Japan's Energy Mix

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Important Aspects in Long-term Energy Outlook

Principle of "Basic Energy Strategy": To decrease **nuclear dependence** while strengthening **energy efficiency** and expanding **renewable energy use**.

- **Nuclear:** To **decrease** **nuclear dependence** **as much as possible** through maximum improvement of **energy efficiencies** including thermal efficiency and maximum introduction of **renewable energy**.

- **Renewable:** To aim at a **higher level of** **renewable power generation** than the level mentioned in the **"Basic Energy Strategy"** (i.e. 20% of total power generation in 2030).

- ・・・, **setting the "Safety"** as a **pre-requisite** and secure supply of energy **(Energy Security)** as the **priority**, **do the best** to realize **energy supply at lower cost** **(Economic Efficiency)** and to **address global warming** **(Environment).**

- ・・・, it is necessary to realize **a multi-layered supply structure** where **strengths** of each energy sources will be **best utilized** while their **weakness** will be **complemented** by other energy source.

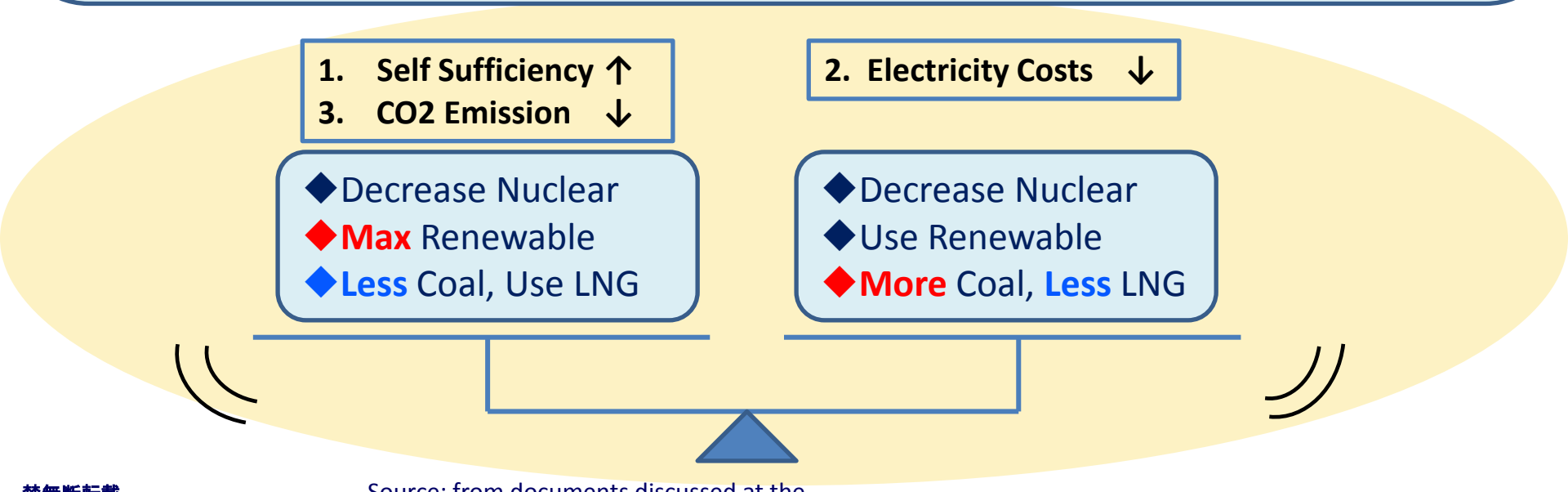
Three Policy Targets to be Achieved

Energy Mix (Demand & Supply Outlook) : public comment process (until 1 July)

To secure "Safety + 3E" of Japan's energy demand and supply :

Foremost condition: Nuclear safety (Safety)

