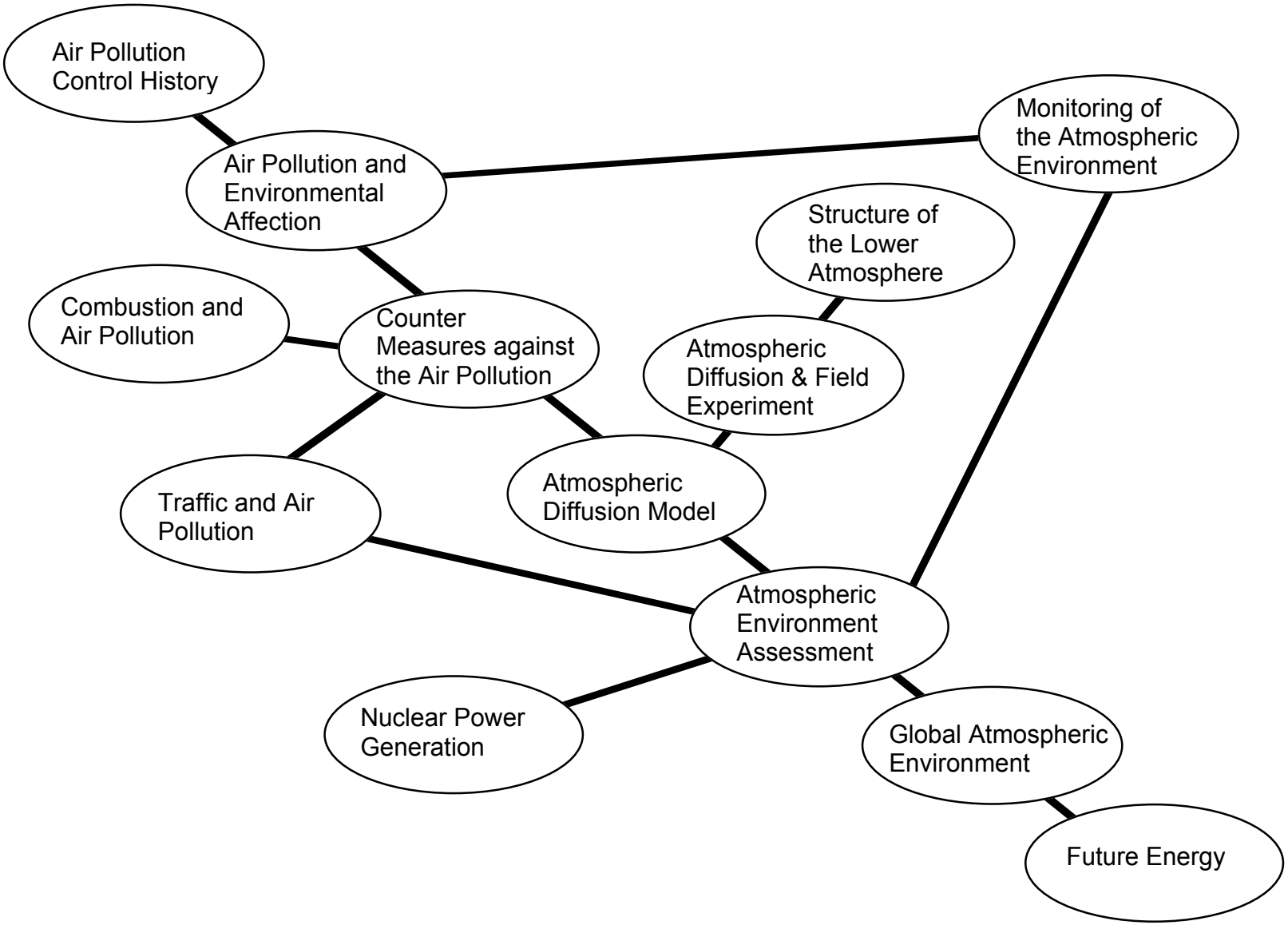
Lessons Policy

Through the 7 lessons, our objectives are to:

- Review the experiences of the Electric Power Industries of Japan
- Evaluate the history and learn Good Practices
- Obtain the fundamental knowledge
- Outlook for the future problem

Relation of the topics



Background-1: Environmental Right

The environmental right is an idea sometimes expressed as "All person has the fundamental and not transferable right on the healthy environment." The idea was born in the relation of the modern western society that is characterized as:

- expansion of the pollution -> pollutants which can't be limited in local -> damages to all people
- global economic relations -> science/engineering development -> risk management for the disaster
- new understanding for the earth -> limited nature resources -> nature protectionism

Background-2: Primary Energy Balance of Thailand

Following table shows the primary energy balance of Thailand in 2000.

