

BERAC

October 1, 2014

**Sharlene Weatherwax, Associate Director of Science
Biological and Environmental Research**



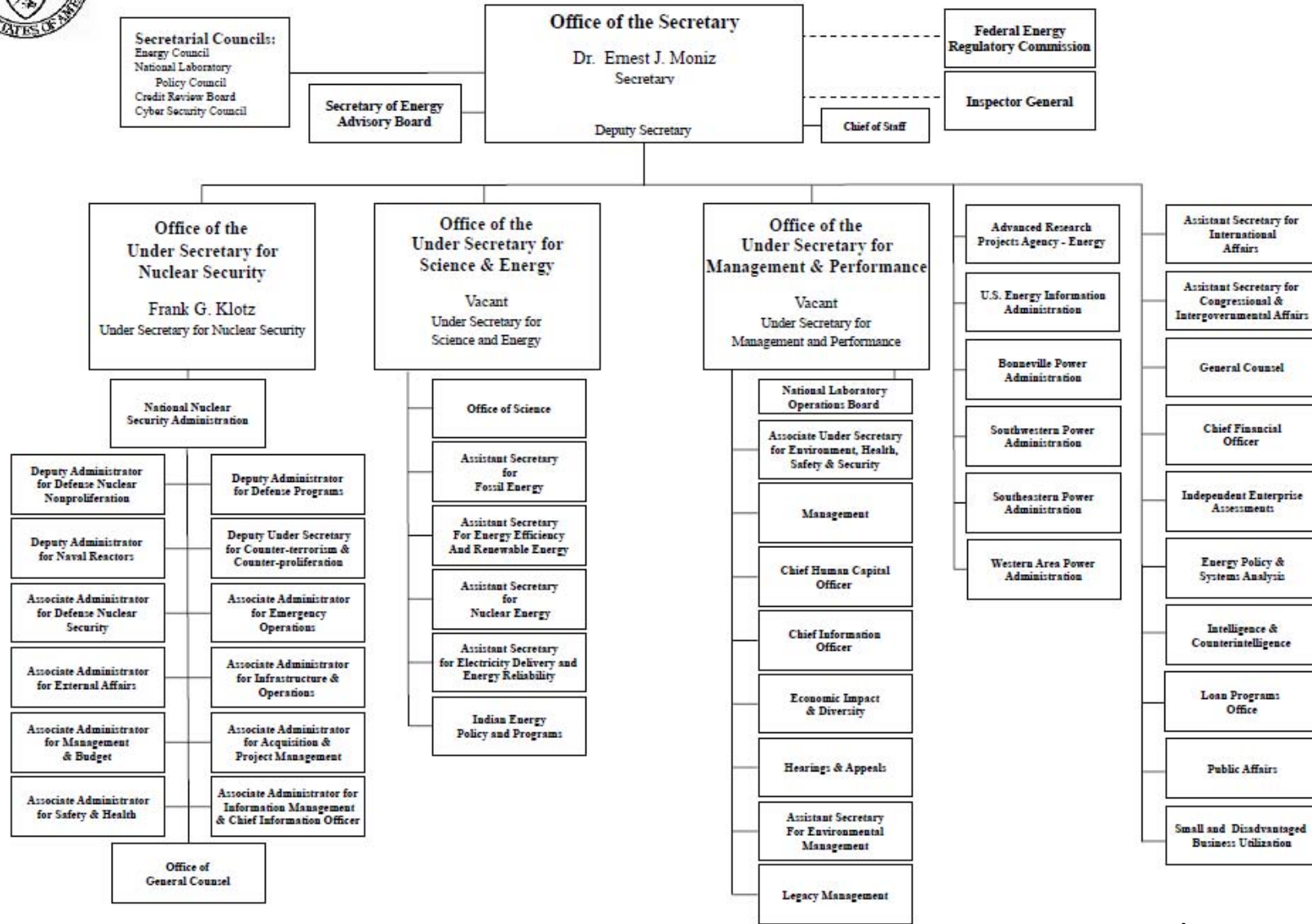
U.S. DEPARTMENT OF
ENERGY

Office
of Science

Office of Biological
and Environmental Research



DEPARTMENT OF ENERGY



October 2014

BER FY 2015 status

(\$ in thousands)

	FY 2014	FY 2015	FY 2015	FY 2015	FY 2015
	Enacted	President's Request	House Mark	Senate Mark	Continuing resolution through December 11
Biological Systems Science	\$303,520	\$299,892	\$290,488	\$299,892	
Research	\$218,387	\$215,497	\$210,988	\$215,497	
Facilities	\$85,133	\$84,395	\$79,500	\$84,395	
Climate and Environmental Sciences	\$290,090	\$328,108	\$249,512	\$327,641	
Research	\$170,352	\$209,178	\$143,690	\$208,711	
Facilities	\$119,738	\$118,930	\$105,822	\$118,930	
BER Total	\$593,610	\$628,000	\$540,000	\$627,533	\$120,226

SBIR/STTR included in the 2015 Research lines.
2014 SBIR/STTR totals ~ \$16M

Personnel – Goodbye!