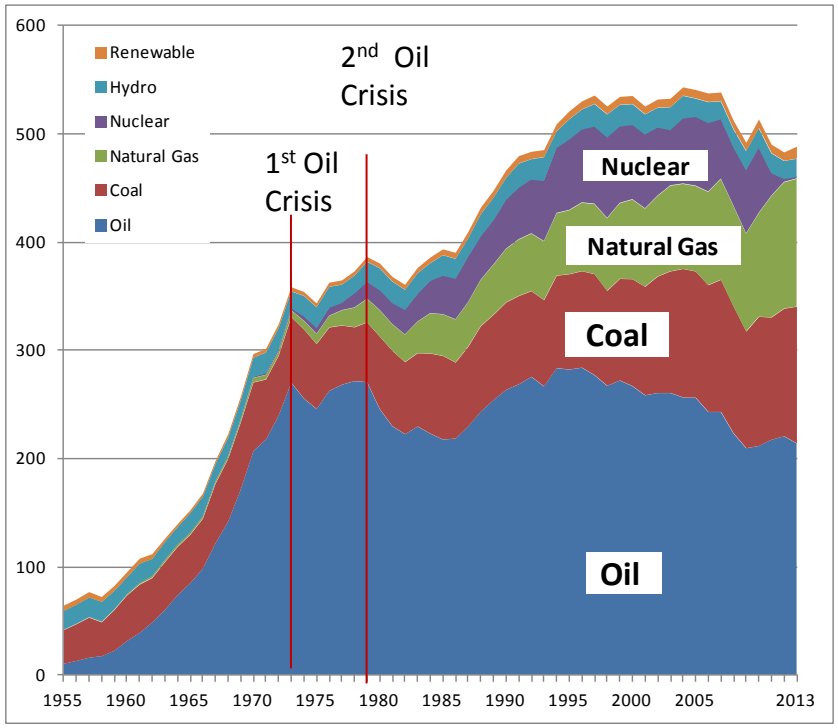
1. Improved **self sufficiency** (about 25%) (Energy Security)
2. **Lower electricity costs** (Economic Efficiency)
3. Set a **GHG reduction** target and lead the world (Environment)

