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Outline of Hitachi-GE Nuclear Energy and the Role of Nuclear Supplier

February 21, 2012

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Hitachi-GE Nuclear Energy, Ltd.

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1-1. Hitachi – GE Global Nuclear Alliance

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HITACHI
Inspire the Next
Hitachi Limited

imagination at work
General Electric Company

Hitachi-GE Nuclear Energy
(Established on July 1, 2007)

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GE-Hitachi Nuclear Energy
(Established on June 4, 2007)

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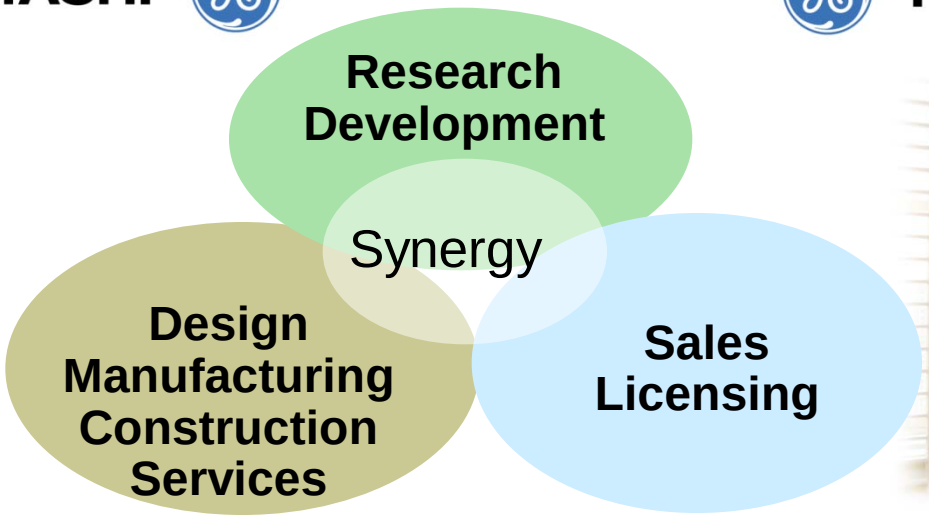

Joint Press Conference in New York City (July 9, 2007)

Develop and promote latest
BWR Technologies and Services

1-2. Nuclear related facilities of Hitachi Group

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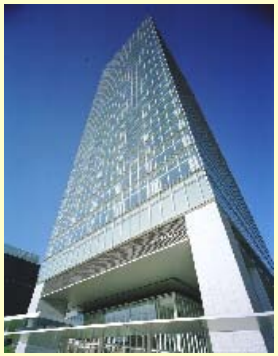
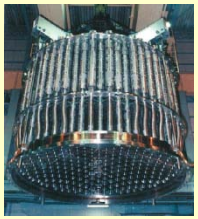
Tokyo HQ



Akihabara Daibiru

Hitachi Works

Rinkai Works



Nuclear Components

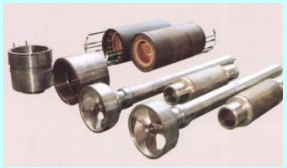
Hitachi Works

Turbine

Generator

BHK Co. Ltd.