Wanda Ferrell, CESD



Jay Fitzgerald, AAAS Fellow, BSSD



John Houghton, BSSD

Personnel – Welcome!



Shaima Nasiri, Program Manager, CESD

Congratulations!

BERAC Members

- **Janet Braam** - American Society of Plant Biology Fellow Award
- **Sabeeha Merchant** – Fellow of the American Academy of Arts and Sciences
- **Gary Stacey** –University of Missouri Curators’ Professor
- **Judy Wall** – Southeastern Conference Faculty Achievement Award
- **Huimin Zhang** – 2014 Gaden Award from the American Chemical Society

BER PI’s

- 2014 MacArthur Fellow – Tami Bond (UIUC)
- 2014 American Geophysical Union Fellows - Peter Santschi (Texas A&M), Beverly Law (Oregon State), Ralph Keeling (Scripps), Qiang Fu (U of Washington), Zhanqing Li (U of Maryland), Luisa Molina (MIT), Gerald Meehl (NCAR)
- Elected to the National Academy of Sciences—Kenneth Keegstra (Mich State U), Jim Dumesic (U Wisc), Jerry Melillo (Marine Biol Lab),
- DOE 2013 Lawrence Award – Adam Arkin (LBNL)
- 2014 Eni Award Renewable Energy Prize—Jay Keasling (LBNL)



Congratulations National Lab R&D 100 Awards Winners!

DOE Labs won 31 of 100 awards in 2014

- ANL – 3 awards
- BNL – 1 award
- INL – 2 awards
- LBNL – 3 awards
- LLNL – 4 awards
- LANL – 2 awards
- NREL – 2 award
- ORNL – 8 awards
- PNNL – 3 award
- SNL – 3 awards

BER-related awards

- LBNL - Tissue specific cell wall engineering for biofuels –
<http://www.rdmag.com/award-winners/2014/08/efficient-bioengineering>
- LBNL - Computational platform for 3D cell culture –
<http://www.rdmag.com/award-winners/2014/08/closer-look-3-d-cell-cultures>
- LBNL - Multiplex Chemotyping Microarray performs rapid chemical analyses of prospective biofuel crops and microbial communities -
<http://www.rdmag.com/award-winners/2014/08/microarray-complex-chemotyping>

Digital Data Update

Public Access Gateway for Energy and Science (PAGES)

PAGES - a web-based portal that will provide free public access to accepted peer-reviewed manuscripts or published scientific journal articles within 12 months of publication.

PAGES will include access to DOE-funded authors' accepted manuscripts hosted primarily by the Energy Department's National Labs and grantee institutions, in addition to the public access offerings of publishers.

<http://www.osti.gov/pages/>

Digital Data Update

Office of Science Digital Data Plan goes live October 1

All proposals for research funding submitted to the Office of Science are now required to include a Data Management Plan that describes whether and how the digital research data generated in the course of the proposed research will be shared and preserved.

Table of Contents on SC Data Management Website

- Principles
- Requirements
- Additional Guidance (including suggested elements for DMP)
- Additional Requirements & Guidance from SC program Offices (BER has more)
- Information about Data Management Resources at SC user Facilities
- Glossary
- FAQs
- References

SC Digital Data Plan

All proposals submitted to the Office of Science for research funding must include a Data Management Plan (DMP) that addresses the following requirements:

- DMPs should describe whether and how data generated in the course of the proposed research will be [shared](#) and [preserved](#). At a minimum, DMPs must describe how data sharing and preservation will enable [validation](#) of results, or how results could be validated if data are not shared or preserved.
- DMPs should provide a plan for making all research data displayed in publications resulting from the proposed research open, machine-readable, and digitally accessible to the public at the time of publication.
- DMPs should consult and reference available information about data management resources to be used in the course of the proposed research.
- DMPs must protect confidentiality, personal privacy, [Personally Identifiable Information](#), and U.S. national, homeland, and economic security; recognize proprietary interests, business confidential information, and intellectual property rights; avoid significant negative impact on innovation, and U.S. competitiveness.

<http://science.energy.gov/funding-opportunities/digital-data-management/#Principles>

New BERAC Charge

- Recommend the major next initiatives for field-based research, that capture a multi-disciplinary approach and build on observations and modeling.
 - Identify candidate geographic regions that are poorly understood with respect to earth system predictability, e.g., under-studied, under-sampled, climatically sensitive, and/or a source of significant prediction uncertainty
 - Identify major cross-cutting gaps in BER sciences, that limit our understanding of the predictability of the earth science across numerous geographic regions
 - Exploit unique BER assets, e.g., ARM, JGI, EMSL, and other major field activities, where possible
 - Exploit science capabilities of both CESD and BSSD, where relevant
 - Provide opportunities for collaborations involving other federal agencies
 - Exploit emerging scientific discoveries and advanced technologies from other disciplines, e.g., computational, observational, sensing, visualization.