17th Annual Solid Oxide Fuel Cell Project Review Meeting

The 17th annual Solid Oxide Fuel Cell (SOFC) Project Review Meeting, hosted by the U.S. Department of Energy's (DOE) National Energy Technology Laboratory (NETL), was held in Pittsburgh, Pennsylvania, on July 19-21, 2016. A total of 146 attendees from 26 companies, 20 universities, and 7 national laboratories and government agencies attended the workshop.

The meeting opened with the NETL Fuel Cells Technology Manager, Dr. Shailesh Vora, welcoming the participation of the Advanced Research Projects Agency-Energy (ARPA-E) Reliable Electricity Based on Electrochemical Systems (REBELS) Program. Dr. Vora then recognized the achievements of the SOFC Program participants, provided an overview of the SOFC Program, and announced the nine new awards from this year's Funding Opportunity Announcement (FOA).

In the opening session, ARPA-E REBELS Program Directors Paul Albertus and Grigorii Soloveichik discussed ARPE-E's mission to catalyze and support the development of transformational, high-impact energy technologies and the REBELS focus on the development of intermediate temperature fuel cells (ITFC) for distributed generation applications, load-following, and liquid fuels production.

SOFC Program participants gave 28 presentations. Researchers addressing cell and core technology issues gave 24 presentations, which included chromium (Cr) mitigation, cathode degradation, manufacturing and materials development, model integration, and improved electrochemical performance. The system developers discussed their accomplishments on their respective state-of-the-art proof-of-concept systems, and innovative concept developers reported on the next generation SOFC cell and stack technology. REBELS researchers gave eight presentations covering distributed generation applications, load-following response, and liquid fuels producing ITFCs.

An evening poster session included 35 posters on topics ranging from fundamental investigations on cathode performance and durability to novel cell and stack architectures. This open forum provided a less-formal environment and encouraged and facilitated discussion amongst the presenters and attendees. All presentations and poster abstracts are available on the <u>NETL website</u>.