Business Briefing on Nuclear Energy Systems

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Head of Nuclear Energy Systems

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MITSUBISHI HEAVY INDUSTRIES, LTD.
### Business Domains in MHI

<table>
<thead>
<tr>
<th>Business domain</th>
<th>Customers / Markets</th>
<th>Segment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Shipbuilding &amp; Ocean Development</td>
</tr>
<tr>
<td>Energy &amp; Environment</td>
<td>• Power companies • Gas companies • Resource companies (oil, chemicals, steel)</td>
<td>GTCC • Large-size thermal power plants • Nuclear energy</td>
</tr>
<tr>
<td>Machinery, Equipment Systems</td>
<td>• Core industries (steel, etc.) • Automotive industry • Logistics, etc.</td>
<td>Stationary engines</td>
</tr>
<tr>
<td>Transportation</td>
<td>• Airlines (air) • Shipping companies (sea) • Railways (land), etc.</td>
<td>Commercial Ships</td>
</tr>
<tr>
<td>Defense &amp; Aerospace</td>
<td>• Ministry of Defense (land, sea, air) • JAXA</td>
<td>Destroyers &amp; submarines for the Ministry of Defense</td>
</tr>
</tbody>
</table>
Table of Contents

1. Summary of FY 2011
2. Outline of 2012 Mid Term Business Plan (2012 Plan)
3. Domestic Business Strategy
4. Global Business Strategy
5. Strengthening of Business Foundations
6. Evolution of Business Model
7. Summary
1. Summary of FY 2011
(1) FY 2011 Highlights

Devoted all our resources to restarting existing plants

- Full support to operators for emergency safety countermeasures, stress test, and medium- and long-term countermeasures
- Delivery of radioactive waste storage facility equipment for restoration of TEPCO’s Fukushima Daiichi Nuclear Power Station

EU-APWR and ATMEA1 acclaimed, following US-APWR

- Finland (March 2012) Order for engineering study of EU-APWR for Olkiluoto unit 4
- Jordan (April 2012) ATMEA1 shortlisted
Secured orders that exceeded post-March 11 Earthquake forecast by 50 billion yen.

Received an order for engineering study of EU-APWR in Finland, etc.

2009 2010 2011 (FY)

Domestic

Global

Secured 250 Billion Yen by safety improvement measures, etc.
2. Outline of 2012 Mid Term Business Plan (2012 Plan)
(1) Vision and Fundamental Strategies

A Leading Company in the Global Nuclear Energy Field

Contribute to stable power supply with world’s highest level of safety technologies.

Strategies

- Promote domestic business by establishing new safety technologies
- Deploy resources to restore TEPCO’s Fukushima Daiichi Nuclear Power Station and its future decommissioning
- “Selection & concentration” and alliance to accelerate the development of global business
(2) Business Environment

Right after the earthquake (2011)
Secure stable power with operation of existing plants
Close watch required for trends on LWR new build and nuclear fuel cycle
Prompt stabilization of TEPCO’s Fukushima Daiichi Nuclear Power Station, and deployment of lessons learned
Commitment to continuous promotion of nuclear energy supported by most nations, except Germany, Switzerland, and some other countries

Now (2012)
Delay in restart of existing plants
Japanese energy policy to be determined by the Energy and Environment Council in the coming summer
TEPCO’s mid-and-long-term roadmap announced Revision of IAEA safety standards started

Long term outlook (2020 - 30)
Domestic
Retain a Position in Energy Mix Policy

Global
Power Demand will increase by approx. 25% between 2010 and 2020
Impact of the shale gas revolution. In the medium and long term, nuclear energy is an important power source.
Finland is promoting nuclear energy. New French President Francois Hollande intends to maintain nuclear energy.
Increase the electrical capacity of nuclear power stations to 70GW by 2020
Vietnam, Turkey, and Saudi Arabia, etc. are promoting nuclear energy.

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The Advisory Committee for Natural Resources and Energy has presented options on the power source ratio in 2030.

