

**Islands District Council**  
**Paper No. IDC 123/2008**

**Proposed Gazetting under the**  
**Foreshore and Sea-bed (Reclamations) Ordinance (Cap 127)**  
**Laying of VSNL Intra Asia Submarine Cable System**

**Purpose**

The purpose of this paper is to seek Members' views on the proposed laying of the VSNL Intra Asia Submarine Cable at the 2-hectare area of foreshore and sea-bed from Deep Water Bay to offshore southeast waters of the eastern boundary of the HKSAR waters ("the Cable System").

**Background**

2. Tata Communications (Bermuda) Limited ("Tata") (formally known as Videsh Sanchar Nigam Ltd) proposes to install a cable of approximately 6,480 km in length, consisting of segments connecting Singapore to the existing TGN Pacific Submarine Cable in the Pacific Ocean and, in turn, connecting to Toyohashi in Japan. There are three branching units which will connect to Vung Tau in Vietnam, Deep Water Bay in HKSAR and Ballesteros in the Philippines. In order to cope with the rapid development in the telecommunication industries in Hong Kong and to meet local demand, this Cable System will provide additional telecommunications services abroad. In addition, this Cable System will reduce the risk of disruption of telecommunication services; for example, the communication network between Hong Kong and overseas was interrupted during the Hengchun earthquake in Taiwan in 2006.

3. This total length of the proposed cable in HKSAR waters is approximately 40 km. The total area affected is approximately 2 hectares, including the area of foreshore and sea-bed from Deep Water Bay to offshore southeast waters. The proposed cable will leave Hong Kong waters through the eastern side of Hong Kong boundary.

4. Having consulted with relevant Government departments (including Agriculture, Fisheries and Conservation Department, Environmental Protection Department, Civil Engineering and Development Department, Planning Department, Southern District Office, Sai Kung District Office and Islands District Office), Lands Department considered that before approval on the grant of the relevant licence, Tata has to obtain the authorization of

the cable laying works from the Chief Executive in Council under the Foreshore and Sea-bed (Reclamations) Ordinance (Chapter 127) (“the Ordinance”).

5. Lands Department will be responsible to arrange the gazettal of the Cable System under the Ordinance. No adverse comments have been received during the departmental circulation.

6. Please refer to the Attachment prepared by the environmental consultant for the details of the Cable System.

### **Consultation**

7. Members’ comments and suggestions are invited for the proposed gazetting of the Cable System.

District Lands Office/Hong Kong West and South, Lands Department  
September 2008

**Proposed Gazetting**  
**Laying of VSNL Intra Asia Submarine Cable System (“The Cable System”)**

**1. Purpose**

Tata Communications (Bermuda) Limited (“Tata”) has applied to the Government for the grant of the licence for the laying of VSNL Intra Asia Submarine Cable System. Lands Department is responsible for arranging the gazetting under the Foreshore and Sea-bed (Reclamations) Ordinance (Cap 127) (“the Ordinance”). No adverse comments have been received during departmental circulation. The proposal is now submitted for Members’ comments.

**2. Background of the Cable System**

Tata (formally known as Videsh Sanchar Nigam Ltd) proposes to install a cable of approximately 6,480 km in length, consisting of six segments connecting Singapore to the existing TGN Pacific Submarine Cable in the Pacific Ocean and, in turn, connecting to Toyohashi in Japan. There are three branching units which will connect to Vung Tau in Vietnam, Deep Water Bay in the Hong Kong SAR (HKSAR) and Ballesteros in the Philippines.

The Cable System is supported by the Office of the Telecommunications Authority. It will provide Hong Kong with international telecommunications services and to meet the growing demand on network and telecommunications.

**3. Environmental Impact**

In August 2007, Tata has assessed the potential project impacts on water quality, marine ecology and fisheries, and has recommended appropriate mitigation measures to minimize those impacts.

The consultant of Tata recommended the following mitigation measures:

- (a) A water quality monitoring programme will be conducted to ensure no adverse impacts on water quality, marine organisms and fisheries.

- (b) Cable laying works will not be carried out at the Deep Water Bay Beach during the bathing season (i.e. 1 April to 31 October).
- (c) All the works near the Deep Water Bay Beach shall strictly comply with the mitigation measures and conditions as required by Leisure and Cultural Services Department (“LCSD”). See Appendix 1 for details of the mitigation measures and conditions.
- (d) Divers will be involved for cable laying works near the Deep Water Bay Beach. For cable farther away from the beach, cable will be laid by injector. The maximum speed of the cable laying by injector will not exceed 1 km/hr.

#### **4. Laying of Cable and Gazetting under the Ordinance**

Lands Department has been processing the application for the licence for the laying of the submarine cable.

