



HITACHI

BWRX-300

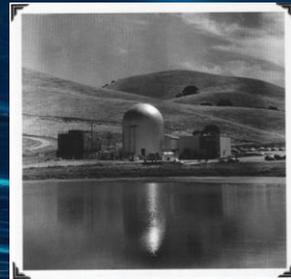
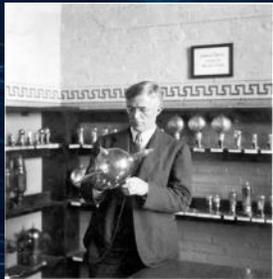
Small Modular Reactor

GE Hitachi Nuclear Energy | Adam DeMella

Rich history of nuclear innovation and demonstrated experience deploying nuclear reactors



Proven success turning vision into commercial-scale reality, on time and on budget

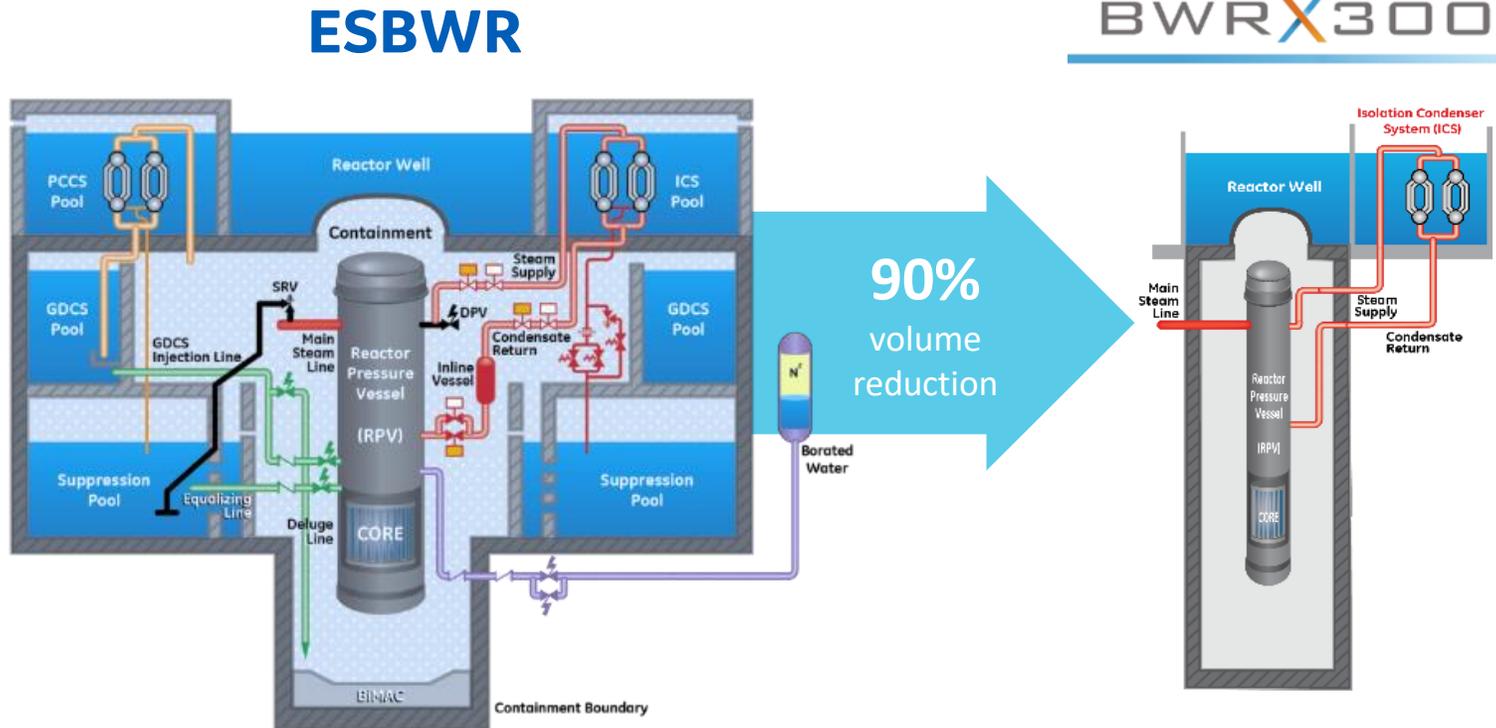


OVER 80 YEARS OF NUCLEAR EXPERIENCE AND INNOVATION



67 REACTORS LICENSED IN 10 COUNTRIES

BWRX-300 small modular reactor



- 10th generation Boiling Water Reactor
- Scaled from prior licensed designs
- Patented innovation driving simplicity
- >50% less concrete/MW
- Significant capital cost reduction versus today's large reactors
- Leverages commercially available fuel
- Capable of integrating with renewables
- Ideal for electricity generation and industrial applications, including hydrogen production
- Initiated licensing in the U.S. and Canada
- Operational by 2028

