

# City Gas Industry's Agenda

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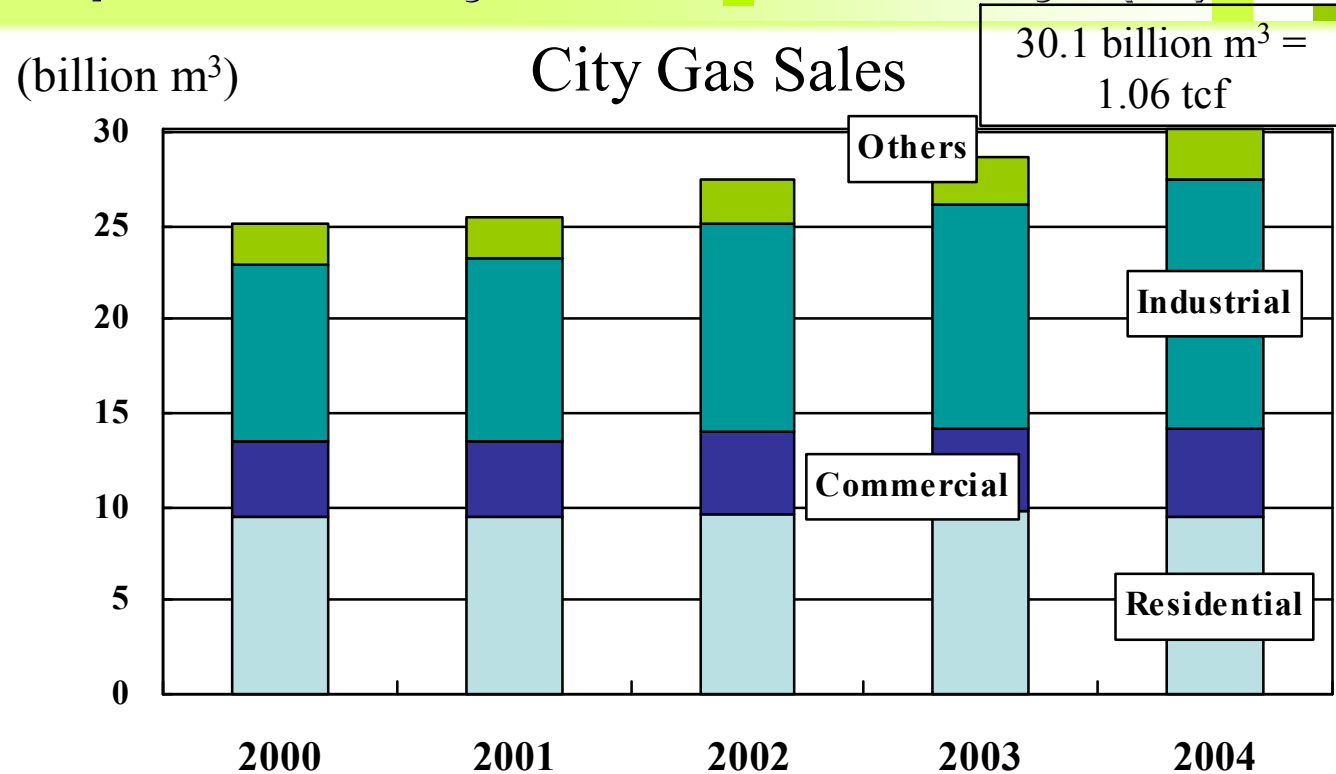
**Kunio Anzai**  
**Chairman**

 The Japan Gas Association

# Status of Japanese Economy

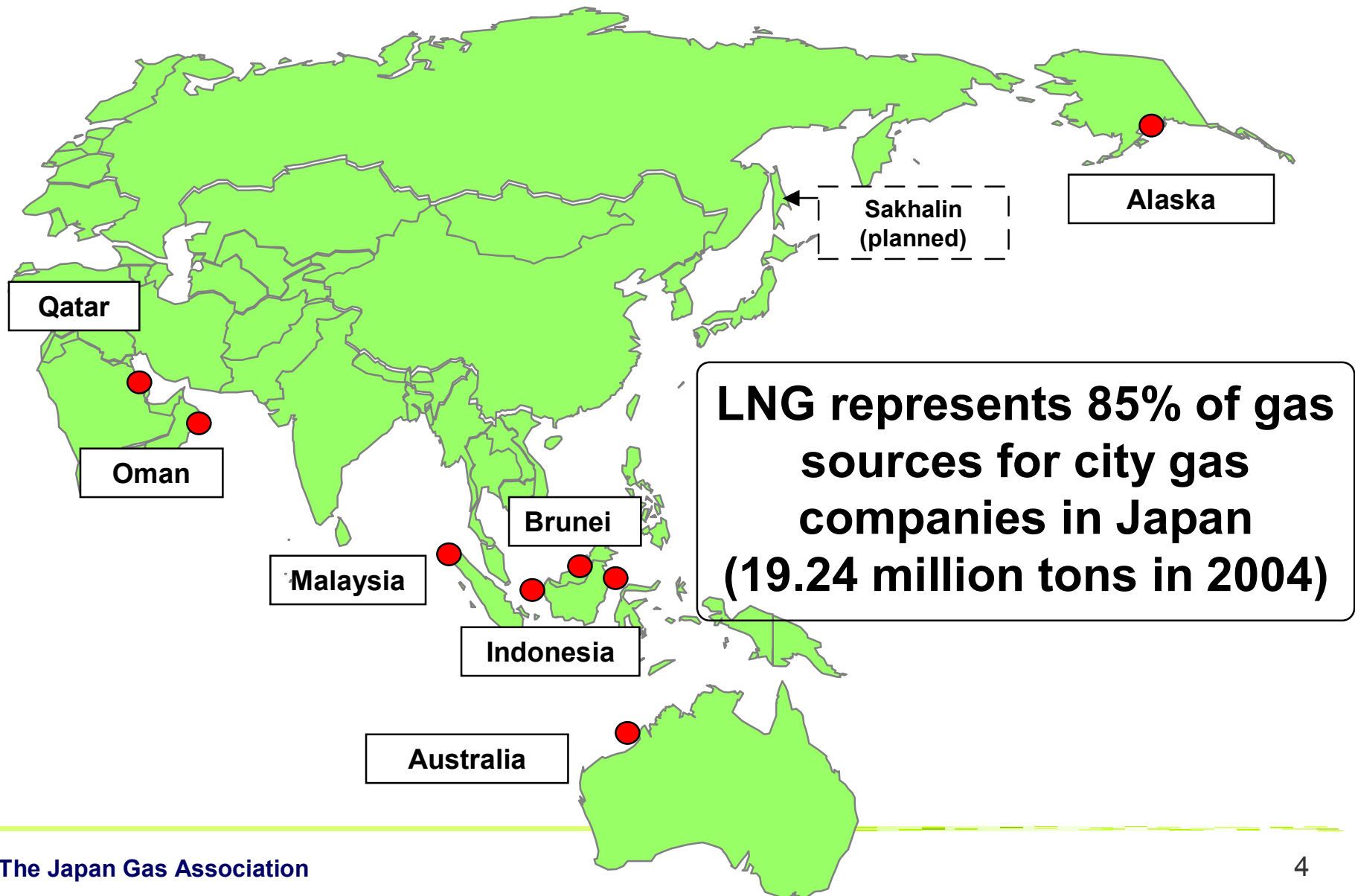
- Economic recovery -----  
driven by private sector demand
- In spite of the surge in energy prices and  
slippage of economic activities overseas,  
the basic tone of economic recovery  
continues

