

Nuclear Power Deployment Status

Combined Construction & Operating License (COL) Design Certification (DC) Early Site Permit (ESP)
 New Nuclear Plant Orders Operating License (COL) Certification (DC) Permit (ESP)

Four ESPs issued by NRC.
 No ESP applications under NRC review.
 Four ESP applications expected in 2010–2012.

Two advanced reactor designs certified by NRC.
 Four reactor designs undergoing NRC review.

Eighteen COL applications submitted to NRC.
 Thirteen COL applications under NRC review.
 Five COL applications are suspended, pending technology decision or for financial reasons.

Nine utilities have ordered large, long-lead nuclear component forgings from three reactor vendors.
 Four Engineering, Procurement, and Construction Contracts signed (Vogtle, V.C. Summer, STP, and Progress).
 TVA resumed construction of Watts Bar 2; construction permits reinstated for Bellefonte 1 & 2.

Federal Financial Incentives

Nuclear Power Loan Guarantees — DOE authorized to guarantee \$18.5 billion in loans for nuclear power projects.

Standby Support (Risk Insurance) — DOE authorized to issue insurance to six reactors to cover delays in operations attributed to NRC licensing reviews or litigation.

Production Tax Credits — 1.8 cents/kw tax credit for the first 6,000 MWe of deployed nuclear power.

Nuclear Power 2010

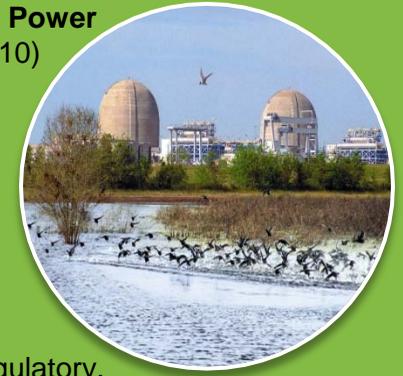
January 2010

Moving toward Deployment

www.nuclear.energy.gov



Nuclear Power 2010 Meeting Tomorrow's Energy Needs



The **Nuclear Power 2010** (NP 2010) program is a government-industry, 50-50 cost-shared initiative aimed at reducing the technical, regulatory, and institutional barriers to building new nuclear power plants the United States. These new plants are needed to meet an expected increase in electricity demand and to replace older power plants with innovative, more efficient designs.

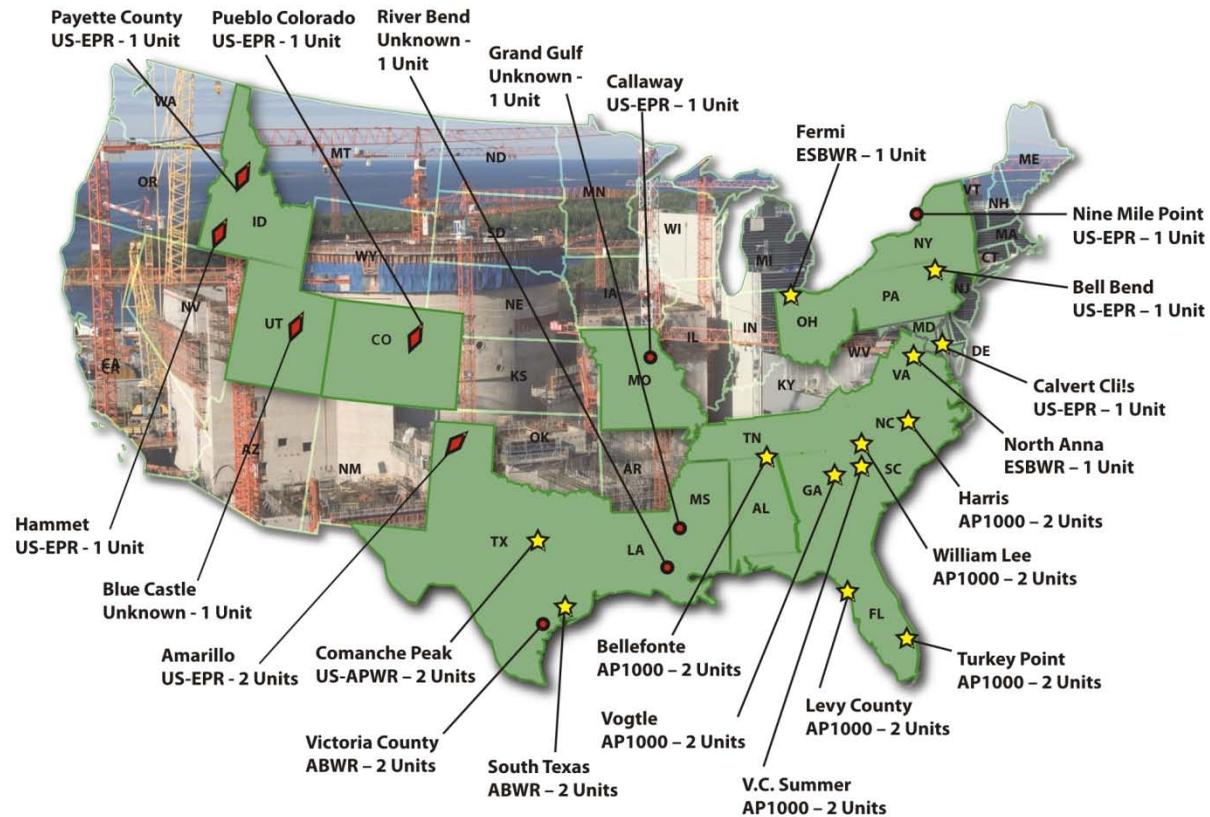
Authorized by the **Energy Policy Act of 2005**, the NP 2010 program focuses on deployment of **Generation III+ advanced light-water reactor designs** that offer advancements in safety, efficiency, and economics over existing U.S. nuclear plant designs.

