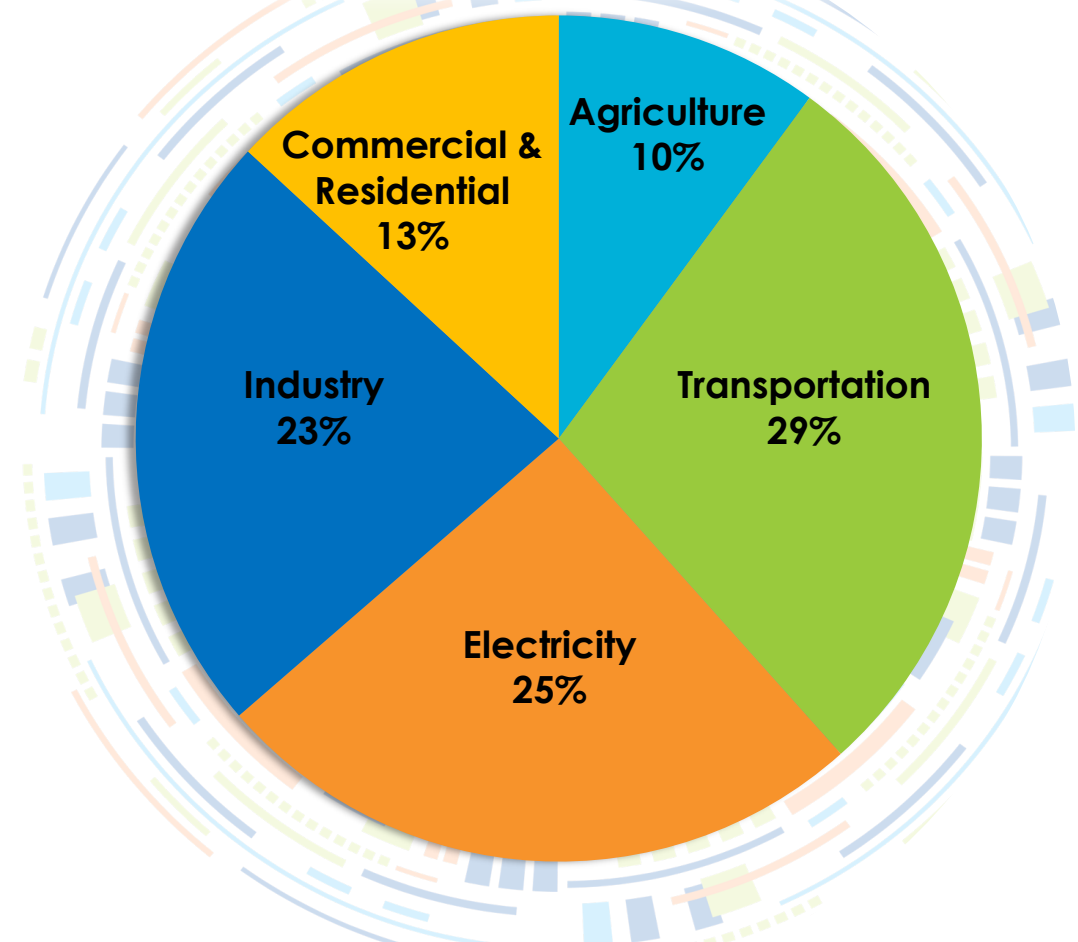
**2030:** 50% reduction in economy-wide net GHG pollution (from 2005 levels)

**2035:** Carbon-neutral power sector

**2050:** Carbon-neutral economy

**Carbon management technologies are essential to reaching goals**

Sources of U.S. GHG Emissions by Sector in 2022



# Vision and Mission

## VISION

To be the nation's premier energy technology laboratory, delivering integrated solutions to enable transformation to a sustainable energy future.

## MISSION

Driving innovation and delivering solutions for an environmentally sustainable and prosperous energy future:

- Ensuring affordable, abundant and reliable energy that drives a robust economy and national security, while
- Developing technologies to manage carbon across the full life cycle, and
- Enabling environmental sustainability for all Americans.



# Organization Snapshot



## NETL is:

- One of three applied energy national labs
- The only DOE government owned & operated (GOGO) national lab

## Two primary components:

- Research & Development
  - Carbon Management
  - Resource Sustainability
- DOE Program Deployment

