

July 5th, 2018**Advent Technologies participates in review meeting for IONICS Redox Flow Battery project**

On Thursday, May 10th, 3 representatives from Advent Technologies (Dr. Emory De Castro, CTO, Dr. Ryan Pavlicek, Sr. Scientist, and Manav Sharma, R&D Scientist) participated in the annual review with ARPA-e on the progress of the IONICS project entitled “Synergistic Membranes and Reactants for a Transformative Flow-Battery System (SMART-FBS)”, hosted at Harvard University. Other team members from UTRC, Harvard University, and the University of South Carolina were present in person, while team members from Lawrence Berkeley National Laboratory attended remotely. The purpose of this meeting was a comprehensive review of the status of the project as of the completion of Q4. Advent demonstrated novel membrane materials derived from its proprietary TPS[®] membrane that achieved the necessary permeability and conductivity metrics in Vanadium Redox Flow System, formally achieving the Go/No-Go target for the project, while also achieving comparable in-cell performance to the state-of-the-art PFSA membranes. In addition, the University of South Carolina (Prof. Brian Benicewicz) developed modified PBI membranes that also achieved similar in-cell performance to PFSA membranes. Lawrence Berkeley National Laboratory had begun development of model systems to further evaluate the membranes, while Harvard University made great strides in the development of organic molecules as Vanadium substitutes. As the lead of the project, UTRC was responsible for the majority of the in-cell testing on both TPS[®] and PBI-based membranes, both BOL and durability testing. On the whole, the progress was well received by ARPA-e, and the project has since advanced into the next budget period.

Advent Technologies is a world leader in advanced materials and devices for transportation, energy, defense, IoT, flow batteries, and hydrogen production applications. The Company is headquartered in Cambridge, MA, USA with additional facilities in Patras, Greece. It has customers with repeat orders in the USA, Europe, and Asia. Advent is a leader in High Temperature MEAs that enable the usage of methanol, natural gas, propane, biomass and other fuels in addition to clean hydrogen. The company owns 31 patents and has received more than 20 prestigious R&D programs in the USA and Europe. Advent has a world-class team of electrochemical scientists and R&D alliances with Northeastern University and University of Patras, FORTH-ICEHT.

USA

One Mifflin Place, Suite 400, Cambridge, MA 02138

T: +1 857 264 7035

GREECE

Kifisias 44, 15125 Marousi Athens

T: +30 210 637 8820

F: +30 210 637 8888

GREECE

Patras Science Park, 26504 Patras

T: +30 2610 911583

F: +30 2610 911585

Website: www.advent-energy.comEmail: info@advent-energy.com