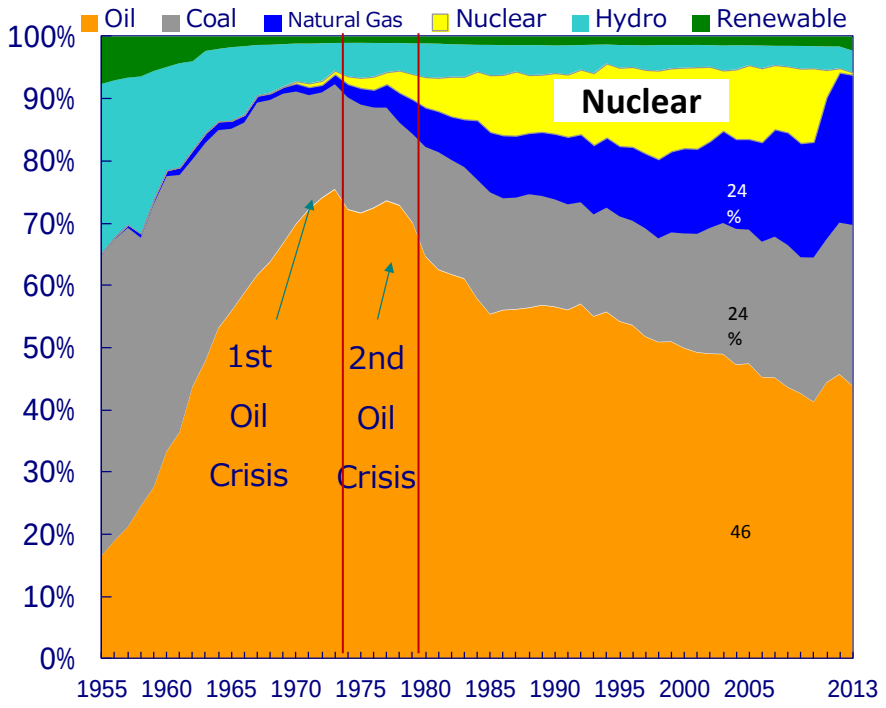


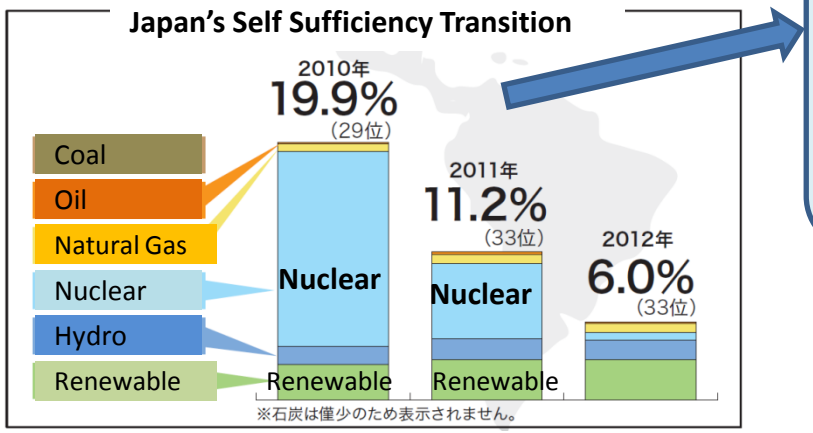
Source: from documents discussed at the "Long-term Energy Outlook Sub Committee", 10th Session (1st June 2015)

Energy Supply Diversity & Self Sufficiency

Primary Energy Supply Trend of Japan (1955-2013)



