

New Designs Proven Experience

Lee Elder

Senior Vice President, Global Sales
GE Hitachi Nuclear Energy

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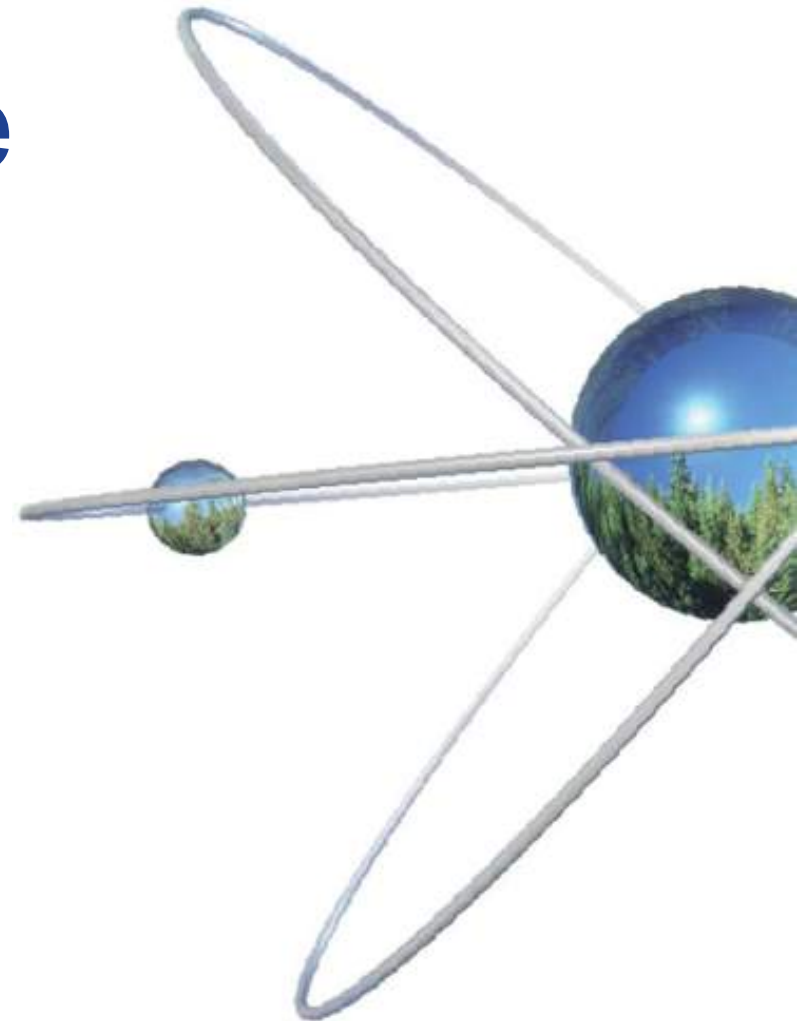
President & CEO
Hitachi GE Nuclear Energy