Reactor Pressure Vessel



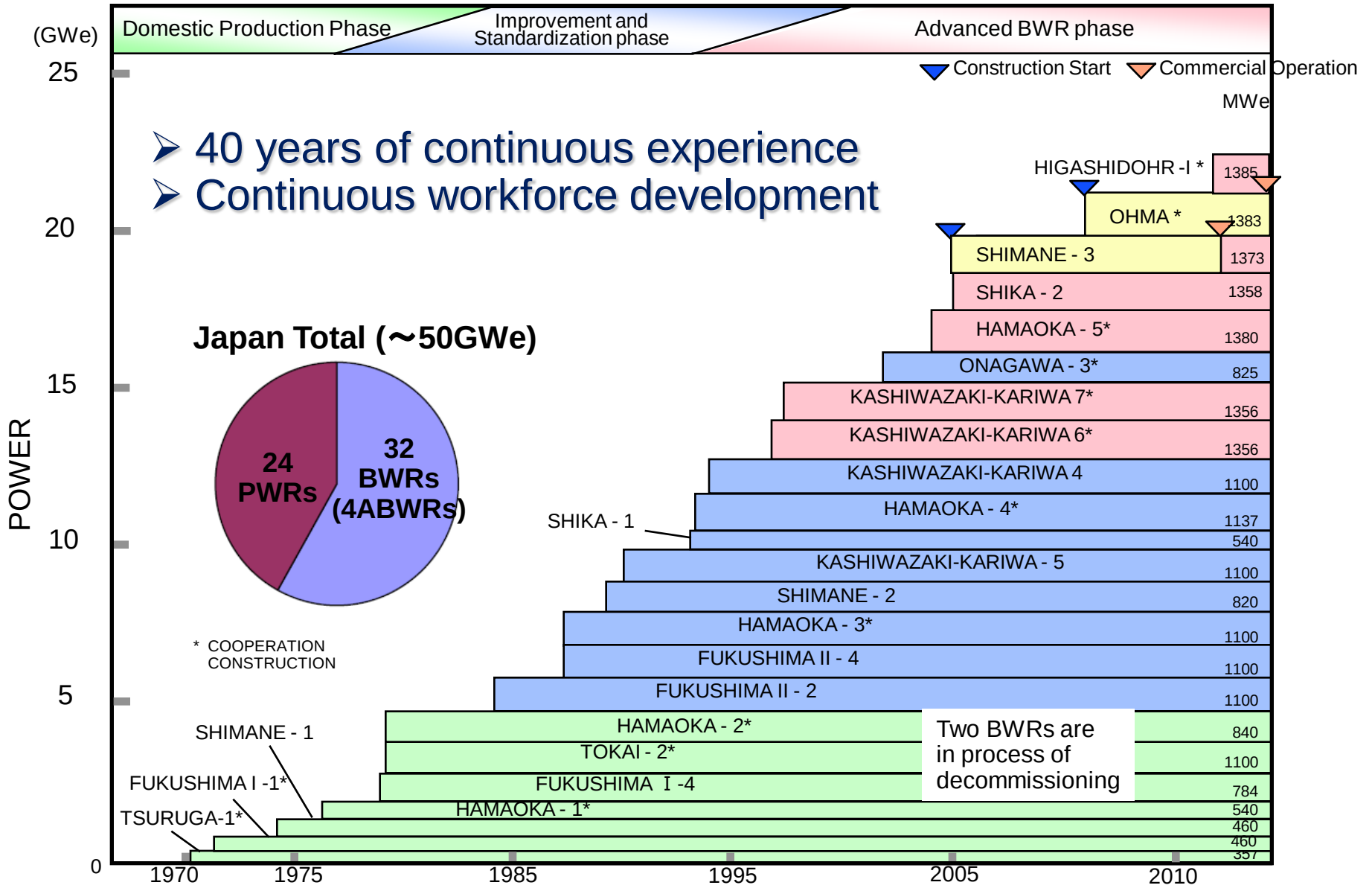
Reactor Internal Pump

Hitachi Plant Technologies, Co., Ltd

Omika Works

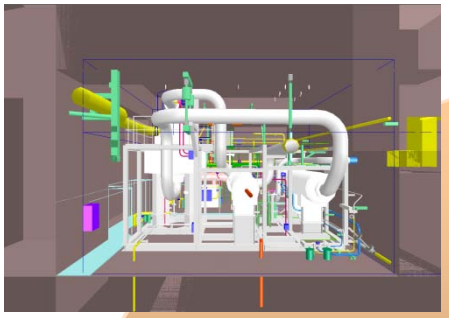
Main Control System

1-3. Construction Records : Continuous Experiences

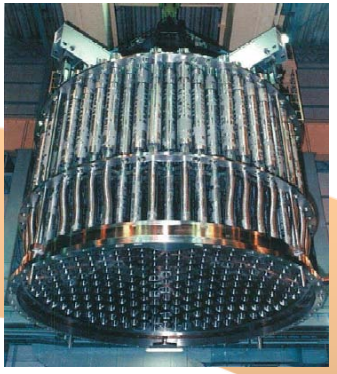


1.4 Capability : Covering Whole Plant Life

- Provide wide range of products and services covering design, manufacturing, construction, fuel supply and maintenance services.