(unit : oil conversion 1000 ton)

	Coal	Oil Products	Natural Gas	Condensate	Electricity	total
Supply	7,792	32,949	19,243	2045	1,571	63,682
Consumption	3,627	26,712	1,376	-	7,492	39,207

(DEDP, Thailand Energy Situation 2000)

- Primary energy self-sufficient ratio: 47 % (1998)
- Most source of the energy supply: Oil (52 % of total production)
- Most source of energy consumption: Oil (68 % of total consumption)

- Producing coal: lignite (brown coal)
- 300 million barrels(40.54 million ton) of estimated oil reservers in the Gulf of Thailand (R/P is 11 years)
- 28.4.5 trillion cubic feet(48.1 billion TOE:Tonnes Oil Equivalent) of estimated natural gas reservers in the Gulf of Thailand (R/P is 23 years)

- Much of the natural gas is used for the electricity
- On January 23, 1999, the Cabinet approved a proposal to encourage the use of natural gas over other fuels for power generation
- Oondensate is the easy liquefactive gas fuel composed of propane, butane, ethan, called natural gas liquids (NGL)

Background-3: Electric Power Plant Capacity of Thailand

Following table shows the Electric Power Plant Capacity of Electric Industries (EGAT,MEA,PEA).

(unit: MW)

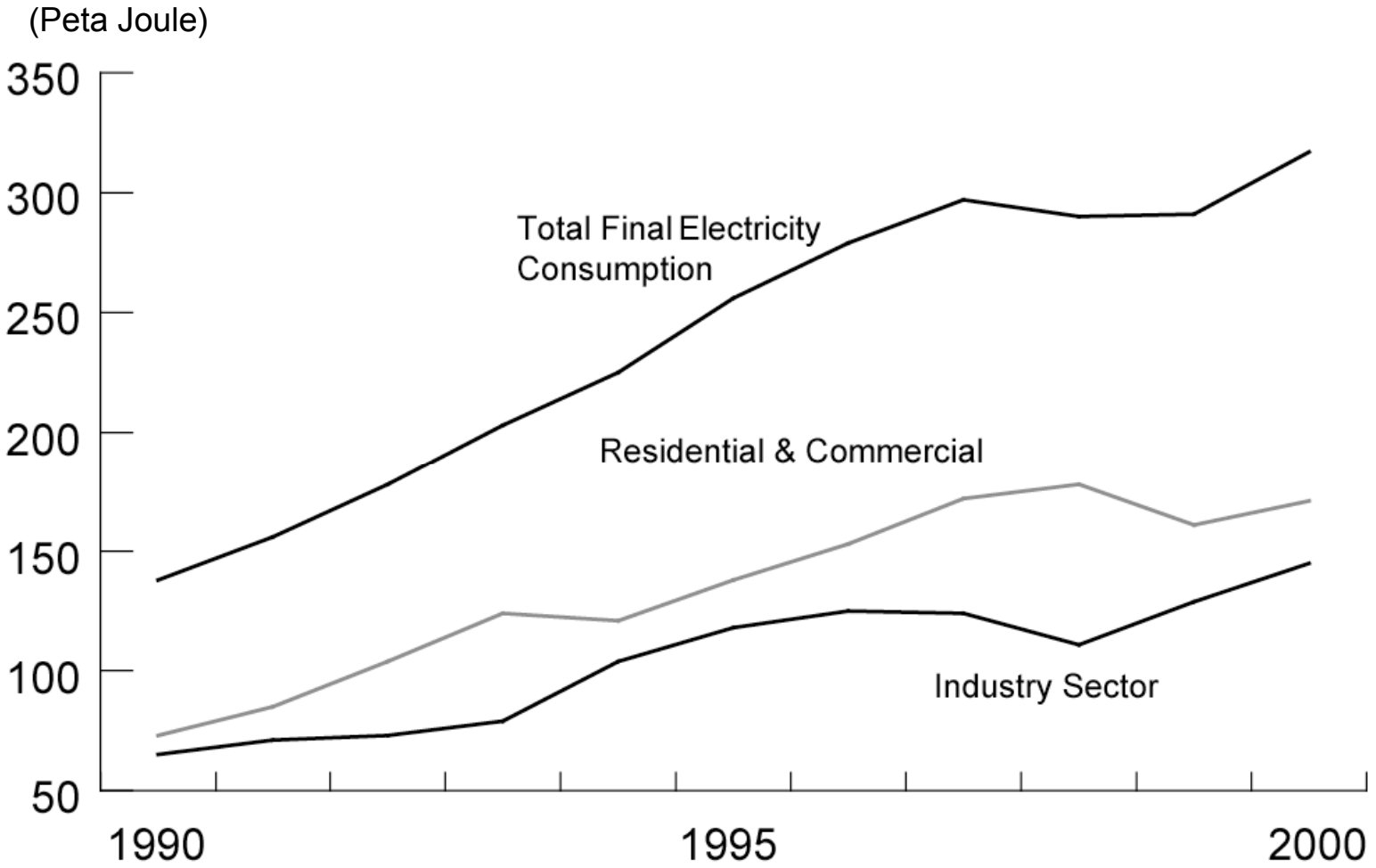
Hydro-electricity	Thermal	total
2,886	19,708	22,594

