The Babcock & Wilcox Company

LINE Commission

September 21, 2012

Jeffrey C. Crater
Vice President
Government Relations

A Legacy of Innovation

1867… Building a power boiler reputation

- Original Babcock & Wilcox
- First water-tube power boiler
- Marine boilers for Teddy Roosevelt's *Great White Fleet*

1946… Leading the development of nuclear power

- Nuclear components for the *Manhattan Project*
- Reactors for first nuclear-powered submarine, *USS Nautilus*
- First generation U.S. commercial nuclear power plants

1968 … Addressing the environment

- Fossil fuel emission controls for particulate, SOx, NOx, Hg
- Development of supercritical coal plants
- Research in fuels, materials, combustion, and post-combustion systems

1994 … Managing national security

- Prime contract for Y-12 and Pantex M&O
- Highly Enriched Uranium downblending
- Management of Los Alamos and **Idaho National Laboratories**

2005-Today … Minimizing CO2, Energy Security

- Carbon capture and storage (CCS) demonstration
- Biomass and solar thermal technologies
- Next-generation commercial nuclear power

Clean Energy Technology
Mission Critical Defense Contractor

Power Generation

- Coal-fired power generation
- Service, operation and maintenance
- Construction and EPC
- Environmental systems (FDG, SCR, mercury, carbon)
- Renewables (Biomass, solar, waste-to-energy)
- Future Gen 2.0 - CCS for coal

Nuclear Energy

- Field services
- Plant modifications
- Component manufacturing and installation
- Fuel design, enrichment and fabrication
- B&W mPower

Nuclear Operations

- Virginia-Class submarine program
- Ford-Class carrier program
- Refueling
- Fuel processing and fabrication for DOE & university reactors
- HEU downblending

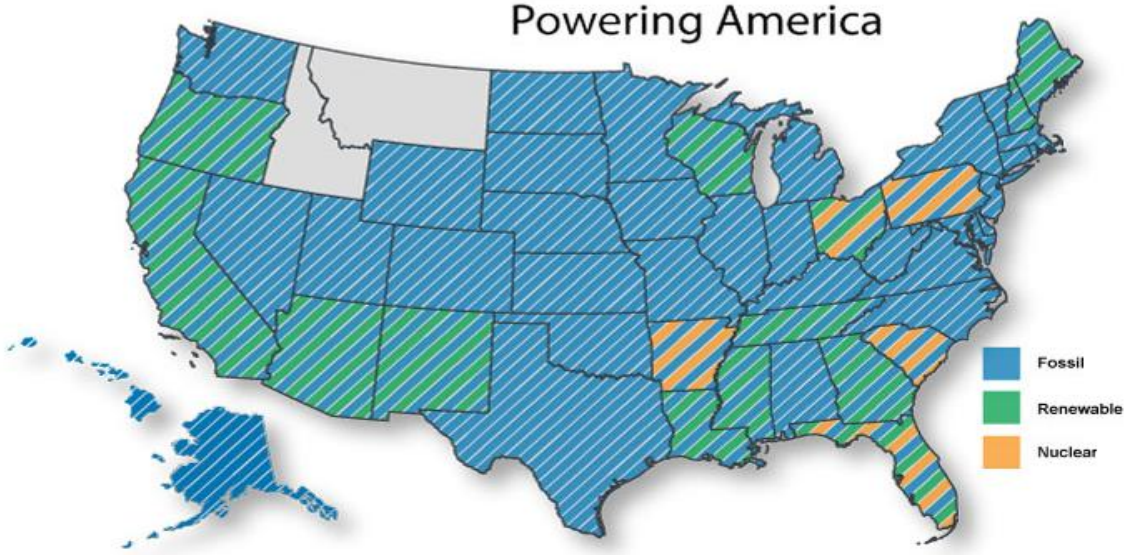
Technical Services

- Nuclear material handling, storage and security
- Nuclear Weapons Complex and laboratory operations
- Decontamination and decommissioning
- Operate Strategic Petroleum Reserve
- Managing USEC centrifuge manufacturing with Toshiba
- Medical Isotope reactor design

A Global Business

$2.7B sales. $5.2B backlog. 22,000 employees. 32 countries.

