

Testimony at Vogtle EIS Hearing – October 4, 2007  
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Georgia Power has made a wise decision in choosing to build more nuclear power plants at the Vogtle Nuclear Station because Nuclear Energy is and will continue to be A Key Player in the U.S. Energy Mix. There are three primary reasons why nuclear is an excellent choice for future energy generation.

1. Nuclear industry has become more efficient and has improved economic competitiveness.
  - The 104 nuclear plants in the US are one of our most reliable sources of electrical generation.
  - Operate 90 percent of the time at full power producing 20% of the US electrical generation.
  - During this summer's sweltering heat wave, nuclear plants operated at 98% efficiency to ac our homes which we have come to expect (demand).
  - Cost of nuclear generation has been competitive with coal generation over the last several years and is now lower than coal generation and much lower than NG and oil. Only hydroelectric generation is cheaper than nuclear generation.
2. Continuous improvement in safety performance – since the Three Mile Island accident in 1979, the nuclear industry has made steady improvement in safety performance. And, of course, even though the TMI core partially melted, no substantiated onsite or offsite health effects occurred as a result of the accident. And the TMI accident led to major improvements in the industry:
  - Increased and changing regulation > Improved regulation
  - Improved training > Institute of Nuclear Power Operation
  - Improved safety systems > better understanding of the risks
3. Growing awareness of the environmental benefits of nuclear energy - nuclear plants have little or no releases of greenhouse gases which are a major contributor to global warming. In the period between 1973 to

2002, the operation of nuclear plants avoided the release of 3B Metric Tons of carbon into the atmosphere in addition to millions of tons of other greenhouse gases (SO<sub>2</sub> and NO<sub>x</sub>).

World market highly favorable for nuclear energy growth - there are 441 nuclear plants operating around the globe, producing 16% of the world electrical generation. The so-called nuclear renaissance that is emerging in the US is well underway in other countries with 27 nuclear plants currently under construction and many more on the drawing boards, particularly in SE Asia and Japan. At one time, the US led in the deployment of nuclear technology through the Atoms for Peace Program that was instituted by President Eisenhower, but now we are running to catch up.

Issues that are often raised with regard to nuclear power include transportation and disposal of nuclear waste. From the beginning of the nuclear age to now, there have been millions of radioactive material shipments around the world. Not one has ever resulted in death or serious injury from release of the radioactive material. In addition, stringent testing and regulations are followed in licensing nuclear waste containers to minimize the risk of radioactive exposure to the public and the release of radioactive material in case of a severe accident.

In the case of nuclear waste, the technology for disposal of radioactive waste is well established and the US government needs to get on with the licensing and opening of the federal repository at Yucca Mountain. In addition, the Global Nuclear Energy Partnership provides the opportunity for greatly reducing the quantity of nuclear waste (>100x) and to reclaim 95% of the energy content that remains in the used nuclear fuel. In addition, GNEP reduces the proliferation risks of nuclear energy by providing fuel services to developing countries where more than 2 billion people live with little or no electricity.

The emerging vision for the future of nuclear energy is very bright with potentially as many as thirty new orders in the US over the next several years and Georgia Power is helping to lead the way by choosing new nuclear generation to satisfy future energy needs in this region.