

# National Commission on Innovation and Competitiveness Frontiers Working Group on Accelerating Clean Energy Technology

# **Session 1 Discussion Guide**

Monday, March 27<sup>th</sup>, 2023 3:50 p.m. to 5:00 p.m.

# Agenda

- 3:50-4:10 Welcome and Working Group Overview
- 4:10-4:20 Kick-Off Discussant Remarks
- 4:20–4:50 Discussion of High-Level Priorities
- 4:50-5:00 Summary of Takeaways for Plenary

# Discussion

### Welcome & Working Group Overview (20 min)

Welcome & Introductions

• Moderator (Mr. John Thompson) will welcome the group and lead a roundtable introduction before providing some opening remarks.

Working Group Charter Issue Areas

- Issue Area 1: Boosting investment in development and deployment of promising clean energy technologies.
- Issue Area 2: Modernizing the U.S. power grid to enable the clean energy transition.
- Issue Area 3: Establishing a supportive domestic policy ecosystem to foster clean energy innovation.
- Issue Area 4: Engaging proactively on the international stage to address trade issues and reinforce global competitiveness in clean energy.

Recent Developments Affecting Clean Energy Technology

- IRA Investments
- Increasing Competition from China

- Fusion Breakthrough
- **Question for Working Group members:** What additional recent scientific, geopolitical, or public policy developments are highly relevant to our Working Group discussions this year?

#### Kick-Off Discussant Remarks (10 min)

Dr. Karma Sawyer and PLACEHOLDER will provide opening thoughts to frame the Working Group discussion.

#### **High-Level Priorities (30 min)**

- What are the largest challenges facing the U.S. clean energy technology landscape today?
- What are some of the most promising opportunities on the horizon for accelerating clean technology innovation?
- Are any major issues or themes missing from the Working Group charter?
- At a high-level, what are policymakers getting wrong in efforts to support clean technology innovation? What are they getting right?
- In what areas could this Working Group provide the greatest value-add by developing recommendations for policymakers?

#### Summary of Takeaways (10 min)

Working Group members will collaboratively summarize key takeaways.

# **Session 2 Discussion Guide**

Tuesday, March 28<sup>th</sup>, 2023 11:00 a.m. to 1:00 p.m.

# Agenda

- 11:00-11:10 Welcome & Session 1 Recap
- 11:10-12:00 Topic #1 Discussion
- 12:00-12:50 Topic #2 Discussion
- 12:50-1:00 Summary of Takeaways

## Discussion

#### Welcome & Session 1 Recap (10 min)

Moderator (Mr. John Thompson) will provide a brief overview of topics discussed and key takeaways from first session.

# Topic 1: Boosting investment in development and deployment of promising clean energy technologies (50 min)

Note: The questions below are intended to guide discussion and provide food for thought. Not all questions need to be directly addressed during discussion of a given topic and likely cannot be given time constraints. Moderators and working group participants will collaboratively shape discussion around priority issues.

- What key areas clean energy technology research, development, and deployment remain unaddressed or underfunded by the Inflation Reduction Act (IRA), the Biden budget, the infrastructure bill (IIJA), and the CHIPS and Science Act?
- Are any <u>specific alternative energy technologies</u> serially underinvested in? Would these technologies most benefit from increased investment by the public sector, private sector, or academic research ecosystem?
- Are any <u>stages in the innovation pipeline</u> (e.g., basic R&D, demonstration, commercialization) serially underinvested in? Would these areas most benefit from increased investment by the public sector, private sector, or academic research ecosystem?
- Should the United States establish a federal "green bank" or similar central financing authority to support demonstration and scaling of promising clean energy technologies?
- How can the lab-to-market pipeline for clean energy technologies be supported, reconfigured, or streamlined to accelerate commercialization of major discoveries? Which stage of the U.S. innovation pipeline for presents the most barriers for clean energy technologies to navigate?

- What support or incentives should be adopted to further encourage technology transfer from universities to industry?
- What implications does the recent fusion energy breakthrough have for the U.S. clean energy innovation landscape? How far away are we from a fusion-powered future?

#### Topic 2: Modernizing the U.S. power grid to enable the clean energy transition (50 min)

- What shortcomings or vulnerabilities exist in the current U.S. power grid which must be addressed to support the clean energy transition?
- What innovations in "smart grid" capabilities show the most promise, and how can innovation in these areas be unlocked?
- How can the public and private sectors collaborate to support grid modernization? Where would investments stretch the furthest?
- What are some creative ideas for implementing new approaches to grid modernization, given the balkanized nature of the power grid and the role of states in approving and implementing upgrades?
- What reforms could be made to state and federal permitting rules to accelerate gird modernization efforts?

#### Summary of Takeaways (10 min)

Working Group participants will collaboratively summarize key takeaways.