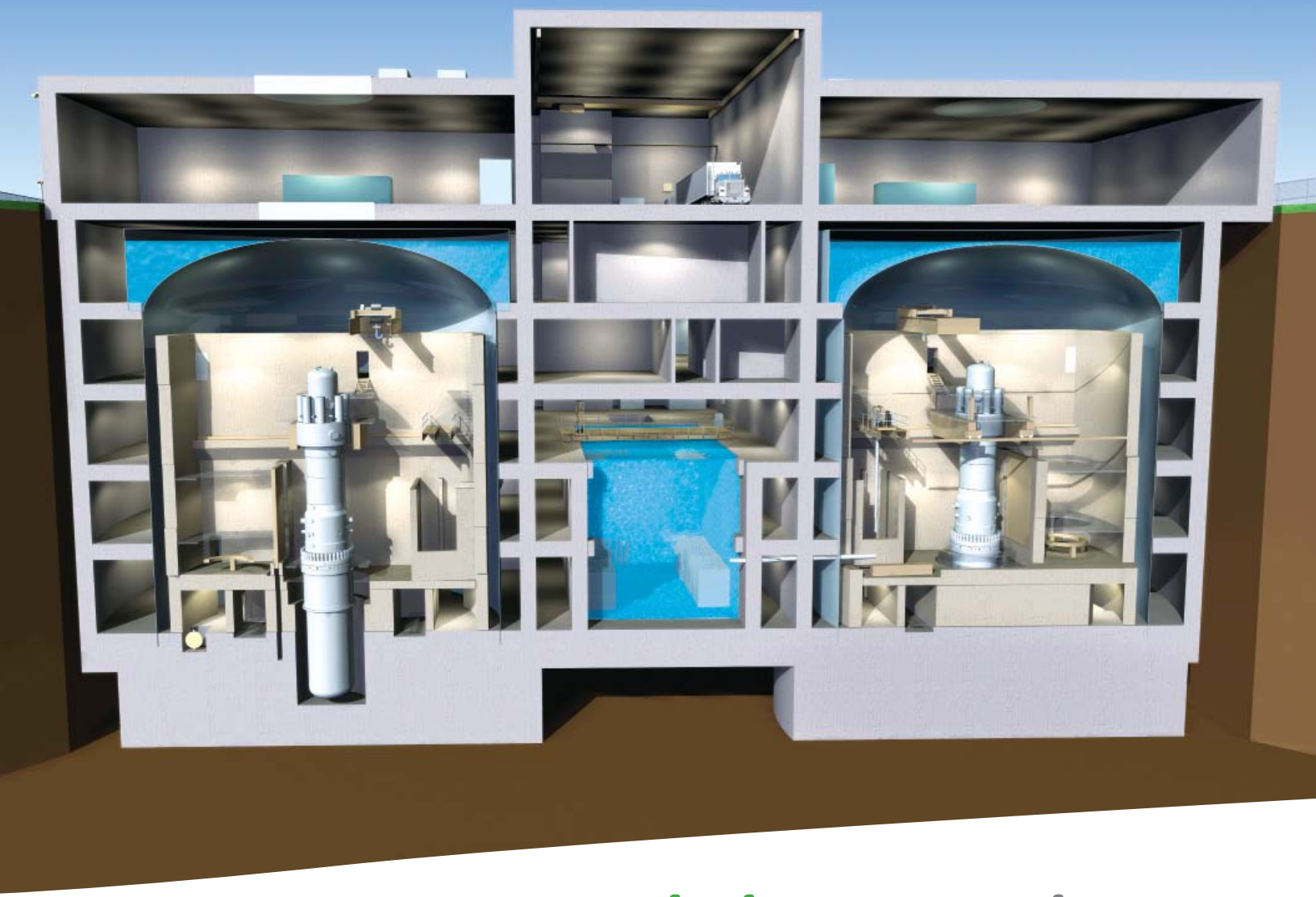
generation

mPower

delivering clean energy to the world

with small modular reactor technology

Within the shifting landscape of global energy markets, **Generation mPower** nuclear plants will deliver a solution designed for today's regulatory, policy and financial realities.



zero-emission operations

Responding to the Challenge

At a time when energy demands are evolving and environmental concerns are growing, there is a global imperative to provide affordable energy sources that are efficient and clean. Generation mPower LLC is responding to the challenge by developing and deploying an exciting new electric generation plant utilizing small modular reactor technology.

