

Creating New Energy Businesses

An Interview with Robert B. Catell,
Chairman, Advanced Energy Research and Technology Center, Stony Brook University



Advanced Energy Research and Technology Center at Stony Brook University

EDITORS' NOTE Robert Catell was formerly the Chairman and Chief Executive Officer of KeySpan Corporation and KeySpan Energy Delivery, the former Brooklyn Union Gas. His career with Brooklyn Union Gas started in 1958. Following National Grid's acquisition of KeySpan Corporation, Catell became Chairman of National Grid U.S. and Deputy Chairman of National Grid plc. He currently serves as Chairman of the Board of New York State Smart Grid Consortium, Cristo Rey Brooklyn High School, Futures in Education Endowment Fund, and the newly announced National Offshore Wind Research and Development Consortium. Catell received both his bachelor's and master's degrees in mechanical engineering from the City College of New York and is a registered Professional Engineer.



Robert B. Catell

INSTITUTION BRIEF Advanced Energy Research and Technology Center (aertc.org) is located in the Research & Development Park at Stony Brook University and is a true partnership of academic institutions, research institutions, energy providers and industrial corporations. The Center's mission is innovative energy research, education and technology deployment with a focus on efficiency, conservation, renewable energy and nanotechnology applications for new and novel sources of energy.

How has the mission of the Advanced Energy Research and Technology Center at Stony Brook University evolved?

Our initial vision was to do research in the energy space to develop new technologies that could be commercialized, focusing primarily on clean energy and renewables. We have been in existence for six years and our mission is still consistent with that initial vision.

We're fortunate to have achieved significant funding from the federal government to do research which has led to new early stage companies that are now starting to grow in the energy center. This is very consistent with our original mission and we're now on a much faster track to be able to commercialize these new clean energy technologies.

Will you discuss the value of AERTC's ability to be a bridge between academia and business?

It's very encouraging to see how the academic sector intersects with businesspeople to create these new technologies. We have a number of entrepreneurs who are working at the energy center, some of whom have had their own successful businesses. We have a medical doctor who is working on developing a new technology to produce clean energy from wave motion.

The great thing about the energy center being located at Stony Brook is that it provides an intersection between people who have had business experience and the academic world with its very intelligent bright researchers and dynamic student population.

The center also gives the students valuable exposure to business. It's a great marriage of business expertise, technology, and academia to create new energy businesses. We are fortunate to have the support of Yacov Shamash, Stony Brook's Vice President for Economic Development, who has a track record of inspiring leaders in very different sectors to collaborate and accomplish good things together. He is responsible for the Advanced Energy Center and a suite of very successful technology based programs which are critical for Long Island and New York State.

What is the center's role in the commercialization of these new technologies?

The energy center has a number of early stage companies residing there as they develop their technologies. The space that we can allocate to this is limited by the rules regarding our use of tax exempt financing. We can only allocate 10 percent of our space to ventures that might make a profit.

We also have a connection to a NYSERDA-funded incubator program that supports early stage start-up companies resident in locations other than the energy center at Stony Brook and elsewhere.

These companies have access to resources at the university to help them learn how to develop business plans and connect to the investment community on Long Island and other areas of New York. We are able to facilitate presentations to angel investment groups to help them obtain that all-important early stage funding. The energy center also provides a bridge to the larger financial community to invest in these companies as they develop.

For example, Thermo Lift is a company that developed a natural gas-fired heat pump. They secured early stage funding from the Long Island Angels and then attracted a successful VC

company to provide additional funding, as well as state and federal resources. They are currently in the early stages of commercialization and are soon to be out in the field installing these units before launching a larger marketing effort.

Are there opportunities to expand the Center to be able to accommodate more early-stage companies?

Absolutely. There is a building under construction in the research park referred to as the mezzanine building, which these early-stage companies could move into as they start to grow. It should be ready to be occupied in 2019.

In addition, the energy center, through a state grant facilitated by the Long Island Regional Economic Development Council, now has a design for a 25,000-square-foot expansion. We have the conceptual design completed and are now ready to go out and raise the money to get it done.

It will also provide an important location for the newly announced National Offshore Wind Research and Development Consortium.

How will the recent award of \$40 million to establish the new offshore wind technology center impact the research center?

This award that was granted from the U.S. Department of Energy has the energy center as the centerpiece for the location of this new national offshore wind technology center. This is due to the expertise that Stony Brook has in this sector as well as in marine sciences, and also because many offshore wind projects are going to be built off Long Island, so it's a perfect location.

The fact that it will be located at the energy center is very rewarding to us, but its reach will be much broader – it will support a nationwide effort to develop new technologies that will reduce the long-term cost of offshore wind energy, which needs to be an important part of our renewable energy supply chain going forward. This new center will also look at developing a supply chain for offshore wind energy in the United States.

How important is public/private partnership in developing a renewable industry?

The partnership between academia, government, business, and the financial sector is critical to developing a renewable industry, not only in New York, but throughout the country. In New York, the governor has mandated that we will get 50 percent of our energy from renewables by 2030 and that will come mainly from two sources, solar and wind, and a public/private partnership will be critical to achieving that goal. ●