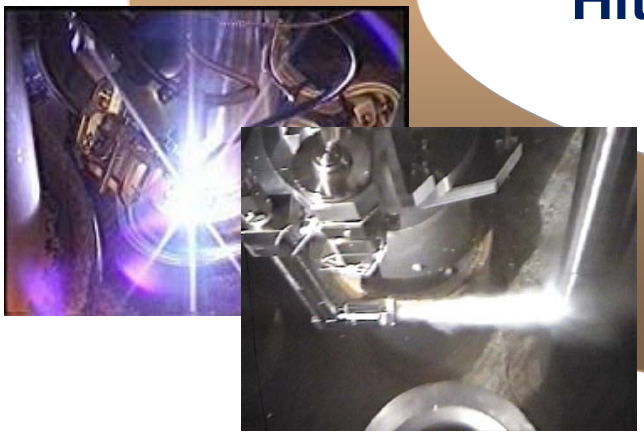


Design



Manufacturing

Integrated services provided by Hitachi Group Companies



Maintenance Services

Fuel Supply

Construction

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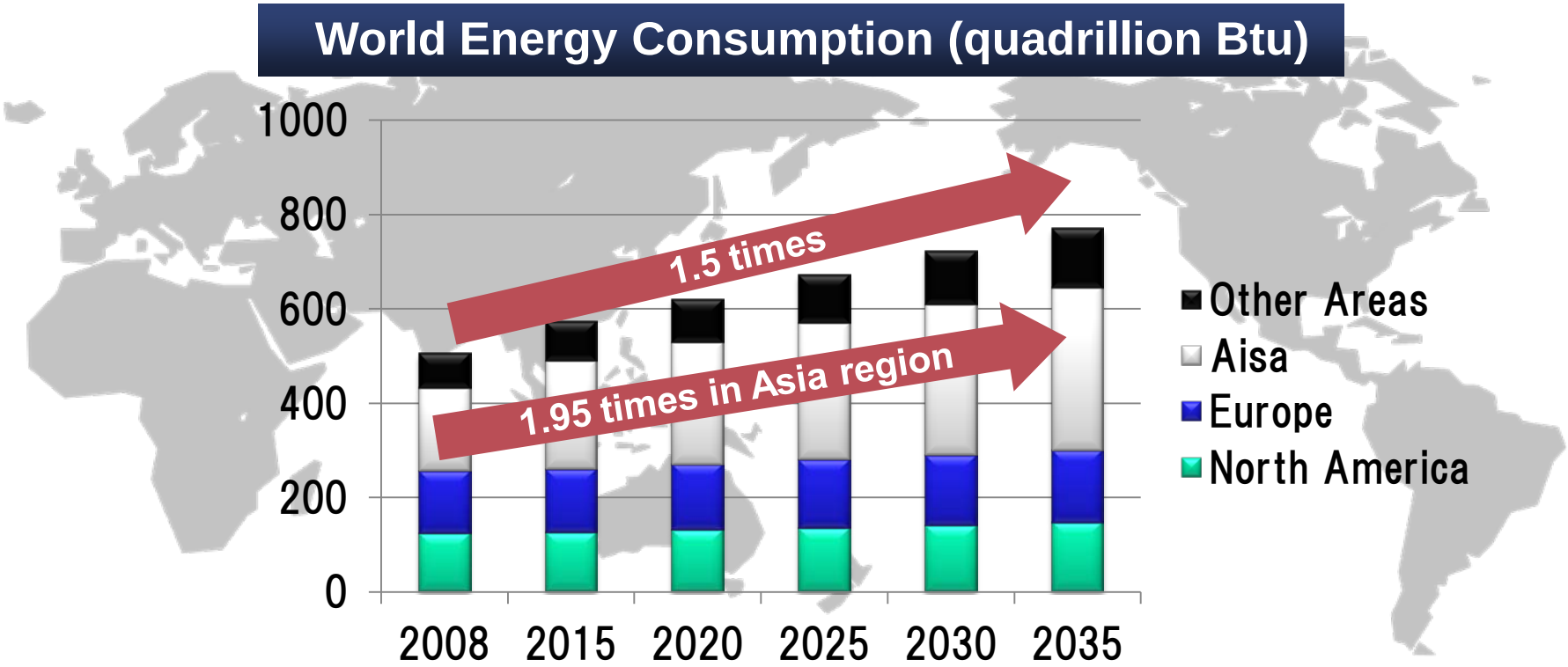
2-1. World Energy Market Trend

- Steady growth of world energy demand is projected (1.5 times from 2008 to 2035)
- Growth in Asian region will contribute the most (1.95 times from 2008 to 2035)

