

Weighing Future Power Choices

Nuclear and alternatives play key role as TVA explores power options

Sustaining a vibrant, growing TVA service territory, revising the company's rate structure and setting aside \$95 million to develop new generation resources... the focus was on the future when TVA's new board met this summer. The strategic discussions were peppered with frequent references to nuclear-powered generation and its growing role to meet demand. "TVA has experienced five consecutive months of peak demand this summer," says Tom Kilgore, Chief Executive Officer. "And we project the Tennessee Valley's appetite for electricity will grow about 600 megawatts, enough to serve 300,000 homes, per year. Its clear TVA will need to develop new generation resources in the next few years." TVA Nuclear will add 1,250 megawatts to TVA's grid when Browns Ferry Unit 1 restarts in May 2007.

In addition to nuclear power, Kilgore has identified other alternatives that include the following:

- Gas-fired options such as combined-cycle plants and simple-cycle peaking plants
- Coal-fired options such as pulverized coal (PC), circulating-fluid-bed combustors and integrated gasification combined-cycle (IGCC) power plants
- Long-term contracts with independent power producers.

By the end of September, TVA's Fossil Power Group will have updated cost and performance estimates for the PC and IGCC plant options.

Nuclear generation gains nationally

The ability of base-load nuclear plants to economically meet growing demand without producing greenhouse gases is getting a fresh look at TVA and other utilities across the nation, says Karl Singer, chief nuclear officer & executive vice president of TVA Nuclear.

"We have a project team gearing up to secure contractors who would support the detailed engineering review of the cost, resources and time needed to complete Watts Bar Unit 2, he says. "The study will be performed in fiscal year 2007, after which the board will decide whether to proceed with completion." Singer estimates completing Unit 2 will cost \$2 billion to \$3 billion. "TVA already has demonstrated with Browns Ferry Unit 1 that the resources and skills can be brought to bear to start a nuclear plant in the 21st century, Singer further said. "A year from now, we will know whether we'll have a similar opportunity with Watts Bar 2."