

**TEPCO and Chubu Electric to form comprehensive alliance  
- Creation of a global energy company competing worldwide -**

**(Support documentation)**

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October 7, 2014

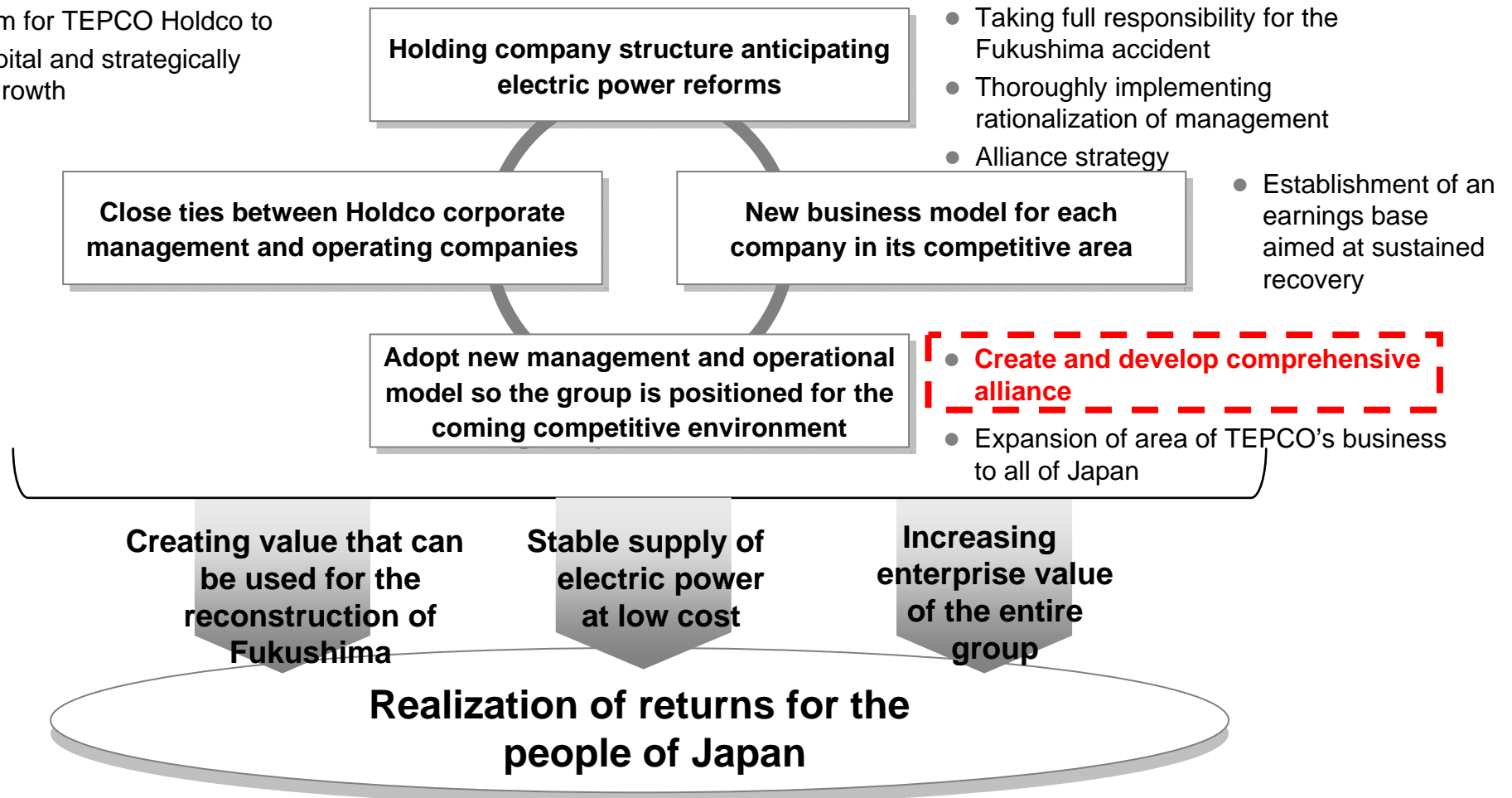
Tokyo Electric Power Company, Incorporated

# 1. Framework of the New Comprehensive Special Business Plan

- Creating a "New Power Business Model" instead of simply going back to the original state
- Fully utilize the comprehensive alliance throughout the entire supply chain, with the objective of stable delivery of electric power and fuel to customers at low cost, in addition to creating value that can be used for the reconstruction of Fukushima

The optimal form for TEPCO Holdco to

- Generate capital and strategically reinvest for growth



## 2. Background of Consideration of the Memorandum of Understanding

- On October 7, 2014, TEPCO and Chubu Electric entered into a memorandum of understanding (MOU) on the formation of a comprehensive alliance covering the entire energy supply chain, from upstream investment and fuel procurement through power generation
- The background leading up to the MOU and the schedule going forward are as follows

### Background

January 2014	Authorization of TEPCO's New Comprehensive Special Business Plan
March	TEPCO calls for proposals in order to select a preferred negotiation party to become partner in the comprehensive alliance
	Announcement of FY2014 TEPCO Group Action Plan
May	TEPCO receives several proposals based on the above call for proposals
June - September	TEPCO conducts negotiations with several candidates based on the proposals
October	Chubu Electric is selected as a preferred candidate for negotiation, and an MOU was concluded between TEPCO and Chubu Electric

### Schedule going forward

FY2014 2H	Due diligence and detailed negotiation regarding establishment of Joint Venture entity to implement the comprehensive alliance and conclusion of final agreement Establishment of the Joint Venture as a new company
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### 3. Overview of the Memorandum of Understanding

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- TEPCO and Chubu Electric have concluded an MOU stating their intention to form and negotiate the details of a comprehensive alliance covering the entire energy supply chain from upstream investment and fuel procurement through power generation
- In the second half of FY 2014, detailed negotiations will be carried out with the aim of concluding a final agreement and establishing the Joint Venture

#### Intent and Purpose

- As competition for energy resources intensifies, the creation of a global energy company is essential in order to provide a stable supply of energy on an internationally competitive basis. Both companies share the following basic philosophy.