16th Pacific Basin Nuclear Conference

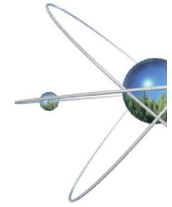
October 15, 2008



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Our Nuclear Alliance

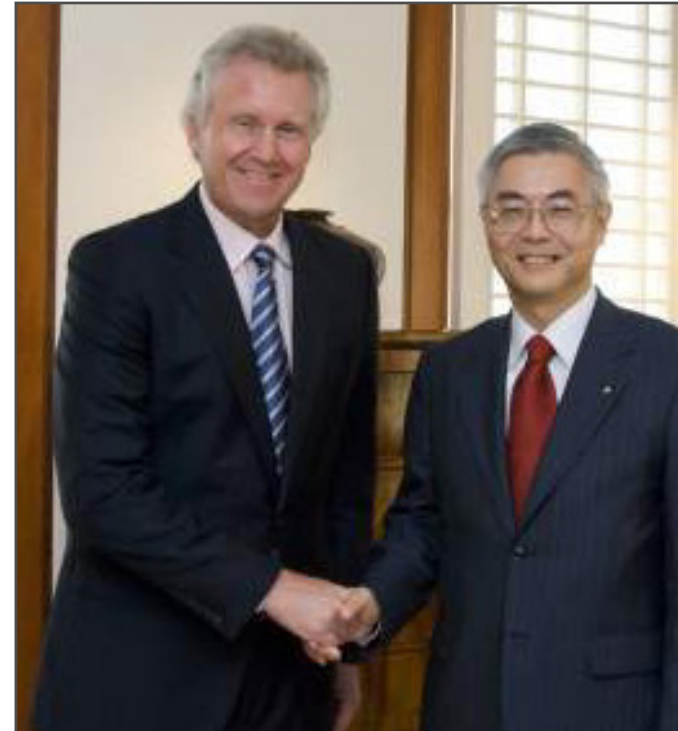


Global infrastructure

- 40 year technology relationship
- Nuclear alliance formed June 2007

Single vision. Unified strategy.

- Nuclear plants
- Fuel cycle products and services
- Nuclear plant services

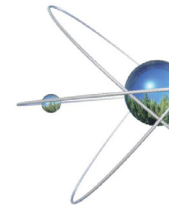


GE Chairman & CEO Jeff Immelt and
Hitachi Ltd. President & CEO Kazuo
Furukawa



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Making History Together



1950s

1960s

1970s

1980s

GE

First test reactor:
Vallecitos, CA

First Commercial
Plants: Dresden 1,
KRB, Tsuruga

Higher Power
Levels: Peach
Bottom 2, Tokai 2

Standard Designs:
Grand Gulf,
Fukushima 6



Hitachi

First Experimental
Reactor: JRR-3

First Test Reactor:
JPDR

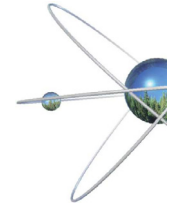
First Made-in-Japan
Commercial Reactor:
Shimane 1