The information of the Cable Scheme has been circulated among relevant Government departments and no adverse comments have been received. Departmental comments have been considered and have been addressed in the design and future cable-laying works as appropriate. Lands Department considered that before approval could be given on the grant of the licence, Tata has to obtain the authorization of the cable laying works from the Chief Executive in Council under the Ordinance.

Lands Department will be responsible to arrange the gazettal of the Cable System and no adverse comments have been received during department circulation.

#### **5. Proposed Submarine Cable**

##### Proposed Submarine Cable

- (a) Dimension of the Proposed Submarine Cable : Diameter of about 100mm and its total length of about 40 km in Hong Kong waters.
- (b) Method of Installation : Cable burial will be undertaken by jet ploughing into the seabed by an injector and divers. The cable is buried to a trench of a maximum depth of 5m and of width of about 0.5 m

- (c) Period of Installation : The Reclamation Scheme will be conducted in phases, and is expected to be completed within six weeks.

Please see Appendix 2 for the alignment of the proposed cable.

## **6. Conclusion**

Various technical aspects regarding the design and installation of the Cable System have been thoroughly studied, and the engineering, environmental and public safety aspects have also been examined to the satisfaction of relevant Government departments.

As recommended by Lands Department, comments on the Cable System shall be sought from the District Council before formal gazetting. In addition, under Section 6 of the Ordinance, any person who considers that he has an interest, right or easement in or over the foreshore and sea-bed may, by notice in writing delivered to the Director of Lands before the expiration of such time begin not less than 2 months as shall be specified in the notice, object to the proposed cable laying works.

### **Appendices**

1. Mitigation Measures and Conditions to be Complied with by Tata Communications (Bermuda) Limited and their consultant ERM for works at Deep Water Bay Beach
2. Plan showing the Proposed VSNL Intra Asia Submarine Cable System

Environmental Resources Management Ltd.

Project Development Consultant of Tata Communications (Bermuda) Limited.

September 2008

## **Appendix I**

### **Mitigation Measures and Conditions to be Complied with by Tata Communications (Bermuda) Limited and their consultant ERM for works at Deep Water Bay Beach**

1. To seek endorsement from the Southern District Council on the cable laying work.
2. To ensure no sand lost during the construction.
3. To conduct the work only in off peak swimming season, i.e. from 1 November to 31 March.
4. In the shallows and offshore, marshals to ensure the public remains at a safe distance and outside the general works area. On shore the work area to be clearly demarcated using warning tape and marshals to ensure the public are kept clear.
5. Trenching works to take place during the day-time period, ie 07:00 am to 6:00 pm. Security guards to stay overnight on site and the open section of trench clearly to be demarcated by means of warning tape and lights, Legible notices to be put on site to show the commencement and completion dates of the land works, daily working hours and emergency contact person and number.
6. When the cable is to be installed in the soil ground (sand) or underlying non cohesive sediments, the cable should be buried with a target depth of -2m, transitioning to 1m at the Low Water Mark. If the cable is to be buried in hard (cohesive) ground, the cable should be installed inside a trench of 300mm wide and 400mm deep.
7. The cable should be protected by a cast iron articulated pipe in order to prevent the public from touching the cable directly.
8. A tree survey should be conducted prior the construction to identify the number, species, health conditions and size (diameter) of trees. The tree survey report should submit to LCSD at least 10 days before the construction activities. The applicant should also comply with all the conditions stipulated by LCSD for tree protection.
9. The excavation works in the vicinity of the utilities or trees (under the drip line) should be carried out by hand-held equipment with the utmost care to minimise the risks to their structure / roots.

10. The beach should be photographed prior to the commencement of the works and after the restoration of the site in order to assure the beach would be reinstated to the pre-works conditions.
11. The machinery employed should be inspected prior to work commencing on the beach then at least daily thereafter to ensure the waters and beach would not be polluted with oil/grease/fuel. Oil absorbent materials should be readily placed on site and would be applied immediately during oil leakage incidents to make sure the swimming zone would not be affected.
12. In order to minimise the risk of disturbance to the existing utilities, the applicant should confirm the location of all the utilities within the works area with the relevant departments, for example, but not limited to, Drainage Services Department, Architectural Services Department, Water Services Department and other departments/companies.
13. Water should spray around the trenching areas to keep the “dust” down.
14. In order to minimise the water quality impacts due to the inshore trenching works, silt curtain should be placed on both sides of the trench. The silt curtain should be long enough to cover the works area and would be moved with the works area until passing the shark net.
15. In addition to install the silt curtain, water quality monitoring (suspended solids and turbidity) should be carried before and after the inshore works.
16. A Risk Assessment Report should be provided by the applicant to LCSD and ASD at least 2 weeks before the commencement of the works. The assessment would identify risks of both land works and inshore works and propose the protective measures to minimise the risks.
17. To enhance and upgrade the landscaping at Deep Water Bay Beach after the completion of land and inshore works through plantings in the estimated amount from HK\$80,000 to HK\$100,000.