- ✓ **Creation of a global energy company**
  - ✓ **Creation of a new energy business model**
  - ✓ **Strengthening of the entire supply chain**
- } See p4 for details

#### Implementation and Effect

- The Alliance will be implemented starting with areas that will have a high impact and are easier to undertake.
- Areas to be given priority attention by the companies include fuel procurement and related business operations as well as new thermal power plant construction and thermal power plant replacement, and overseas power generation. Alliance in these areas is expected to have the following benefits:
  - ✓ Increased scale of procurement (see p7 and p8 for details)
  - ✓ Replacement of aging thermal power plants (see p9 and p10 for details)
  - ✓ Optimization of the entire supply chain (see p11 and p12 for details)
  - ✓ Expansion of fuel business and overseas power generation business
- Ongoing consideration with the aim of realizing a more advanced and expansive alliance

## 4. Overview of Alliance Joint Venture - Basic Philosophy

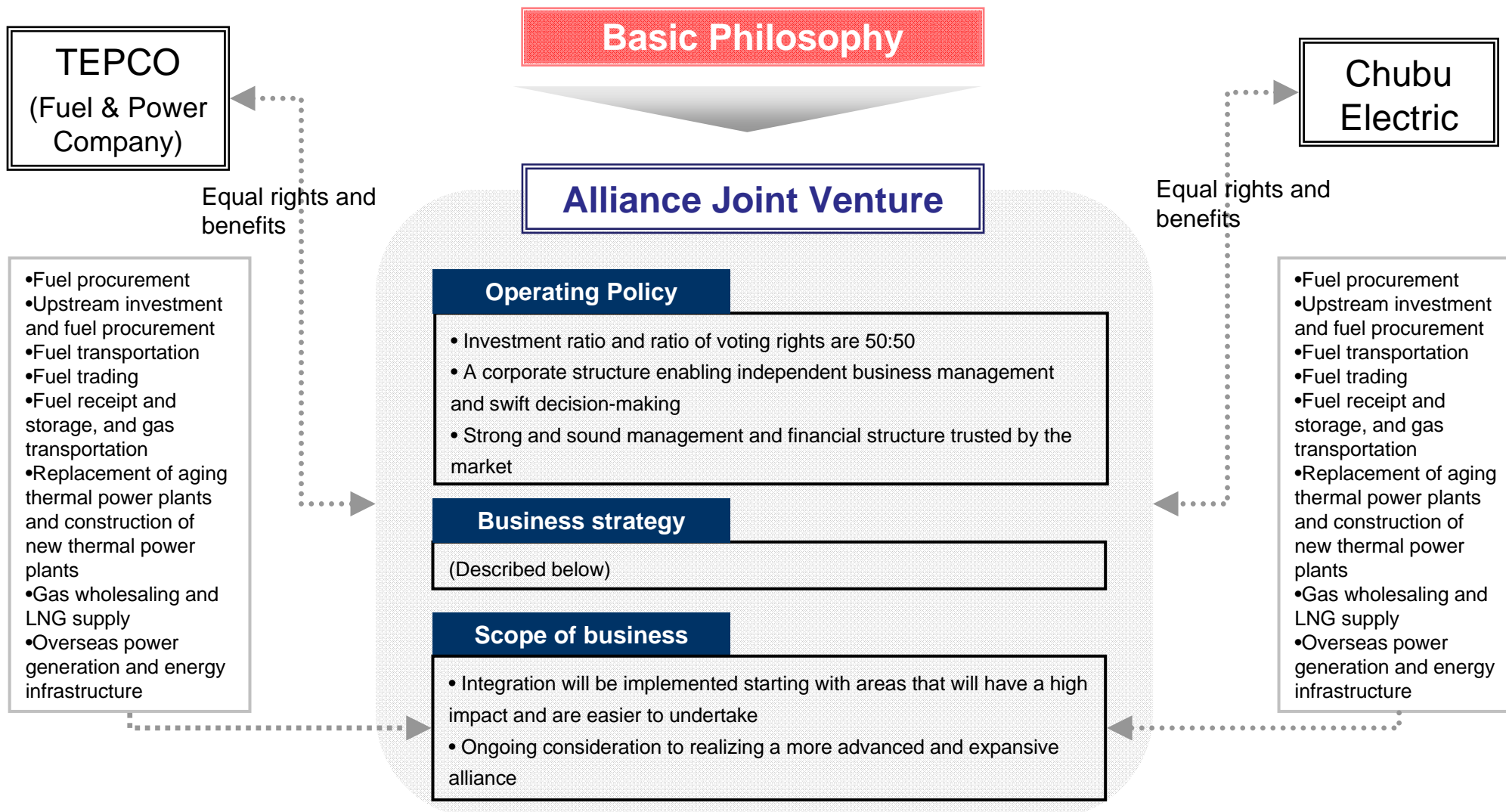
- Chubu Electric and TEPCO will proceed with discussions on the Alliance with the aim of realizing the following three fundamental principals

### Basic Philosophy

- ✓ Providing customers with a stable supply of energy on an internationally competitive basis, by **establishing a global energy company** with a strong competitive position in international energy markets; and increasing the enterprise value of both of TEPCO and Chubu Electric through a relationship that is equal and complementary
- ✓ **Establishment of a new energy company business model** combining the highest level of management resources; ensuring that the Joint Venture has self-sufficient business culture, as well as vibrant management and financial strength that are trusted in the global market; and providing the Joint Venture a corporate structure enabling independent business management and swift decision-making
- ✓ Optimizing the performance of the entire business by **strengthening the supply chain as a whole**, from upstream investment and fuel procurement through power generation