### Issues to be considered

- **Stable power supply**
  - Electricity shortage: Operators requested to save power this summer

- **Global warming countermeasures**
  - Increase of CO$_2$: Up 2.4% year on year in 2011

- **Energy security**
  - Increase in geopolitical risk: Import dependence on the Middle East: 87% for Crude Oil, 27% for Natural Gas
  - Increase in cost for alternative fuels (Up ¥3.1 trillion)
  - Industrial slow-down

- **National economy**
  - Enhancing safety and steps for recovery of public acceptance
  - Stability improvement measures
  - Implementation of stress tests

### Energy Policy to be formulated by the Energy and Environment Council (August 2012)

#### Proposals presented by the Advisory Committee (May 2012)

<table>
<thead>
<tr>
<th>Option</th>
<th>Fundamental Idea for nuclear energy</th>
<th>Ratio of nuclear energy (Renewable energy)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1)</td>
<td>All forced decommission</td>
<td>0% (35%)</td>
</tr>
<tr>
<td>2)</td>
<td>No new build existing plants with 40-year lifetime</td>
<td>15% (30%)</td>
</tr>
<tr>
<td>3)</td>
<td>Some of new build existing plants with more than 40-year lifetime</td>
<td>20 - 25% (30 - 25%)</td>
</tr>
<tr>
<td>4)</td>
<td>Some of new build existing plants with more than 40-year lifetime</td>
<td>35% (25%)</td>
</tr>
<tr>
<td>5)</td>
<td>Electricity users’ choice</td>
<td>-</td>
</tr>
</tbody>
</table>

### Assumption in 2012 Plan

- Restart of existing plants step by step
- No new build plan in the range of 2012 Plan (by 2014)

### Outlook

- Uncertainties in future:
  - Geopolitical risks including those related to the Middle East
  - Energy system reform
  - Impacts on the economy and employment, etc.
- It is important to review the option appropriately depending on circumstances (Data from the Committee, May 28)

#### Current ratios:
- Nuclear: 26%
- Renewable: 11%
(4) Global Trends on Nuclear Energy

Nuclear energy regarded as an important power source by developed countries in nuclear field such as United States and France as well as emerging countries.

- “[Nuclear power provides] electricity without adding carbon dioxide to the atmosphere.” “We’ll incorporate those conclusions and lessons from Japan in designing and building the next generation of [nuclear] plants.” (US President Barack Obama)
- “Nuclear energy’s role grows more valuable as we confront a changing climate, increasing energy demand and a struggling economy.” (US Energy Secretary Steven Chu)
- “I do think that nuclear power should be part of the mix in future as it is part of the mix right now.” (British Prime Minister David Cameron)
- The UK expects Japan to continue to play an important role in nuclear safety and the peaceful use of nuclear energy globally. (Attachment to the Joint Statement following a UK/Japan summit on nuclear energy)
- I have trust in the nuclear power industry of France. Our policy is to complete the Flamanville EPR, which is a third-generation reactor. (French President Francois Hollande)
- We want to increase the ratio of nuclear power generation from the current 30% to 60% in 20 years. (Jyri Häkämies, Minister of Economic Affairs of Finland)

The peaceful use of nuclear energy has important meaning as the international community grapples with the energy crisis and climate change. Therefore, the peaceful use of nuclear energy should be promoted. (NPT delegation of China)

I expect Japan to construct “the safest nuclear reactors using its cutting-edge technology.” (Vietnamese Prime Minister Nguyen Tan Dung)

Given the country’s growing energy demands, nuclear energy was “an essential component of our energy mix” (Indian Prime Minister Manmohan Singh)

Plan of new construction of nuclear power plants during 2011 - 2030

<table>
<thead>
<tr>
<th>Region</th>
<th>Electrical capacity of nuclear power facilities (GW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>North America</td>
<td>25</td>
</tr>
<tr>
<td>Europe</td>
<td>78</td>
</tr>
<tr>
<td>Asia</td>
<td>161</td>
</tr>
<tr>
<td>Middle East, Africa</td>
<td>17</td>
</tr>
<tr>
<td>South America</td>
<td></td>
</tr>
</tbody>
</table>

## Strategic Roadmap and Plan for Orders

Maintain the business size and technical capability with domestic AS in the short term and with new construction in overseas countries in the medium term.