# Outline of Japan's City Gas Industry (1)



- 4.8% growth rate (volume) in 21st Century
- LNG represents 85% of gas sources
- 27.5 million customers
  - cf. 26 million LPG (bottled LPG) customers

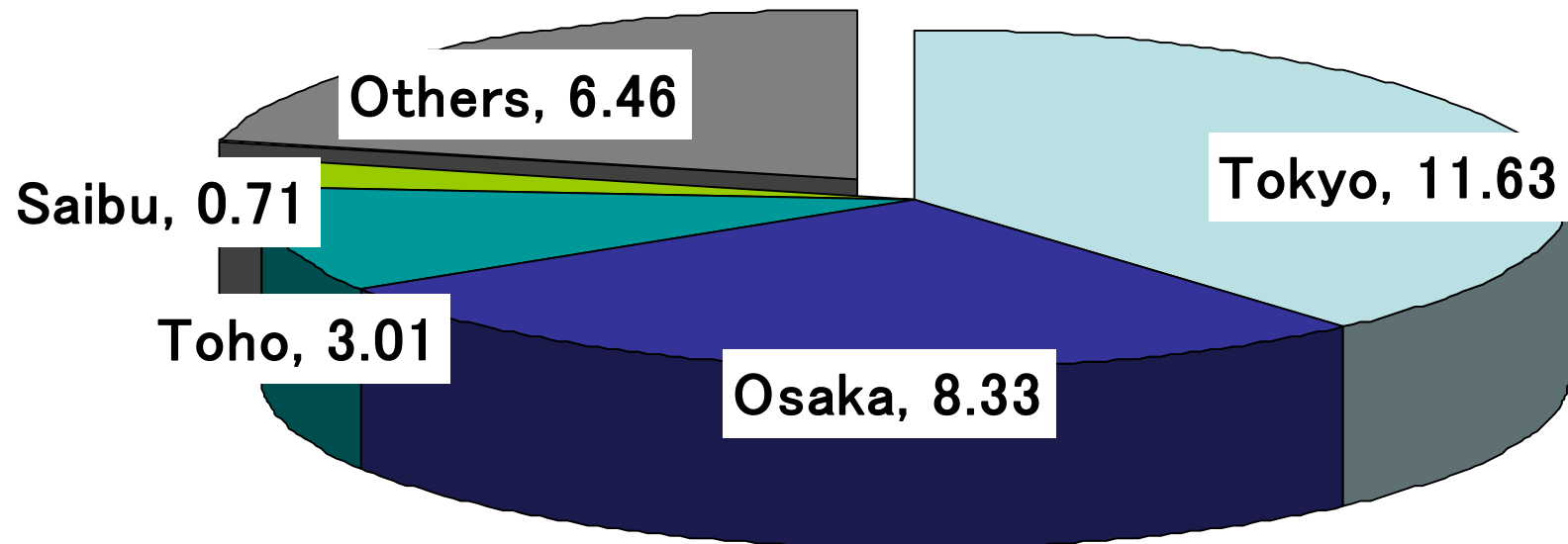
# LNG Sources for City Gas



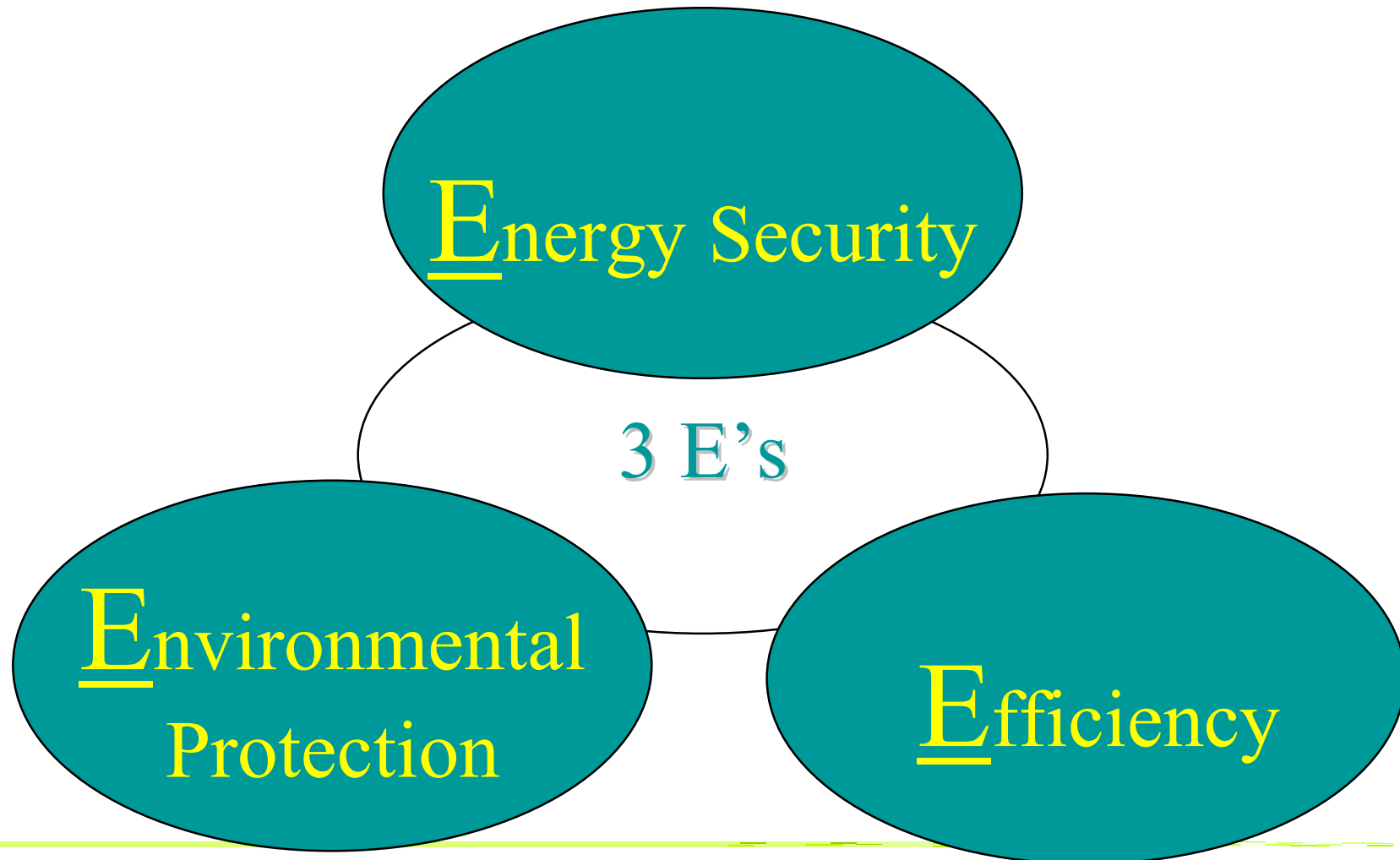
