

University Energy Institute Leadership Summit

**Wyndham Grand Pittsburgh Downtown
Pittsburgh, PA
600 Commonwealth Place
Pittsburgh, PA 15222**

September 25–26, 2019

Agenda as of August 8, 2019

DAY ONE: Wednesday, September 25, 2019

11 AM	Registration opens
11 AM–1 PM	Networking Reception – <i>Buffet Lunch at Noon</i>
1–1:45 PM	University Energy Institute Leadership Kick-Off: Welcome, Meeting Objectives & Introductions <u>Jay F. Whitacre</u> Director, Wilton E. Scott Institute for Energy Innovation, Carnegie Mellon University (CMU) <u>James H. Garrett, Jr.</u> – CMU alumnus Provost and Chief Academic Officer, Carnegie Mellon University <u>Rich Fitzgerald</u> – CMU alumnus Allegheny County Executive <u>William Peduto</u> Mayor, City of Pittsburgh <u>Anna J. Siefken</u> Executive Director, Wilton E. Scott Institute for Energy Innovation, Carnegie Mellon University
1:45–2:45 PM	Keynote: The Network and U.S. Energy Innovation Ecosystem <u>James Zahler</u>

	<p>Associate Director for Technology-to-Market, Advanced Research Projects Agency-Energy (ARPA-E)</p> <p>Universities are key players in innovation. This keynote will explore the potential role of an energy institute network in the U.S. energy innovation space. It will also discuss how, if energy institutes are partners, the innovation process might benefit. This session will touch on the potential impact of a network, focused on innovations, in specific areas of technology.</p> <p>James Zahler currently serves as the Associate Director for Technology-to-Market at the Advanced Research Projects Agency-Energy (ARPA-E) where he is responsible for oversight of all Technology-to-Market activities. He is also responsible for advising teams within the Full-Spectrum Optimized Conversion and Utilization of Sunlight (FOCUS) and OPEN portfolios, which include photovoltaic (PV), concentrated solar power (CSP), and heat engine technologies. Additionally, Zahler supports performers in the Micro-Scale Optimized Solar-Cell Arrays with Integrated Concentration (MOSAIC) portfolio, which is designed to develop novel PV and optics technologies for concentrated photovoltaics (CPV).</p>
2:45–3:30 PM	Networking Break
3:30–5 PM	<p>Roundtable Discussion: <i>Commonalities, Differences, and Stakeholder Expectations</i></p> <p><i>Introduced by Michael M. Whiston, Postdoctoral Research Associate, Carnegie Mellon University</i></p> <p>After a brief introduction, this session seeks to identify commonalities, differences, and potential opportunities for collaboration among university energy institutes. Results from a nationwide survey, conducted by Carnegie Mellon University, will be presented to provide a snapshot of energy institute research, funding, and strategic focuses in the U.S. This session will also discuss the expectations that stakeholders have of a network. The roundtable discussion will address these questions:</p>

	<ul style="list-style-type: none"> • What are commonalities among energy institutes? What are differences? • Can energy institutes complement one another's strengths and weaknesses? Are there opportunities to collaborate? • Who are the stakeholders in energy institutes? What expectations would stakeholders have of a network?
5–6 PM	<p>Fireside Chat: <i>Fueling America's Energy Generation</i></p> <p><u>Brian Anderson</u> Director, U.S. Department of Energy National Energy Technology Laboratory</p> <p>For more than a century, the U.S. Department of Energy's National Energy Technology Laboratory (NETL) has developed bold and innovative technology solutions to address America's energy challenges using fossil energy resources. Today, the NETL mission focuses on discovering, integrating, and maturing technology solutions to enhance the nation's energy foundation and protect the environment for future generations, and follows a vision that will continue to power the nation's economic progress, ensure its security, and enhance national prosperity.</p> <p>NETL's robust partnerships harness exceptional talent from across nation to develop technologies that improve the beneficial role fossil energy plays in our lives. Through forward-looking research, the laboratory's team of talented researchers, promising interns, and post-graduate scientists continue to drive energy innovation and emerging energy technologies to benefit future generations.</p>
6–6:30 PM	<p>End-of-Day Recap, Reflections</p> <p><u>Anna J. Siefken</u> Executive Director, Wilton E. Scott Institute for Energy Innovation, Carnegie Mellon University</p>
6:30–8 PM	Event Networking Reception

	Join us for networking and heavy hors d'oeuvres.
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DAY TWO: Thursday, September 26, 2019

