

**Session II – Envisioning New Approaches to Managing Great Deltas, Great Rivers,
and Great Lakes**
11:00 AM

Energy Choices in Mekong Delta, Vietnam

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Abstract

The power demand for economic development in the Mekong delta of Vietnam is significantly increasing. Six energy complexes are planned to be built in the Mekong region. Four out of six are planned to be coal fired plants with a total capacity up to 18400 MW, and two others are natural gas combined cycle plants with a total capacity of 4300 MW (equal to 23% coal capacity).

Compared to coal fired plants, Natural Gas Combined Cycle Gas Turbine Plants:

- Emit less than half the CO₂ on a per MWh basis due to lower carbon content of gas vs. coal and higher power conversion efficiencies.
- Have much lower/negligible criteria pollutant emissions, especially if the most advanced emissions control technology is installed.
- Require less than half the water on a per MWh basis and generate much less/negligible solid waste. Note that coal plants generate a significant amount of toxic wastes such as mercury, arsenic, cadmium, lead.
- Cost less than half the CAPEX (capital expenditure) of a new-build coal plant.

For energy choice decision making in the Mekong delta, a full range of social costs should be taken into account in order to select the best energy alternative and avoid bad consequences for the future generations. Do not rush to meet all near-term supply needs with coal, when there might be better alternatives available. Be aware that gas is part of the solution to Mekong delta's future power needs. Therefore, it is necessary to maximize efficiency through competition in the gas and power sectors.