# Outline of Japan's City Gas Industry (2)

- 215 city gas business entities in Japan
- 1/5 are run by municipalities
- 90% of investor-owned city gas utilities are small

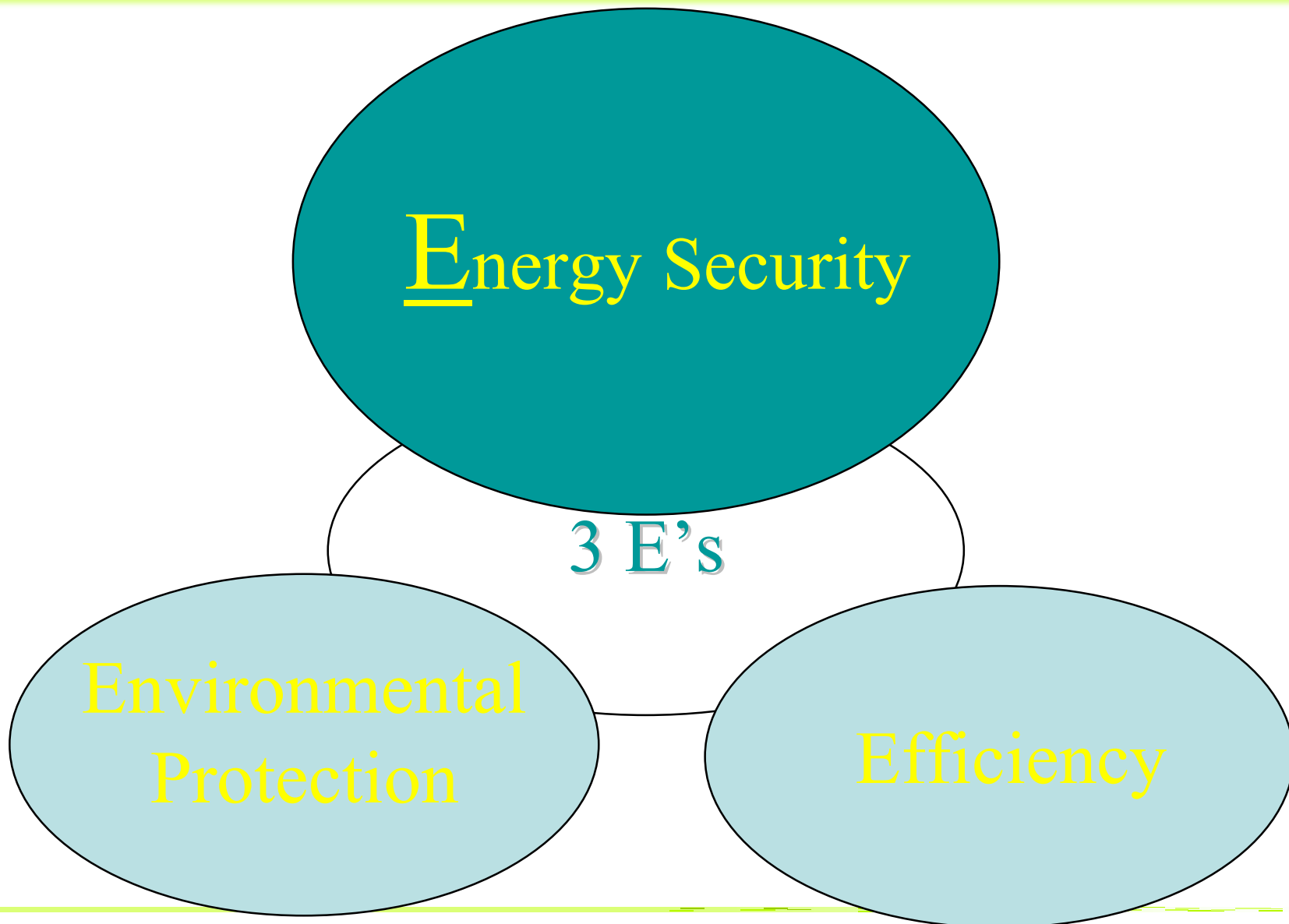
Sales by 'Big 4' in 2004 (FY) (billion m<sup>3</sup>)



