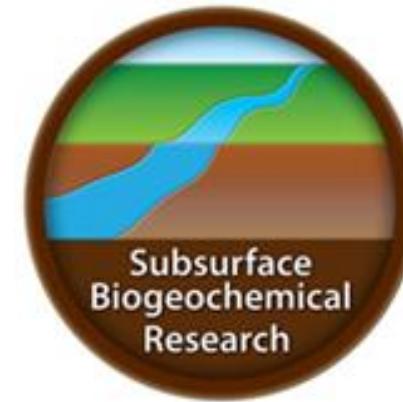
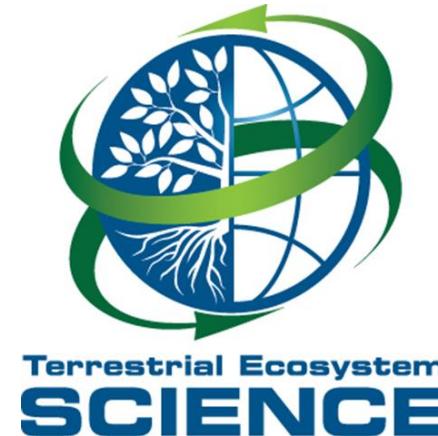




# The Future of Environmental System Science



## ESS Virtual PI Meeting Webinars

May 19, 2020

Daniel B. Stover, Ph.D.



U.S. DEPARTMENT OF  
**ENERGY**

Office  
of Science

Office of Biological  
and Environmental Research

# Program Evolution

- In the FY 2021 (White House) budget request, BER is requesting funding for Environmental System Science (ESS) instead of requesting funding for the TES or the SBR programs.
  - [https://www.energy.gov/sites/prod/files/2020/03/f72/doe-fy2021-budget-volume-4\\_0.pdf](https://www.energy.gov/sites/prod/files/2020/03/f72/doe-fy2021-budget-volume-4_0.pdf), page 165
- The budget request refers to ESS as an “activity.”
- The proposed/temporary vision for ESS is to: “develop a unified predictive capability that integrates scale-aware process understanding with unique characteristics of watersheds, coastal zones, and terrestrial-aquatic interfaces that are present in, e.g., the Arctic, boreal zone, and the Tropics, including the Great Lakes.”
- Research within ESS will “... provide an integrated, robust and scale-aware predictive understanding of environmental systems, including the role of hydro-biogeochemistry from the subsurface to the top of the vegetative canopy.”

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## Department of Energy FY 2021 Congressional Budget Request



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# Program Evolution

- Based on the vision and statement of research, ESS maps to the same Grand Challenges in the EESSD (formerly CESD) Strategic Plan as the TES and SBR programs did.
- Assuming Congress accepts the proposed change, the new program will be called Environmental System Science (ESS).
- A more generic program name provides more flexibility in program scope.
- Due to the pandemic and associated delays, the TES and SBR program managers were forced to delay planning sessions/retreats until this summer.



# Implications

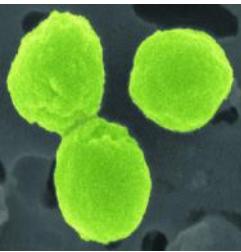
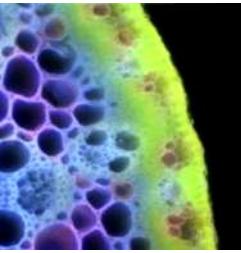
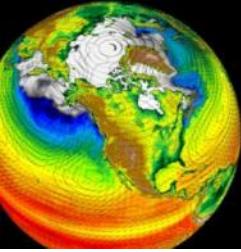
While details are still emerging, here's what to expect:

- ESS will build off the legacies and successes of the TES and SBR programs.
- In the near-term,
  - PI's won't see much of a change in the scope of research.
  - Essentially ESS will have 2 sub-programs that function "business as usual".
  - PI meetings, cyberinfrastructure and other joint activities will continue, but in a more integrated fashion.
  - Planning for a combined program website.
  - ESS will develop a new "mission statement" to focus future efforts solicitations and programs.
  - Program managers may shuffle POC responsibilities due to new team members.

# Implications

- In the mid-term
  - SFA's may evolve as they come up for renewals.
  - ESS will form stronger integration with other BER programs.





# Questions?

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