

National Commission on Innovation and Competitiveness Frontiers

Working Group on Accelerating Innovation in Clean Energy Technology

Session 2 Discussion Guide

Thursday, September 14th, 2023

11:00 a.m. to 12:30 p.m.

Agenda

- 11:00-11:10 – Welcome & Introduction
- 11:10-11:45 – Topic #1 Discussion
- 11:45-12:20 – Topic #2 Discussion
- 12:20-12:30 – Conclusion & Next Steps

Background & Context

The Future of Sustainability: Accelerating Innovation in Clean Energy Technology charter identifies four broad issue areas for the Commission and its Working Groups to explore:

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

When the Commission convened at UC Davis earlier this year, discussion focused on the first two topics. Discussion during this and subsequent Working Group meetings will unpack those topics further, explore issue areas 3 and 4 above, and respond to recent policy and technology developments that are shaping the broader landscape of sustainability and clean energy technologies. Specifically, major recent developments in this space include:

- IRA Implementation: It's been over a year since the passage of IRA, which directed nearly \$400 billion towards clean energy manufacturing, supply chains, and innovation. Ensuring effective and efficient implementation will be key to realizing the bill's goals.
- Growing Competition from China: In 2022, China invested almost \$550 billion in clean energy – almost half of the world's low carbon spending and far outpacing the U.S. Meanwhile, China has become the dominant global supplier of clean energy technology from batteries to solar PV cells.
- Critical Mineral Access and Supply Chains: The supply of critical minerals continues to be a large barrier to the clean energy transition, particularly as demand continues to grow. China holds a

dominant position, controlling 60% of rare earth element (REE) production and almost 90% of REE processing.

The questions below are intended to guide discussion and provide food for thought. Not all questions need to be directly addressed during the Working Group session. Moderators and Working Group participants will collaboratively shape discussion around priority issues.

Discussion

Topic 1: Implementing policy and measuring progress

- With the passage of IRA, policymakers and agencies are in the thick of implementation. Are there any principles that could guide implementation decisions? What goals should implementing agencies have, and how does that affect policy design?
- How can we measure the progress and impacts of recent climate legislation? What lessons can we draw for designing and implementing future programs?
- How can investments in national security contexts be leveraged to advance clean energy objectives (e.g., applying AI and computing advancements to the grid)?

Topic 2: Closing policy and regulatory gaps

- What specific policy levers that were not included in recent legislation would be most effective for ramping up development and deployment of clean energy tech? Are there specific issues or areas that still need addressed (e.g., decarbonizing carbon-intensive industries including steel and cement)?
- Should any new programs or federal bodies be established to coordinate cross-sectoral efforts and support private sector innovation?
- How can the regulatory environment be streamlined to support deployment of clean technologies? What areas merit increased focus and attention (e.g., permitting reforms)?

Conclusion & Next Steps

- Our second session will be held **October 17th, from 11:00am-12:30pm**, and will focus on international issues, including engagement with allies and securing critical supply chains. *[Moderators thank WG participants]*