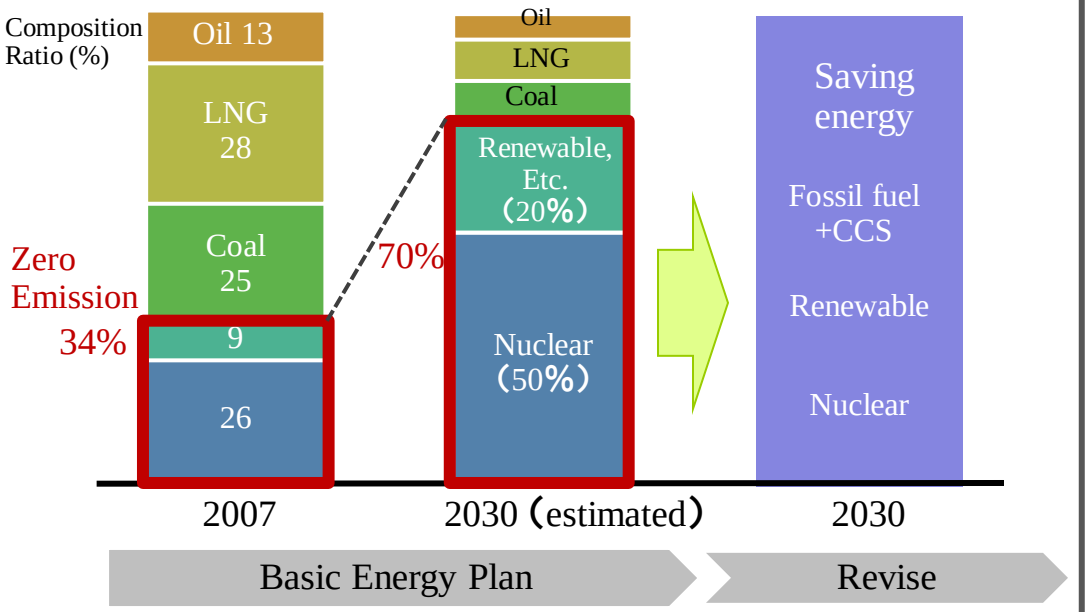


Source: Prepared from International Energy Outlook 2011

2-2. Fukushima Impact on Nuclear Industry

- The government announced to revise the basic energy plan
- Less dependence on nuclear, expand use of renewable energy and promote clean use of coal will be focused
- **Importance of nuclear energy as an effective measures to reduce CO_2 emissions will remain globally**

Composition of power generation energy sources in Japan



Market trend of Energy Sector

	Domestic	Overseas
Nuclear	Low visibility	- Maintaining nuclear power, with some exceptions - Stable demand for mid and long term
Thermal	Urgent demand	Stable demand
Renewable	Expanding demand	Stable demand

Source：Hitachi Research Institute based on METI

2-2. Fukushima Impact on Nuclear Industry

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Prime Minister's vision on nuclear power plant technology export

From Japanese Prime Minister Yoshihiko Noda's speech at U.N. meeting on nuclear safety (Sept. 2011)

9. Japan is determined to ***raise the safety of nuclear power generation to the highest level in the world***. ・・・・・

10. Japan stands ***ready to respond to the interest of countries seeking to use nuclear power generation***. For several years, emerging nations and many other countries around the world have earnestly explored ways of using nuclear energy amid the need for energy security and in response to global warming. Japan has been supporting their efforts, including their improvements of nuclear safety. Japan ***remains steadfast in responding positively to their interest in our undertakings***.
http://english.kyodonews.jp/news/2011/09/116392.html

2-3. Hitachi Basic Policy on Nuclear

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Raise the safety of nuclear power generation as an effective source of energy for curbing CO_2 emissions to meet continuing global demand.

Support Fukushima countermeasures

- Actively help to bring the Fukushima Daiichi nuclear power station Incident to an end.
- Focus on the safety issues to be applied for existing and under construction plants
- Provide solutions for medium and long term countermeasures

Contribute to overseas nuclear development projects

- Respond to customer's expectations in the countries moving forward with plans to construct new nuclear power facilities

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3-1. Key Issues for Sustainable Nuclear Development