Standard Designs:
Fukushima 2-2/4



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Making History Together



1990s

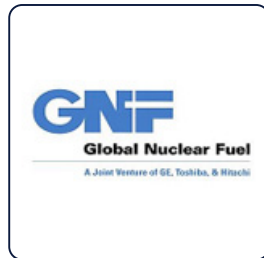
2000s

GE

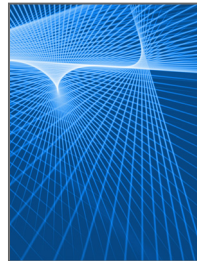
Advanced Designs: ABWR, SBWR, Prism



Global Nuclear Fuel *



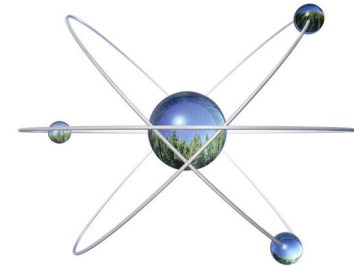
Laser Enrichment



2007
GE & Hitachi form global nuclear alliance



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Global Nuclear Alliance

Hitachi

First ABWR
Kashiwazaki-Kariwa 6/7

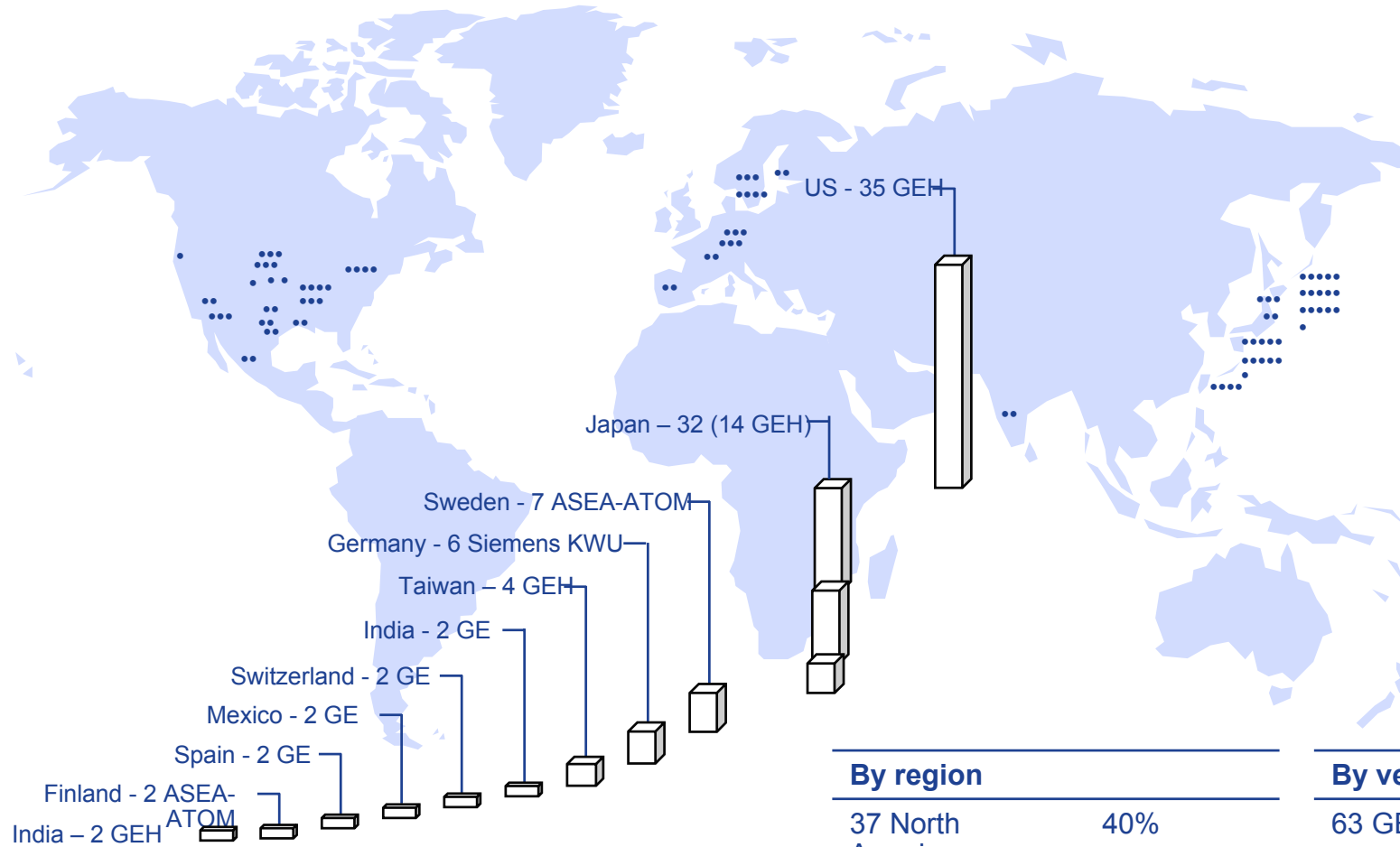
Multiple ABWRs in parallel construction



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*GNF is a joint venture of GE, Hitachi & Toshiba.