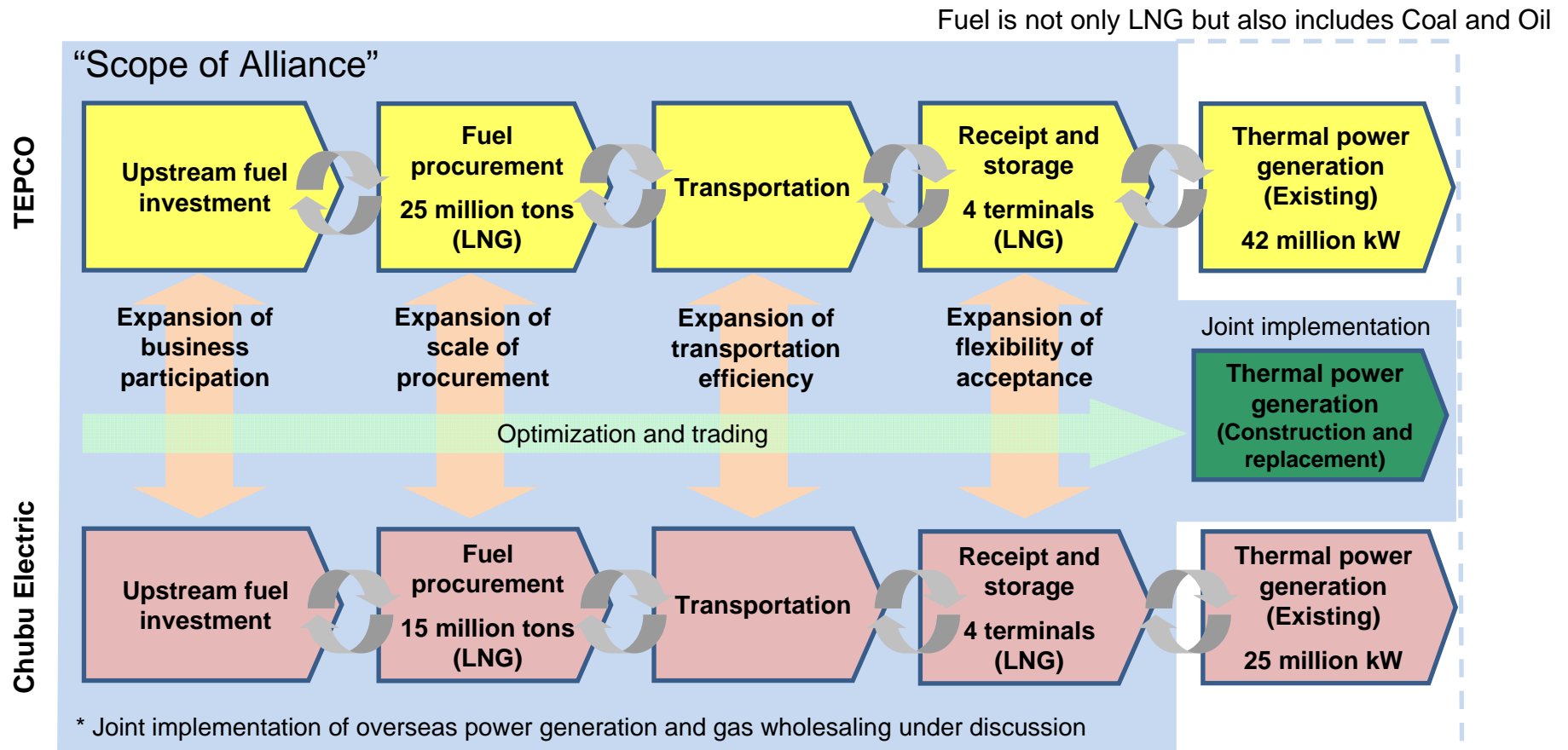
## 4. Overview of Alliance Joint Venture - Operating Policy, Business Strategy, Scope of Business

- TEPCO and Chubu Electric have reached the following basic agreement on the operating policy, business strategy and scope of business of the Joint Venture



## 4. Business Strategy Concept - Conceptual Diagram

- Drastic reduction of fuel costs
  - Reduction of fuel costs by leveraging increased procurement scale
  - Reduction of fuel consumption through the replacement of aging thermal power plants
- Integrated and optimized management and operation of the entire supply chain, and pursuit of optimal investment opportunities
- Expansion of upstream, transportation and trading business, and creating a borderless power generation business, with a view to strengthening capabilities and creating earnings opportunities