# Japan's Energy Policy: 3 E's (1)

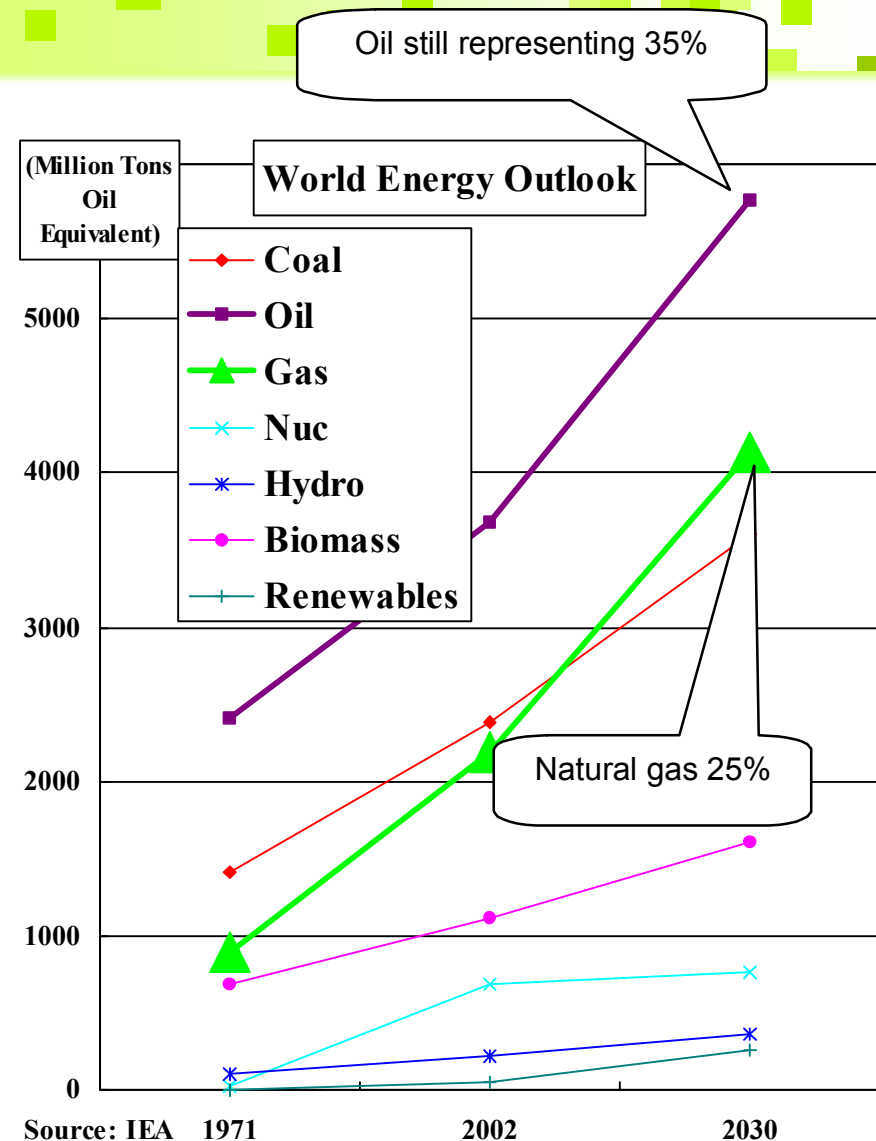


# Japan's Energy Policy: 3 E's (2)

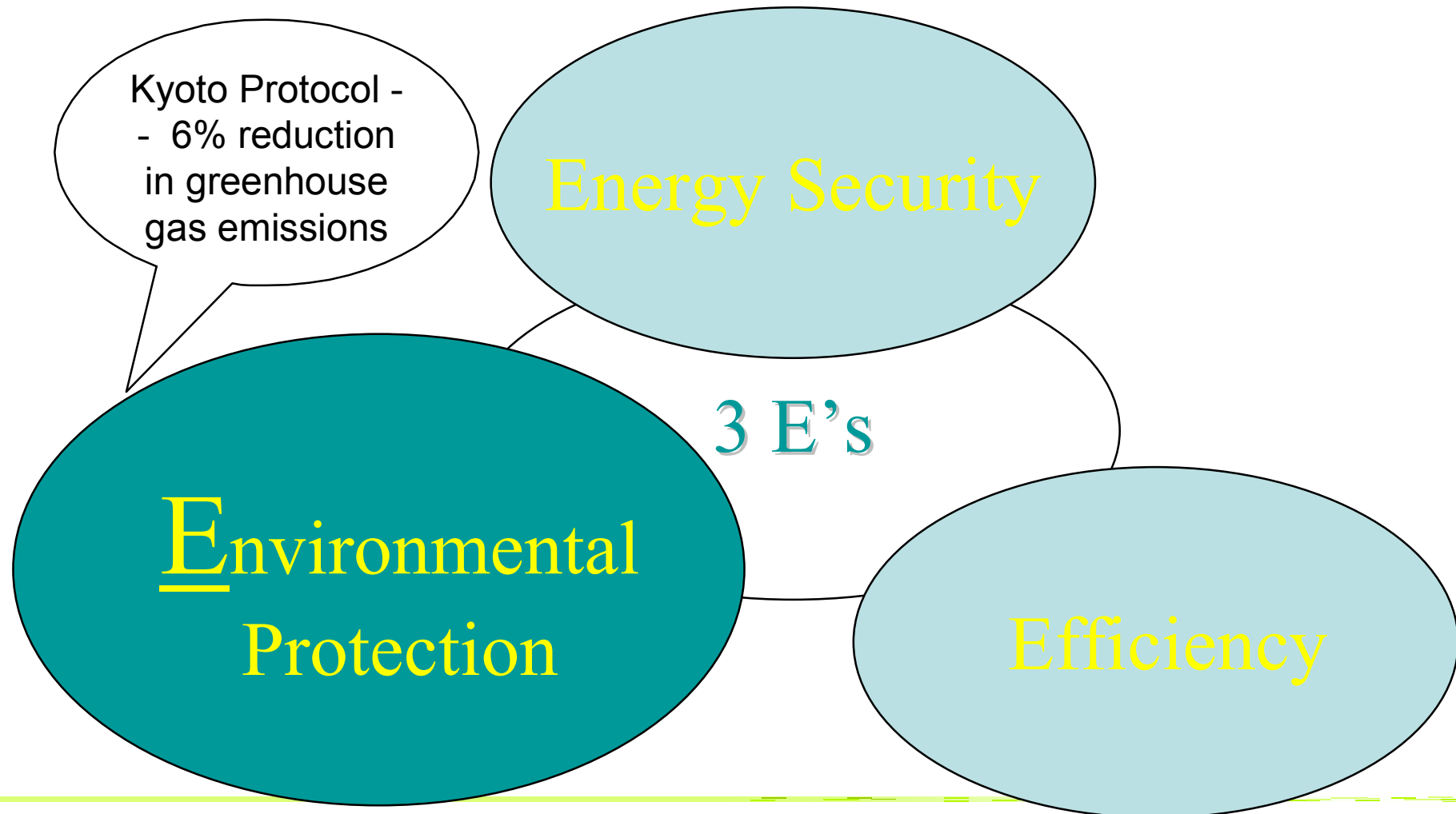


# Energy Security

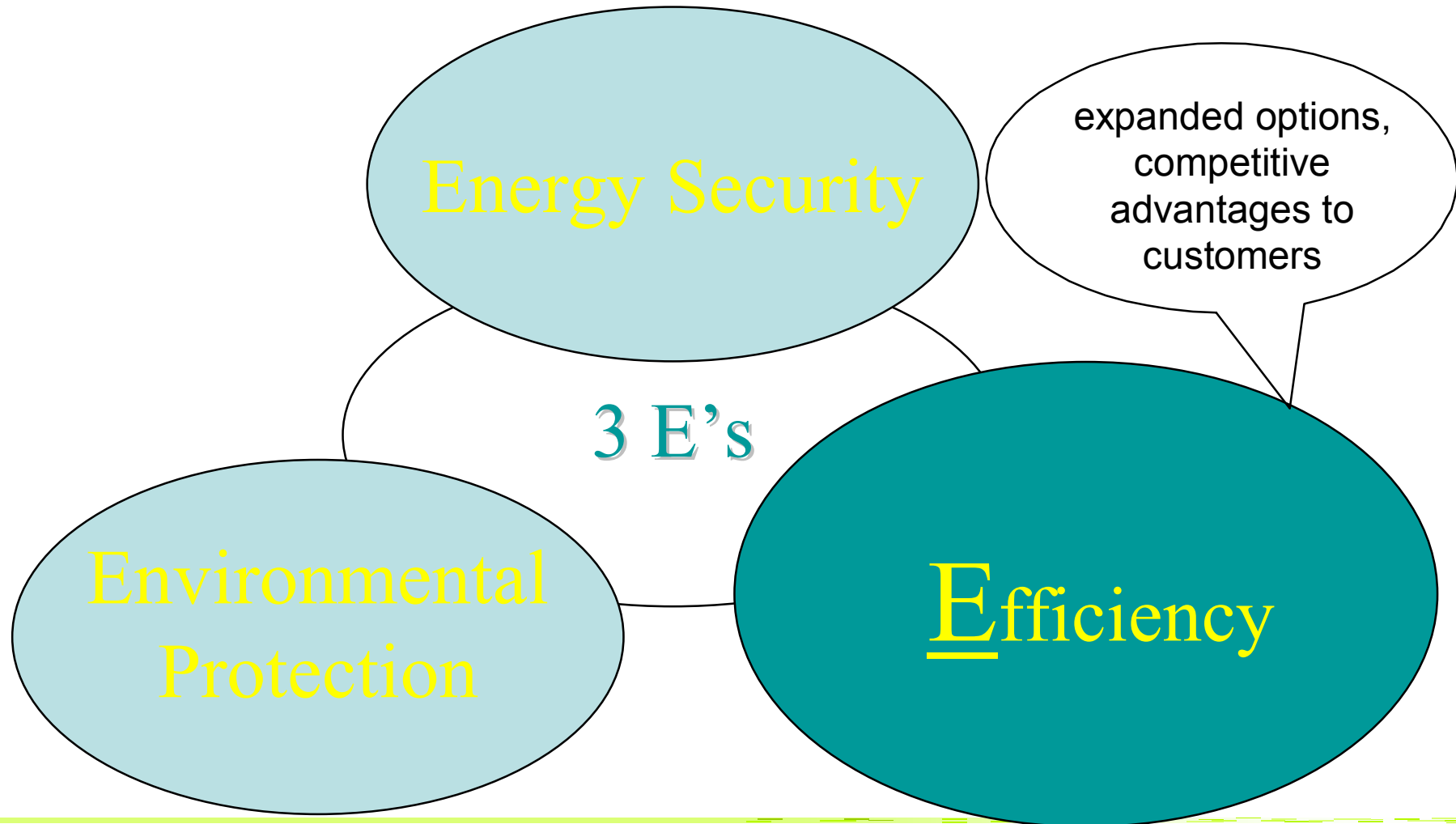
- Japan depends on overseas for more than 80% of energy sources
- Energy demand is expected to grow especially in Asia
- Important to spread supply sources geographically without depending on any specific regions