8–9 AM	Continental Breakfast and Networking
9–9:30 AM	<p>Day 2 Welcome</p> <p><u>Jay F. Whitacre</u> Director, Wilton E. Scott Institute for Energy Innovation; Trustee Professor in Energy, Carnegie Mellon University</p> <p><u>Chanette Armstrong – CMU alumna</u> Principal Deputy Director, ARPA-E</p>
9:30–10:30 AM	<p>Roundtable Discussion: <i>Energy in the Higher Education Curriculum: The Role of Energy Institutes in Education</i></p> <p><i>Introduced by <u>Elizabeth J. Wilson</u>, Director, Arthur L. Irving Institute for Energy and Society, Dartmouth College</i></p> <p>To address the world's energy challenges, energy-focused educational programs are evolving. This session will explore approaches and visions for developing this type of education. Topics include course curricula, areas of specialization, "hands-on" opportunities for students, training for work in the private and public sectors, and degree and program requirements. The roundtable discussion will address these questions:</p> <ul style="list-style-type: none"> • What should be taught? Is there a "common core"? • Should a consortium offer its own courses? • What would be the course format (online or in-person)? • Who would teach the courses? Can teaching be shared among energy institutes?
10:30–11:15 AM	Networking Break

11:15 AM–12 PM	<p>Panel: <i>Three Institutes, Three Perspectives: The Importance of Collaboration in the University Energy Space</i></p> <p><u>Jay F. Whitacre</u> Director, Wilton E. Scott Institute for Energy Innovation, Carnegie Mellon University</p> <p><u>Morgan Bazilian</u> Director, Payne Institute, Colorado School of Mines</p> <p><u>Kenneth B. Medlock III</u> Senior Director, Center for Energy Studies, Rice University's Baker Institute for Public Policy</p>
12-1 PM	Networking Lunch
1–2 PM	<p>Keynote: <i>Forming and Growing an Organization</i></p> <p><i>Details forthcoming</i></p> <p>Creating a vision for collaboration can be daunting, but there are leaders who have paved the way, leveraging diverse strengths and resources to meet challenges. This talk will provide motivation for the formation of a new organization of energy institutes. Topics include how to establish a new organization's mission and vision, build an environment that fosters creativity and entrepreneurship, secure resources and funding, and collaborate with and complement other organizations.</p>
2–3 PM	<p>Roundtable Discussion: <i>Setting Energy Institute Expectations for Collaboration: Benefits and Challenges of a Network</i></p> <p><i>Introduced by <u>Kenneth B. Medlock III</u>, Senior Director, Center for Energy Studies, Rice University's Baker Institute for Public Policy</i></p> <p>What should collaboration look like among energy institutes? This session will explore the benefits and challenges of collaboration. Consideration will be given to the potential impact of a network on</p>

	<p>public policy, research funding, partnerships with government and industry, education, media attention, research productivity, and bringing technologies to market. The objective of this session is to arrive at a set of expectations that individual institutes have of a network. The roundtable discussion will address these questions:</p> <ul style="list-style-type: none"> • What are the largest benefits of a network? Largest challenges? • What measures can be taken to overcome challenges while maintaining benefits? • What goals and metrics should be used to gauge network effectiveness? • Is there a risk of excluding some universities? How can fairness be ensured in terms of diversity, equity, and inclusion?
3–3:45 PM	Networking Break
3:45–4:45 PM	<p>Roundtable Discussion: <i>How to Structure a Network of U.S. Energy Institutes</i></p> <p><i>Introduced by Morgan Bazilian, Director, Payne Institute, Colorado School of Mines</i></p> <p>Networks can take different forms, depending on the scope and objectives of collaboration. This session will introduce possible network structures, including models for collaboration, sharing resources, and assigning staff roles. We will differentiate between centralized (strong) networks and decentralized (weak) networks. The roundtable discussion will address these questions:</p> <ul style="list-style-type: none"> • What should be the geographical scope of collaboration? • What assets should be shared among energy institutes? • Which structure(s) are energy institutes most likely to join? • Which are longest-lasting? • What are the funding requirements of different structures?
4:45–5:30 PM	<p>Closing: A Path Forward and Action Items</p> <p><u>Jay F. Whitacre</u></p>

	<p>Director, Wilton E. Scott Institute for Energy Innovation, Carnegie Mellon University</p> <p><u>Anna J. Siefken</u></p> <p>Executive Director, Wilton E. Scott Institute for Energy Innovation, Carnegie Mellon University</p>
5:30–6:30 PM	Group Dinners (on your own, facilitated by the Scott Institute)
7:05 PM	<p>Let Us Take You Out to the Ball Game!</p> <p>The Pittsburgh Pirates will take on the Chicago Cubs at PNC Park at 7:05 p.m. The stadium is located in a prime location along the shore of the Allegheny River and takes advantage of scenic vistas of the downtown skyline and riverfront, creating an exciting and dramatic urban sports venue.</p> <p><u>Fill out this brief form</u> to reserve your ticket. Let's play ball!</p>