



Quadrennial Technology Review-2015

Chapter 13: Accelerating Energy Science and Technology RD3

Public Webinar

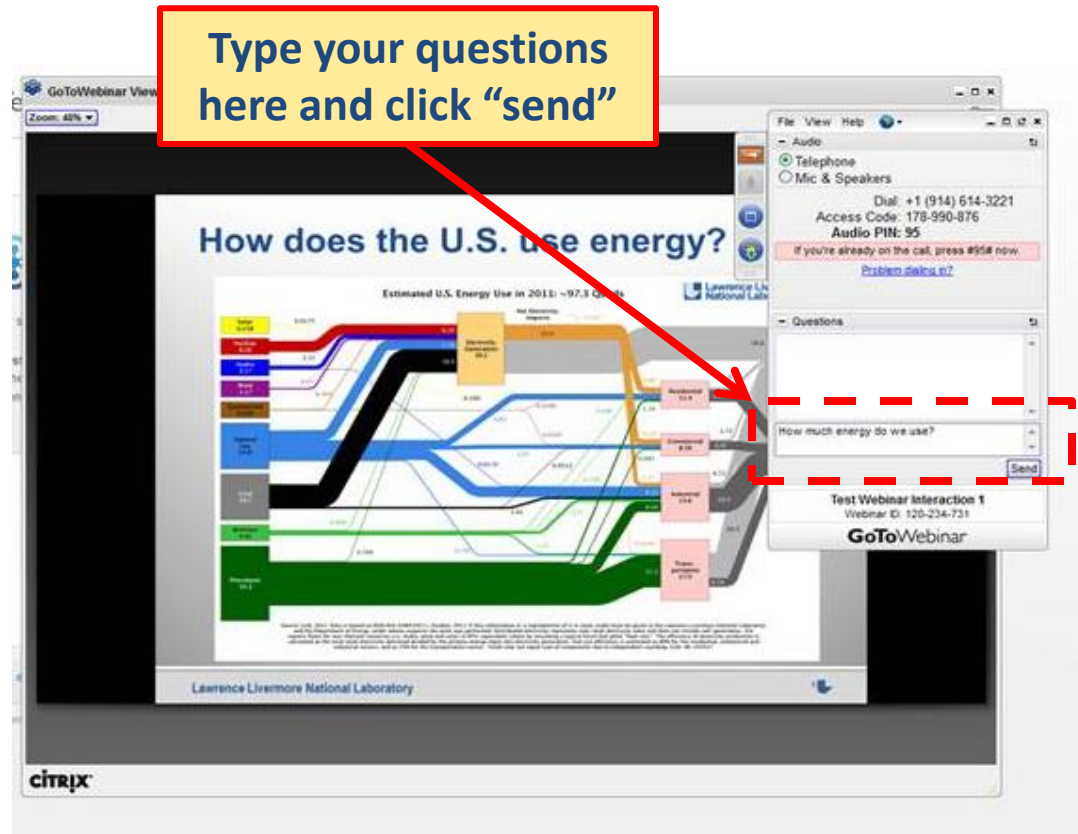
Draft Notional Content Under Discussion

2015-03-04



Webinar Logistics

- Due to the large number of expected participants, the audio and video portions of this webinar will be a “one way” broadcast. Only the organizers and QTR authors will be allowed to speak.
- You are encouraged to submit questions using GoToWebinar’s “Questions” functionality. The moderators will respond, via audio broadcast, to as many appropriate questions as time allows.