BWRs Worldwide

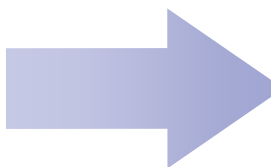
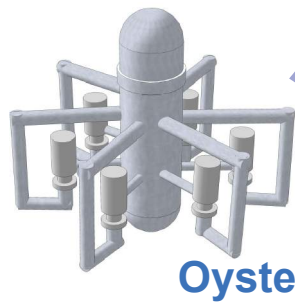
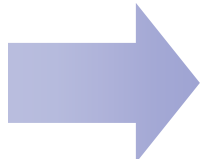
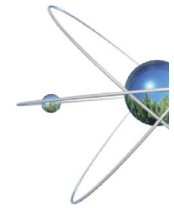


By region		By vendor	
37 North America	40%	63 GEH/HGNE	
38 Asia	10%	16 GEH Licensed	
19 Europe	4%	9 ASEA-ATOM	
		6 Siemens/KWU	
TOTAL: 94		TOTAL: 94	

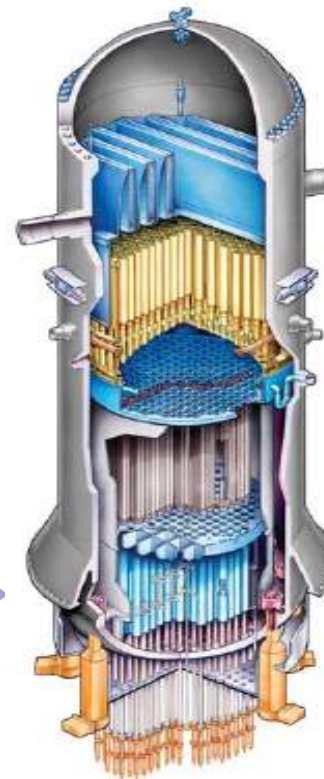


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Evolution of BWR



ABWR
Gen III
Active Safety

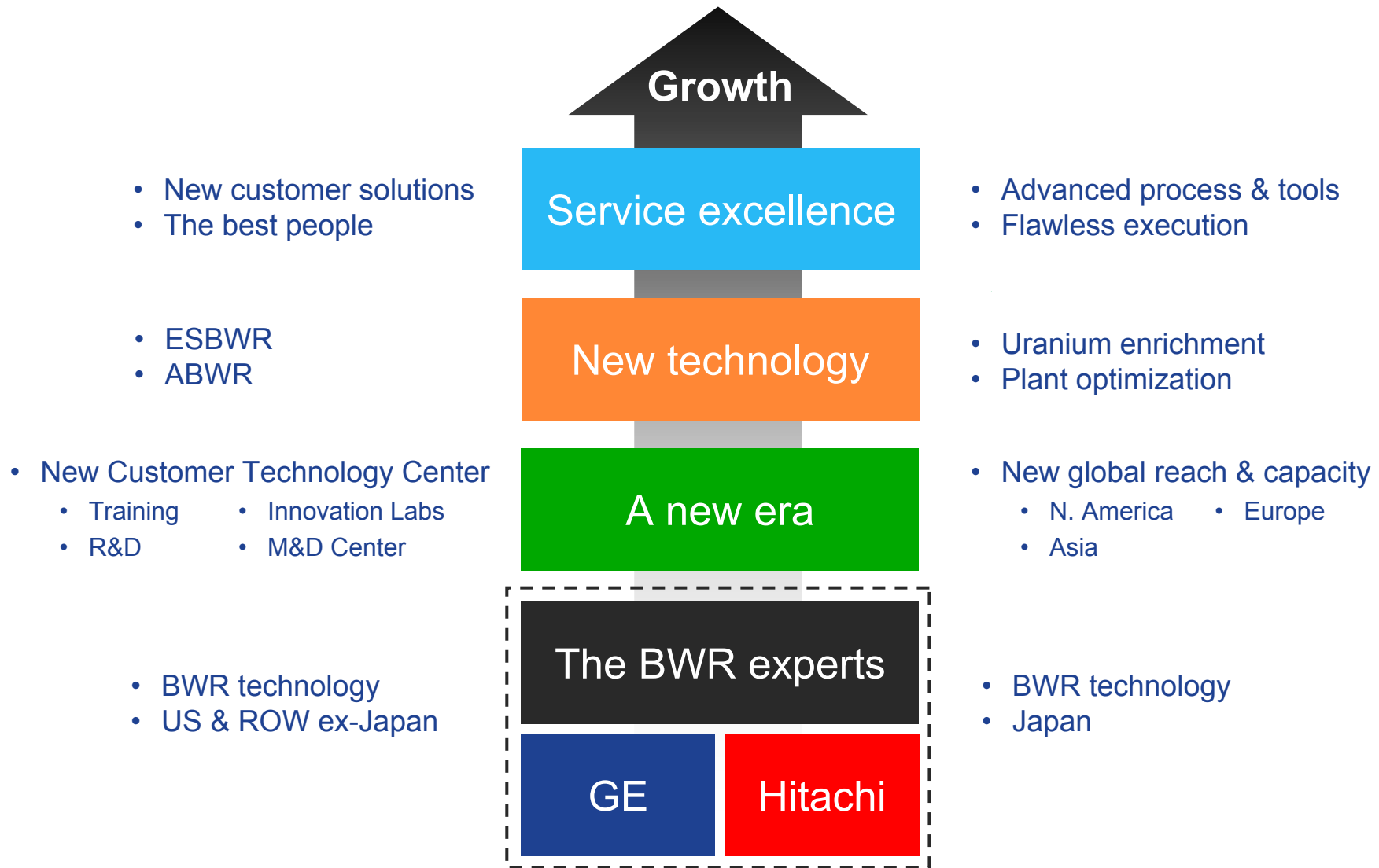
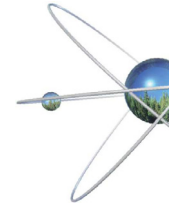