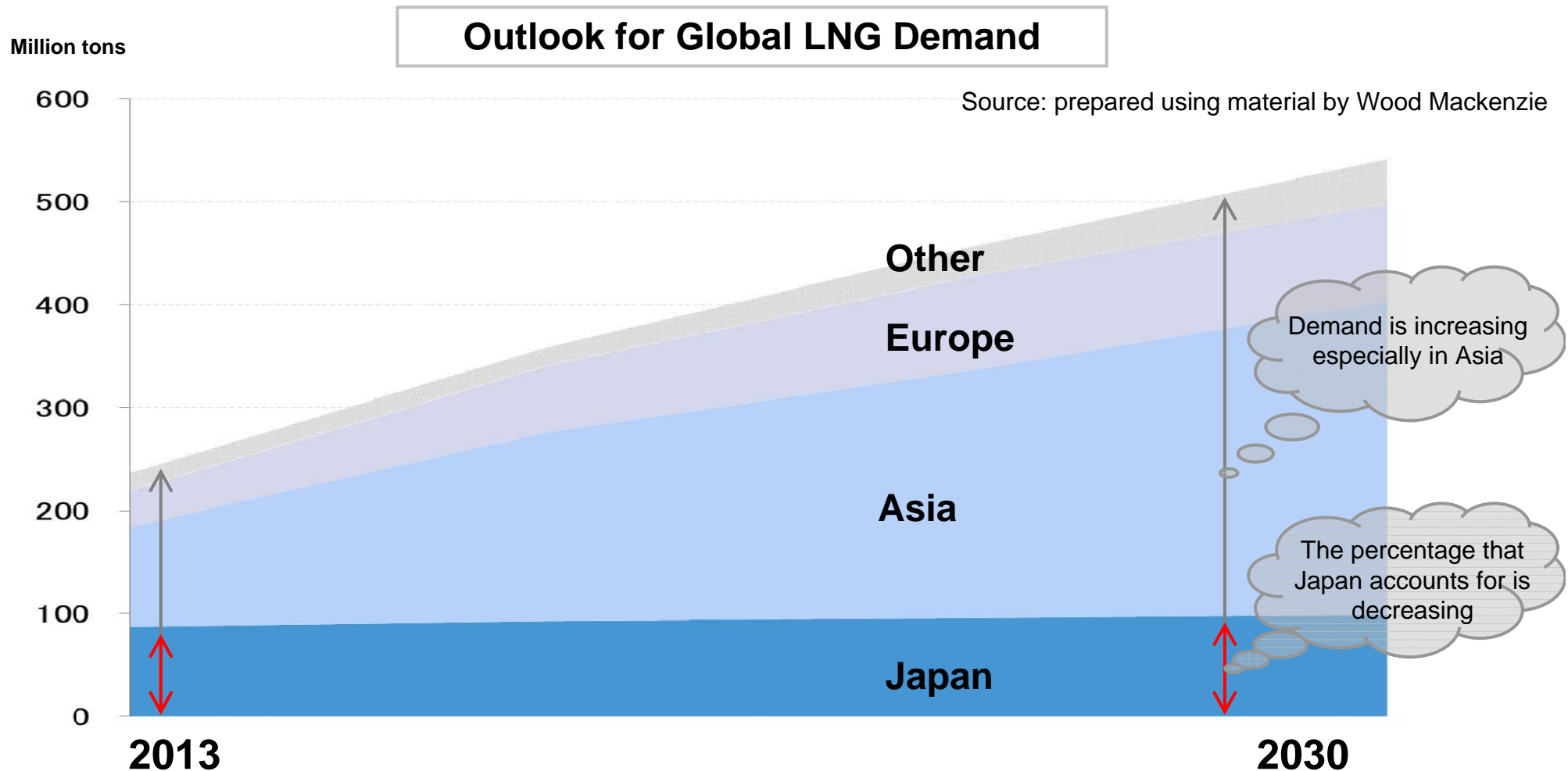




# 5. Expansion of Scale of Procurement

## (1) Background

- Comparative loss of bargaining position of Japanese buyers including the company through the growth of the market as a whole and the emergence of new buyers
- As a result it is becoming more difficult to secure advantageous conditions and stable procurement of resources



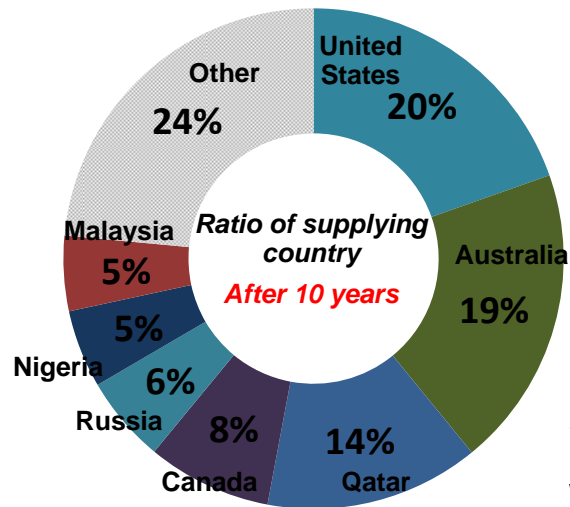


## 6. Expansion of Scale of Procurement

### (2) Diversification of Suppliers and Strategic Transactions

- By expanding our scale, we aim simultaneously to realize the goals of (1) diversification of suppliers and (2) obtaining favorable conditions through commitment to large volumes

#### Diversification of LNG suppliers



Source: prepared using material by Wood Mackenzie

In the next ten years, it is expected that new suppliers will emerge in North America and elsewhere. This is a good opportunity to diversify sources of supply