Webinar Schedule (all times EST)

Begin	End	Chapter	Topic
10:00 AM	11:00 AM	1	Energy Challenges
11:00 AM	12:00 PM	2	What Has Changed?
12:00 PM	1:00 PM	3	Systems
1:00 PM	2:00 PM	10	Enabling Science
2:00 PM	3:00 PM	11	Competitiveness
3:00 PM	4:30 PM	12	Integrated Analysis
4:30 PM	5:30 PM	13	Accelerating RD3



QTR-2015 Chapter Outline--Draft

Introduction

1. Energy Challenges
2. What has changed since QTR 2011
3. Energy Systems and Strategies

Assessments

4. Advancing Systems and Technologies to Produce Cleaner Fuels
5. Enabling Modernization of Electric Power Systems
6. Advancing Clean Electric Power Technologies
7. Increasing Efficiency of Buildings Systems and Technologies
8. Increasing Efficiency and Effectiveness of Industry and Manufacturing
9. Advancing Clean Transportation and Vehicle Systems and Technologies
10. Enabling Capabilities for Science and Energy

Integrated Analysis

11. U.S. Competitiveness
 12. Integrated Analysis
 13. Accelerating Energy Science and Technology RDD&D
 14. Action Agenda and Conclusions
- Web Appendices



Chapter 13: Accelerating Energy Science and Technology RD3

How can Energy Science and Technology RD3(&T2) be accelerated?

- **RD3 Capabilities: Computational Materials? Simulations? The Science of Research?**
- **RD3T2 Processes: Science-based Process Improvement?**
 - Technology and Portfolio Assessment?
 - Selection Processes?
 - Oversight Processes? How to minimize overheads and maximize performance?
 - Accelerating Demonstrations?

For T2 Processes:

- What data should be/can be collected?
- How can we systematically test, evaluate, and identify best approaches within the constraints of many variables?
- Design of Experiment Frameworks?



Office of Technology Transitions Overview

Mission: To expand the commercial impact of DOE's portfolio of RDD&D activities over the short, medium and long term.

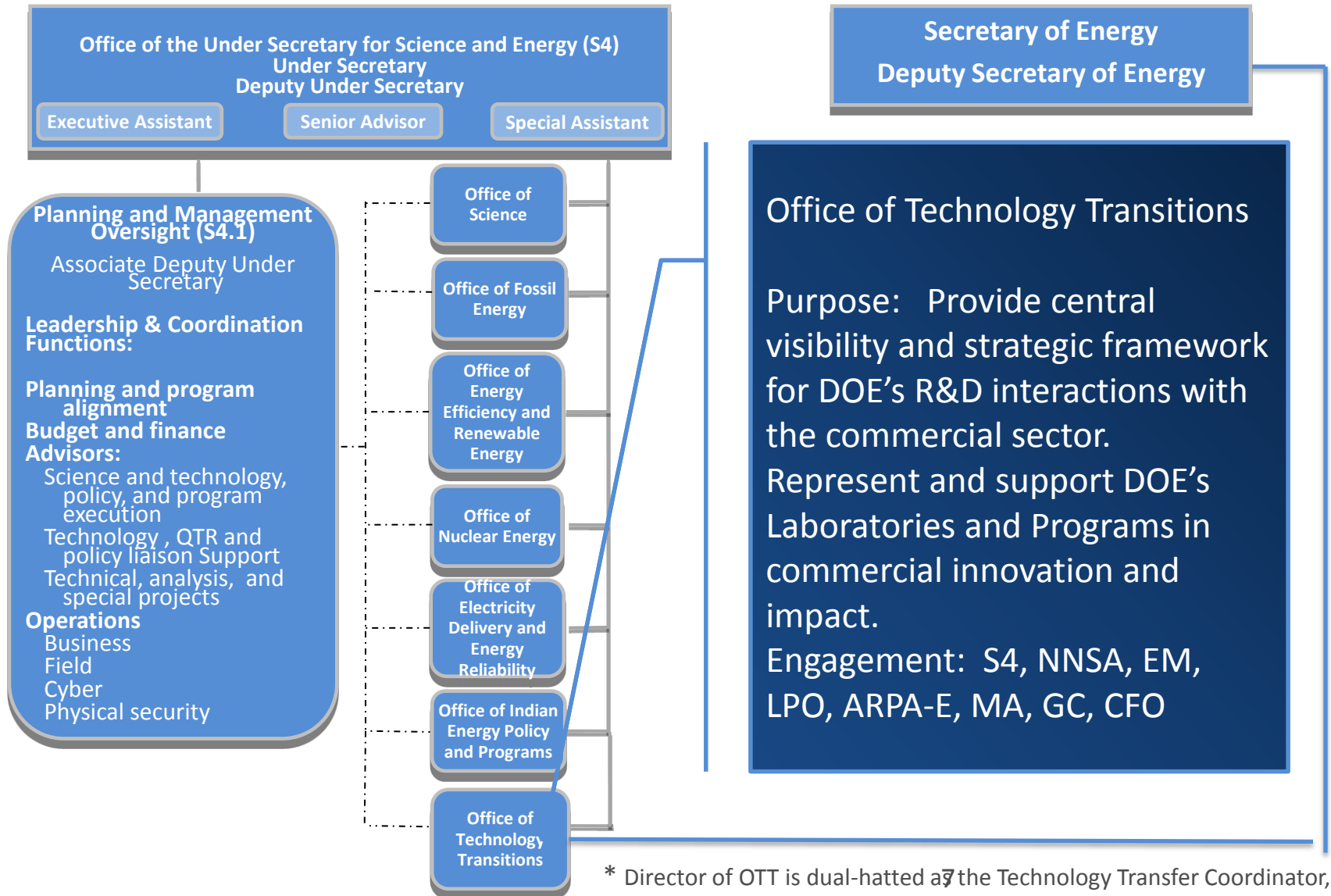
What: OTT is the functional unit that coordinates the Department's multiple paths of RDD&D activities toward technology transfer and commercial development of DOE's research outputs.

