

# BWRX-300 Licensing: Elevating NRC Safety and Efficiency Through Risk-Informed Decision-Making

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# BWRX-300 Roadmap



***BWRX-300 is ready to deploy now!***

ESBWR Licensing Completed  
2005-2014



Design Certification  
Passive Safety Systems

BWRX-300 Design  
2017-2025



Standard Plant Ready for  
International Deployment

BWRX-300  
Pre-Licensing  
2018-2025



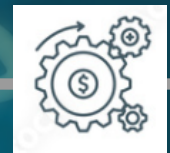
Canada &  
United States

BWRX-300  
Canadian Deployment  
2029



First Unit  
Commercial  
Operation 2029

BWRX-300  
U.S. Deployment  
2032



First Unit  
Commercial  
Operation 2032

***BWRX-300 Standard Design implemented to enhance safety, reduce licensing and design cost, optimize individual project schedules and streamline regulatory processes to deploy around the world.***

# Risk-Informed Decision-Making Strategies



## Streamlining Regulatory Processes

- Develop flexible and adaptive regulatory frameworks that integrate probabilistic and deterministic approaches
  - Classify Generation III+ small modular reactors that are inherently safe and passive as ADVANCED reactors and provide similar regulatory treatment to Generation IV reactors.
  - Facilitate quicker regulatory approvals through streamlined processes.
    - Flexibility to use internationally approved standards
    - Use of technical relevancy approach vs exemptions
    - Use of practical elimination [CNSC REGDOC 2.5.2 & IAEA SSG-88]

## Promoting a Risk-Informed Culture

- Cultivate a culture within the NRC and the nuclear industry that incorporate deterministic and risk-informed decision-making.
  - Implement training and education programs.
  - Ensure all stakeholders understand and apply risk-informed principles effectively.
  - Deviate from precedent when it makes sense and issue is not risk significant.