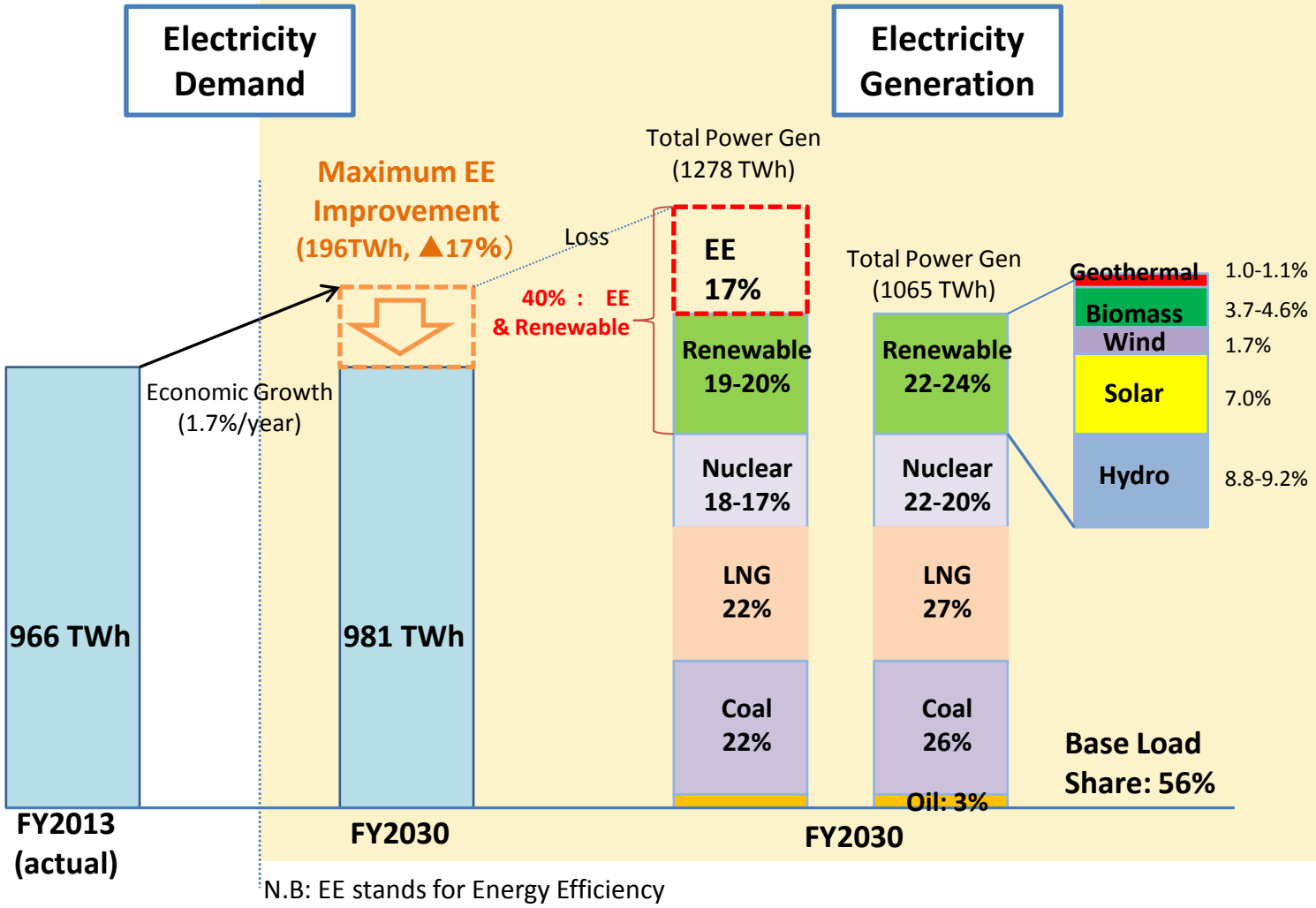




2030
25%

Primary Energy Supply
- Renewable : 13-14%
- Nuclear : 11-10%

Radical Electricity Saving and Balanced Power Mix

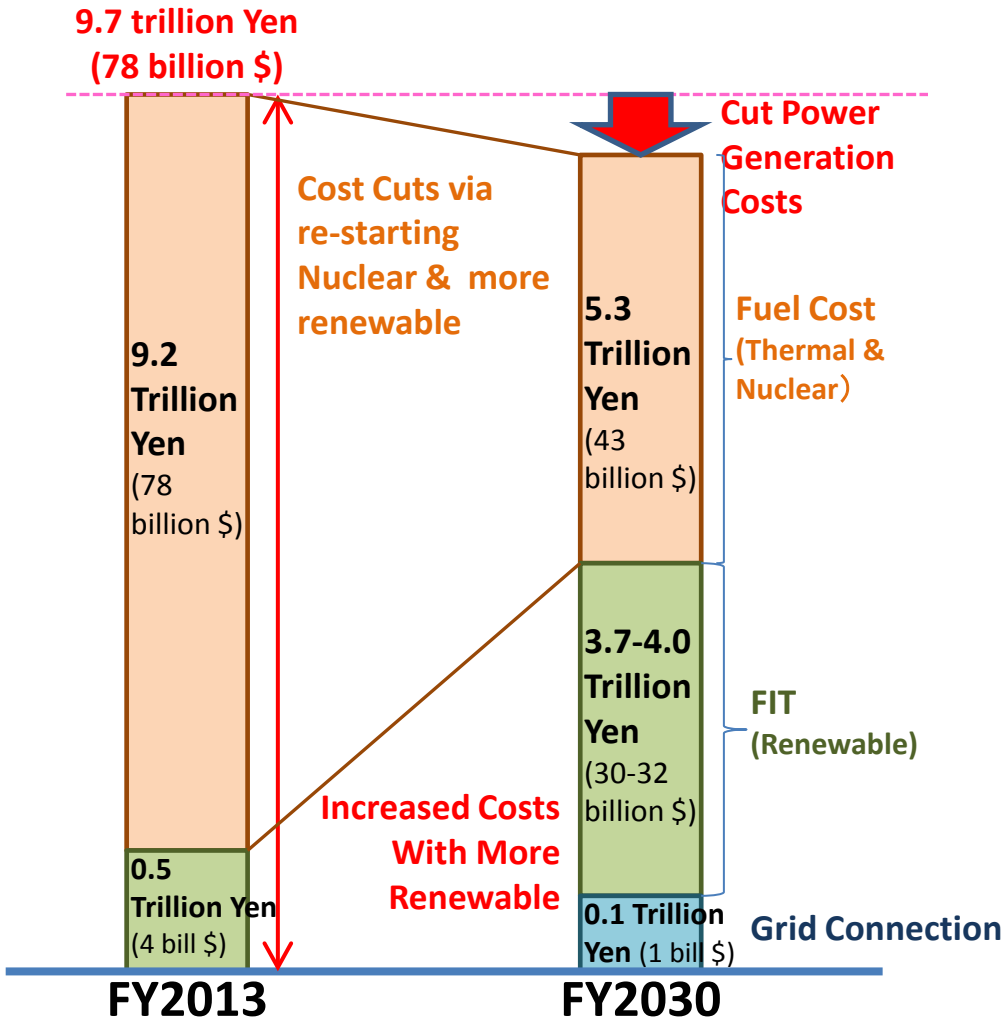