<table>
<thead>
<tr>
<th>year</th>
<th>Short term</th>
<th>Medium term</th>
<th>Long term</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>Focus on restart and safety improvement of existing plants</td>
<td>Establish concept of new plant with world’s highest level of safety</td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td>Full support to TEPCO’s mid-and-long-term roadmap with our comprehensive technical capability</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2012</td>
<td>Obtain DC/COL for US-APWR and U.S. NA3 and CP3/4</td>
<td>For plant replacement needs in the U.S.</td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td>Obtain EUR certificate for EU-APWR, OL4 In Finland</td>
<td>For forthcoming opportunities in Europe</td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td>Develop ATMEA1 jointly by Japan and France</td>
<td>For expansion in global market</td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>Improve design of the state-of-the-art Tomari Unit3</td>
<td>Expand domestic business model</td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td>Phase of entry to post-operational services</td>
<td>Phase of full-scale launch to post-operational services</td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td>Phase of full-scale launch to post-operational services</td>
<td>Phase of growth and maturity to Post-operational services</td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td>Phase of growth and maturity to Post-operational services</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### In FY 2012
- Decrease of orders due to decrease of regular outages in Japan and 210 billion yen to be secured mainly from domestic post-operational services including safety improvement measures

### In FY 2014
- Increase of orders to 400 billion yen through overseas new build and alliances

### In the medium and long term
- Increase of orders to 600 billion yen level through applying our domestic business model to overseas countries

### Strategic Roadmap

- **Plan for Orders**
  - Focus on restart and safety improvement of existing plants
  - Full support to TEPCO’s mid-and-long-term roadmap with our comprehensive technical capability
  - Obtain DC/COL for US-APWR and U.S. NA3 and CP3/4
  - Obtain EUR certificate for EU-APWR, OL4 In Finland
  - Develop ATMEA1 jointly by Japan and France
  - Improve design of the state-of-the-art Tomari Unit3
  - Phase of entry to post-operational services
  - Phase of full-scale launch to post-operational services

### Plan for Orders

- **In FY 2012**
  - Decrease of orders due to decrease of regular outages in Japan and 210 billion yen to be secured mainly from domestic post-operational services including safety improvement measures

- **In FY 2014**
  - Increase of orders to 400 billion yen through overseas new build and alliances

- **In the medium and long term**
  - Increase of orders to 600 billion yen level through applying our domestic business model to overseas countries

### Graph

- **Domestic**
  - 2011: 250 billion yen
  - 2012: 210 billion yen
  - 2014: 400 billion yen

- **Global**
  - 2011: 250 billion yen
  - 2012: 210 billion yen
  - 2014: 400 billion yen

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**NA3:** North Anna Unit 3, **CP3/4:** Comanche Peak units 3&4,
**OL4:** Olkiluoto unit 4, **DC:** Design Certification, **COL:** Combined License for Construction and Operation

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## Tasks and Primary Actions

<table>
<thead>
<tr>
<th>Tasks</th>
<th>Primary Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Domestic business</strong></td>
<td><strong>Tasks</strong></td>
</tr>
</tbody>
</table>
| Timely restart of existing plants |  | • Apply our best knowledge from the events at TEPCO’s Fukushima Daiichi Nuclear Power Station to **safety improvement measures for PWR plants**  
• Offer full support to operators for **stress test** with all our strength |
| Promotion of new build, nuclear fuel cycle and FBR |  | • Continue to take measures for achieving **energy independence**, securing energy over a long term and ensuring safe and stable power supply  
• Establish PWR plant concept with the world’s highest level of safety technologies |
| Restoration of TEPCO’s Fukushima Daiichi Nuclear Power Station and future decommissioning |  | • Support to TEPCO’s mid-and-long-term roadmap with our comprehensive technical capability  
• Establish decommissioning technologies for future by participation in national research and development projects |
| **Global business** | **Tasks** | **Primary Actions** |
| Implementation of large-scaled projects |  | • **Selection & Concentration** on promising projects to secure orders  
• Collaborate with MHI Engineering Headquarters for EPC |
| Enhancement of post-operational services in global market |  | • Apply the **domestic business model to overseas countries**  
• Increase orders through alliances |
3. Domestic Business Strategy
Respond quickly to government’s criteria on safety

**Criterion 1:** Safety measures to prevent even worse situation after Station Black Out (SBO) (emergency countermeasures for SBO)

**Criterion 2:** Confirming that earthquake or tsunami of unexpected severity do not result in fuel damage (stress tests)

