

DOE Office of Science Biological and Environmental Research (BER)

Modeling PI Meeting
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Dorothy Koch
Associate Director, BER



U.S. DEPARTMENT OF
ENERGY

Office of
Science

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Setting the Stage

Climate and Environmental Crisis

DOE - BER's business

- Understanding
- Predict/project
- Renewables
- Capabilities
 - Earth/Environmental (ESSD) Capabilities
 - Computing partnership
 - Biology (BSDD) capabilities

Biological and Environmental Research

Strategic Plan(s) 2025

Budget

Basic and Discovery Research

- Purpose-driven
- We need your stories!

Innovation at the interfaces

- Integrative Modeling
- Modeling, atmospheric and terrestrial systems
- Environment and biology
 - Genomics Ecosystems
 - Solution spaces
- Computation and AI/ML
 - **Foundational Modeling – What is BER’s AI strategy for climate?**

Toward solutions

Discovery to transformative solutions

- We need your stories!

Broaden community involvement

- Climate Resilience Centers, urban Integrated Field Laboratories, RENEW, FAIR

Focus on the big questions

- Where are glaring gaps in basic understanding?
- What are the most impactful environmental challenges?
- What is the role of DOE-BER relative to other agencies, private sector?
- Timescales?
- What are the most strategic tools and methods? Examples
 - E3SM spatial scales
 - **What is BER's AI strategy for climate and environment?**