ESBWR
Gen III+
Passive Safety
License pending



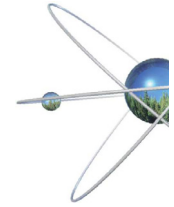
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Combined Strengths



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Hitachi GE Nuclear Energy, Ltd.



Hitachi Works



Tokyo HQ

Akihabara Daibiru



Rinkai Works



**Information & Control
Systems Division,
Hitachi, Ltd.**

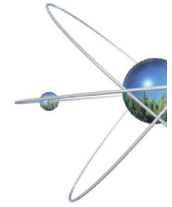


**Power & Industrial
Systems Division,
Hitachi, Ltd.**



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GE Hitachi Nuclear Energy



GEH Site, Wilmington, North Carolina, USA



San Jose, California., USA



Corporate Headquarters – Wilmington, NC

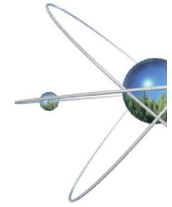


Advanced Technology Center



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Advanced Reactor Technologies

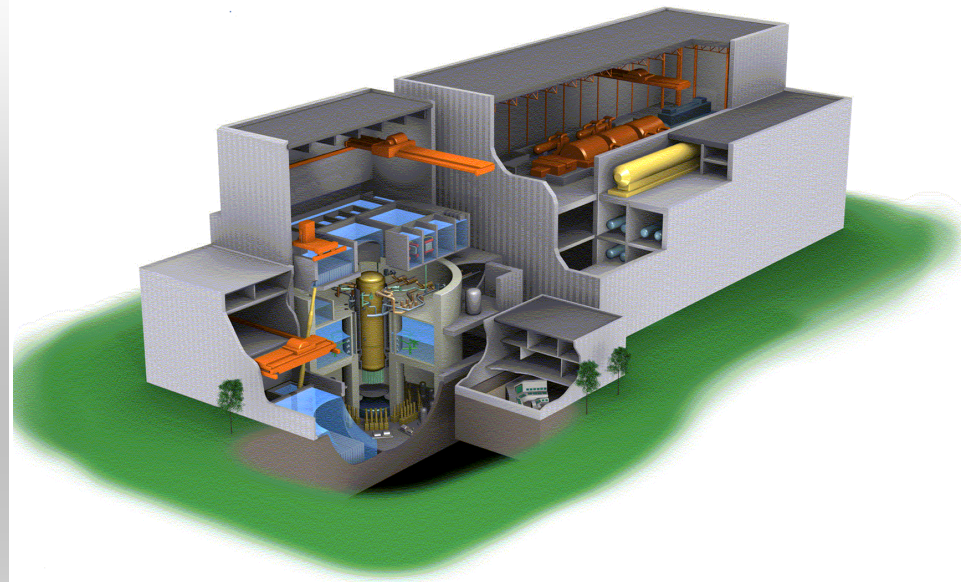


ABWR



- Licensed in USA, Japan & Taiwan
- 4 ABWRs operational in Japan
- 2 ABWRs in construction in Taiwan

ESBWR

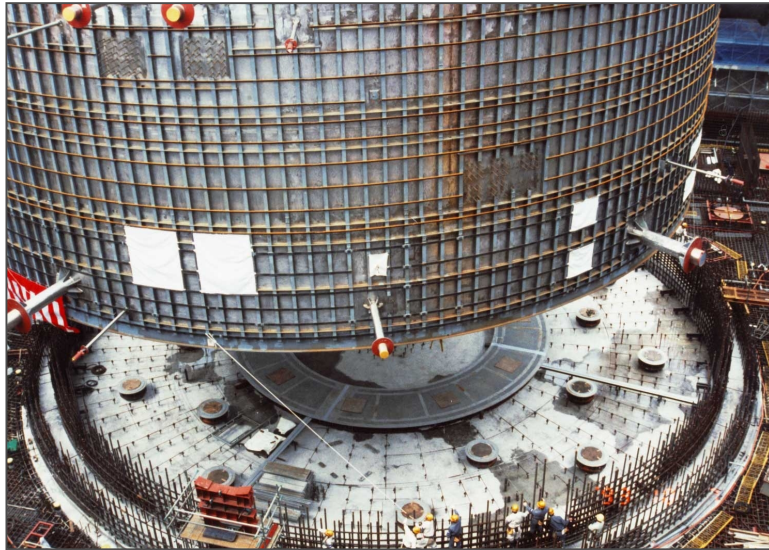
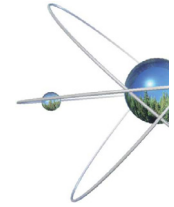


- Gen III+ passive safety and natural circulation
- 4 U.S. utilities have announced 6 potential ESBWR projects



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Combined Expertise



Photos courtesy of Tokyo Electric Power Co. (upper left) & the Chugoku Electric Power Co., above.

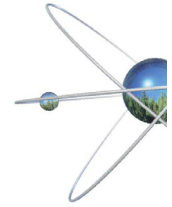


Global Scope

Our nuclear alliance has designed, licensed, built and serviced nuclear plants worldwide.



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Modular construction technology

What is Modularization?

- Plant construction techniques
- Pre-assembled components
- Very Heavy Lift (VHL) at Site



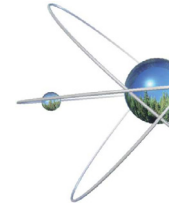
Advantages

- Remove activities on critical path
- Shorten activity duration
- Reduce and level-off site labor
- Reduce construction cost
- Improve safety and quality