**Criterion 3:** Developing a plan for further safety improvement measures (medium- and long-term measures)

<table>
<thead>
<tr>
<th>FY 2011</th>
<th>FY 2012 and onward</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trends of government regulations</td>
<td></td>
</tr>
<tr>
<td>☑March 11, 2011</td>
<td>Criteria on safety (1, 2, and 3) announced June 2012</td>
</tr>
<tr>
<td>Emergency safety countermeasures ordered by NISA</td>
<td>Establishment of Nuclear Regulatory Agency</td>
</tr>
<tr>
<td>Stress test ordered by NISA</td>
<td></td>
</tr>
<tr>
<td>Safety improvement measures</td>
<td></td>
</tr>
<tr>
<td>Emergency countermeasures against SBO</td>
<td>Criterion 1</td>
</tr>
<tr>
<td>Voluntary measures by operators</td>
<td>Criterion 3</td>
</tr>
<tr>
<td>Medium and long term safety measures (proposed)</td>
<td>Implementation of the measures</td>
</tr>
<tr>
<td>Stress tests</td>
<td></td>
</tr>
<tr>
<td>Ohi Power Station unit 3/4</td>
<td>Stress test evaluations</td>
</tr>
<tr>
<td>Unit 3: Oct. 28, Unit 4: Nov. 17</td>
<td>Review by NISA</td>
</tr>
<tr>
<td>Feb. 13</td>
<td>Mar. 23</td>
</tr>
<tr>
<td>Review by the Nuclear Safety Commission</td>
<td>Final judgment on validity by the four ministers</td>
</tr>
<tr>
<td>Judged to be “valid” by the four ministers</td>
<td>July -</td>
</tr>
<tr>
<td>Judged to be “valid” by the local government</td>
<td>Preparations for restart of operations</td>
</tr>
<tr>
<td>Other Plants</td>
<td>Restart of operations</td>
</tr>
<tr>
<td>Other 22 plants in Progress</td>
<td>(Stress test results of 15 plants have been submitted to NISA)</td>
</tr>
</tbody>
</table>

**SBO:** Station Black Out

**NISA:** Nuclear and Industrial Safety Agency
Emergency countermeasures for SBO (Criterion 1) completed for all plants. Stress tests is in progress (Criterion 2). Medium- and long-term safety improvement measures have been proposed (Criterion 3).

- Securing power source and cooling source
- Water tightening

Nuclear disaster drills
- Kansai Electric Power (Waikasa)
- Hose connection
- Relay broadcast
- MHI (Kobe)
- Power cable connection

Increase height of Storm surge barrier
- Pump for cooling reactor cores
- Large capacity pump

Water tightening
- Vent with filter

Checking the margins of safety ratio before and after the emergency measures compared to the design reference value

Margin of safety ratio after the emergency safety countermeasures
Margin of safety ratio before the emergency safety countermeasures
Design reference value (Envisioned intensity of earthquake and tsunami)

Earthquake intensity
Height of tsunami

Air-cooled emergency generator
Permanent emergency generator
Seismic isolated building

MHI (Kobe)

Emergency countermeasures for SBO (Criterion 1)
Stress tests (Criterion 2)
Medium- and long-term safety improvement measures (Criterion 3)

Further safety improvement

Emergency countermeasures for SBO (Criterion 1)
Stress tests (Criterion 2)
Medium- and long-term safety improvement measures (Criterion 3)

Emergency countermeasures for SBO (Criterion 1)
- Securing power source and cooling source
- Water tightening

Nuclear disaster drills
- Kansai Electric Power (Waikasa)
- Hose connection
- Relay broadcast
- MHI (Kobe)
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Increase height of Storm surge barrier
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Design reference value (Envisioned intensity of earthquake and tsunami)

Earthquake intensity
Height of tsunami

Air-cooled emergency generator
Permanent emergency generator
Seismic isolated building

MHI (Kobe)
(3) Measures on Newly Built Plants and Nuclear Fuel Cycle

Continuing projects for energy independence (securing energy over the long term and ensuring a safe, stable energy supply)

**New plant**
- APWR
- Next-generation LWR

**Interim storage**
- Cask (drop test of real equipment)
- Facility for storing transport/storage containers (casks)

**FBR**
- Demonstration reactor (demonstrating innovative technologies)
- Commercial reactor (practical application of FBR)