# Japan's Energy Policy: 3 E's (3)



# Japan's Energy Policy: 3 E's (4)



# Long-term Energy Outlook

Fiscal Year	1990		2000		2030	
Primary Energy	512		588		608	
Energy Source		(%)		(%)		(%)
Oil	290	56.6	293	49.8	256	42.1
Coal	86	16.8	107	18.2	106	17.4
Natural Gas	53	10.4	79	13.4	108	17.8
Nuclear	49	9.6	75	12.8	90	14.8
Renewables*	34	6.6	34	5.8	47	7.7

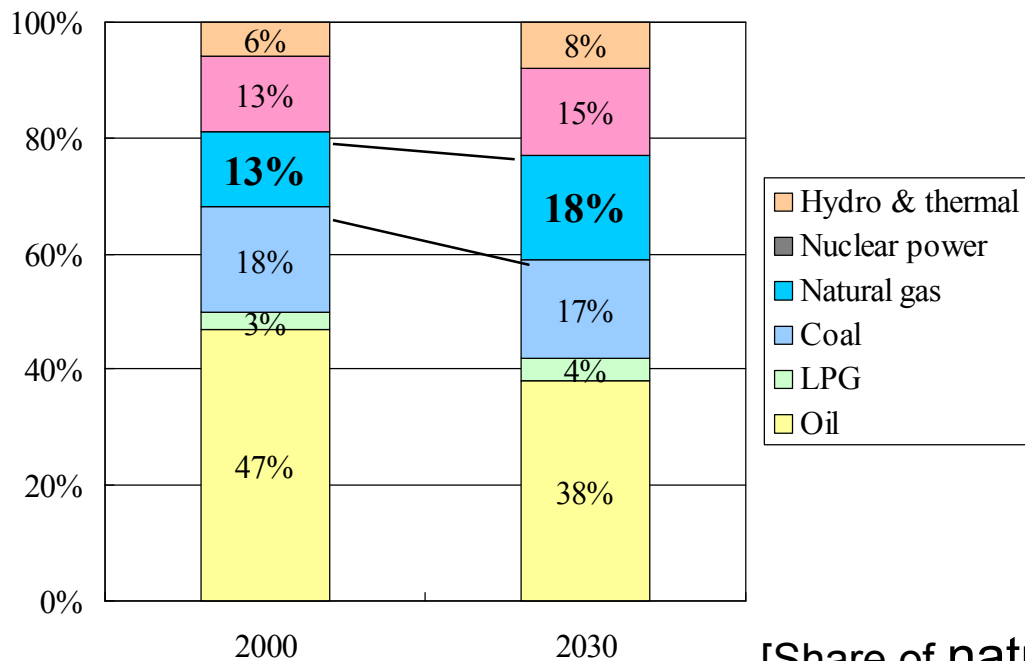
(Million kl Oil Equivalent)

\* Renewables include new energy sources, hydro power, and geothermal

Source: Advisory Committee for Natural Resources and Energy  
Ministry of Economy, Trade and Industry

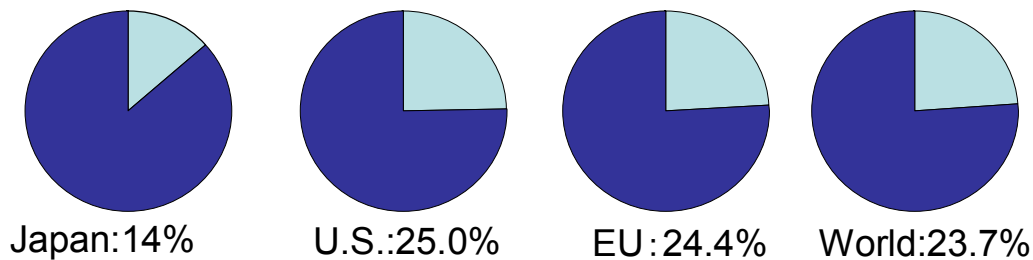
# Share of Natural Gas in Primary Energy