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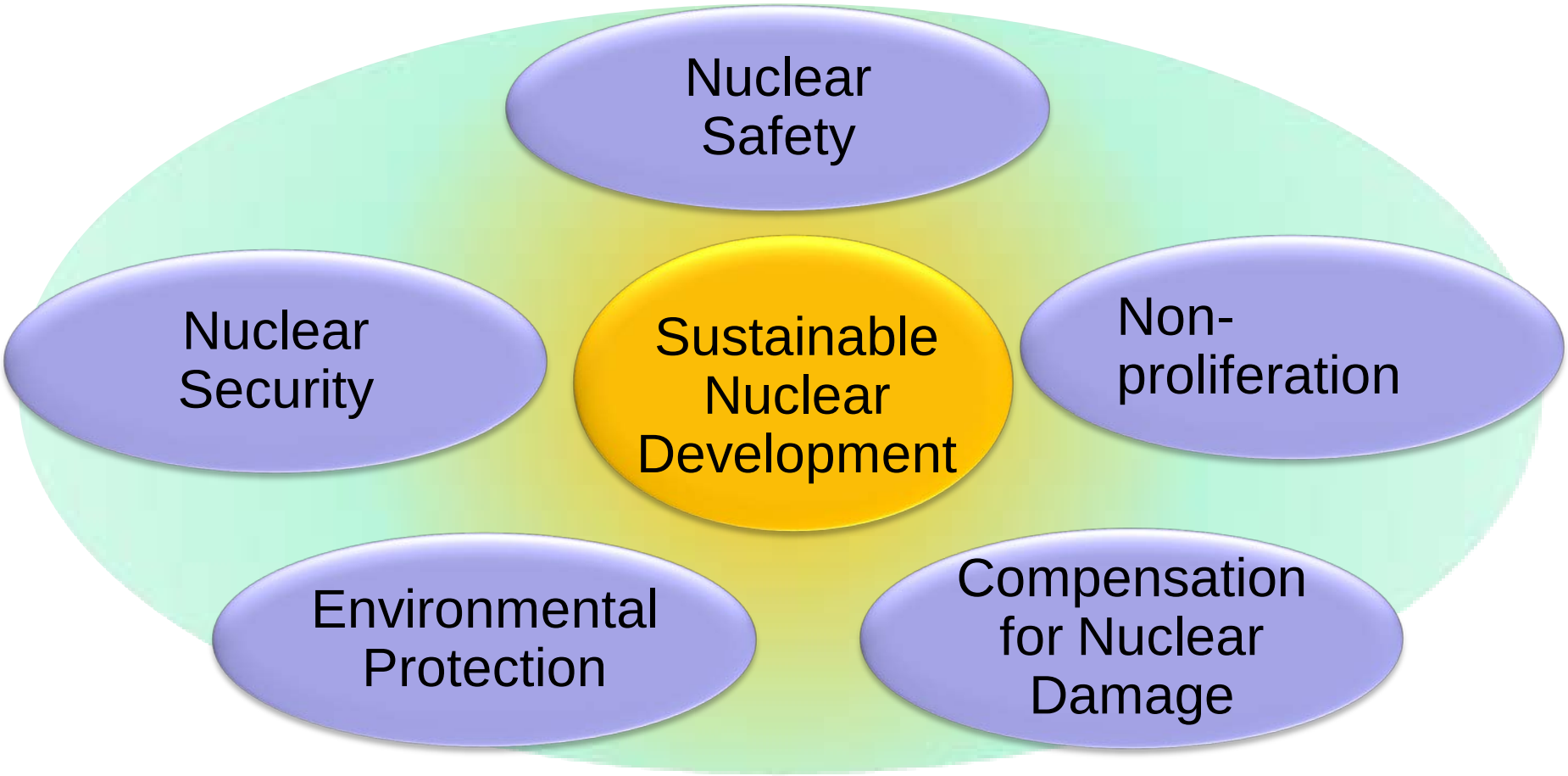
- Readiness for necessary frameworks (International Treaties, Bilateral Agreements, Domestic legislation, etc.) to ensure nuclear safety, security, safeguard, etc.



