

PROVISIONAL LOCAL VESSEL ADVISORY COMMITTEE

**Proposed 11kV Overhead Line (OHL)
Across Sor See Mun between Town Island and High Island, Sai Kung**

Purpose

1. This Paper is to seek members' views on the proposal for the installation of a 11kV electrical cable across Sor See Mun (SSM), in the form of an overhead line to supply electricity to the Addiction Treatment Centre (Operation DAWN) on the Town Island (Fu Tau Fan Chau).

Background

2. The Operation DAWN, a non-profit making organization, made an application to the China Light & Power Ltd. (CLPP) for direct electricity supply, in order to replace their in-use ageing diesel generator sets and to cater for future demands. CLPP employed consultants to study the geophysical and environmental feasibility of installing a submarine cable to serve the purpose. The study however concluded that the presence of many species of hard corals along sections of the proposed cable alignments would be an issue of major environmental concerns to the Agriculture, Fisheries and Conservation Department (AFCD) and the Environmental Protection Department (EPD).

3. As a matter of fact, AFCD considered that one of the two technically feasible landing cable locations (i.e. Pak Lap) was not acceptable from a marine conservation point of view. In essence, the cable laying works will unavoidably cause direct impact to the relatively high diversity and abundance of coral communities present at Pak Lap.

4. CLPP therefore explored other alternatives to provide the required service. Considerations were given to other options including enhancing the generator sets currently in use, the use of solar power and/or wind driven electricity generators, and the standard provision of an overhead line. CLPP finally concluded that, due to geographical constraints, space limitation and cost effectiveness, the overhead line (OHL) option is most preferable.

Marine Implications

5. The proposed OHL across the Sor See Mun channel however has considerable marine implications and therefore CLPP was tasked to carry out an assessment in this respect. CLPP appointed a consultant to conduct a study during the Summer season in 2002 to assess the marine implications of the proposal.

6. The Study concluded that the height of the tallest vessel likely to use Sor See Mun was only 24 metres and, the tallest yacht expected to use the area would not be higher than 30 metres. The Study also suggested that barges in Hong Kong of upto 50 metre air-draft would, under normal circumstances, avoid using Sor See Mun channel on ground of safe navigation. The Study therefore proposed that, the OHL proposal across the Sor See Mun with a vertical clearance of 44 metres in the middle of the channel, together with the preventive and protective measures described in paragraphs 7 and 8 below, would be acceptable. Appendix I is a figure indicating the section of the OHL across the Sor See Mun and in relation to vessels using the channel.

Preventive and Protective Measures

7. CLPP is committed to ensuring the safe design of the OHL cable circuit by installing an earth guard. This is a protective installation to protect both personnel and the system in case any external object interrupts the OHL. The earth guard will operate in such a way to trip off the power immediately. CLPP will also ensure that, in case the OHL is damaged and broken apart, the parted cable would be drawn towards the poles ashore by tension wires which will be installed purposely.

8. Additional safety measures, such as illuminated spheres will be installed on the OHL by CLPP to make the cable more conspicuous and, appropriate warning signs/notice boards will also be established at the entrances to the Sor See Mun in both directions to advise masters of vessels the existence of the OHL and its vertical height clearance.

Advice Sought

9. Members' views are sought on the proposed OHL across Sor See Mun, in particular the vertical height clearance in relation to vessels likely to use the channel.

Presentation

10. Representative from CLPP will present the paper.

Planning and Development Branch
Planning and Services Division
Marine Department
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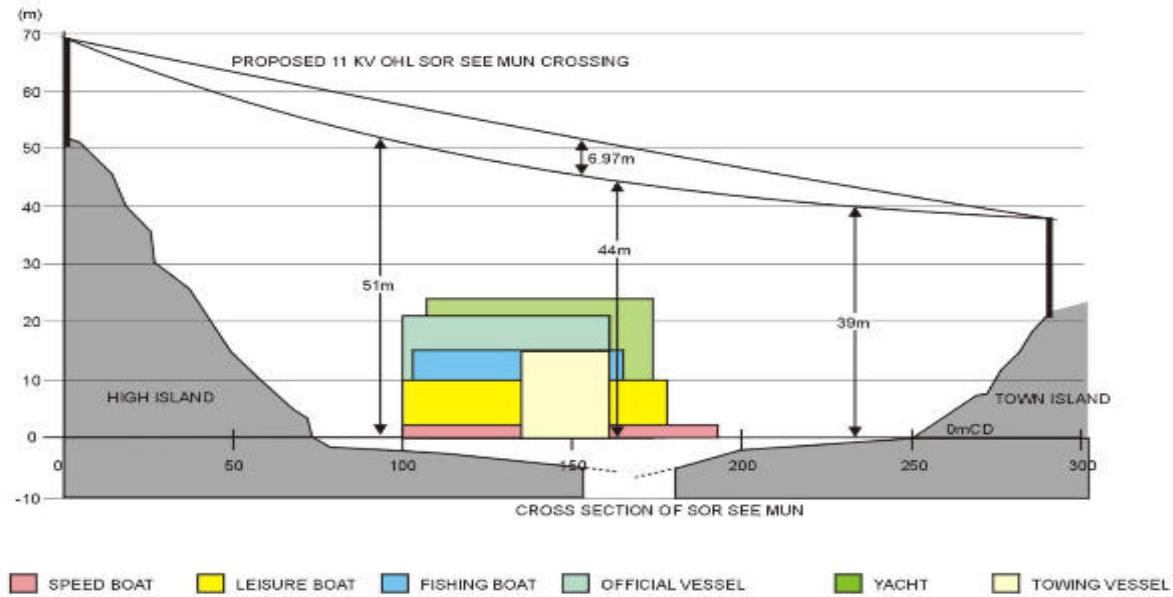


Figure 4.1

MAXIMUM HEIGHT OF RECORDED VESSELS USING SOR SEE MUN AND CHANNEL USE OF SOR SEE MUN BY THE RECORDED VESSELS

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