Electrical utility companies across the country are facing aging workforces and changing skills needs, dynamics that present significant challenges to filling their workforce development pipelines. Utility companies in Florida and Georgia have taken on this challenge, developing innovative public-private partnerships with educational institutions to meet needs.

This year’s Emerging Issues Forum audience labeled the development of strong career pathways a priority action item to meet North Carolina’s future workforce needs. This edition of the Environments newsletter highlights cutting-edge efforts in the energy sector in two southeastern states, Florida and Georgia. Next month’s edition will feature the reflections of industry officials intimately involved in this work, including their key considerations for other states developing career pathways programs.

Electrical utility companies across the country are facing aging workforces and changing skills needs, dynamics that present significant challenges to filling their workforce development pipelines. Utility companies in Florida and Georgia have taken on this challenge, developing innovative public-private partnerships with educational institutions to meet needs.
Faced with an aging workforce and shrinking pool of qualified workers, Gulf Power, a subsidiary of Southern Company, embarked on a long-term workforce development strategy in 2001 to attract high school students into energy industry careers. In partnership with West Florida High School of Advanced Technology in Pensacola, the company helped to design and fund the Gulf Power Academy, a school-within-a-school featuring a curriculum combining regular high school classes with those focused on the energy industry.

Today, the academy offers a four-year curriculum in which students can earn 12 college credit hours, a number of industry certifications and exposure to different career options within the electrical utility industry. A competitive internship-like option in the senior year allows students to visit Gulf Power facilities to observe different career options firsthand, and then to split time between the classroom and working with Gulf Power employees in the workplace. This workplace-based learning element provides the students with real world exposure to a potential career choice while the company gains an extended look at promising recruits.

To date, the results have been very positive. Some 400 students have graduated from the program, with 60 percent of them participating in the internship program. Of these, 57 have been hired by Gulf Power, while others have gone on to post-secondary education, to other energy job opportunities, or elected to pursue jobs outside the energy industry.

Seeking to scale this workforce development effort to other schools, and to best meet industry needs, the company worked with a diverse set of partners to create the Energy Industry Career Cluster in 2009. To ensure a strong fit between what was taught and industry needs, the effort involved energy companies at the state level, through the Florida Energy Workforce Consortium, and the Center for Energy Workforce Development (CEWD), a national consortium focused on meeting the sector’s workforce development challenges. These groups worked hand-in-hand with the Florida Department of Education and state workforce development agencies to create a tailored curriculum detailing the classes that middle school, high school and community college students would need for an energy industry career.
To the north, Georgia Power, also a subsidiary of Southern Company, was confronting workforce challenges of its own. In particular, the company was having difficulty finding practiced and skilled line worker staff. The company elected to meet its more immediate needs before turning attention to a longer-term workforce development strategy.

Georgia Power’s initial efforts focused on partnerships with the state’s technical college system, leading to the introduction of several new programs, including an Electrical Lineworker Apprentice Certificate and associate degree programs in Electrical Utility Technology and Instrumentation and Controls.

To ensure a close fit between curricula and industry needs, the company partnered with utilities and contractors throughout the state to provide materials, equipment and field training support, as well as class mentors. In some cases, the curricula came from other leading states or from national industry associations. To build a direct workforce pipeline to Georgia Power, all students build a profile on the Southern Company website; students who pass pre-employment tests and their training classes are added to the applicant pool for relevant positions. In the Linework Apprenticeship program itself, some 400 graduates have been hired.

Looking to develop a broader and deeper pipeline of workers, Georgia Power and other state utility companies banded together through the Georgia Energy and Industrial Construction Consortium. With the help of the CEWD, the companies created an energy industry pathways program reaching back into the K-12 system.

Partnering with college and career academies and high schools across the state, the program identified aligned pathways to specific energy industry careers and the relevant sequencing of classes for needed knowledge and skill development. In 2011, the State Department of Education accepted the new career cluster. Having begun with one school in the 2011-12 school year, the effort now involves 14 high schools across the state. More than 1000 students have enrolled, and the first two graduates matriculated into university engineering programs in 2016. All high school enrollees are encouraged to attend one of six energy technical college programs now being taught in 11 institutions of higher education in Georgia.

Looking to further expand the energy workforce development system, a new Energy Pathway Teacher Certification program was added this summer, with classes being taught by Georgia Power, Georgia Transmission, Atlanta Gas, and Southern Nuclear and Generation.

IEI would like to thank Chris Hage (Duke Energy), Debra Howell (Georgia Power), and Kristie Kelley (Gulf Power) for their contributions to this article. A special thanks to IEI intern Kyla Tucker for her help.