U.S. Manufacturing & Operations



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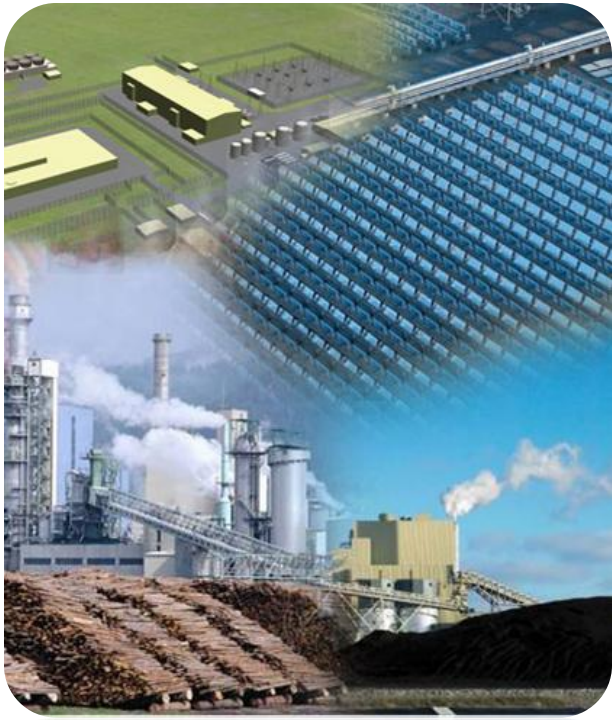
Clean Energy Technology



- B&W mPower™ modular nuclear reactor
- Carbon capture and storage (CCS)
- Biomass and energy-from-waste renewables
- Environmental controls for fossil power
- Solar thermal power

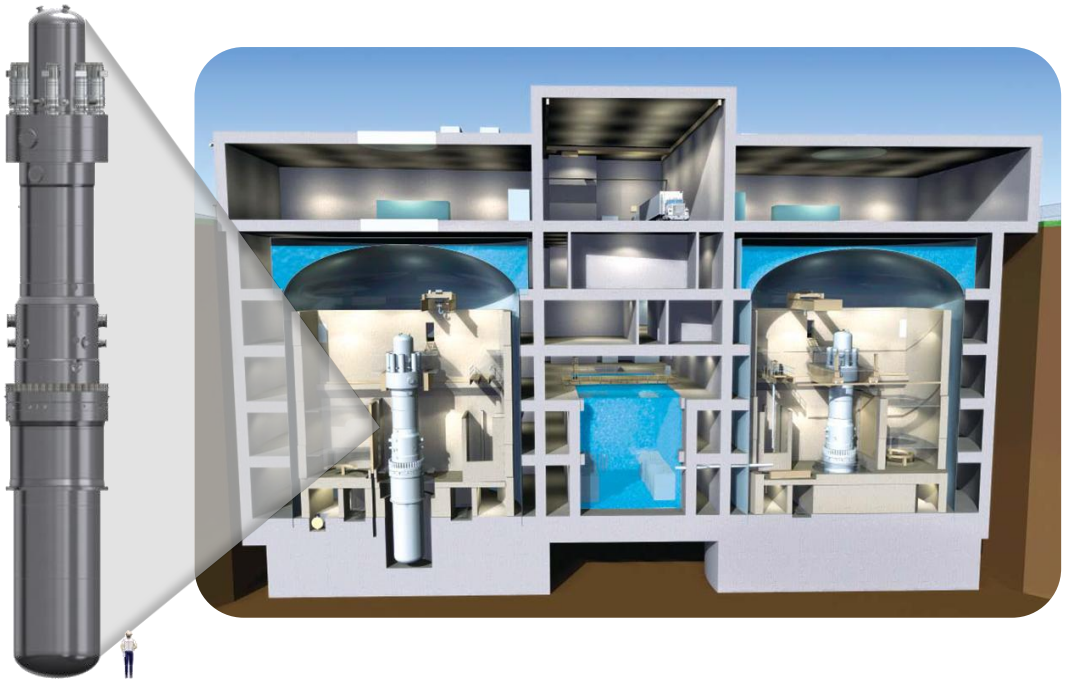
Building on a legacy of fossil and nuclear energy technology

The B&W mPower™ Reactor

The Reactor
- 180 MWe per module
- Proven advanced light water reactor technology
- Simple, passively safe design
- 48 month operating cycle between refueling
- Built in B&W factories, rail-shippable