Breakthrough innovation driving dramatic simplification and cost reduction

Breakthrough innovation – integral isolation valve



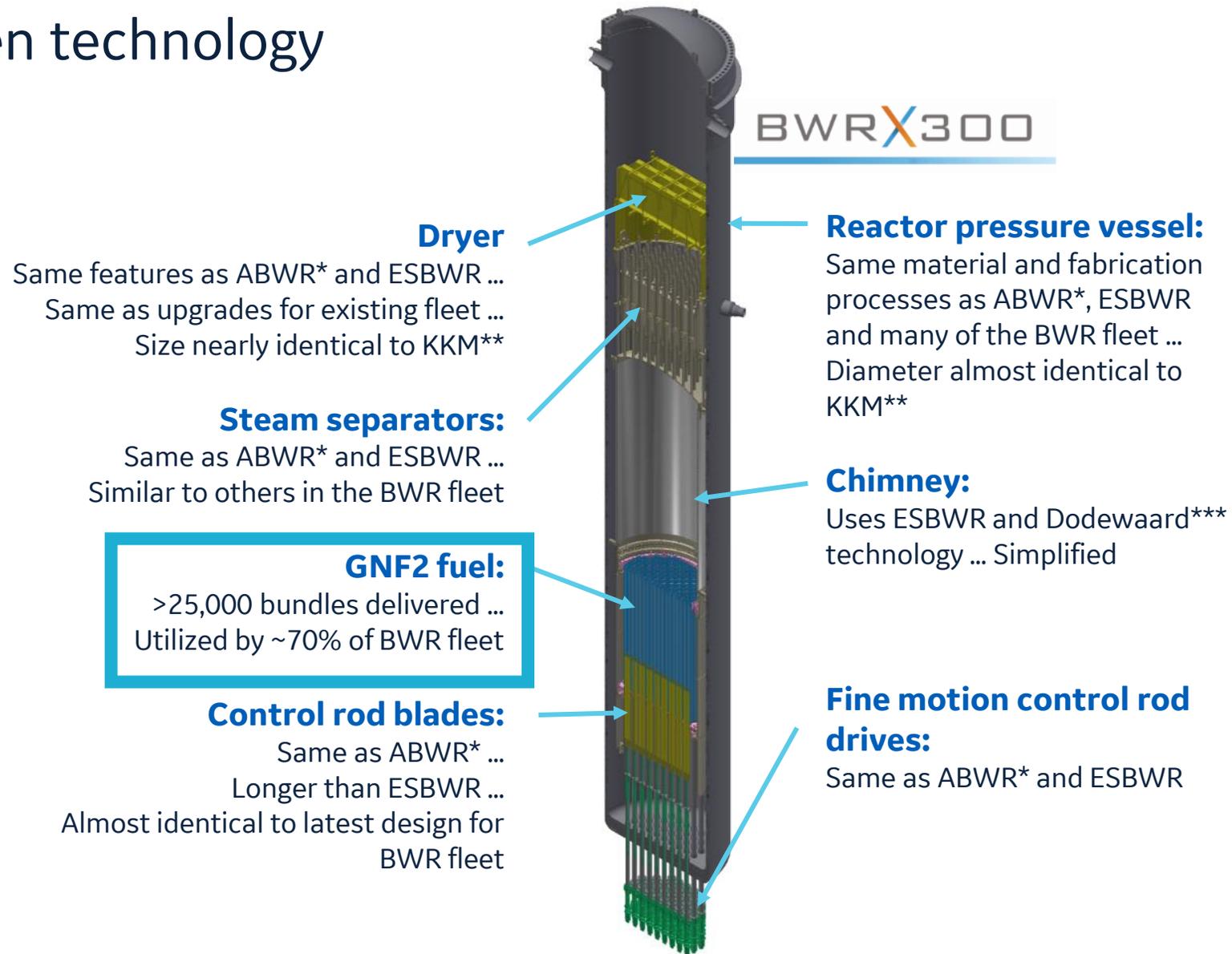
Integral isolation valve

- ✓ Patented
- ✓ NRC approved
- ✓ Enables dramatic design simplification and elimination of unnecessary systems
- ✓ Leads to more than 50% reduction in construction materials per MW
- ✓ Game-changing cost reduction – competitive with other generation sources