#### Commitment to large volumes

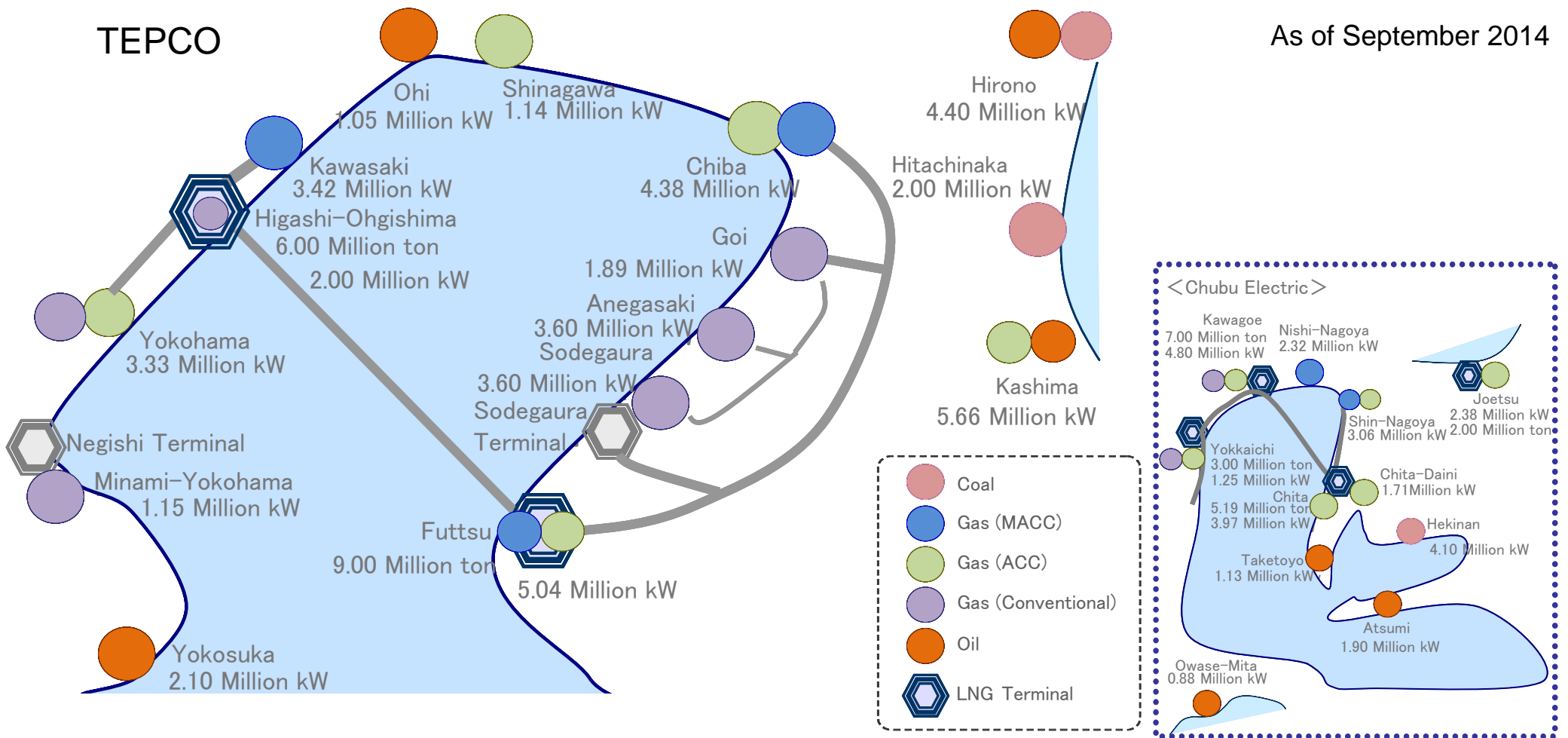
Project	Country	Buyer	Vol (mil t)	Conditions
Sabine Pass	US	Kogas (South Korea)	3.5	First export from US using Henry Hub linked pricing
Sabine Pass	US	GAIL (India)	3.5	
APLNG	AUS	Sinopec (China)	4.3	Upstream interest: 25%
QCLNG	AUS	CNOOC (China)	3.6	Upstream interest: 50% (1 train)
GLNG	AUS	Kogas (South Korea)	3.5	Upstream interest: 15%
NWS LNG	AUS	CNOOC (China)	3.6	Upstream interest: 25%
Prelude	AUS	Kogas (South Korea)	3.6	Upstream interest: 10%
Tangguh	IDN	CNOOC (China)	2.6	Upstream interest: 14%

Obtaining favorable conditions, such as opportunities for upstream investment, through large-scale purchases of an entire production train (around 4 million tons)

**Both achieved by increasing scale of procurement**

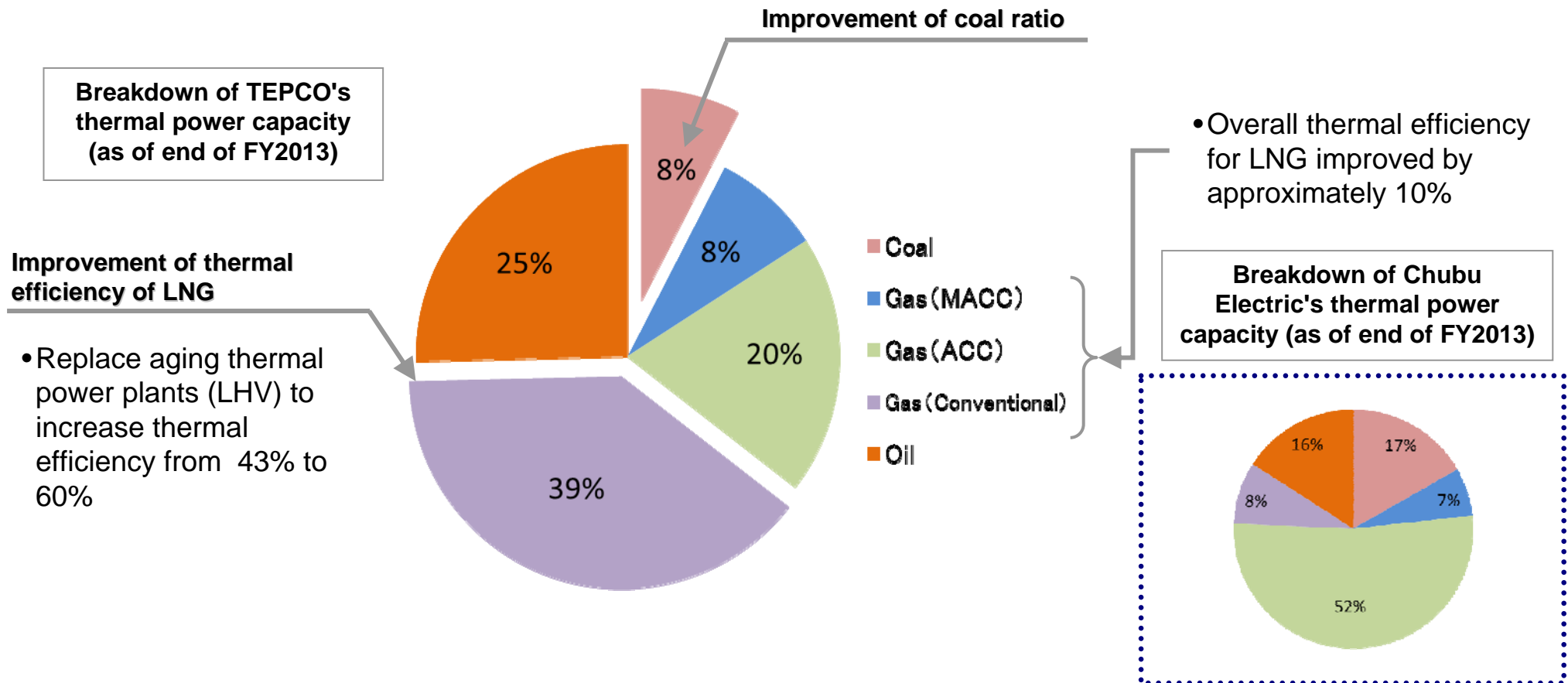
# 7. Replacement of Aging Thermal Power Plants - (1) Candidate Locations