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Uninterrupted Construction



●Hokuriku Electric Power Co.
Shika NPS



●Tokyo Electric Power Co.
Kashiwazaki-Kariwa NPS



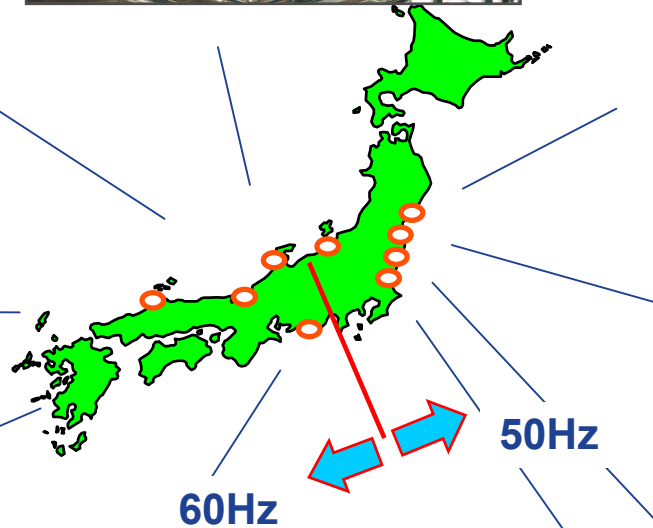
●Tohoku Electric Power Co.
Onagawa NPS



●The Chugoku Electric Power Co.
Shimane NPS



●Tokyo Electric Power Co.
Fukushima Daiichi NPS



●The Japan Atomic Power CO.
Tsuruga PS



●Chubu Electric Power Co.
Hamaoka NPS



●The Japan Atomic Power Co.
Tokai Daini PS

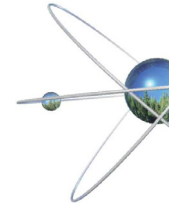


●Tokyo Electric Power Co.
Fukushima Daini NPS



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Nuclear Services



Outage Excellence



- Outage management
- In-vessel maintenance
- Under-vessel maintenance
- In-service inspection
- OEM tooling

Renewal Parts



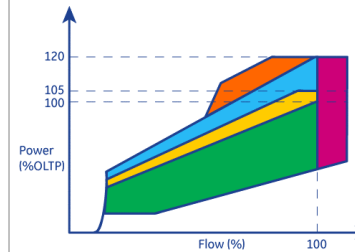
- Control rod blades
- Control rod drives
- Electrical & mechanical products
- NUMAC replacements

Upgrades & Repairs



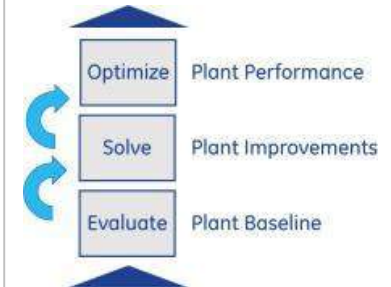
- Plant & reactor mods
- New reactor internals
- System & design engineering
- Shroud replacements
- Instrumentation & control
- Specialty construction

Performance Enhancement



- Power uprates
- Capacity optimization
- Core flow optimization
- Stability analysis
- Consulting services

Life Extension

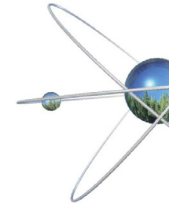


- Reliability assessment
- Chemistry monitoring & diagnostics
- Configuration management
- Dry fuel storage
- Training



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Fuel Cycle



Core activity
In process
Potential alliance or JV
 Not active in this area



Fuel fabrication

- Boiling water reactors
- Candu reactors
- Mixed oxide fuel



Highly enriched uranium down-blending

Re-conversion to UO_2 powder

Core design
 Fuel design
 Mixed oxide fuel design

Nuclear plant operation

Spent fuel storage



GLE UF_6 enrichment

Conversion to UF_6 gas

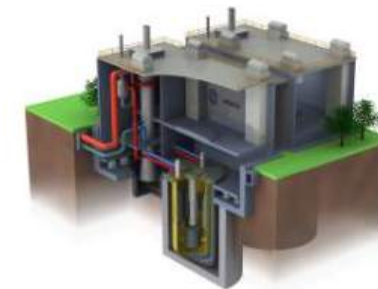
Uranium mining



Spent fuel reprocessing
 (Advanced recycled fuel)



Mixed oxide fuel fabrication



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In conclusion...

Bright future ahead for nuclear energy

50+ years of nuclear leadership

State of the art technologies

Demonstrated success in new build

Committed to our customers success