N.B: EE stands for Energy Efficiency

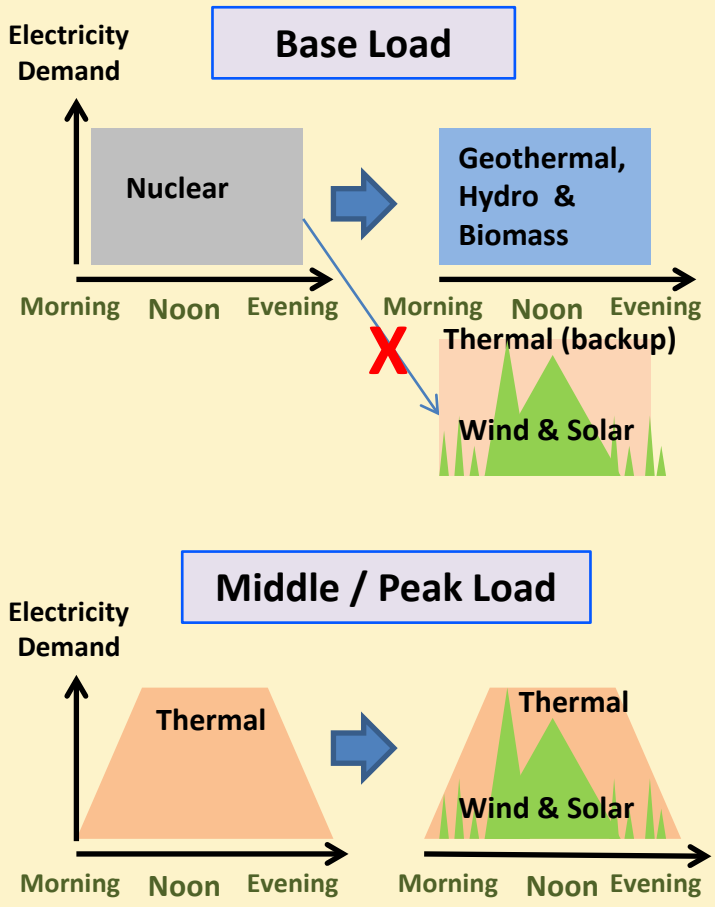
Source: from documents discussed at the "Long-term Energy Outlook Sub Committee", 10th Session (1st June 2015)