**Nuclear fuel cycle**
- Rokkasho Reprocessing Plant
- MOX fuel plant

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Establishing the concept of world's highest level of PWR plant
(Pursue safety taking countermeasures for severe accident into consideration)

Providing highly safe casks and storage facilities
(Appropriate storage management of spent fuel)

Contribute international cooperation in FBR development as a core company
(Establishing international standards for safety and applying them to commercial reactors)

Support for early completion of the Rokkasho Reprocessing Plant
(Contributing to energy independence)
### Activities for TEPCO’s Fukushima Daiichi Nuclear Power Station

#### Responding to TEPCO’s medium and long term roadmap with commitment and our comprehensive technical capability

<table>
<thead>
<tr>
<th>Phase</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Within two years of the completion of Step 2</td>
</tr>
<tr>
<td>2</td>
<td>Within 10 years</td>
</tr>
<tr>
<td>3</td>
<td>30-40 years later</td>
</tr>
</tbody>
</table>

#### Measures for stabilization (completed)

- Cooling nuclear reactors and processing accumulated water (Maintain stable state)
- Removing fuel from spent fuel pool
- Removing fuel debris
- Dismantling reactor facilities
- Treatment and disposal of radioactive waste

### Step 1 and 2

- **Cold shutdown**

### Phase 1

- **Preparation for work / removal**
  - 2041-2050

### Phase 2

- **Removing fuels from spent fuel pool**

### Phase 3

- **Removing fuel debris**
- **Completion of decommissioning**

#### Inside the power plant premises

- **Measures for stabilization** (completed)
  - Forklift with radiation shield cabin
  - Liquid waste storage (Mega-Float)
  - Dredging robot (collection of sludge from rivers and sea)
  - Unmanned Undersea survey tool (marine monitoring)
  - Airborne measurement system (atmosphere monitoring)

#### Outside

- **Monitoring – final disposal of radioactive waste**
  - Land: Vehicle mounted decontamination water treatment system
  - Sea: Unmanned Undersea survey tool (marine monitoring)
  - Air: Airborne measurement system (atmosphere monitoring)

### (Note)
- Red: Delivered / To be delivered
- Blue: Under consideration / development

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4. Global Business Strategy
(1) Global Market Outlook

- No major change in the demand outlook after the earthquake
- Increase by approx. 25% until 2020 and then by approx. 20% until 2030


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## (2) Large-Size Reactors

### Engineering studies for large-scale projects in the United States and Europe underway

<table>
<thead>
<tr>
<th>Dominion: North Anna unit 3</th>
<th>Luminant: Comanche Peak units 3&amp;4</th>
<th>TVO: Olkiluoto unit 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC of US-APWR being accelerated towards completion in 2015, with resolving an impact related to the seismic issue</td>
<td>For NA3, an MNES engineering center established in North Carolina for licensing and engineering work in progress</td>
<td>2010</td>
</tr>
<tr>
<td>For CP3/4, R-COL licensing work in progress.</td>
<td>2012</td>
<td></td>
</tr>
<tr>
<td>Chairman Farrell of Dominion (1Q 2012 earning call)</td>
<td>Sponsor and supporter electric company for EUR review determined</td>
<td>Received order for preliminary engineering study, preparation for bidding underway</td>
</tr>
<tr>
<td>“I believe NA3 will be built by our Company. Existing units will have to retire in 2030, through that decade. We are going to need to have nuclear power in the state to keep a balanced portfolio.”</td>
<td>2015</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TVO’s application for a construction license</td>
<td></td>
</tr>
</tbody>
</table>

NA3: North Anna Unit 3, CP3/4: Comanche Peak units 3&4, OL4: Olkiluoto unit 4
(3) Medium-Size Reactors

Global deployment in progress, with projects in Jordan and Vietnam leading the way.

| 2011: | Bidding |
| 2012: | Japan-Jordan bilateral agreement came into force. |
| Apr.: | ATMEA1 of Japan and France and a Russian PWR (VVER) were shortlisted as candidate reactors |
| Dec.: | Reactor to be selected |

