1. Energy demand and primary energy supply

**Energy demand**

- **Final energy consumption**:
  - Electric power: 361 million kl
  - Heat, gasoline, town gas, etc.: 326 million kl

- **Economic growth**:
  - 1.7%/year

- **Thorough energy conservation**:
  - 50.3 million kl
  - 13% lower than before the implementation of the energy conservation measures

- **2013 (Actual result)**:
  - Electric power 25%
  - Heat, gasoline, town gas, etc. 75%

- **2030 (After energy conservation measures)**:
  - Electric power 28%
  - Heat, gasoline, town gas, etc. 72%

**Primary energy supply**

- **489 million kl**
  - Renewable energy: 13 to 14%
  - Nuclear power: 10 to 11%
  - Natural gas: 18%
  - Coal: 25%
  - LPG: 3%
  - Petroleum: 30%

- **Self-sufficiency rate**: 24.3%

*Values are approximate.*
2. Japan continues to be the largest LNG player despite its demand decrease

### Ratio of Each Energy Source in Primary Energy Supply

<table>
<thead>
<tr>
<th></th>
<th>1970</th>
<th>2010</th>
<th>2012</th>
<th>2030</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fossil Fuel</strong></td>
<td>92%</td>
<td>82%</td>
<td>92%</td>
<td>76%</td>
</tr>
<tr>
<td><strong>Others</strong></td>
<td>8%</td>
<td>18%</td>
<td>8%</td>
<td>24%</td>
</tr>
<tr>
<td><strong>Oil</strong></td>
<td>70%</td>
<td>40%</td>
<td>44%</td>
<td>33%</td>
</tr>
<tr>
<td><strong>Coal</strong></td>
<td>21%</td>
<td>23%</td>
<td>23%</td>
<td>25%</td>
</tr>
<tr>
<td><strong>Natural Gas</strong></td>
<td>1%</td>
<td>19%</td>
<td>25%</td>
<td>18%</td>
</tr>
<tr>
<td><strong>LNG</strong></td>
<td>1 million ton</td>
<td>71 million ton</td>
<td>90 million ton</td>
<td>62 million ton</td>
</tr>
</tbody>
</table>
3. Energy Market Reform

The first comprehensive electricity and gas market reform in 60 years

3 Objectives

1) Securing a stable supply of electricity and gas
2) Suppressing electricity and gas rates to the maximum extent possible
3) Expanding choices for consumers and business opportunities

Full liberalization of the retail energy market

<table>
<thead>
<tr>
<th>Electricity</th>
<th>Gas</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Law enacted in June 2014, to be implemented from 2016</strong></td>
<td><strong>Law enacted in 2015, to be implemented from 2017</strong></td>
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</table>

Legal unbundling of transmission/distribution sector, and abolishing retail price regulations

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<th>Gas</th>
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<tr>
<td><strong>Law enacted in June 2015, to be implemented from 2020</strong></td>
<td><strong>Law enacted in 2015, to be implemented from 2022</strong></td>
</tr>
</tbody>
</table>
Japan has tried to mitigate supply disruption and secure stable supply by diversifying supply sources. In June 2014, Papua New Guinea became a new supplier. Japan has a diversified portfolio with the largest supplier only accounting for 20% of total supply and the Middle East dependency at 30%.

4. Japan’s supply source

- LNG Canada Project (2021-, 13MTA)
- Pacific Northwest LNG Project (2019-, 12MTA)
- Lahore LNG Project (2015-, 7MTA)
- Sabine Pass Project (2016-, 18MTA)
- Freeport Project (2018-, 13.9MTA)
- Cove Point Project (2017-, 5.8MTA)
- Cameron Project (2018-, 12MTA)
- Wheatstone LNG Project (2016-, 8.9MTA)
- Ichthys LNG Project (2017-, 8.9 MTA)
- Prelude FLNG Project (2017-, 3.6MTA)

Map showing LNG import sources:
- Australia: 21%
- Qatar: 18%
- Malaysia: 17%
- Russia: 10%
- Indonesia: 7%
- UAE: 6%
- Norway: 4%
- Others: 7%