How: OTT develops and oversees delivery of the DOE strategic vision and goals for technology commercialization and engagement with the business and industrial sectors across the US.

Why: OTT will help derive the maximum impact for the Department's investments.



New Structure of the Office of the Undersecretary for Science and Energy



* Director of OTT is dual-hatted as the Technology Transfer Coordinator, with direct reporting line to the Secretary of Energy



OTT Goals Under Consideration

- **Address reporting with improving quality and completeness from 2013 through 2016**
- **Establish a central point of information discovery for commercial customers of DOE RDD&D, IP, facilities, and technical expertise**
- **Develop effective metrics and best practices that can be used to guide continuous improvement in delivering economic benefits of DOE RDD&D over the short, medium and long term**
- **Streamline the procedures by which the Laboratories deliver commercial engagement**
- **Implement state of the art data management tools to facilitate information collection, analysis and communication**
- **Establish a culture in which all of DOE's RDD&D activities are recognized as parts of a portfolio to be managed to optimize transitions along the different stages of technical development**



Exploring Essential and Best Practices

U.S. Department of Energy Industrial Consortia Initiative Workshop: Essential Practices for Managing Industrial Consortia - Feb, 2015

- Can key lessons learned and essential and best practices for industrial consortia engagements across DOE Programs be identified?
- Can an understanding of common issues that arise in dealing with industrial consortia be developed with guidance on the associated essential and best practices in terms of technical and programmatic management? Topics where essential practices may be applicable include engagement of industry in program definition, industrial advisors/advisory board, industrial collaborations, managing IP, publications, project milestones and metrics of value delivery.

TTWG Meeting on Essential Practices in Managing National Lab T2 Programs – Jan, 2015

- **Barriers**
 - What are the primary barriers (across DOE, within labs, and external to DOE) to effectively transferring laboratory-developed technologies to the marketplace? At what stage in the process do the most barriers occur?
 - What are major challenges to establishing the lab-industry relationships that effectively promote tech transfer?
- **Recommendations**
 - Recommendations for the Labs: What can the labs do in the essential/best practices space and other areas to improve performance in tech transfer? What are the success measures for each recommendation (i.e., metrics for measuring progress in tech transfer)?
 - Recommendations for DOE: What are recommendations (near, mid- and long-term actions) for DOE as it establishes the OTT? What are the success measures for each recommendation (i.e., metrics for measuring performance toward goals)?



The QTR-2015 Team Encourages Your Input

- More Information is at: <http://www.energy.gov/qtr>
- Email: DOE-QTR2015@hq.doe.gov