

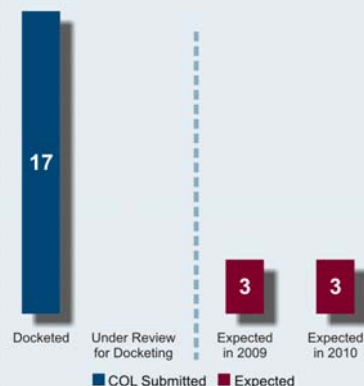
## Quick Statistics

|                                     |    |
|-------------------------------------|----|
| Early Site Permits issued           | 3  |
| Permits under review                | 1  |
| COL applications submitted          | 17 |
| No. reactors submitted              | 26 |
| COL applications docketed           | 17 |
| No. reactors docketed               | 26 |
| Total expected license applications | 23 |
| Expected number of reactors         | 34 |
| Certified reactor designs           | 2  |
| Reactor designs under review        | 4  |
| Announced plant locations           | 21 |
| Companies applying for COL          | 20 |

## Number of Planned Reactors (34)



## Status of License Applications (23)



## Announced Nuclear Locations

- Amarillo (TX)—Amarillo Power
- 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 Technologies 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

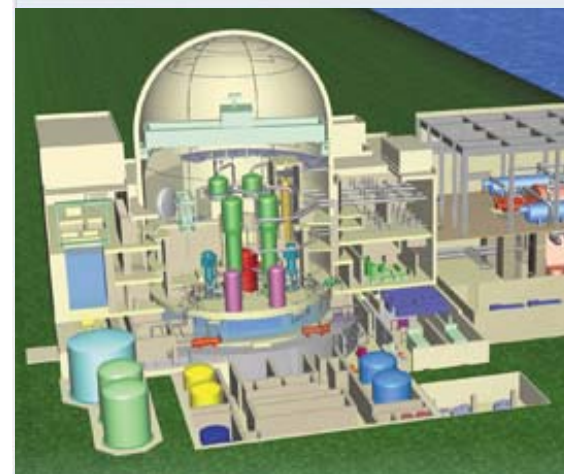
- United States Advanced Pressurized Water Reactor (US APWR) – 1,700 MWe



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

January 7, 2009

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

## What's New

Westinghouse and Shaw Group signed an EPC contract with Progress Energy January 5, 2009, for two AP1000 units in Levy County, Florida.

NRC docketed five COL applications in December:

- PPL, for an EPR at Bell Bend in Berwick, Pennsylvania, on December 19, 2008.
- Constellation, for an EPR at Nine Mile Point in Oswego, New York, on December 12.
- Ameren UE, for an EPR at Callaway near Fulton, Missouri, on December 12.
- Entergy, for an ESBWR at River Bend in West Feliciana Parish, Louisiana, on Dec. 4.
- Luminant for two APWRs at Comanche Peak near Glen Rose, Texas, on December 2.

Luminant provided notice of intent to prepare an EIS and conduct environmental scoping for its Comanche Peak COLA on December 18.

On December 17, Électricité de France agreed to acquire half of the nuclear generation business of Constellation Energy for \$4.5 billion.

Westinghouse awarded Chicago Bridge & Iron a second contract for \$150 million to build two AP1000 containment vessels on December 17.

NRC published notice for hearing to intervene in the Progress COL application at Levy County December 8.

GE-Hitachi notified NRC of intentions to renew the ABWR Design Certification on December 5. The rule is set to expire June 11, 2012.

DTE provided notice of intent to prepare an EIS and conduct environmental scoping for its Fermi COLA on December 3.

## 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

- Seventeen COLAs docketed (*Bell Bend, Bellefonte, Callaway, Calvert Cliffs, Comanche Peak, Fermi, Grand Gulf, Harris, Lee, Levy Co., Nine Mile, North Anna, River Bend, STP, Summer, Victoria, Vogtle*)
- No outstanding COL applications pending acceptance
- Submission of 6 additional COLs expected in 2009-2010



#### Status of Reference R-COLs

- All five R-COLs have been submitted and are undergoing Phase 1 of the Safety Review (*Bellefonte, Calvert Cliffs, Comanche Peak, North Anna, South Texas Project*)



### 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
- Four steel containment shells and 24 reactor coolant pumps have been ordered for AP1000 units
- Two domestic large component facilities being built
- Japan Steel Works is the only manufacturer of ultra-large forgings; worldwide-capacity limited



#### Engineering, Procurement, and Construction Contracts (EPC)

- Four EPC contracts initiated (*Vogtle, V.C. Summer, STP and Progress*)
- 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 and one formal request received by DOE



#### Production Tax Credits

- Internal Revenue Bulletin 2006-18 published May 2006
- IRS considering revised guidance



#### Nuclear Power Loan Guarantees

- The Department is authorized, before September 30, 2009, to guarantee \$18.5 billion in loans for nuclear power projects.
- Fifteen power companies have submitted Part II applications by the December 19, 2008 deadline, requesting a total of \$93 billion in loans to be guaranteed. The applications cover 10 sites with a total of 16 reactors, capable of providing 22 GW in generating capacity.