(Thailand DEDP: Electric Power in Thailand 2000)

NOTE 2: EGAT's power plants in Thailand can be classified as follows:
- Thermal Plants in total - 12,905 MW
  - Coal, Gas, Oil combustion Plants - 6,493 MW
  - Combined Cycle Plants - 5,994 MW
  - Gas Turbine and Diesel Plants - 418 MW
- Hydro Plants - 2,886 MW

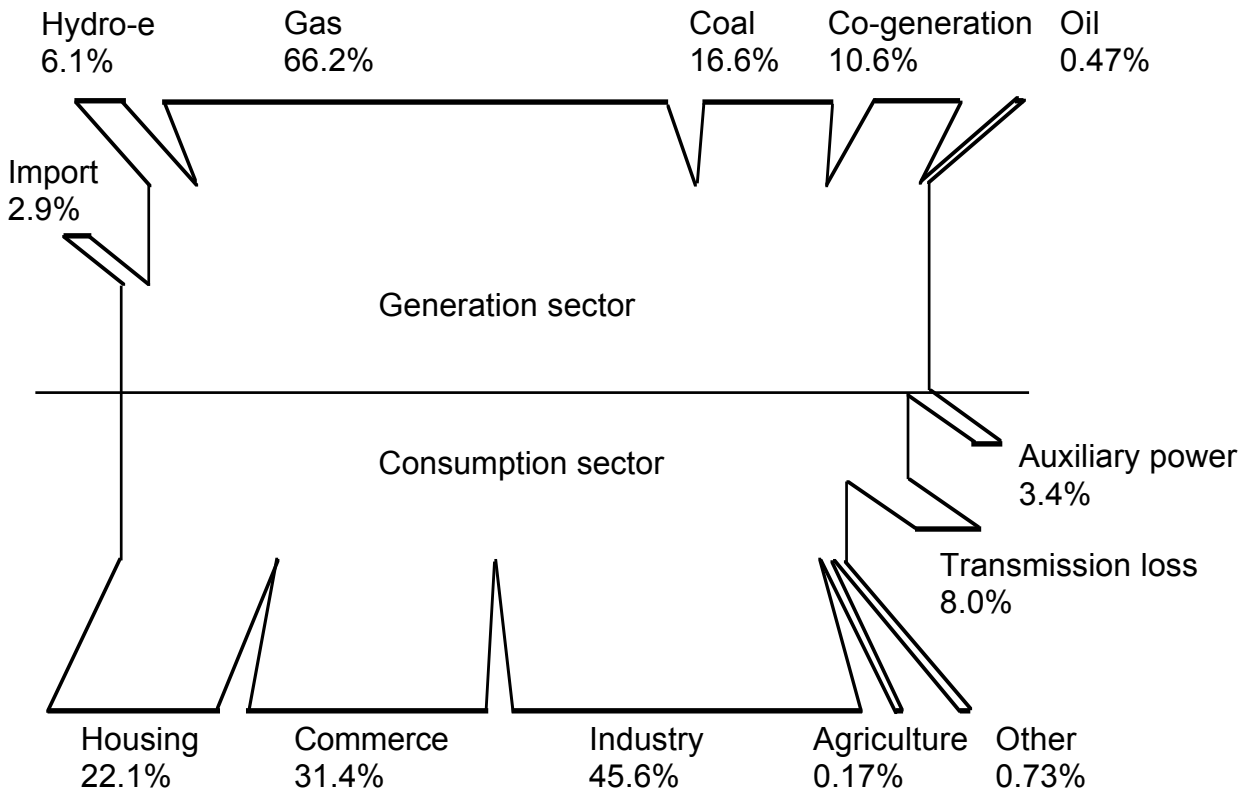
NOTE 1: Department of Energy Development and Promotion (DEDP)
Electricity Generating Authority of Thailand (EGAT)
Metropolitan Electricity Authority (MEA)
Provincial Electricity Authority (PEA)

Background-4: Trends of Electric Power Consumption



(APEC: Energy Database; http://www.ieej.or.jp/egeda/database/database-top.html)

Background-5: Generated Electric Power and Consumption Sector



DEDP :Electric Power in Thailand (2000)

Background-6: Electric power demand estimation by EGAT