

Wake Technical Community College: Public College Foundation Investment in Solar

Private Foundations at Public Institutions

Public colleges and universities often create foundations to develop for-profit entities, contributing to the institution's mission and resources while minimizing the risks for new investments. Foundations have more flexibility in how they can fundraise as they are outside of the public accounting process. Donors contributing to foundations may do so to feel confident that their gifts will be responsibly invested and applied to innovative services and may not take as long to support the institution as state controlled funds. Local business leaders, alumni, and other successful individuals are often willing to donate their time to fund management as a means to fulfill personal goals of community support, exercise their entrepreneurial creativity, and take action on solving today's critical problems.

About Wake Technical's Community and Sustainability Initiatives

Wake Technical Community College is an Associate's College, located in Raleigh, NC with 16,766 students located on a suburban campus. The school has been a signatory of the Carbon Commitment since April 2010 and has set a goal to achieve climate neutrality by 2050. Their Climate Action Plan includes a strategy to increase use of renewable energy sources, such as solar photovoltaic (PV), on campus.

Wake Technical also offers educational programs that provide hands-on training for the green workforce. Courses such as "Introduction To Solar Photovoltaic Basics", teach overall PV system design, systems installation, and maintenance. The Energy Training House was built in 2012 to provide practical training for jobs in sustainable energy. In this innovative model home, students learn to conduct energy audits and monitor the efficiency of energy improvements.

"This is a truly innovative initiative... [Wake Tech has] made a serious commitment to leading the way in sustainability initiatives and environmentally responsible growth"

- President Dr. Stephen C. Scott,
Wake Technical Community College

Solar at Wake Technical

In March 2013, the Wake Tech Foundation, the separate fundraising and support arm of Wake Technical Community College, spearheaded a project to install a Solar PV array hosted on the institution's Public Safety Education Campus. The solar array is owned and operated by Wake Tech Innovations, a subsidiary of the Wake Tech Foundation that frequently partners with innovative private sector projects to provide support for the college. Financing for purchasing the panels was secured by Wake Tech Innovations through Wells Fargo.

With an annual production of 500,000 kWh per year, the system is estimated to produce about half of the public safety building's power consumption. The local utility, Progress Energy (which has since been acquired by Duke Energy), agreed to purchase electricity output of the project for a fixed price over the next 20 years as part of the SunSense program. The SunSense program provides incentives for North Carolina residents and businesses to install solar, including monthly bill credits per watt and upfront rebates. At the time of construction, the program offered \$0.18/kWh for the power.

As part of the program, the utility retains the Renewable Energy Credits (RECs and the associated carbon reduction claim) for five years. The utility uses the RECs to comply with the North Carolina Renewable Portfolio Standard law that currently requires that six percent of electricity sales in the state come from renewable energy – or be replaced by energy conservation. While the associated carbon reduction claim on the solar energy is not helping the institution reach its carbon neutrality goals, the investment is adding important local renewable energy resources. After the first five years, there may be an opportunity for the customer to renew their REC contract with Duke Energy and receive carbon reduction credits or continue receiving a financial contribution..

For the PV system, 1,368 Yingli YL 285 Modules were used on a Daetwyler Eco Top racking. The Daetwyler racking system allowed the array to follow the roof's contours, which is important for existing buildings. The project included Draker monitoring and Advanced Energy PV Powered Inverters.

Wake Technical College Public Safety Education Campus Solar Project

Owner: Wake Tech Innovations, a subsidiary of the Wake Tech Foundation.

Completed: 2013

Capacity (KWh): 389

Annual Production (KWh): 500,000+

Expected Return on Investment: \$300,000 over 20 years, via energy purchase payments and incentives.

Cost: N/A

Funding and Revenue Methods: Foundation funded the purchase of the panels from Wells Fargo, Rebate incentives from State, and ongoing Energy Purchase from Utility.

Developer: ENlight Solar, LLC and Power Secure.



Benefits of Solar Support by Private Foundation

**Photo courtesy of Wake Technical Community College*

Wake Technical College's installation illustrates the investment potential for institutional foundations looking to further educational (e.g. student scholarships) and financial (e.g. solar energy opportunities) goals. Mort Congleton, Executive Director of the Wake Tech Foundation, describes the arrangement as a true win-win for the institution and the foundation. He said, "This is a solid revenue source for the Foundation, allowing us to build the scholarship funds that help so many students realize the dream of a college education." Creating unique ownerships structures that leverage local partners and industry can be a pathway for institutions that may not be able to purchase or finance a system themselves. The installation of the solar array also provides visible educational opportunities for students at an institution that values sustainability and provides renewable energy education. The investment revenue from the project will enable even more students to have access to these important solar training opportunities.

For more information on going solar at your campus visit:

solarendowment.org

For more information on Second Nature and the Climate Leadership Network visit:

secondnature.org

Or contact: commitments@secondnature.org