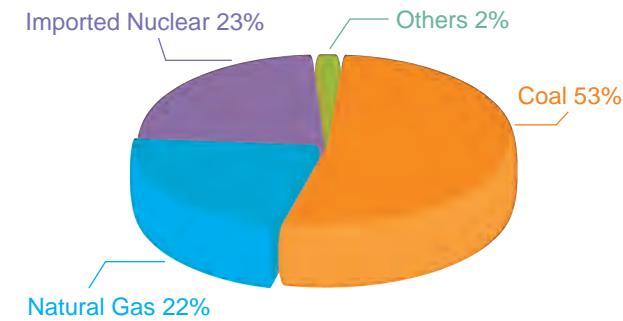


Planning Ahead for a Better Fuel Mix



Public Consultation on Future Fuel Mix for Electricity Generation

Current Fuel Mix



Fuel mix in 2012

Reasons for change

- To replace local generating units to be retired
- To meet projected demand for electricity
- To meet environmental targets
 - improving air quality
 - combating climate change

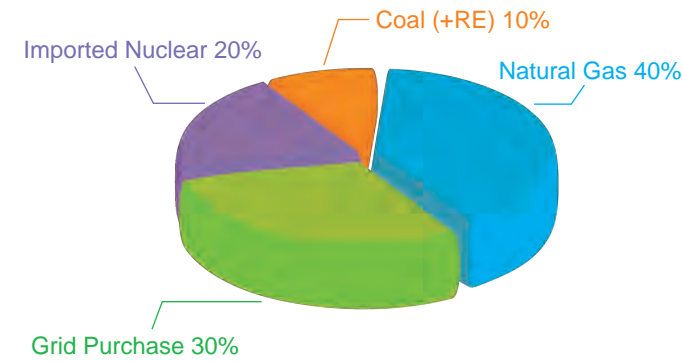
Planning Horizon

- About a decade from now, i.e. 2023

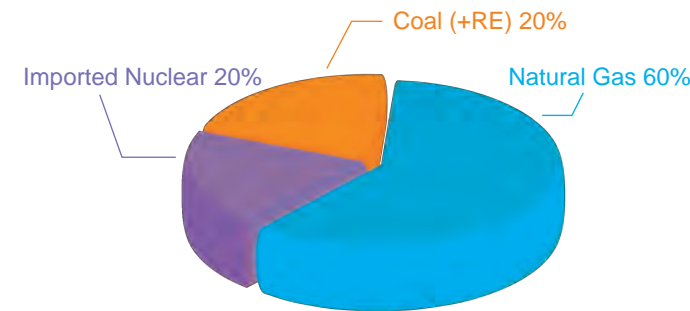
Key points of consultation

- The Government adopts an open position on the two options below. Your views are invited on the following -
 - How do you view each of the two fuel mix options with regard to safety, reliability, cost, environmental performance and other relevant considerations?
 - Which of the two fuel mix options do you prefer? Why?

Two fuel mix options



Option 1
Purchase from the Mainland power grid



Option 2
Using more natural gas for local generation

Notes:

- The above fuel mix ratios aim at providing a basis for planning the necessary infrastructure for electricity supply. Flexibility should apply to actual deployment of each fuel type, having regard to the circumstances happening on the ground.
- RE: Renewable Energy

Comparison

Safety

- Both options pose no specific safety risks to Hong Kong

Reliability

- Option 1:
 - untested but not uncommon in other places
 - it is technically feasible
 - estimated future demand less than 2% of the China Southern Power Grid (CSG) 's generation in 2012
 - strong support provided by CSG 's entire power grid with multiple sources of supply
 - local back-up generation to cater for emergencies
- Option 2: proven track record of reliability

Affordability

- No substantial difference in average unit cost
- Roughly double the unit generation cost over the five years from 2008 to 2012; actual costs need to be further ascertained
- Tariff implications cannot be ascertained at this stage
- Option 2: heavy reliance on natural gas as a single fuel type will increase the susceptibility of tariffs to price volatility of natural gas

Environmental performance

- Both options can achieve 2020 environmental target
- Option 1: can reach higher environmental improvement targets when cross-boundary infrastructure is in place in around 2023
- Option 2: limited room for any further significant improvement

Implications for the post-2018 electricity market

- Option 1: may enhance interconnection between the two local power grids; more room to introduce competition at the generation level
- Option 2: participation of new suppliers affected by the availability of land for any new generation facilities; allowing existing power companies to invest may add to the potential stranded costs

Diversification

- Option 1: taps into cleaner fuels otherwise not available to Hong Kong
- Option 2: increases the risk of heavy reliance on a particular fuel type

Flexibility in scaling up future supply

- Option 1: more flexible in meeting future demand
- Option 2: less flexibility to catch up with rising demand

Send in your views before **18 June 2014** by e-mail, mail or facsimile.

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The consultation document can be downloaded from www.enb.gov.hk