The first plant in Jordan

| Vietnam, Phase II, Unit 1 and 2 at Binhai |
| Sept. 2011: | Concluded an MOU concerning cooperation to construction of a nuclear power plant on the second site of Ninh Thuan province by JINED and EVN |
| Sept. 2013 or later: | Reactor to be selected after parliamentary approval |

Vietnam, Phase II, Unit 1 and 2 at Binhai

Global deployment of ATMEA1

| Dec. 2009: | Basic design completed |
| Feb. 2012: | Compliance with French safety requirements confirmed by ASN. |
| | Promotion in progress to Hungary, Slovenia, Malaysia, Indonesia, Canada, Brazil, and others. |

JINED: International Nuclear Energy Development of Japan Co., Ltd.
EVN: Electricity of Vietnam
ASN: Nuclear Safety Authority of France

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(4) Post-Operational Services

Business expansion through advanced maintenance technologies and alliances

Our core competence

Accumulated advanced maintenance technologies with all the 24 PWRs in Japan.
- Robotic technologies
- Inspection technologies
- Maintenance and repair technologies
- Improvement of equipment reliability
- Shortening work periods, reducing radiation dosage
- Countermeasures for material degradation

The first place in component exports in Japan
- Manufacturing technologies
  - Reactor vessel head: 19 units
  - Control rod drive mechanism: 597 units
  - Steam generator: 31 units
  - Nuclear turbine: 10 units, and others

Business growth scenario

I: Establish sales network and organization for on-site work
II: Apply our advanced maintenance technologies
III: Establish post-operational service business

Alliances with overseas companies

<table>
<thead>
<tr>
<th>Phase of entry to post-operational services</th>
<th>Phase of full-scale launch</th>
<th>Medium and long term Phase of growth and maturity</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012 - (2012 Plan)</td>
<td>2015 -</td>
<td>Medium and long term Phase of growth and maturity</td>
</tr>
<tr>
<td>100</td>
<td>II</td>
<td>III</td>
</tr>
</tbody>
</table>
## 5. Strengthening of Business Foundations

### Enhancing customer services by allocating domestic and global bases

<table>
<thead>
<tr>
<th>Domestic bases</th>
<th>Global bases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improving safety of existing PWR plants</td>
<td>Designing, licensing, and engineering for US-APWR</td>
</tr>
<tr>
<td><strong>Mitsubishi Wakasa Nuclear Plant Technical Support Office (Feb. 2012)</strong></td>
<td><strong>Liaison Office in Helsinki, Finland (Feb. 2012)</strong></td>
</tr>
<tr>
<td>Technical support during normal operation</td>
<td>Promotion of EU-APWR</td>
</tr>
<tr>
<td>Support for initial responses to emergencies</td>
<td><strong>COMIA, France (Apr. 2011)</strong></td>
</tr>
<tr>
<td><strong>Decommissioning Planning Department (Feb. 2012)</strong></td>
<td>Promotion of maintenance service business in Europe</td>
</tr>
<tr>
<td>Restoration of TEPCO's Fukushima Daiichi Nuclear Power Station and future decommissioning business</td>
<td><strong>MHI Engineering Headquarters (January 2012)</strong></td>
</tr>
<tr>
<td></td>
<td>Internal cooperation with the Nuclear Energy Plant Project Management Department being the axis</td>
</tr>
</tbody>
</table>

**NC**: State of North Carolina
6. Evolution of Business Model

Establishment of domestic-overseas, biaxial structure

**Domestic business model**

- Plants
  - 24 plants constructed
  - New construction
    - Business foundation established in Japan
      - Continue providing maintenance services for plants MHI constructed
      - Develop advanced maintenance technologies
  - Post-operational services

**Global business model**

- Plants
  - New construction
    - Overseas Information on new plant construction
    - Track record in Japan
  - Financing, alliances, etc.
    - Exporting advanced maintenance technologies and components from Japan
  - Overseas Information on post-operational services
  - Post-operational services
    - Enter into maintenance services for plants constructed by other companies
    - Establish sales network
    - Provide maintenance services to plants MHI constructed

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7. Summary

A Leading Company in the Global Nuclear Energy Field

Safety improvement       Stable power supply

Restart operation at existing plants
Medium- and long-term measures for
TEPCO's Fukushima Daiichi Nuclear Power Station
Establishment of domestic-overseas
baxial structure

Global warming countemeasures

Energy security
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