

Quick Statistics

Early Site Permits issued	3
Permits under review	1
Total COL applications submitted	11
COL applications docketed	9
Certified reactor designs	2
Reactor designs under review	4
Expected license applications	23
Expected number of reactors	34
Announced plant locations	20
Companies applying for COL	20

Number of Planned Reactors (34)



Status of License Applications (23)



Announced Nuclear Locations

- Bell Bend (PA)—PPL (formerly Susquehanna)
- Bellefonte (AL)—Tennessee Valley Authority
- Elmore County (ID)—Alternate Energy Holdings
- Callaway (MO)—AmerenUE
- Calvert Cliffs (MD)—UniStar
- Clinton (IL)—Exelon
- Comanche Peak (TX)—Luminant
- Fermi (MI)—DTE Energy
- Grand Gulf (MS)—Entergy
- Shearon Harris (NC)—Progress Energy
- Levy County (FL)—Progress Energy
- Nine Mile Point (NY)—UniStar
- North Anna (VA)—Dominion Energy
- River Bend (LA)—Entergy
- South Texas Project (TX)—STP Nuclear
- V.C. Summer (SC)—SCE&G
- Turkey Point (FL)—Florida Power & Light
- Victoria County (TX)—Exelon Generation
- Vogtle (GA)—Southern Nuclear
- William States Lee III (SC)—Duke Energy

Vendor Technology Under Consideration

General Electric

- Advanced Boiling Water Reactor (ABWR), 1,356 MWe (*certified 10CFR52 App A*)
- Economic Simplified Boiling Water Reactor (ESBWR), 1,560 MWe

Westinghouse

- Advanced Passive Pressurized Water Reactor (AP1000), Twin units 1,117 MWe each (*certified 10CFR52 App D*)

AREVA

- United States Evolutionary Pressurized Water Reactor (US EPR), 1,600 MWe

Mitsubishi Heavy Industry

- United States Advanced Pressurized Water Reactor (US APWR), 1,700 MWe



U.S. Department of Energy
Office of Nuclear Energy

Nuclear Power Deployment Scorecard

Powering Future Decades



U.S. Department of Energy
Office of Nuclear Energy

August 5, 2008

Updates available at
<http://www.nuclear.gov>

What's New

NRC is holding a public meeting in Bloomsburg, PA., on Aug. 19 to discuss review of PPL's COL for Bell Bend.

Progress Energy submitted a COL application to build two AP1000 reactors in Levy County, FL., on July 30, 2008

Ameren UE submitted a COL application to build one EPR at Callaway in Missouri on July 28.

NRC docketed SCE&G's COL application to build two AP1000 reactors at V.C. Summer in South Carolina on July 22.

The Florida Public Service Commission (PSC) approved Progress Energy's plans for two AP1000 reactors in Levy County, FL on July 15.

NRC established an Atomic Safety and Licensing Board on July 17 to adjudicate intervenor petitions filed in response to Duke's William Lee COL application.

On July 14, NRC extended the construction permit for the unfinished second unit at TVA's Watts Bar plant until March 31, 2013.

A public outreach meeting was held July 9 in Fulton, MO for Ameren UE's Callaway plant.

Three power companies have submitted initial applications for nuclear power plant loan guarantees; two have provided initial responses to the loan guarantee solicitation indicating their intent to apply.

One nuclear fuel cycle facility has submitted a full loan guarantee application to DOE.

Legend

-  Implementation proceeding according to plan and schedule
-  Progress being made; however, issues or uncertainties exist that could impede progress
-  Unlikely to realize objectives absent significant management attention
-  No dates or end state established

 Indicates change in status or progress since last evaluation

 Regulatory Demonstration completed. No further government assistance is warranted.

Nuclear Power Deployment Scorecard



Early Site Permit (ESP)

- Three site permits issued by NRC (*Clinton, Grand Gulf, North Anna*)
- One site permit application under NRC review (*Vogtle*)
- Submission of three other ESP applications expected in 2010-2012



Combined Construction and Operating License (COL)

License Applications Submitted to NRC

- Nine COLAs docketed (*STP, Bellefonte, Harris, Grand Gulf, North Anna, Lee, Calvert Cliffs, Vogtle, and V.C. Summer*)
- Two COL applications submitted to NRC awaiting acceptance (*Callaway, Levy County*)
- Submission of 12 additional COLs expected in 2008-2010
- One application expected in the 3rd quarter (*Comanche Peak*)

Status of Reference R-COLs

- Of four R-COLs submitted, three (*Bellefonte, North Anna, Calvert Cliffs*) have held public meetings and begun Phase 1 of the Safety Review. South Texas Project delayed due to contract issues.
- Comanche Peak (US-APWR R-COL) estimated submission – September 2008.



Reactor Design Certification (DC)

- Two advanced reactor designs certified by NRC (*ABWR and AP1000*)
- Four reactor designs undergoing NRC review (*ESBWR, US-EPR, AP1000 amend., and US-APWR*)



New Nuclear Plant Orders

Long-Lead Equipment Orders

- Nine utilities have ordered large, long-lead nuclear component forgings from three reactor vendors
- Twenty-four reactor coolant pumps have been ordered for AP1000 units
- Japan Steel Works is only manufacturer of ultra-large forgings; worldwide-capacity limited



Engineering, Procurement, and Construction Contracts (EPC)

- Two EPC contracts initiated (*Vogtle and V.C. Summer*)
- Plant engineering is in progress; completion required to start construction



New Nuclear Plant Construction, Operation, & Deferral

- No utility has committed to constructing a new advanced reactor
- TVA has resumed construction of Watts Bar Unit 2 with completion scheduled in 2013



Federal Financial Incentives

Standby Support (Risk Insurance)

- Final 10 CFR Part 950 Rule issued August 11, 2006
- Two Notices of Intent to Request a Conditional Agreement received by DOE



Production Tax Credits

- Internal Revenue Bulletin 2006-18 published May 2006



Energy Facility Loan Guarantee

- DOE issued solicitations for \$18.5 billion in loan guarantees for new nuclear facilities and \$2 billion for the nuclear fuel cycle on June 30, 2008
- Three power companies have submitted loan guarantee applications; two submitted initial responses
- One fuel cycle facility has submitted a full loan guarantee application
- As construction cost estimates rise, the authorized amount for loan guarantees may be insufficient to catalyze follow-on nuclear construction fully financed by the private sector.