The Plant
- Underground containment building
- Low-impact, air-cooled condenser option
- 37 acre footprint
- Scalable to grid, site, and load-growth
- Three-year construction schedule

Safety
- Inherently safe systems
- Gravity-powered emergency cooling
- Fully underground steel containment
  - Favorable seismic response
  - Inherent aircraft & missile protection
  - Fully protected spent fuel pool
  - Safety equipment isolated from environment



Raising the Bar on Safety, Scalability and Affordability

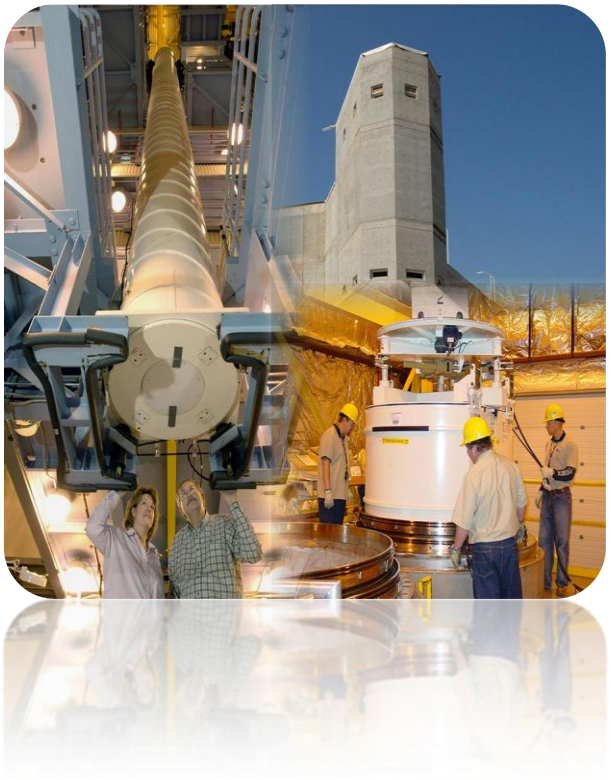
Broad US & International Interest

B&W mPower Industry Consortium…

…supplemented by an Industry Advisory Council

- AEP
- Dayton Power & Light
- Duke Energy
- Exelon
- NPPD
- Vattenfall
- Bruce Power
- Dominion
- Entergy
- MidAmerican

Mission Critical Defense Contractor
-- High-Consequence Nuclear Operations



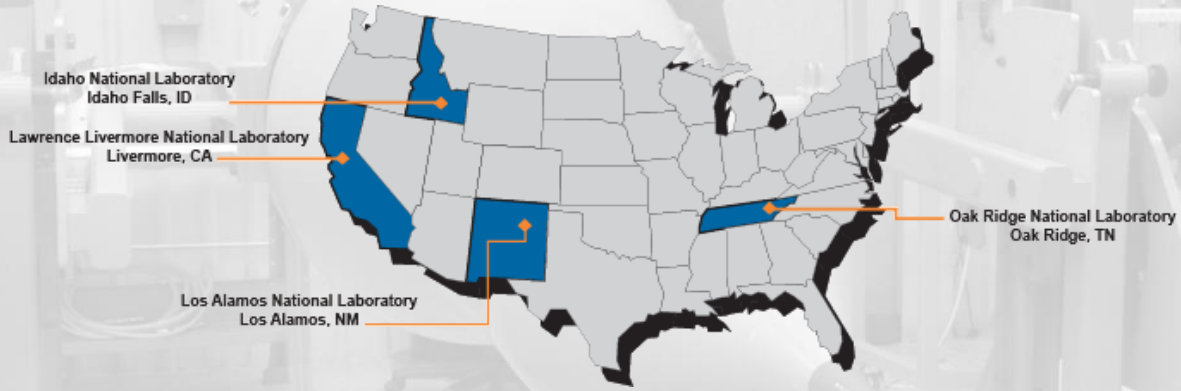
- U.S. DOE national laboratories
- NNSA nuclear weapons complex
- Critical non-defense operations

Delivering Operational Excellence and Security

M&O=Management & Operations DOE=Department of Energy NNSA=National Nuclear Security Administration