[Composition of primary energy supply in Japan]

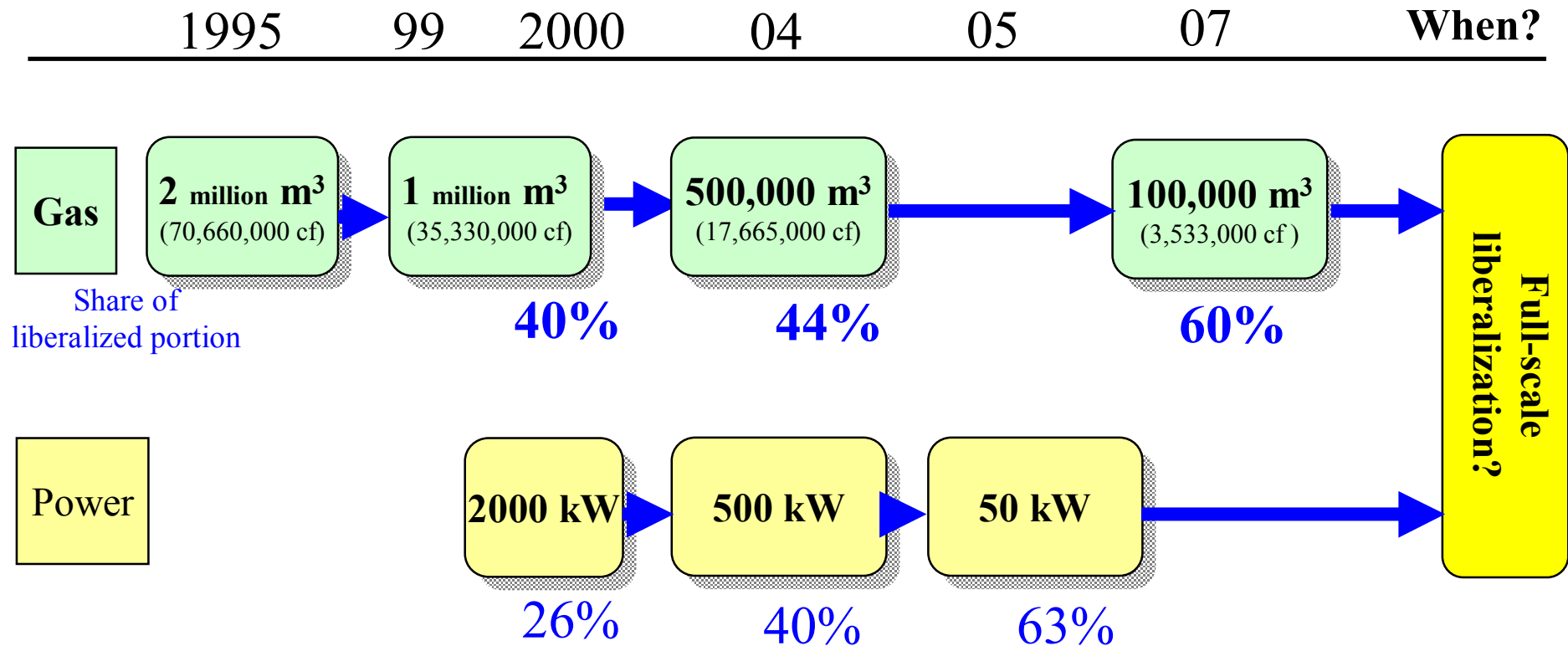


- Natural gas representing only 13-14% in Japan's primary energy, is expected to reach 18% in 2030

[Share of natural gas in primary energy supply (2004) ]



# Intensified Competition between Energy Sources, Regulatory Reform



Large manufacturing & commercial facilities

Mid-sized manufacturing facilities, large city hotels, large-sized hospitals

Small-sized manufacturing facilities, hospitals, small hotels, air-conditioning for universities and gymnasiums

Residential, small commercial demand

# New Entrants to the City Gas Market

## [New entrants to the gas market]

Power Utility Cos.	Tokyo, Kansai, Chubu
Domestic Natural Gas Producers	Teikoku Oil, Tohoku Natural Gas, Japex
Petroleum and LPG Companies	Nippon Oil, Iwatani Industries, San-ai Oil, Next Energy (JV between Nippon & Teikoku)
Others	Nippon Steel, Mitsubishi Corp., Mitsui & Co., Air Water Co., Energy Advance, Nijio

- 16 new entrants in 74 cases as of August 2005
- The share of those new entrants in the liberalized supply: 7.6%

# Toward Better Regulatory Framework

- Unreasonable price competition  
---> Potentially unstable supply situation
- Potential customer segregation
- Potential underinvestment in socially useful initiatives

[Important]

The role of public utility

Step-by-step approach for liberalization and regulatory reform

# Stable Supply & Global Environment

- City gas companies' social responsibility
  - bringing citizens improved lives through stable supply of energy
- Active roles in environmental measures
  - promoting natural gas
- . . . At the same time, conducting thorough efficiency enhancement measures to survive the intensified competition

