



U.S. DEPARTMENT OF
ENERGY

Office of
Fossil Energy

Office of Fossil Energy Budget Overview

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Systems
Carbon Storage and Oil and Natural Gas Annual
Project Review Meeting

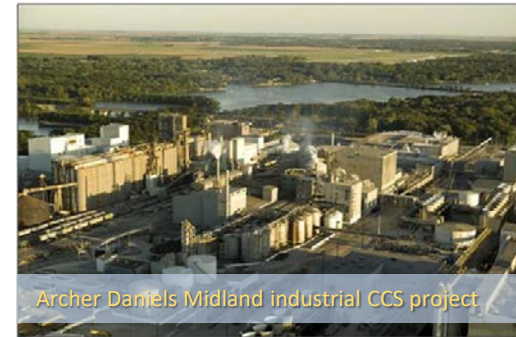
August 2, 2017



FY 17 Budget

FE R&D: \$682M | Office of Petroleum Reserves: \$248.5M

(in thousands)	FY17 Omnibus
TOTAL FOSSIL ENERGY	930,450
Coal	423,800
Carbon Capture	101,000
Carbon Storage	95,300
Advanced Energy Systems	105,000
Crosscutting	45,500
STEP	24,000
NETL Coal R&D	53,000
Fossil Proviso – large-scale pilots	50,000
Oil and Natural Gas	64,000
Natural Gas Technologies	43,000
Unconventional Fossil Energy Tech.	21,000
Other Corporate	60,700
Program Direction (HQ & NETL)	60,000
Special Recruitment Program	700
NETL	83,500
NETL Infrastructure	40,500
NETL Research and Operations	43,000
TOTAL FOSSIL ENERGY R&D	682,000*
Office of Petroleum Reserves	248,450
Strategic Petroleum Reserve	223,000
Northeast Home Heating Oil Reserve	6,500
Naval Petroleum & Oil Shale Reserves	14,950



Archer Daniels Midland industrial CCS project



NETL Chemical Looping Reactor



Bryan Mound SPR storage site

*Does not include \$14,000 use of prior year balances or \$246,515 rescission of prior year balances.

FY 2017 FE Funding Opportunity Announcements

Closed FOA

#	FOA #	FOA Name / Brief Description	DOE FOA Amount	Key Dates	
				Issuance	Closing Date
1	1718	<i>Development of Separation and Extraction Processes for Production of Rare Earth Elements (REE) Materials from Domestic U.S. Coal and Coal By-Products</i>	\$3,950,000	6/5/2017	7/18/2017
2	1735	<i>Solid Oxide Fuel Cell (SOFC) Prototype System Testing and Core Technology Development</i>	\$13,500,000	6/6/2017	7/14/2017
3	1719	Small-Scale Modularization of Gasification Technology Components for Radically Engineered Modular Systems	\$12,800,000	6/7/2017	8/8/2017
4	1728	Advanced Combustion Systems: Existing Plant Improvements and Transformational Technologies	\$12,000,000	6/8/2017	8/8/2017
5	1730	<i>University Turbine System Research (UTSR)</i>	\$5,400,000	6/8/2017	7/20/2017
6	1686	<i>Innovative Technology Development to Enable and Enhance Highly Efficient Power Systems</i>	\$12,300,000	6/12/2017	7/24/2017
7	1734	Partnership for Offshore Carbon Storage Resources and Technology Development in the Gulf of Mexico	\$8,000,000	6/12/2017	8/14/2017
8	1725	Technology Development to Ensure Environmentally Sustainable CO ₂ Injection Operations	\$4,000,000	6/12/2017	8/11/2017
9	1722	Advanced Technology Solutions for Unconventional Oil and Gas Development	\$20,000,000	6/21/2017	8/15/2017

Additional info on available FE FOAs can be found at: <https://www.netl.doe.gov/business/solicitations>



FY 18 Budget Overview and Priorities

\$280M for Fossil Energy R&D

- ✓ *Focus on cutting edge, early stage R&D*
- ✓ *Continue operations of the National Laboratories*

Coal Program Priorities

- Stabilize coal—improve the efficiency and reliability of coal-fired plants
- Carbon Capture, Utilization, and Storage (CCUS)

(in thousands)	FY18 Request
TOTAL FOSSIL ENERGY	479,800*
Coal	114,800
Oil and Natural Gas	21,500
Other Corporate	58,678
NETL	141,200
TOTAL FOSSIL ENERGY R&D	280,000*
Office of Petroleum Reserves	199,800

**Reflects total new Budget Authority funding; the total request is \$335,178 with \$55,178 in prior year balances to reach the requested amount of \$280,000 for the FER&D budget.*

Oil and Gas Program Priorities

- Advance R&D to promote domestic production
- Infrastructure safety
- LNG Authorizations
- Advanced EOR

FY18 Budget (in thousands)	Request Level	House Mark	Senate Mark
TOTAL FOSSIL ENERGY R&D	280,000	668,000	572,700

Blue Sky – What's Next?

Administration Goals/Priorities

- ✓ U.S. Energy Dominance
- ✓ GRID Reliability and Resiliency
- ✓ Infrastructure
- ✓ Job Creation
- ✓ Energy Security

DOE FE Future Priorities/Outlook

- ✓ Focus on early stage/lower TRL R&D
- ✓ Organize research around technologies rather than commodities
- ✓ Impactful regional initiatives (ex. Ethane Hub)
- ✓ Next generation technologies (oxy-combustion, chemical looping)
- ✓ Advanced Materials
- ✓ Carbon utilization – EOR, materials, chemicals, etc.





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Questions?