Lowering Electricity Cost while Introducing Max Renewable

Power Generation Cost

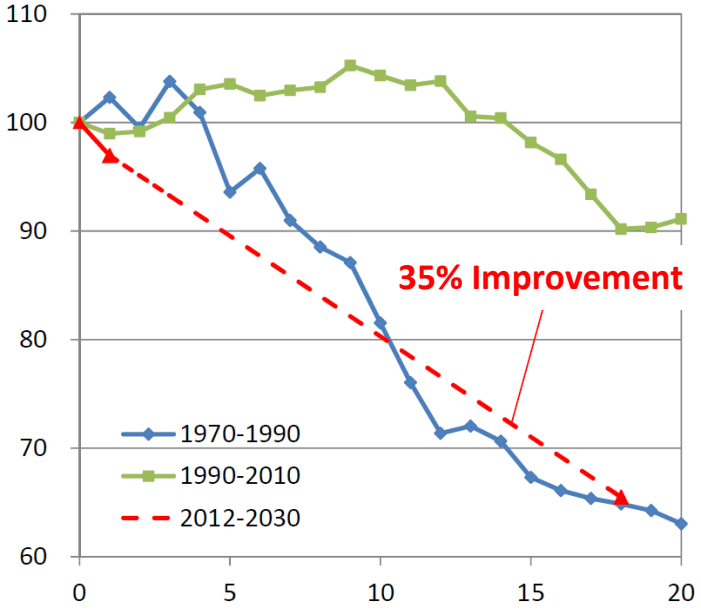


Electricity Generation



Energy Efficiency to be Improved Drastically

Energy Efficiency Improvement
(Final Consumption / real GDP)



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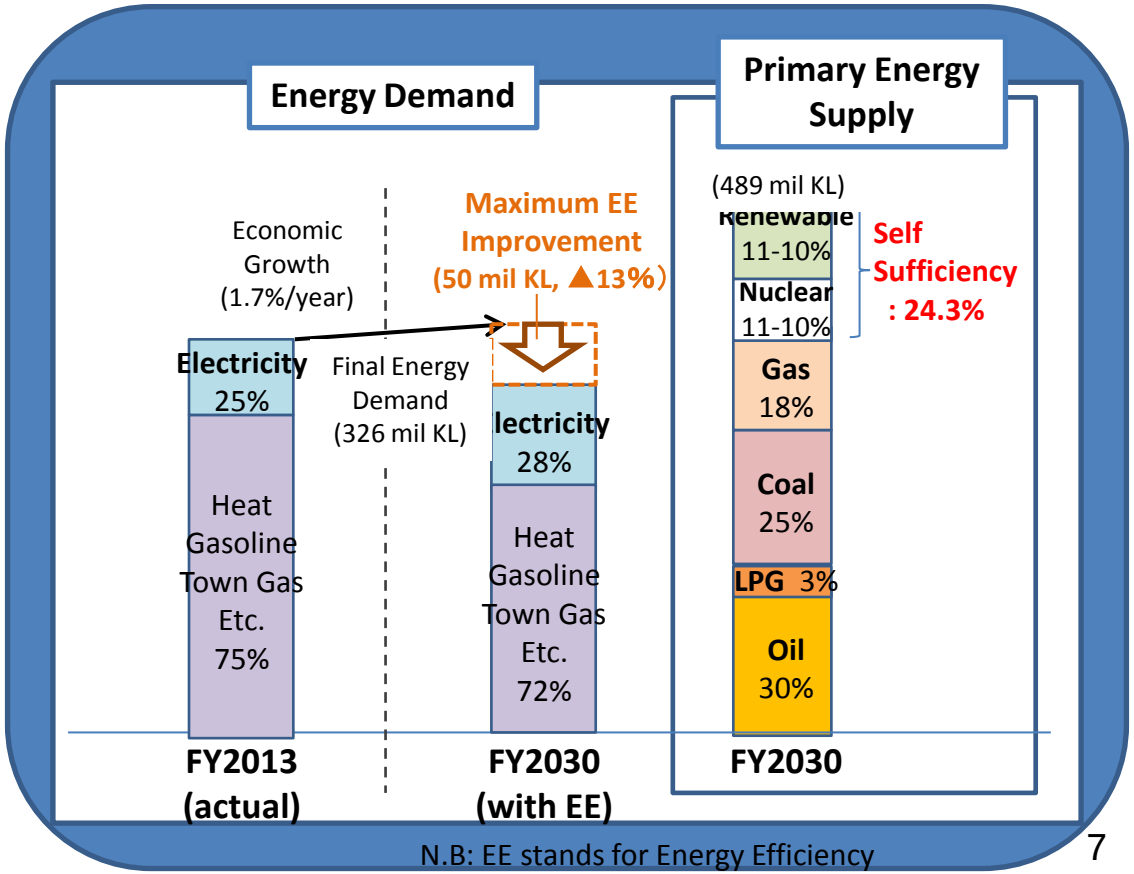