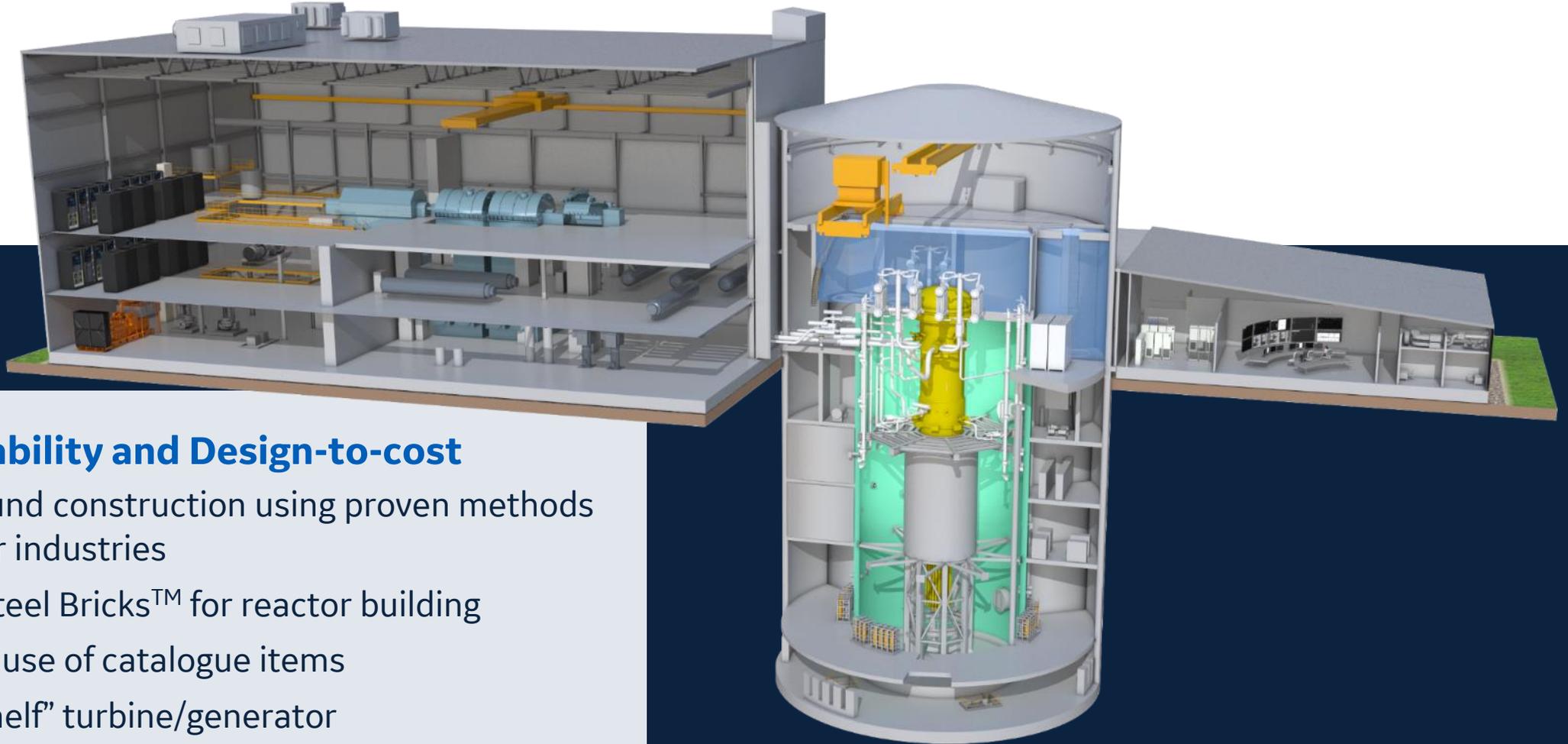
Utilizing proven technology

Proven components, prior testing, and operational history greatly accelerate deployment



* ABWR fleet has combined 22+ years of operating experience | ** Kernkraftwerk Mühleberg (KKM): 355 MWe BWR/4 in operation since 1972 | *** Dodewaard: 58MWe natural circulation BWR, 1969 ~ 1997

Optimized for cost and ease of construction



Constructability and Design-to-cost

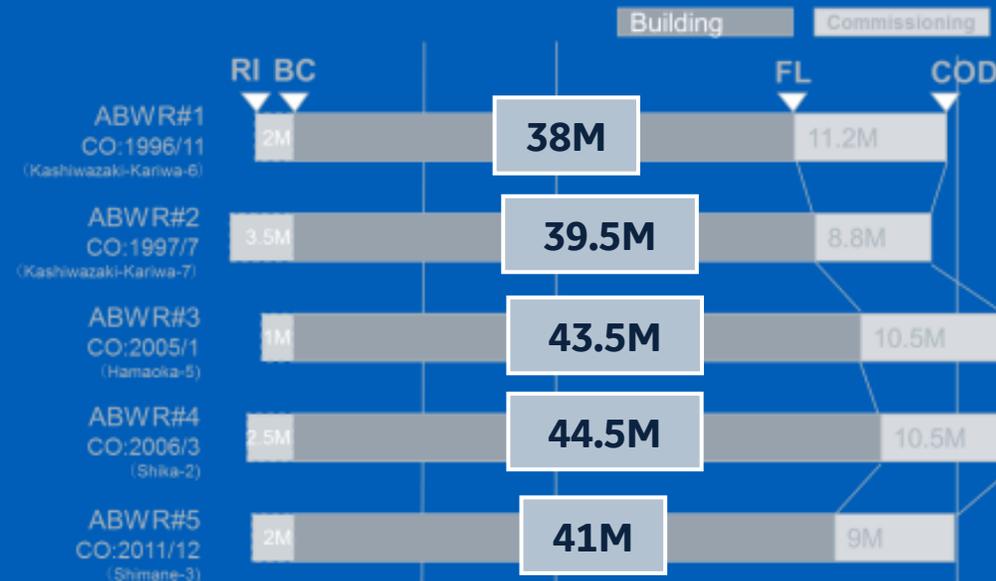
- Underground construction using proven methods from other industries
- Utilizing Steel Bricks™ for reactor building
- Maximum use of catalogue items
- “Off the shelf” turbine/generator

Building on ABWR experience

Efficient, repeatable model



**Kashiwazaki-Kariwa
6/7 ABWRs**



M - months

FIRST-OF-A-KIND GEN III PLANT BUILT ON 38-MONTH CONSTRUCTION SCHEDULE

Ontario Power Generation selects GEH's BWRX-300

ONTARIOPOWER
GENERATION



TORONTO | DECEMBER 2, 2021

GE Hitachi Nuclear Energy selected by Ontario Power Generation as technology partner for Darlington new nuclear project.