- Priority will be given to replacement in strategic locations (where there is strong integration of power generation and fuel procurement, receipt and delivery through terminals and pipelines)
- Power plants will be constructed on a competitive, low-cost basis



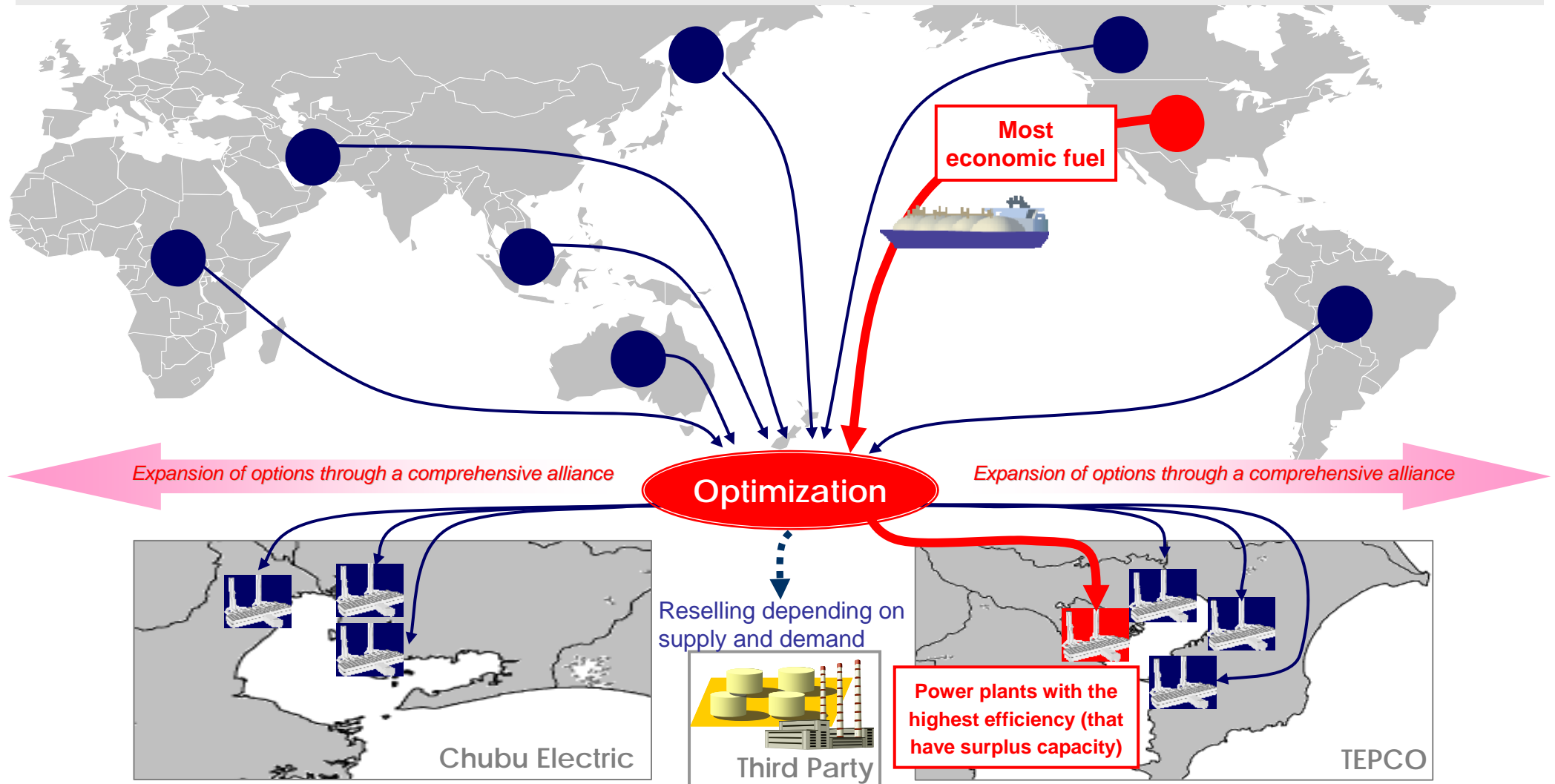
## 8. Replacement of Aging Thermal Power Plants - (2) Effect

- By replacing aging LNG thermal power plants built 20 to 50 years ago with up-to-date facilities, thermal efficiency can be increased by approximately 20%
- In addition to reducing fuel consumption through power plant replacement, the Alliance will seek to lower fuel costs using its scale of LNG procurement as leverage to secure strategic supplies and by increasing the use of lean LNG



