



**HITACHI**

# **Southern States Energy Board**

**August 30, 2022**

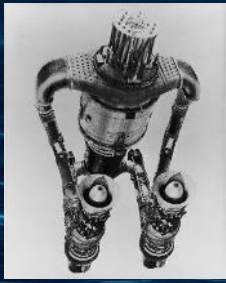
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**GE Hitachi Nuclear Energy | Adam DeMella**

# 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

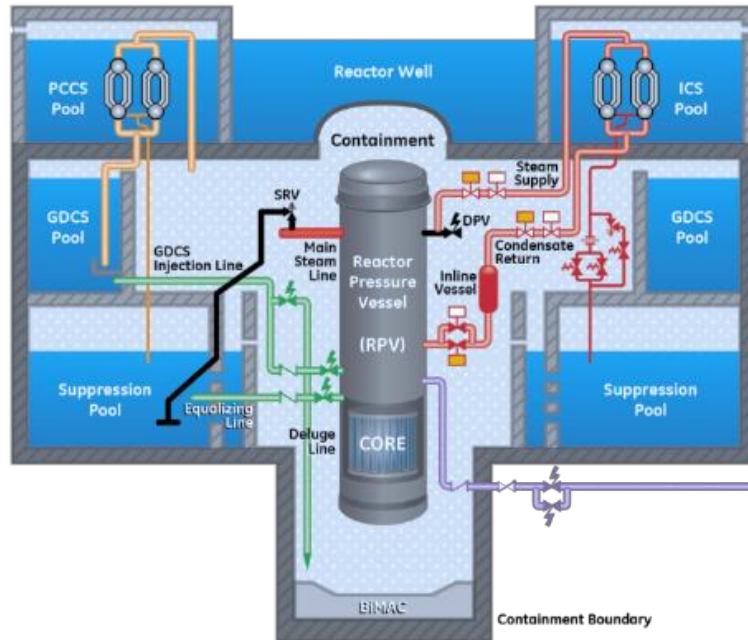


**67 REACTORS LICENSED IN 10 COUNTRIES**

# BWRX-300 small modular reactor

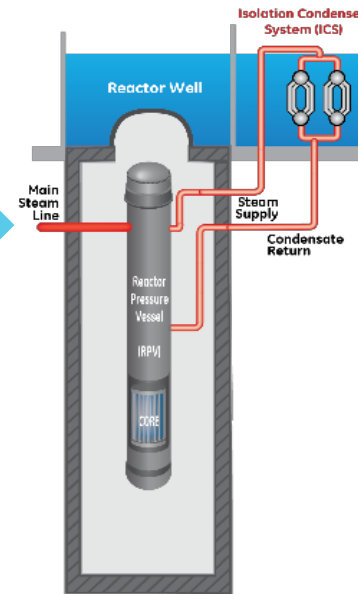


## ESBWR



90%  
volume  
reduction

## BWRX300

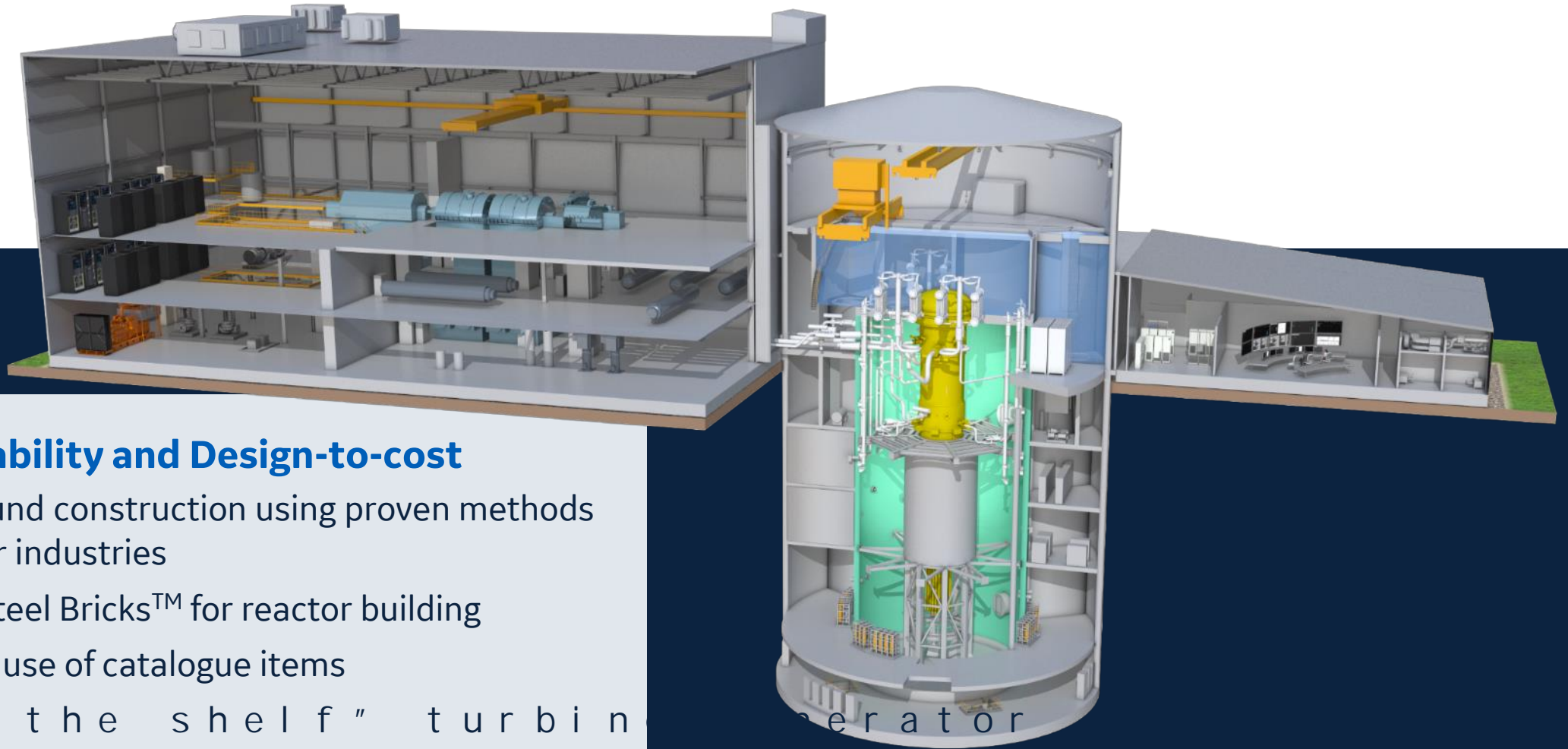


10<sup>th</sup> generation Boiling Water Reactor  
Scaled from prior licensed designs  
Patented innovation driving simplicity  
>50% less concrete/MW  
Significant capital cost reduction versus  
today's large reactors  
Leverages commercially available fuel  
Capable of integrating with renewables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

Breakthrough innovation driving dramatic simplification and cost reduction



# 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

# Ontario Power Generation selects -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.



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



GRID-SCALE DEPLOYMENT BWRX-300



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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

## What Role Can States Play?

Be a Knowledgeable Customer

Develop an Environment for More Skilled Workers

Develop and Implement Policies that support STEM education

Support Existing Supplier Base and Encourage New  
Manufacturing and Fabrication Capacity

Enact Policies that Maintain a Level Playing Field



# 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

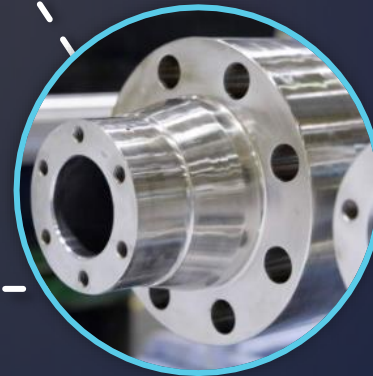
**Local construction**



**Reactor plant operation**



**Supply chain localization**



**Local equipment, materials and services**

**Do not miss the opportunity to lead on Nuclear it will be a vital part of our future energy supply and high-paying jobs.**