

Senator & Congressman Worked to Secure Much-Needed Funds That Will Help Boost the Center, Southern Tier into a Powerhouse for Solar Research

Binghamton, NY - After securing \$4 million for Binghamton University's new initiative, the Center for Autonomous Solar Power (CASP), U.S. Senator Charles E. Schumer and Congressman Maurice Hinchey (D-NY) today visited the innovative technology complex to see firsthand the new technology that will help establish the center as a leading energy research lab. The CASP will play a critical economic role in the Southern Tier, providing cutting edge technology for defense, aerospace, consumer and industrial markets through solar power designs that will contribute to operational and logistical efficiency. The center will also help bring national recognition to Binghamton University for the quality and innovation of its research and development activities as well as economic expansion to the Southern Tier region.

Today, Senator Schumer and Congressman Hinchey officially announced \$4 million in federal funds to help the CASP in its solar energy research.

"Securing this funding is a huge victory for Binghamton University, its Center for Autonomous Solar Power, and the entire Southern Tier. The state-of-the-art center and its world-class research will be a good economic boost for the region and position BU as a leader in the solar energy research field," Schumer said. "I am so proud to have helped to bring a total of \$4 million to this first-class research facility."

"As we make the much-needed and inevitable shift away from oil and fossil fuels towards renewable power, Binghamton University will be playing an integral role in advancing solar energy technology across the country," Hinchey said. "I was very pleased to help obtain these federal funds, which will enable Binghamton University to develop the technology that will make solar energy much more affordable and mainstream. We must finally break our country's dependence on foreign oil and instead invest in solar and other forms of renewable energy. I am very pleased that through the CASP and The Solar Energy Consortium as a whole that we will be able to cement New York as a national and international hub for solar research and development."

Solar electricity currently accounts for just .04 percent of electricity generation worldwide despite a real need for alternative energy sources. While the solar energy sector is a growing

industry with the potential to create thousands of new, high-tech, high-paying jobs, current solar power systems are mostly based on expensive silicon solar cells that have high installation and energy storage costs.

Binghamton University's Innovative Technology Complex launched the CASP in an effort to increase the nation's solar power resources, making them less costly and more accessible. The CASP will research new solar cells that capture more solar radiation and produce higher power using state-of-the-art technology that combines electricity generation and storage into one integrated system. The CASP's mission is to optimize solar conversion efficiency, energy yield, storage capability, solar module stability and achieve significant solar power system cost reduction.

The CASP will work with industrial partners to develop cutting-edge technology for energy, aerospace, consumer, and industrial markets by specifically focusing on solar power integrated new product designs. Working in partnership with academia and the solar industry, CASP will build new industrial relationships and attract new businesses to the region.

The CASP will conduct its work in conjunction with The Solar Energy Consortium (TSEC), which Hinchey helped organize and create last year in upstate New York. TSEC, of which Binghamton University is a partner, is a new industry-driven, non-profit organization that provides leadership, organization, resources, and support for the establishment of a major solar energy industry cluster in New York. Following Binghamton University's decision to join TSEC last fall, Hinchey suggested to the Binghamton University faculty involved with TSEC that they develop a proposal for funding that would advance solar technology research and development. This led the university to propose the CASP and seek federal funding for its implementation.

In an effort to boost the local economy and the Center's solar power technology research and development, Senator Schumer and Congressman Hinchey fought for significant funding through the 2009 Defense Appropriations under the Continuing Resolution. The funding was approved by the Senate and the House in late September and was subsequently signed into law.

The CASP will utilize the funding to research new large area, flexible, light weight solar cells to meet scientific challenges in reducing the cost of solar power and enhancing energy efficiency. The \$4 million in federal funds will specifically support CASP's research to optimize solar

conversion efficiency, energy yield, storage capability, solar module stability and significant solar power system cost reductions.

Today, Schumer and Hinchey visited the center to see firsthand the innovative technology that will help launch BU to the top of the solar research field.

"Our solar power future is right here at Binghamton University and I will continue to support their effort to propel the Southern Tier into a solar energy powerhouse," Schumer said.

"The work that Binghamton University will be doing on solar energy is impressive and makes it clear that some of the critical answers to our energy problems are being solved right here in the Southern Tier," Hinchey said.

TSEC is the first organization of its kind for the photovoltaic industry, encompassing research and development, manufacturing facilities, industry promotion and market development. The consortium has already partnered with two major manufacturing partners, which plan to bring more than 800 new jobs to upstate New York within 4-5 years.