

## Renewable and Clean Energy Done Right

by Diane Gow McDilda

As a Charter Member of the Advisory Board of the Florida Engineering Systems Consortium (FESC), Thomas “Tommy” Boroughs is an advocate for bringing clean and renewable technology to Florida and the jobs that come with it. And it’s Boroughs’ extensive involvement with energy that makes him an asset to FESC.

Boroughs is a partner with Holland & Knight, and has served as Chair of the Florida Energy Commission. He was on the Board of Orlando Utilities Commission and served as president from 2004 through 2006. He’s also chaired the American Public Power Association’s Policy Makers Council. And in 2007, he was appointed by Governor Crist to the Governor’s Energy and Climate Action Team. Boroughs knows that Florida has the assets to be a leader in the clean and renewable energy market.



**Tommy Boroughs**, Partner, Holland & Knight, LLP; Member, FESC Advisory Board

“Until 2009, Florida’s economic growth depended on the sun, beaches, and low-cost land and labor, as well as no state income taxes. Tourism and growth industries like real estate and construction were the only sectors that really benefited from that scenario and that’s just not sustainable,” says Boroughs. “We need to focus on innovation, research and development, energy efficiency, cleantech, and renewable energy. And if we do this right, we can develop the economy and produce more jobs, all while protecting the environment.”

When it comes to transitioning to clean and renewable energy businesses, Boroughs believes that that Florida is well suited, both in terms of location and natural resources, even when compared to other locales.

“Yes, we have different sun here in Florida, we have more clouds than what they have in the American Southwest,” Boroughs says. “But we have a lot more potential for using the sun than Germany, and they’re leading the world in solar power.”

And solar is moving forward in Florida. Because of legislation passed in 2008, Florida Power & Light (FP&L) is currently constructing Next Generation Plants in DeSoto County, Martin County, and at the Kennedy Space Center, moving Florida into second place for the nation’s solar energy production. As a result, 1,500 construction jobs were created, supporting a sector hit largely by the recession.

The project at the Kennedy Space Center is a partnering of FP&L and NASA and is expected to create 100 jobs while providing 10 megawatts of electricity. With a technical workforce already in place, it’s a prime location to nurture and grow a cleantech hub. But a hub on the east coast

doesn't mean the rest of the state is left out, especially when it comes to other renewable forms of energy, like biomass.

"Florida could be the Saudi Arabia of biomass," Boroughs says. "We have the waste, like citrus peels, forestry waste, and sugar cane waste. And we've got the land, the climate, and the rainfall to grow fuels like pine trees and eucalyptus."

With construction falling and taking timber sales with it, rural areas of the state stand to benefit from large-scale biomass projects. Florida has approximately 16 million acres of agricultural land that could be used to support a biomass market. By incorporating Florida-grown fuel, sustainable forests would continue to be maintained and not developed.

There are other sustainable and renewable energy sources that have potential in Florida; however, they have not reached the scalable levels of solar and biomass. Generating electricity from wind power would require installations along Florida's coast and even advocates of wind energy know that few people want to see windmills at the beach.

The same coastline that brings tourists to the state may also provide Florida with the benefits of power drawn from currents in the Atlantic Ocean.

"The Gulf Stream moves about six miles an hour," says Boroughs. "While that doesn't sound like much, water is much denser than air and can generate a significant amount of energy."

At its closest point, the Gulf Stream is about 15 miles off the coast and it stretches 20 to 30 miles wide. Because 70 percent of Floridians live near the ocean, the proximity of power generation to electrical demands are an added benefit. This technology is relatively new, especially compared to solar and biomass and research is continuing along with the evaluation for full-scale deployment.

Converting a portion of the state's energy portfolio to renewable and clean technologies is a first step in increasing job growth. Construction of renewable energy facilities does bring jobs, but the majority of jobs last only as long as it takes to complete the facility. To better serve the job market, Florida must look to encouraging the manufacturing of cleantech products.

"Manufacturers go where there is a market," says Boroughs. "With a renewable portfolio standard, Florida will build a market."

A renewable portfolio standard (RPS) is legislation that would require a certain percentage of electricity generated in Florida to come from renewable or clean technologies. An RPS would not stand alone when it comes to supporting manufacturing in Florida because the state has many other amenities.

"Florida has 14 deep water sea ports, numerous airports that support global transportation, and logistically we are close to Central and South America," says Boroughs. "Florida is very conducive to international transportation."

Other benefits include Florida's many hubs and centers, including ones like the Central Florida Research Park in Orlando that spans over 1,000 acres and is located adjacent to the University of Central Florida campus. The facility has an impressive list of high tech tenants and includes business offices as well as government and industry research centers.

"We can build on the hubs and centers we already have, focusing on innovation, research and development, energy efficiency, along with clean and renewable energy. This puts money back into the economy," Boroughs says.

Unfortunately, during the recent legislative session, no energy legislation was passed. There is speculation, however, that a special session could convene, offering another opportunity to address changes in Florida law that would encourage the use of renewable energy here in the state, while improving prospects for high tech employment. By diversifying our energy portfolio Florida can improve employment opportunities, bringing much needed stability to both.