3-2. Nuclear Supplier's Role

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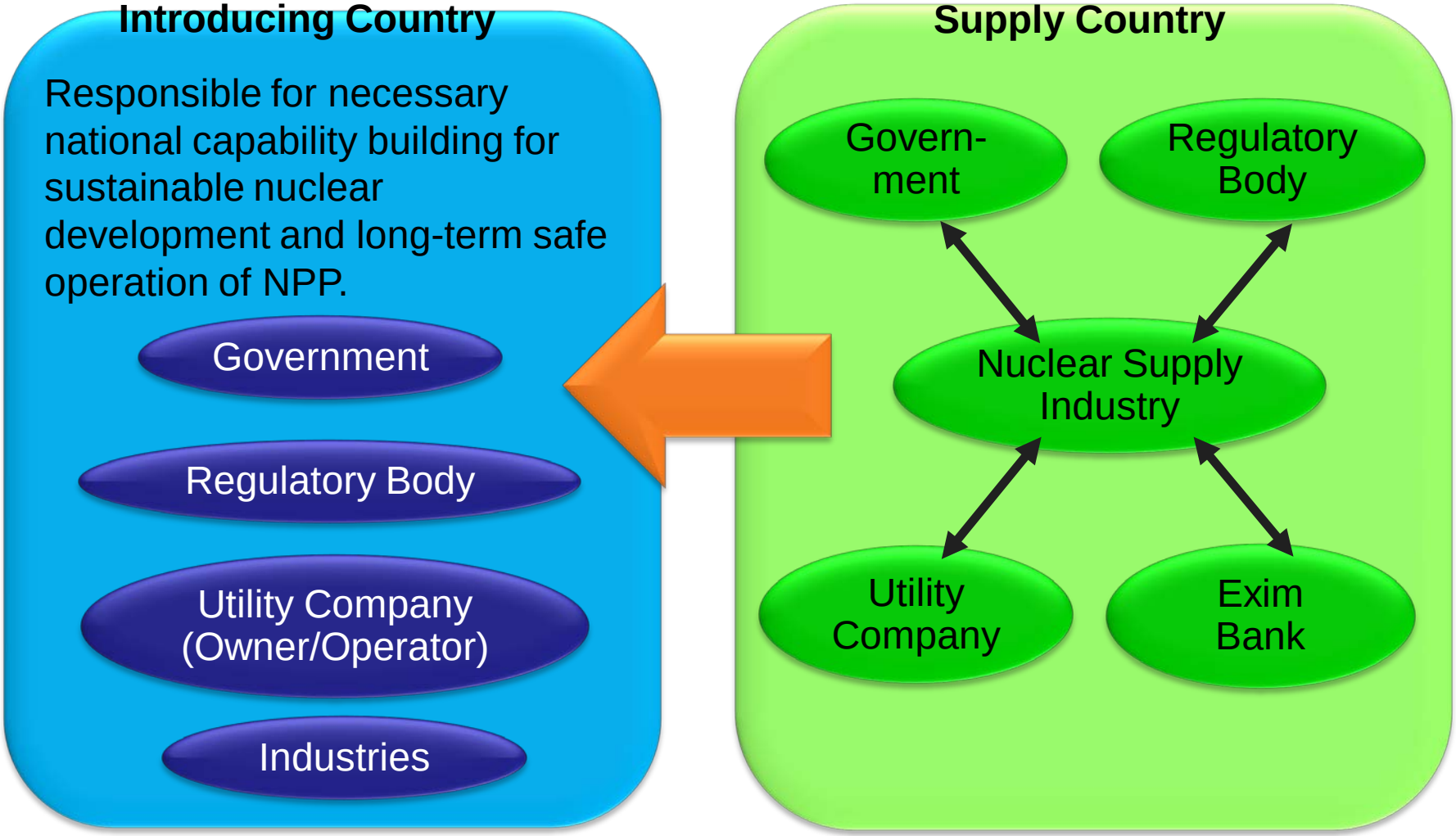
- Not only providing safe and reliable nuclear technology but also cooperation in developing necessary capability.



3-3. Nuclear Exporter's Principles of Conduct

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"Nuclear Power Plant Exporter's Principles of Conduct (POC)"

What's POC? (See POC's Web site in detail : **www.nuclearprinciples.org**.)

- An industry code of conduct resulting from a three - year initiative to develop norms of corporate self - management in the exportation of nuclear power plants.
- The nuclear power plant industry's shared high standards in the areas of **safety**, **security**, **environmental protection and spent fuel management**, **compensation for nuclear damage**, **nonproliferation** and **ethics**.
- Addressing **not only what exporters should consider in designing the plant but also**
  i) exporter's expectation for customer countries' readiness of introducing nuclear, and
  ii) **encouraging exporters' efforts to help customer to develop its infrastructure**

Who adopted the POC?

AREVA, ATMEA, Atomstroyexport, Candu Energy, GE Hitachi , Hitachi - GE, KEPCO, MHI, Toshiba, Westinghouse

Summary

- Steady growth of energy demand projected, especially in Asia region.
- Nuclear will remain being as an important energy source option for reduction of CO_2 emission.
- Hitachi-GE commits to take a role as a nuclear technology supplier to provide safe and reliable technology
- Introducing countries' efforts together with cooperative activities of international organizations, supply country's Government and nuclear industries will be the key for sustainable nuclear development

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