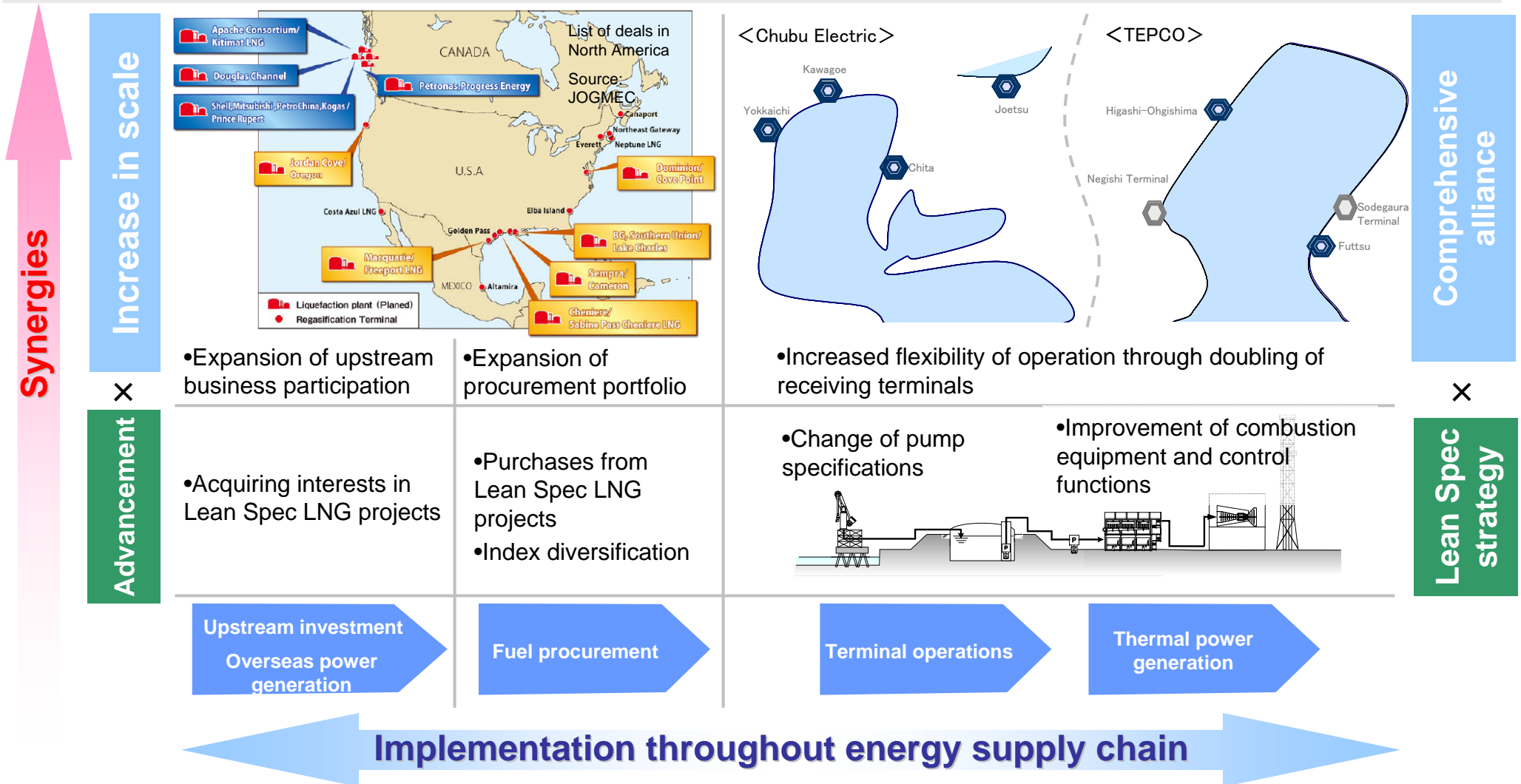
# 9. Optimization of the entire supply chain - (1) Optimized functions

- By combining the LNG sources and LNG-related facilities of TEPCO and Chubu Electric, the Joint Venture will be able to create opportunities for strategic investment and optimization of operations
- Supply chain management will be optimized to create a system capable of directing the most economic fuel to the most efficient power plants and reselling fuel in excess of requirements to other locations



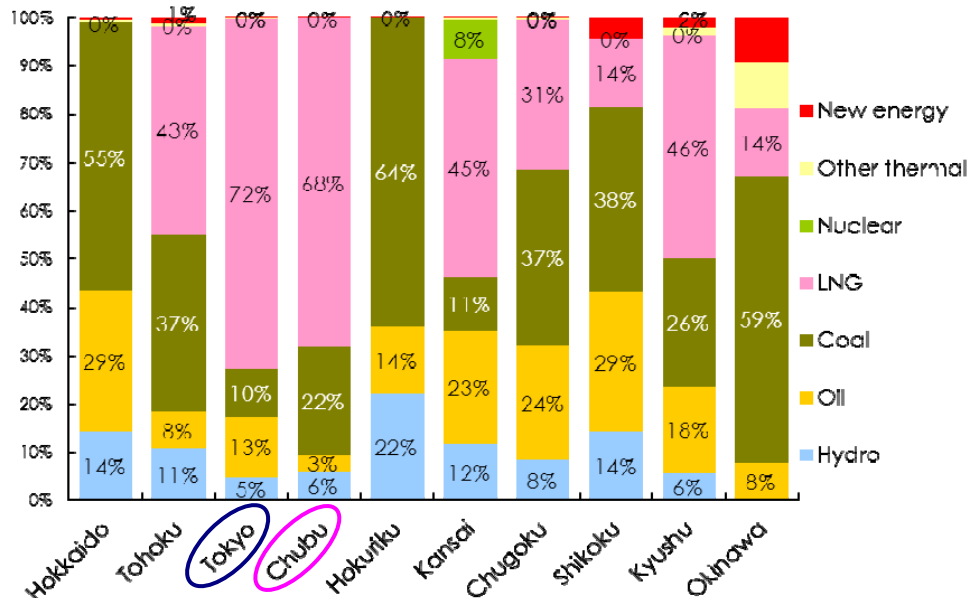
# 10. Optimization of the Entire Supply Chain - (2) More advanced and larger chain

- The Lean Spec strategy that TEPCO has already announced is being implemented through appropriate steps throughout the entire supply chain
- The Alliance will increase the effect of the Lean Spec strategy by expanding the scale of the entire supply chain

