



Climate Policy Forum Cum Workshops

GHG Reduction Solutions for a Low Carbon Hong Kong

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Changes in Fuel Mix for Power Generation & Impacts on Electricity Tariff

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I. Dominant Role of Electricity in HK Energy Economy

- 2009 amount of coal, natural gas and oil products used for power generation: 389,030 Tj
- Total amount of coal, natural gas and oil products consumed in HK: 548,780 Tj
Share of power generation: 70.9%

Fuel Mix of Final Energy Requirements (%)

Coal	Oil Products	Electricity	Towngas
---	42.4	48.7	8.9

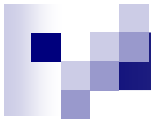


II. Maximum installed capacity	12,624 MW
Peak demand	10,153 MW
Local generation	139,420 Tj
Imports	41,725 Tj
Exports	13,432 Tj
Net Imports	28,293 Tj
Local consumption	149,366 Tj

Net imports as share of local consumption 20.3%

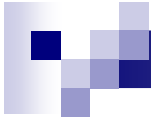
Sectoral Consumption of Electricity (%)

Domestic	Commercial	Industrial
26.1%	66.4%	7.5%



III. Fuel Mix for Power Generation (%)

	<u>2009</u>	<u>2020</u>
Coal	54	<10
Natural Gas	23	40
Nuclear	23	50
Renewable Energy	--	3-4



IV. Current Prices of Electricity (cents/kwh)

Nuclear	Coal-fired	Gas-fired
50	40-60	70-90



V. Factors Affecting Future Electricity Tariff

A. Future Price of Different Fuels

- Nuclear expected to be cheaper than gas-fired power
- Price of natural gas expected to rise and be volatile

B. Investments in new power plants and other infrastructures

- New combined cycle plants
- Transmission facilities
- LNG terminal in Guangdong
(and nuclear power plant ?)