FPL wants new nuclear plant

The utility plans to seek permission to build the first plant of its kind in 20 years

Florida Power & Light said Monday that it plans to seek permission to build a new nuclear power plant in Florida -- its first in more than 20 years.

The Juno Beach-based company told the Nuclear Regulatory Commission that it plans to submit a license application in 2009, though FPL said that doesn't mean it has to go through with the project.

So far, the company hasn't named a specific site.

The company will spend the next year or so evaluating nuclear technologies and sites, FPL spokeswoman Rachel Scott said. More details about a proposal could be ready in late 2007 or early 2008, she said.

It's not surprising that FPL, the state's largest electric utility, is talking about boosting its use of nuclear power.

The high price of natural gas and oil -- the fuels upon which FPL relies most heavily -- has caused customer bills to skyrocket over the past year. Plus, state regulators have encouraged FPL and the state's other electric utilities to diversify their fuel mixes. A report last year suggested they back away from the popular and clean-burning natural gas plants in favor of options such as coal and nuclear.

"As a nation and as an industry, we're seeing a lot of interest in developing new nuclear power for the future," Scott said.

Nuclear power is generally cheaper than natural gas but building a nuclear plant is a long and costly process.

It can take 12 years to complete site plans, licensing and construction, FPL said.

That means a new plant won't be part of FPL's 10-year site plan, which it detailed on Monday.

FPL said that plan calls for adding 6,600 megawatts to its 24,300-megawatt portfolio. The additional power for Florida's burgeoning
population would increase the company's generating capacity by 27 percent.

FPL has boosted its capacity during the past few years, repowering some plants and adding new ones, including a natural-gas-fired unit in Manatee County.

Construction is under way to add 1,150 megawatts, enough to serve 225,000 customers, in Miami-Dade County and FPL is seeking permission to add an additional 2,400 megawatts, enough for 466,000 customers, in Palm Beach County.

About 42 percent of FPL's power is generated using natural gas, 5 percent comes from coal, 17 percent is from oil and 17 percent is purchased from other sources. About 19 percent comes from nuclear power.

FPL already operates four of the state's five nuclear power plants. The fifth, in Crystal River, is operated by Progress Energy, which recently indicated it is considering adding another in the Sunshine State.

FPL's plants are in St. Lucie and Miami-Dade counties -- natural candidates for another nuclear unit. Putting it there would likely make permitting easier, allow the company to share resources and avoid the neighborhood backlash that could erupt if it introduced nuclear power somewhere else.

However, there are other issues that could make those sites less attractive, said Ralph Fehr, an instructor at the University of South Florida's College of Engineering.

Putting several nuclear units in the same place could make it difficult to abide by environmental constraints regarding water discharge temperature, he said.

Also, bunching units together could raise transmission issues, he said. Nuclear units are usually very large, which means a great deal of power would originate from one place and have to be pushed onto the power grid.

Although the United States has generally shied away from building more nuclear plants since the nuclear accident in 1979 at the Three Mile Island plant in Pennsylvania, other countries have continued to build plants and the technology for nuclear power has evolved, Fehr said.

"You have another 25 to 30 years of operating and design experience," Fehr said. "That goes a long way."

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