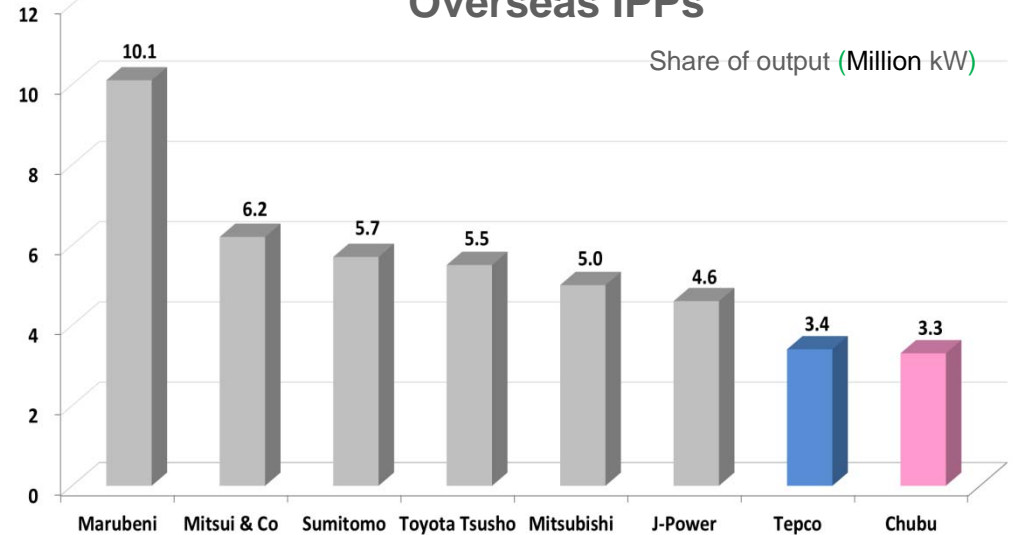


# Reference: TEPCO and Chubu Electric fuel and thermal power generation (FY2013)

### Ratio of power sources of 10 power companies

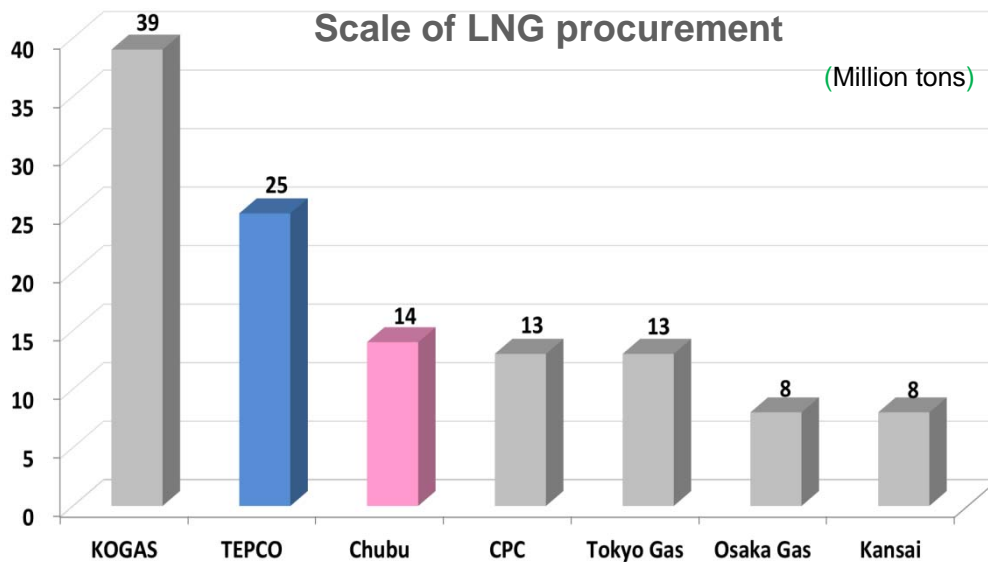


### Overseas IPPs

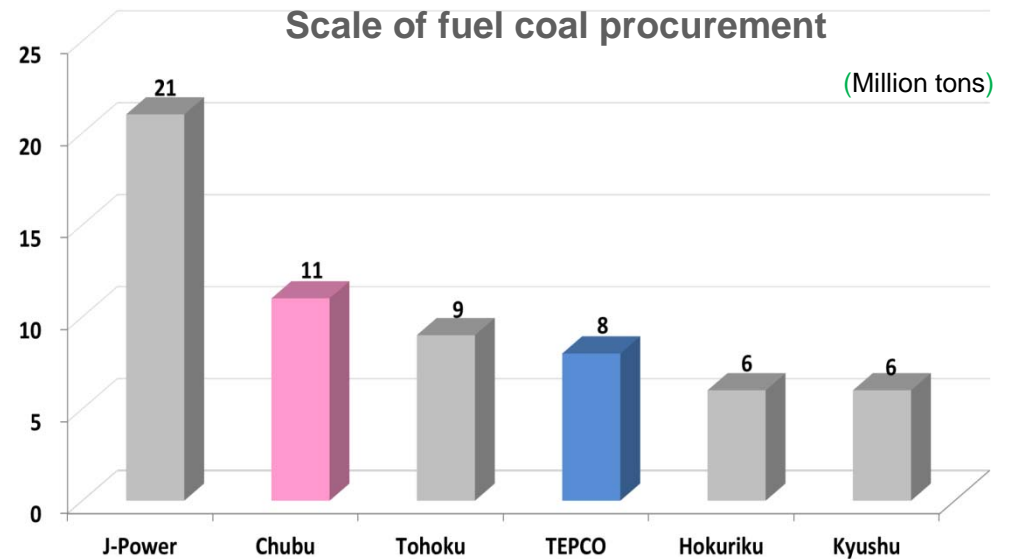


\* Share of output includes other power generation in addition to thermal power generation

### Scale of LNG procurement



### Scale of fuel coal procurement



Source: Prepared using materials released by each company