U.S. DOE Laboratories

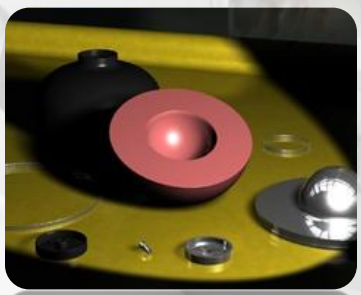
- Nuclear materials management
- Nuclear infrastructure operations
- R&D for NextGen energy solutions
- Nuclear fuel cycle technologies
- Environmental remediation
- Public/private partnerships
- Acreage/roads combined =1,000 sq. miles



Management of national R&D facilities

Nuclear Weapons Production Complex

- Weapons assembly, disassembly and storage
- Design, procurement and fabrication
- Maintain readiness and base infrastructure
- Safeguards and security programs
- Stockpile stewardship
- Plutonium pit interim storage



Premier civilian management and operations organization

Critical Non-Defense Operations

Strategic Petroleum Reserve

- 727 million barrels of storage capacity
- Largest emergency supply in the world
- Underground salt cavern storage

American Centrifuge Manufacturing

- American Centrifuge project in Ohio
- Manage manufacturing and suppliers for USEC
- First-of-a-kind nuclear fuel cycle fabrication
- B&W Toshiba partnership invests in USEC

National infrastructure management

Advanced Engineering and Manufacturing

- Supercritical fossil power generation
- Reactors for submarine and aircraft carriers
- Commercial nuclear island components
- Nuclear fuel manufacturing and R&D
- Medical isotope reactor

Leading innovation through energy infrastructure

Nuclear Steam Supply System

- Design, manufacturing and NDE
- Automated robotic welding and machining
- Reactor components to U.S. Government
- PWR and CANDU technologies
- Operating fleet replacement components
- ALWR supplier

Only supplier manufacturing reactors 50+ continuous years

NDE=Non-Destructive Examination PWR=Pressurized Water Reactor CANDU=Canadian Deuterium Uranium Reactor ALWR=Advanced Light Water Reactor

Nuclear Fuel Manufacturing and R&D

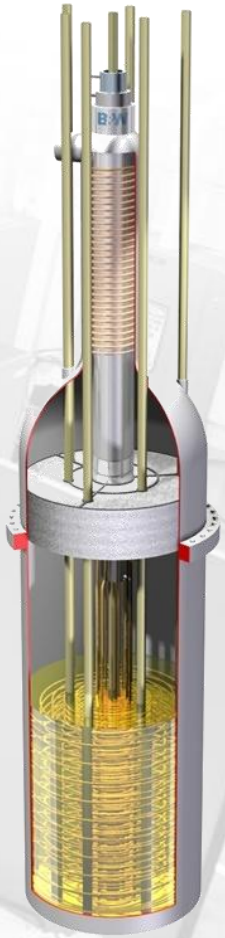
- Only U.S. NRC 100% enrichment licensee
- Single source for HEU downblending
- Advanced LEU fuel development
- Nuclear fuel and components
- Lynchburg Technology Center
  (Hot Cell, Automated NDE, R&D)

U.S. leader for advanced and high-enriched fuel

NRC=Nuclear Regulatory Commission HEU=High Enriched Uranium LEU=Low Enriched Uranium

Medical Isotope Production System (MIPS)

- LEU generates no nuclear weapons-grade waste
- Becoming major domestic supplier of medical isotopes
- Partnership with radiopharmaceutical Covidien using B&W technology
- 200 kW reactors in state-of-the-art facility



Technology establishing key source of medical isotopes

B&W and Idaho

Long nuclear history between two great institutions

- **helped win the Cold War**
- **provide energy security for our Nation**

- **Manufacture Nuclear components for:**
  - ***Nautilus*** **prototype and submarine**
  - **EBR I and first commercial reactor at Shippingport, PA**

- **Manufacture Advanced Test Reactor fuel since 1967**

- **DOE Idaho contractor since 1994 starting SMC (Specific Manufacturing Capability)**

- ***TODAY:*** **B&W on 3 out of four Idaho M&O contracts**
- **Idaho National Laboratory**
- **Advanced Mixed Waste Treat Plant**
- **Naval Reactors Facility**

- ***FUTURE:*** **Budget Control Act Sequester could effect nuclear RD&D in Idaho**
  - **OMB report proposes $63M annual cut to DOE Nuclear Energy program**

B&W –Idaho nuclear energy partnership is critical to our energy and national security