# Stable Supply -- Earthquakes and Restoration

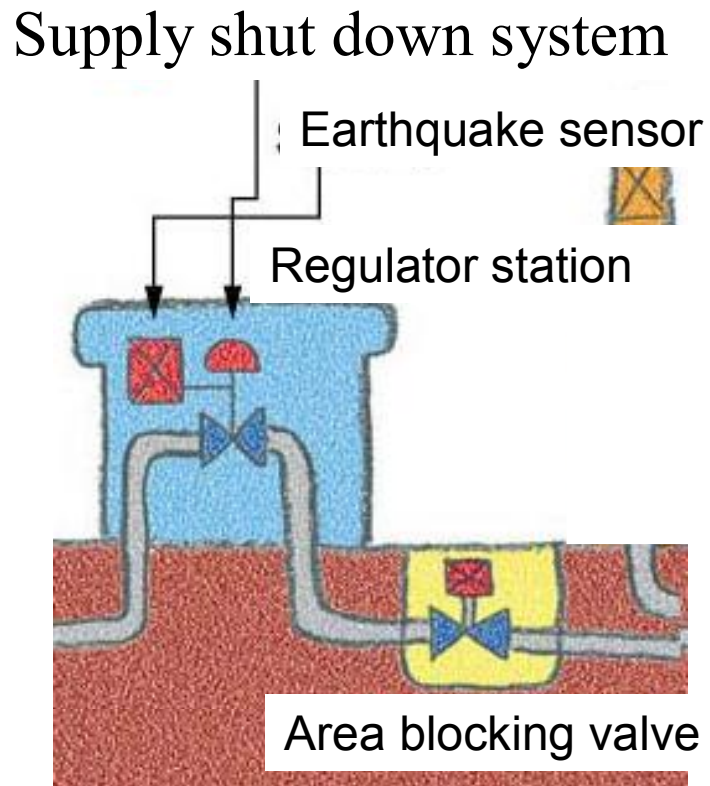


The Area Damaged by the Chuetsu Earthquake in October 2004

Gas Restoration Crew in Niigata, October - November 2005

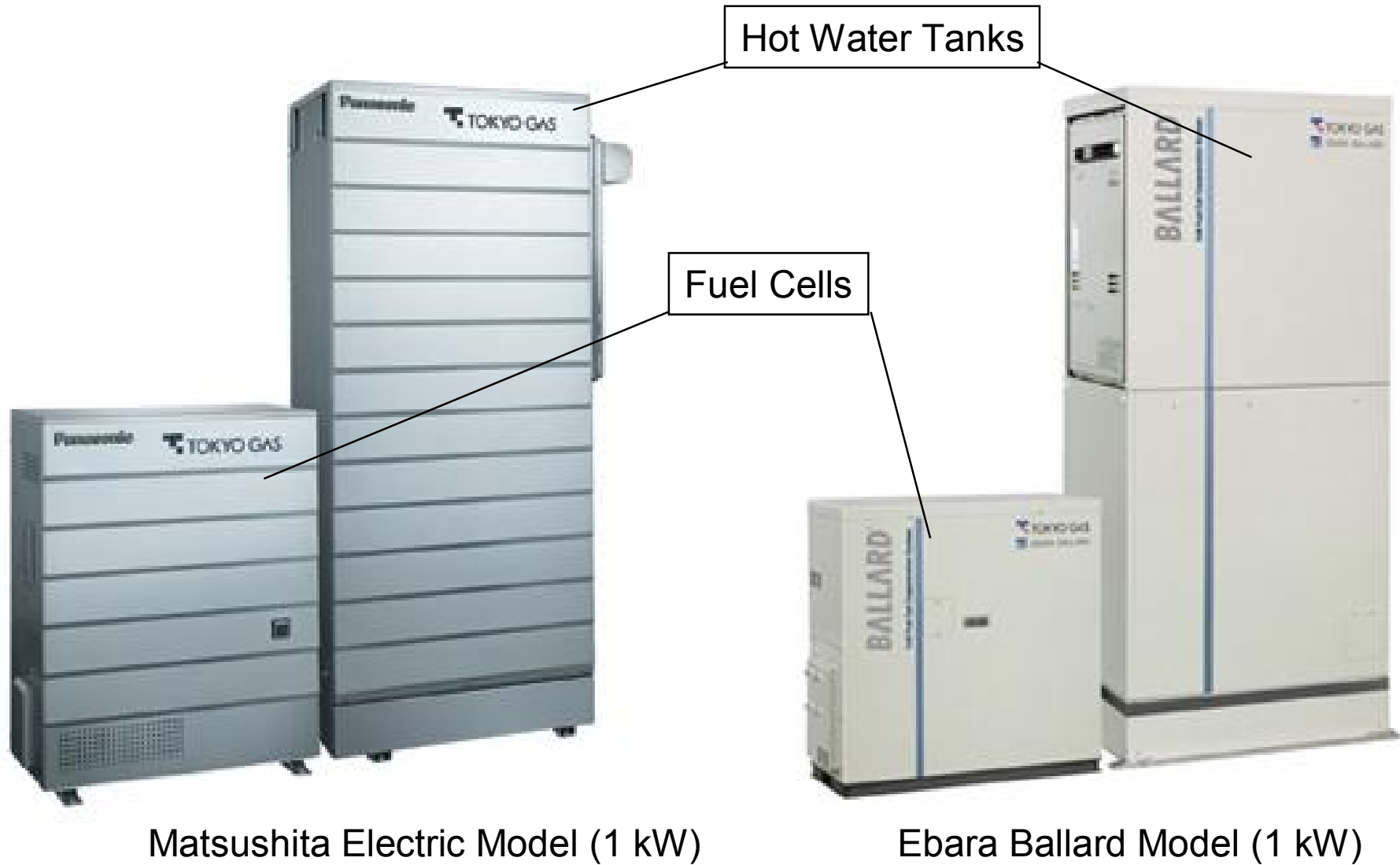


# Safety Measures -- Against Earthquakes



Microchip-controlled gas meter

# An Example of Environmentally Friendly Use -- The World First Commercialized Residential Fuel Cells



# Environmental Preservation

- **The Japan Gas Association:**  
"Environmental Activity Guideline" (1994);
- **Nippon Keidanren  
(Japan Business Federation):**  
"Voluntary Action Plan on the Environment" (1997)