The Baker-Polito Administration today awarded $455,000 in funding to seven early-stage researchers and companies developing innovative clean energy and water technologies across the Commonwealth. The funding, which comes from the Massachusetts Clean Energy Center's (MassCEC) Catalyst program, will support clean energy and water research in Boston, Cambridge, Lowell, and Somerville. The announcement was made by state officials at a tour of the Saab Emerging Technologies and Innovation Center at the University of Massachusetts-Lowell as part of the Commonwealth’s Earth Week celebration.

“Supporting these early-stage companies will help drive the Commonwealth's nation-leading clean energy industry and innovation economy,” said Governor Charlie Baker. “During Earth Week, we are proud to announce funding for creative projects that will increase access to renewable energy across the state and help us continue combatting climate change.”

“Catalyst Program grants help new ideas grow into thriving businesses that contribute to Massachusetts’ economy and provide high-quality jobs for our residents,” said Lieutenant Governor

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Karyn Polito. “Our administration remains dedicated to supporting the researchers and entrepreneurs at the core of our vibrant innovation sector.”

The Catalyst program, which is funded by MassCEC and managed by the Massachusetts Technology Transfer Center (MTTC), provides $65,000 to researchers and companies that are working to bring promising products and technologies to the marketplace.

“Our efforts to reduce Massachusetts’ greenhouse gas emissions are reliant upon the technology advancements and hard work of our entrepreneurs,” said Energy and Environmental Affairs Secretary Matthew Beaton. “This funding provides crucial resources to young companies and promising ideas, supporting cleantech innovation and job creation in the Commonwealth.”

“This funding will help these companies overcome the challenges of early-stage development, putting them in a position to attract additional private investment in the future,” said MassCEC CEO Stephen Pike. “By providing this support we can enable these entrepreneurs and researchers to advance groundbreaking technologies and solutions to the Commonwealth’s energy and water resource challenges.”

“For early stage entrepreneurs and researchers, a major requirement before they can gain traction in the market or with investors is to successfully demonstrate how their technology will work so this funding really is a catalyst to the further development of their business ideas,” said MTTC Director Abigail Barrow.

Since 2010, the program has awarded $3.19 million to 76 research teams. Past awardees have raised a combined total of more than $100 million in follow-on financing from various sources, including angel investors, venture capitalists and grants from federal programs including the U.S. Department of Energy’s Advanced Research Projects Agency-Energy, the National Science Foundation and the Small Business Innovation Research program. Previous awardees have formed six new companies, received patents for or filed inventions on 104 new pieces of intellectual property, and issued 58 new research publications.

The following awardees will each receive $65,000:

**Dr. Keith Hearon (Boston), Poly6 Technologies, Inc.**: The funding will be used to develop a high performance 3D printing material made from natural citrus products with zero volatile emissions and requiring less energy to produce than traditional, fossil-fuel derived alternatives.

**Dr. Shreya Dave (Cambridge), Via Separations**: The funding will be used to develop an advanced nanomaterial for use in industrial and chemical liquid filtration. The technology uses less energy and reduces resource-intensive cleaning processes as compared to current filters.

**Dr. Fuqiang Liu (Lowell), University of Massachusetts**: The funding will be used to develop an all-day solar cell that simultaneously generates and stores electricity, allowing for efficient generation during the day and discharge at night without the use of an external battery.
Dr. Wei Guo (Lowell), University of Massachusetts: The funding will be used to develop advanced materials with the potential to improve the color spectrum, lifetime, and efficiency of white LEDs.

Alexander Bratianu (Somerville), De-Ice Technologies, Inc.: The funding will be used to develop an electric de-icing solution for aircraft, eliminating the use of millions of gallons of chemicals and water, while also reducing de-icing delays on the tarmac.

Dr. Jorge Elizondo (Somerville), Heila Technologies LLC: The funding will be used to develop a universally-compatible, cost-effective microgrid controller. A microgrid – which can power campuses of buildings – uses a variety of power sources like renewable energy, operates independently and has the ability to island itself from the larger electric grid during power outages.

Marshall Moutenot (Somerville), Upstream PBC: The funding will be used to develop a software platform that ties water rights to satellite imagery of irrigated land to facilitate the buying and selling of water rights, and encourage efficient water use and conservation.

“It’s always very exciting to see the different kinds of innovative research being done in Somerville and Cambridge to advance our state’s clean energy and water technology,” said State Senator Patricia Jehlen (D-Somerville). “I’m thrilled that the Commonwealth is assisting these researchers and companies in moving forward with their work.”

“MassCEC’s Catalyst Program plays a crucial role in the Commonwealth's clean energy economy by funding innovative early-stage researchers and companies,” said State Representative Thomas A. Golden, Jr. (D-Lowell), Chairman of the Joint Committee on Telecommunications, Utilities, and Energy. “I commend the Baker administration and MassCEC for awarding these important grants which will accelerate UMass Lowell’s research in improving solar and lighting efficiency.”

“I’m continually inspired by the kind of creativity that these awardees exemplify,” said State Representative Denise Provost (D-Somerville). “This kind of focused effort on using resources more efficiently and sustainably gives me hope for our future.”

The funding builds upon the Baker-Polito Administration's ongoing efforts to support the Commonwealth's vibrant clean energy innovation sector. In August 2016, Governor Baker signed bipartisan comprehensive energy diversification legislation that promotes the administration's commitment to reducing energy costs while strengthening the state’s clean energy economy and progressing towards Massachusetts’ greenhouse gas reduction requirements.

Catalyst is funded through MassCEC's Renewable Energy Trust, which was created by the Massachusetts Legislature in 1997. The trust is funded by municipal electric departments that have opted to participate in the program, along with a systems benefit charge paid by electric customers of investor-owned utilities in the state.