GE Hitachi Nuclear Energy

#### PRISM: Unlocking the Power of the Integral Fast Reactor

**Eric Loewen, Ph.D.** Chief Consulting Engineer Nuclear Power Plants



### **PRISM IFR development**



#### **PRISM overview**





## **PRISM IFR economics**

Typical light water reactor	PRISM	
~8" thick reactor vessel	2" thick reactor vessel Cost savings	3
1x power density	5x power density	
33% steam cycle efficiency	39% steam cycle efficiency	
Passive safety capability	Simpler passive safety	down ling y
Oxide fuel	Metal fuel More	
Modular construction	Simpler modular construction	



# Unique design approach of the IFR



## **PRISM solution for UK Pu disposition**





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