1 BACKGROUND

1.1 STATUS OF THE REPORT

This Environmental Impact Assessment (EIA) Report is prepared in response to the *EIA Study Brief No. ESB-001/1998* issued to the Hongkong Electric Company Limited (HEC) on 20th May 1998 by the Hong Kong Government's Environmental Protection Department (EPD) in relation to a proposed 1800 MW Gas-Fired Power Station at Lamma Extension. The Study Brief was based on information provided in the Project Profile submitted by HEC on 8th April 1998 under the statutory provisions of the *Environmental Impact Assessment Ordinance (EIAO) (Cap.499).*

The approach adopted by the EIA Study Team follows the requirements of the *Environmental Impact Assessment Ordinance (EIAO) (Cap.499)* and is in compliance with the *Technical Memorandum on Environmental Impact Assessment Process (EIAO TM)* issued under the *EIAO.*

1.2 THE CONTEXT OF THE EIA STUDY

In view of the potential demand for electricity and the positive findings of earlier environmental studies, the Executive Council (ExCo) advised, and the Chief Executive ordered, "that the HEC should be invited, without any commitment on the part of Government, to proceed with detailed site investigation and environmental impact assessment studies of an extension to Lamma Power Station for the possible construction of additional electricity generating facilities, with coal and natural gas as fuel options, the latter being the preferred option".

The ExCo decision, which was given on 31st March 1998, made reference to reports from two preceding studies: *Site Search for a New Power Station: Detailed Site Selection* and *Stage I EIA for a New Power Station, Volumes 1 & 2* prepared by ERM-Hong Kong Ltd. The latter is an approved EIA report under Section 15(1)(f) of the *EIAO* and is placed on the EIA Register as *Ref. No. EIA-130/BC.*

These two studies examined options for siting of the power station and evaluated a broad range of environmental issues and factors associated with these options, including their comparative potential impacts on air quality, water quality, ecology, noise, wastes, landscape & visual issues, land use, and historical and cultural resources. Five non-site specific issues concerning the latest power generation technologies, fuel options, regional air quality impacts, greenhouse gas emissions, and prospective co-siting with a waste-to-energy incinerator were also considered.

The *Site Search Study* concluded that an extension to Lamma Power Station was the preferred site for a new power station for both fuel options, and that it is feasible to build and operate a power station at that location without significant adverse impacts on the environment.

The outcome of the *Stage I EIA* is that the preferred fuel is natural gas and the preferred technology is combined cycle technology.

Formal notification of the ExCo decision was given by the Economic Services Bureau (ESB) to HEC on 1st April 1998. To confirm that the actual design, construction methods and operating regimes of the proposed plant will not cause adverse or unacceptable environmental impacts, a site-specific EIA study is required. HEC have commissioned ERM to determine the environmental acceptability of the proposed new power station by undertaking this study.