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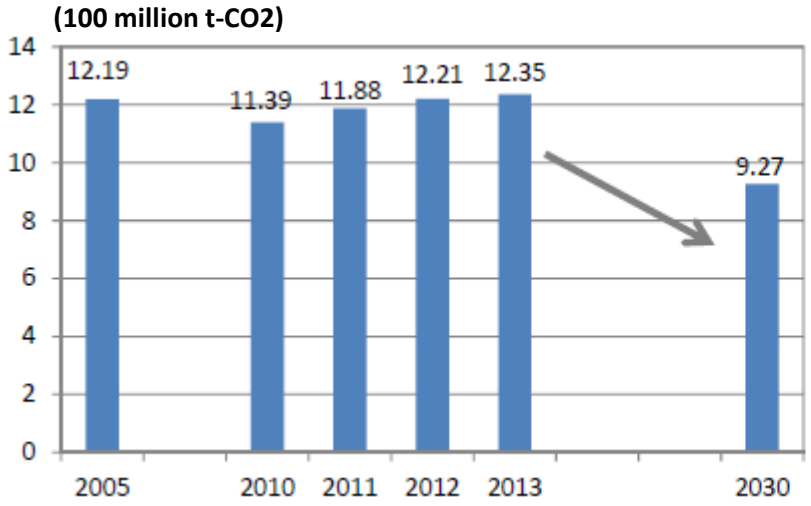
CO2 Emissions

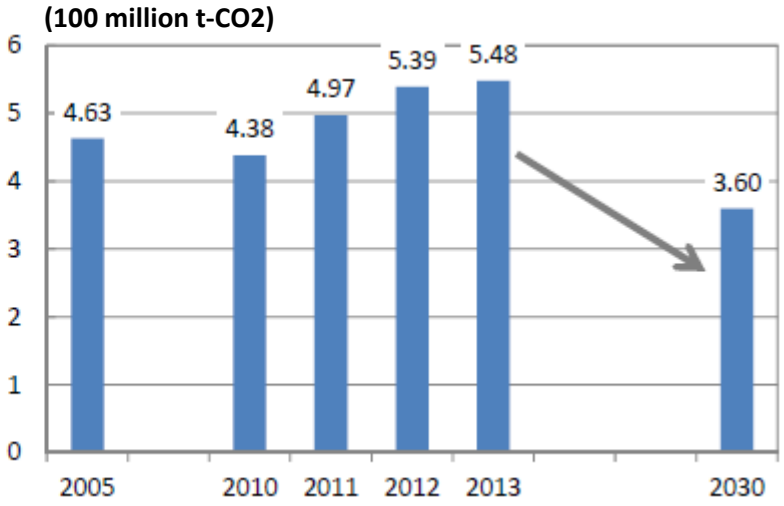
Energy Related CO_2 Emission (100 million t-CO_2)

	FY2013	FY2030
CO2 Emission Total	12.35	9.27
Relative to 2005	+1%	▲24%
Relative to 2013	-	▲25%



CO_2 Emission from Power Generation (100 million t-CO_2)

	FY2013	FY2030
CO2 Emission Total	5.48	3.60
Relative to 2005	+18%	▲22%
Relative to 2013	-	▲34%



Four Issues to be Tackled - from "Draft Outlook Paper"

- Addressing new developments in Japan and overseas appropriately
  - **Systems Reform**
  - **Oil price volatility, Middle East situation uncertainty, etc.**
- Key to a success: more detailed measures to meet targets
  - **Needs for more concrete measures and roadmaps for policy implementation**
  - **Sincere efforts to obtain better understanding from citizens**
- Needs for Long-term strategies
  - **Development of advanced technologies (e.g. Hydrogen, CCS+U, etc.)**
  - **methane hydrate, etc.**
- Revision of "Long-term Energy Outlook "on regular basis
  - **Revisit the Outlook when "Basic Energy Strategy" is revised (every 3 years).**

Thank you very much for your attention!

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