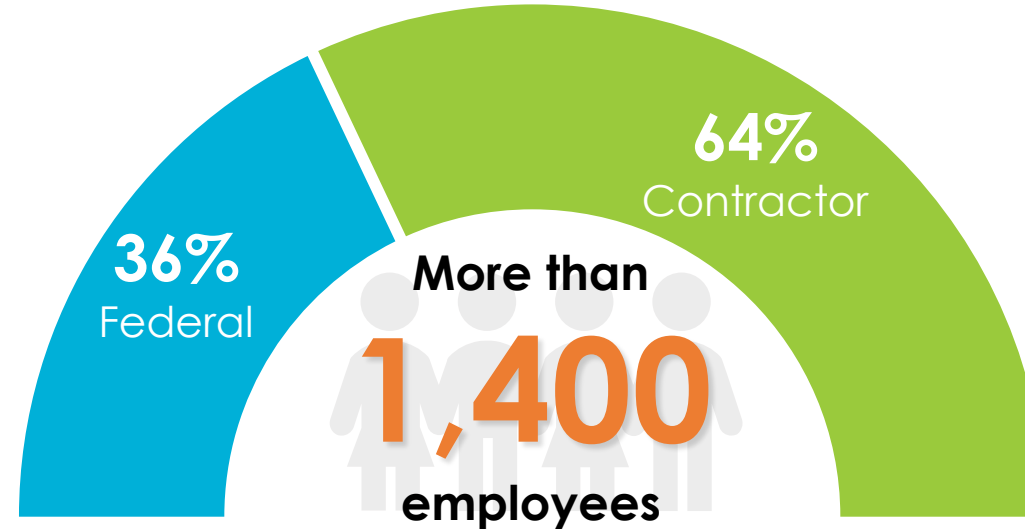
## Implement R&D projects for DOE's Offices of:

- Fossil Energy & Carbon Management
- Energy Efficiency Renewable Energy
- Electricity
- Cybersecurity, Energy Security & Emergency Response
- Manufacturing & Energy Supply Chains
- Grid Deployment



# Workforce Snapshot

## Our Greatest Asset – People



**NETL's workforce is a diverse range of technical and professional staff.**

- Scientists
- Engineers
- Economists
- Postgraduate, graduate, & undergraduate interns
- Research support staff
- Technical project managers
- Procurement experts
- Attorneys

# Multiple Sites Operating As One Lab

## Key R&D Facilities At Each Site

### OREGON

- Advanced Alloys Signature Center
- Geoscience, Artificial Intelligence & Analysis Lab
- Magnetohydrodynamics Lab

### WEST VIRGINIA

- Joule Supercomputer
- Reaction Analysis & Chemical Transformation Facility
- Chemical Looping Reactor

### PENNSYLVANIA

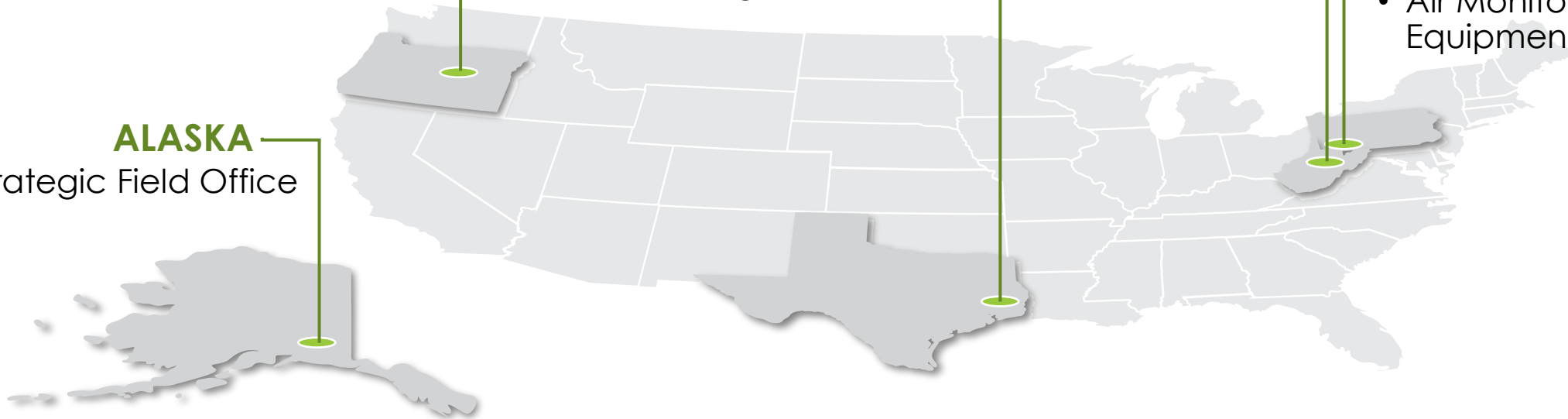
- Direct Air Capture Center
- Center for Artificial Intelligence & Machine Learning
- Air Monitoring Equipment Station

### TEXAS

Strategic Field Office

### ALASKA

Strategic Field Office



# Core Competencies

## Breadth of our Expertise

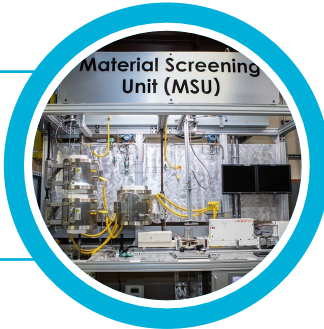
**Computational  
Science & Engineering**



**Materials Engineering  
& Manufacturing**



**Energy Conversion  
Engineering**



**Geological &  
Environmental Systems**



**Program Execution  
& Integration**



**Strategic Systems  
Analysis & Engineering**



# Supporting Climate Goals Through Collaboration and R&D





# Thank You!

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 @NationalEnergyTechnologyLaboratory

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