

Cost of New Nuclear Units: What's Different Today

The cost of U. S. nuclear power units built in the 1970s and 1980s increased dramatically from original cost estimates. The nuclear industry has taken a number of steps to reduce the risk of capital cost escalations for new plants:

To avoid lengthy licensing processes and cost overruns that occurred during the construction of the current fleet of nuclear plants, the U. S. Nuclear Regulatory Commission (NRC) has implemented changes to its licensing process that provide for the resolution of all safety and environmental issues before construction begins. The NRC, manufacturers and utilities have worked together to make changes to help prevent price escalations experienced in the 1970s and 80s:

Licensing Process:

The prior licensing approach granted an operating license after construction was completed. During construction, it was common for licensing requirements to change, resulting in costly redesigns.

Today's design certification process allows plant designers to secure advance NRC approval of standardized plant designs. The early site permit process also enables companies to obtain approval from the NRC for a nuclear power plant site before deciding to build a plant. And today's process provides for issuance of a combined construction permit and operating license (COL) before construction begins. Granting a COL signifies resolution of all safety issues associated with the plant.

Standardized Designs: While past nuclear power plant designs contained common technologies, there were many other differences in overall plant design. Today, manufacturers use standard designs, which are being pre-approved by the NRC.

PSC Evaluation and Oversight: In the past, Georgia Power worked independently on planning for the state's energy needs. Today, the Georgia Public Service Commission (PSC) works with Georgia Power in planning for future needs.

Long Range Planning

The PSC reviews and approves Georgia Power's integrated resource plan (IRP). This plan is filed every three years and is based on an analysis of future energy needs as well as strategies to meet those needs over a 20-year period.

Selecting Generation Technologies

As part of this process, the PSC utilizes an Independent Evaluator along with an extensive public hearing process to review and approve forecasts for energy needs as well as proposals to meet those needs with different generation technologies. Georgia Power submitted the Vogtle self-build proposal for certification in August of 2008, beginning the PSC's eight-month public review process to evaluate the proposal.

Construction Oversight

Once the PSC approves an energy plan and certifies generation resources, the regulatory agency remains involved by monitoring construction costs, budgets and key construction milestones.