

Mid-Atlantic Region Energy Innovation Forum

hosted by West Virginia University

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Morgantown, West Virginia



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Areas of Expertise: Sustainable Energy Portfolio Development, Academic-Industry-Government Partnerships

Major Takeaways: Mid-Atlantic Region Forum at West Virginia University

Event Overview

- 112 participants from 7 states (KY, OH, PA, VA, MD, NJ, WV) and DC from academia (32), national laboratories (8), industry (35), government (22), and non-governmental organizations (15).
- Keynotes from Secretary Moniz, Senator Joe Manchin, and Congressman David McKinley
- Regional cooperation panels:
 - Regional Challenges and Opportunities (NETL, CMU, Battelle, Benedum Foundation)
 - The Tri-State Governor's Regional Cooperation (WV, PA, OH)
- Topical Panels
 1. Innovation opportunities for fossil fuels in a future low carbon economy (ExxonMobil, Battelle, B&W, Siluria)
 2. Innovation opportunities in other clean energy technologies (GE, PPPL, SMLC, DOE NE)
 3. Policies Facilitating Sustainable Clean Energy Development (PJM, RFF, NRECA, Spilman Thomas & Battle)
 4. Regional Innovation Investment and Commercialization (InnovationWorks, HarbourVest Partners, DOE CFO)

Key Takeaways

- Current Regional Innovation Ecosystem
 - The Mid-Atlantic Region is a tale of two halves, fewer population but energy resources in the west and population density in the east. As such, there are currently two disconnected innovation ecosystems. WV, PA, and OH have created the Tri-State Coalition and the Pittsburgh/Cleveland/N. WV region has the Power of 32.
- Building a Broader Ecosystem
 - Coordinating across the entire 8 state region and multiple sub-regional efforts.

Major Takeaways: Mid-Atlantic Region Forum at WVU (continued)

Key Takeaways (continued)

- Opportunities

- Large (55 million ppl), diverse, energy-rich region with **engaged stakeholders from all sectors**

- Priority Innovation Focus Areas

- **Clean fossil**: advanced power cycles, fuel cells, CCUS, and increased natural gas utilization
 - NETL, Industry partners (i.e. B&W, ExxonMobil, Siluria, Battelle), and Universities strong in this area (OSU, UK, WVU, PSU, Princeton, VT, etc)
 - Strong state-level support and momentum in the industry, e.g. current infrastructure developments underway
- **Grid modernization** – smart grid and grid-scale electric storage (NEES EFRC, PJM, FirstEnergy, Exelon, AEP, NRG)
- **Energy Efficiency** – building and industrial efficiency (CBEI Hub, Energy4P32)
- **Nuclear Energy** – fission and fusion energy sciences (PPPL, WVU, Westinghouse, WastePD)
- **Advanced and Smart Manufacturing** (NNMIs: America Makes, IACMI, SMLC-CESMII)

- Challenges

- **Funding** for large-scale demonstration of technologies - CCUS, power cycles, NG conversion demonstrations cost \$100s of millions
- Diverse region and **broad priority focus** areas

- Next Steps

- **Five follow-on events** coordinated by the TrUE Alliance
 - **Grid**: EPIC Meeting Pittsburgh, 11/14-11/15; **Storage**: Center of Excellence in Ohio meeting on Energy Storage end of October in Cleveland;
 - **NG Utilization**: AIChE Natural Gas Utilization Workshop on November 1-3, 2016 in Morgantown and technical workshop Tri-State, November 30
 - **Efficiency**: CMU and Energy for the Power of 32
- PJM Interconnect will be working with WVU on **regional planning and innovation efforts**
- Coordinate with **sub-regional consortia** in developing a Mid-Atlantic Region Energy **Innovation Roadmap**