- Deployment could be complete as early as 2028
- **Submitting license-to-construct in 2022 to Canadian regulator**
- Substantial economic opportunity for Ontario and Canada

TVA and OPG Partner on New Nuclear Technology Development



TVA authorizes new nuclear program to explore innovative technology.

TVA developing a construction permit application for BWRX-300 at the Clinch River Site.

CNSC and NRC Collaboration



- Signed an MOU in 2017 and a joint memorandum of cooperation in 2019 aimed at enhancing technical reviews of SMRs
- Released Joint Report on GE Hitachi's Containment Evaluation Method of BWRX-300
- GEH will continue with Vendor Design Review process in Canada and pre-application activity in the U.S.

Synthos Green Energy plans to deploy at least **10 BWRX-300 SMRs** in Poland by early 2030s

synthos



- SMR deployment could accelerate the decarbonization of the Polish economy
- BWXT Canada could manufacture wide range of products for these reactors, worth up to \$1 billion CAD

Polish JV formed to deploy GEH's BWRX-300

POLAND | DECEMBER 15, 2021

Polish companies Synthos Green Energy and PKN Orlen have signed an investment agreement to establish a joint venture for the deployment of a small modular reactor (SMR) fleet in Poland.

The Orlen Synthos Green Energy joint venture will commercialize GE Hitachi Nuclear Energy's BWRX-300



Kärnfull selects BWRX-300 for deployment in Sweden



Kärnfull Next™



- In Aug 2019, Kärnfull Energi became the first supplier in Sweden and Denmark to offer 100% nuclear electricity contracts to households and small-to-medium businesses
- GEH selected to supply a number of SMRs in region as soon as possible
- Kärnfull has chosen partners to build a reliable supply chain to deliver cost-effective and timely fossil-free energy

SaskPower Selects GEH's BWRX-300



SASKATOON | JUNE 27, 2022

SaskPower selects the GE Hitachi BWRX-300 small modular reactor technology for potential deployment in Saskatchewan

- Multi-year assessment focused on several factors including safety, technology readiness and fuel type
- Selection of the same technology as Ontario Power Generation helps enable a pan-Canadian, fleet-based approach to SMR deployment



GRID-SCALE DEPLOYMENT BWRX-300

Potential Economic Impact: Jobs

- Highly-skilled jobs in operations, services, manufacturing and construction
- 25% more jobs/MW than wind power*
- 1/3 higher pay than renewable sector*
- Sustainable jobs ... construction thru 60-year plant life
- More jobs ripple into community
- Excellent addition to tax base

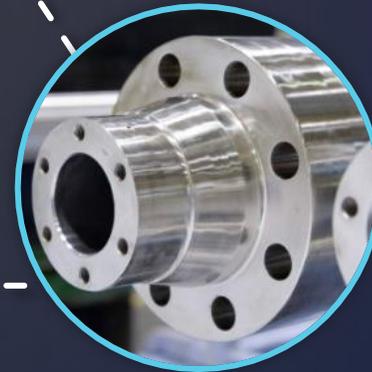
Reactor plant operation



Supply chain localization



Local construction



Local equipment, materials and services

Customized localization plan can be jointly developed based on capability, aspirations, readiness and availability

BWRX-300 SMR

Simplest, most cost competitive SMR design



Ideal solution to impact climate change and energy security in a meaningful timeframe



Ready for commercial deployment



Opportunity to support regional and global deployment of BWRX-300