NP 2010 program goals:

- Develop and bring to market advanced, standardized nuclear plant technologies.
- Demonstrate streamlined Federal regulatory and licensing processes for siting, building, and operating new nuclear power plants.

NP 2010 is managed by the U.S. Department of Energy (DOE) Office of Nuclear Energy (NE).

Proposed Sites of New U.S. Commercial Nuclear Power Plants



Construction and Operating License (COL) Status

★ Under Nuclear Regulatory Review (NRC) ♦ Planned Future Submittal ● NRC Review Suspended

Quarterly NEWS

January 2010

- Areva signed a letter of intent with the Fresno Nuclear Energy Group December 31, 2009, to investigate a possible EPR in California's Central Valley region.
- On December 23, Alternate Energy Holdings Inc. announced a delay in its COL application for a nuclear plant in Elmore County, Idaho to the fourth quarter of 2011. They also announced plans to submit applications for two new plants:
 - Payette County, ID, 2nd quarter 2011
 - Pueblo, CO, 2nd quarter 2012.
- General Electric-Hitachi announced on December 17, that it had signed an agreement with Detroit Edison on site planning for an ESBWR at Detroit Edison's Fermi site.
- NRC held a meeting in Waynesboro, Georgia on December 16, to discuss the agency's inspection plans under the Limited Work Authorization issued for the Vogtle nuclear plant site.
- Unistar asked the NRC in a December 1 letter to suspend review of their COL application for an EPR at Nine Mile due to uncertainties in loan guarantee funding.
- The Maryland Public Service Commission has granted Electricité de France (EdF) conditional rights to take over 49.99% of Constellation Energy's nuclear generation on November 2, including the proposed new EPR at Calvert Cliffs.

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

Emerging Nuclear Reactor Designs

- Advanced Passive Pressurized Water Reactor (AP1000)** — Twin units, 1,117 MWe each (Westinghouse International)
- Advanced Boiling Water Reactor (ABWR)** — 1,356 MWe (General Electric)
- Economic Simplified Boiling Water Reactor (ESBWR)** — 1,560 MWe (General Electric)
- United States Advanced Power Reactor (US-APWR)** — 1,700 MWe (Mitsubishi Heavy Industry)
- United States Evolutionary Power Reactor (US-EPR)** — 1,600 MWe (AREVA)

Planned Reactors

Number of Planned Reactors—36 Total

