

### 3 *SCOPE AND OBJECTIVES OF THE EIA*

#### 3.1 *PURPOSE OF THE STUDY*

The purpose of this EIA Study is to evaluate the potential environmental impacts arising from the construction and operation of the proposed project and its related activities, develop and specify measures necessary to mitigate particular adverse impacts which are identified, and determine the environmental acceptability of the residual impacts of the overall project.

#### 3.2 *BROAD STUDY OBJECTIVES*

The main objectives of the EIA Study are:

- to describe the proposed project and associated works, together with the requirements for undertaking the proposed project;
- to identify existing and future sensitive receivers, resources, activities and land uses which may be adversely affected by the project;
- to identify, predict and evaluate the potential impacts of the project on sensitive receivers, resources, activities and land uses, including consideration of air and water quality, noise, wastes, hazards, land contamination, landscape and visual issues, and terrestrial and marine flora, fauna and habitats;
- to propose suitable mitigation measures to reduce or minimise any adverse impacts which have been identified, taking into account any associated constraints or consequential environmental implications of such measures;
- to identify, predict and evaluate the acceptability of the residual impacts of the project after mitigation, and estimate and evaluate any cumulative environmental impacts or effects to which the project may contribute;
- to identify, develop and specify methods, measures and standards to be included in the detailed design, construction and operation of the project to reduce environmental impacts to acceptable levels; and
- to design and specify environmental monitoring and audit requirements for the implementation of the project.

#### 3.3 *THE DESIGNATED PROJECTS*

The scope of the EIA Study encompasses the environmental impacts associated with the following Designated Projects as defined in the *EIAO*:

- construction and operation of a 1,800 MW gas-fired combined cycle plant at the Lamma Extension Site; and
- laying of a submarine pipeline to supply gas from a regional liquefied natural gas (LNG) terminal in Shenzhen to the Lamma Extension site.

The EIA will also assess environmental impacts along the proposed route of the new transmission cables required to supply electricity to Hong Kong Island and associated facilities and work areas. For the purpose of this study the sections of the cable route from the Lamma Power Station up to landing points in Hong Kong Island will be assessed. Further transmission network development on Hong Kong Island will be dealt with separately by HEC and appropriate Government departments, in a similar way to other HEC transmission cable projects.

The assessments of the transmission system and gas pipeline will also include information on the consideration of alternative routes and alignments.

### 3.4

#### *THE TECHNICAL SCOPE OF THE EIA*

The following technical assessments have been undertaken where appropriate for both the construction and operational phases of the power station development, transmission system and gas pipeline:

- Air Quality Impact Assessment;
- Water Quality Impact Assessment;
- Noise Impact Assessment;
- Landscape and Visual Impact Assessment;
- Waste Management Impact Assessment;
- Land Contamination Assessment;
- Ecological Impact Assessment (Aquatic and Terrestrial);
- Fisheries Impact Assessment; and
- Hazard to Life Assessment.

Detailed technical assessments in some of these areas will not be required for all components of the project (eg there are no significant air quality impacts associated with the laying of the gas pipeline). Details of the actual scope of the assessment for each project component will be provided in the relevant parts of the Report (see *Section 4* below).

Appropriate Environmental Monitoring & Audit (EM&A) requirements and plans have also been identified for each component and phase of the project.

Relevant findings and other outputs from the extensive work undertaken for the *Site Search for a New Power Station: Detailed Site Selection* and the *Stage I EIA for a New Power Station, Volumes 1 & 2* (EIAO Register Ref. No. EIA-130/BC) have also been utilised in the EIA Study.