The reactor design is a scalable, modular, Advanced Light Water Reactor (ALWR) system in which the nuclear core and steam generators are contained within a single vessel. Generation mPower believes this optimized ALWR Generation III++ nuclear technology can be certified, manufactured and operated within today's existing regulatory, industrial supply chain and utility operational infrastructure. The Generation mPower electric generation plant has the capacity to match customer demand in nominal 180 MWe increments for a four-year operating cycle without refueling, using standard pressurized water reactor (PWR) fuel.

Cutaway of B&W mPower™ reactor

Generation III++ Technology

- Integral nuclear system design
- Passive safety systems
- Four-year operating cycle between refueling
- Less than five-percent enriched fuel
- Secure underground containment

Proven Performance

The modular and scalable Generation III++ design allows Generation mPower to match the generation needs of our customers with the proven performance of existing Light Water Reactor (LWR) technology.

With fewer components and systems, overall reliability is enhanced and affordability improved.

The scalable design offers flexibility so that multiple reactor modules can be aggregated to support local customer requirements and infrastructure constraints.

Industry Experience

Building on the strengths of two industry leaders, Generation mPower LLC is a company formed between Babcock & Wilcox Nuclear Energy, Inc. (B&W NE) and Bechtel Power Corporation (Bechtel). B&W NE's expertise in nuclear engineering and manufacturing combined with B&W mPower™ reactor technology and Bechtel's plant engineering, procurement and construction capability create a progressive energy solution that meets the needs of today's changing power generation industry.

"Twin Pack" site layout *Patents Pending*

Additional Generation mPower Nuclear Plant Features and Solutions

Flexible and scalable to local needs

- Integrated reactor modules
- Multi-unit (1 to 10+) plant
- North American shop-manufactured
- Rail-shippable nuclear steam supply system (NSSS)

Streamlining licensing and construction

- Accepted ALWR concepts
- Passive safety system
- No on-site NSSS construction
- Three-year construction cycle

Integrated and simplified NSSS

- Internal steam generator
- No need for safety-grade backup power
- No external pressurizer
- Conventional core and standard fuel
- No large pipe break Loss of Coolant Accidents (LOCA)

Simplified operations and maintenance

- Four-year core design
- Sequential partial-plant outages
- Standardized balance of plant

Construction cost and schedule: Generation mPower offers a skilled workforce through an integrated supply chain in its existing facilities that will design and fabricate the NSSS components, reducing direct costs and streamlining construction.

Tightening capital markets: The Generation mPower solution is expected to lower the overall capital cost of construction and optimize plant size to customers' local power generation requirements. Also, the ability to bring increments of power online, while additional modules are under construction, should provide early returns on investment for the customer.

Changing geopolitical climate: Generation mPower works within environmental regulations to supply innovative electricity generating capabilities. Each module will provide zero-emission operations, contributing to the reduction of an estimated 57 million metric tons of CO_2 during the lifetime of each reactor.

Protecting the environment: The reactor's air-cooled condenser options, underground containment and small site footprint all help minimize environmental impact.

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Front Cover: B&W mPower™ reactor. Reactor design is not complete. Statements in this brochure are based on the final, certified reactor design.

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Generation mPower LLC is designing the world's first commercially viable Generation III++ small modular nuclear power plant based on B&W mPower™ small modular reactor technology. The company was formed by two established energy industry leaders, Babcock & Wilcox Nuclear Energy, Inc. (B&W NE) with more than 50 years of experience in nuclear engineering and manufacturing and Bechtel backed by 60 years of global experience in the nuclear power industry.

For more information, send an e-mail to info@generationmpower.com, or access our website at www.generationmpower.com.

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