

**FOR IMMEDIATE RELEASE**

**17 September 2012**

**MEDIA RELEASE**

**Singapore Power builds S\$2 billion next-generation power infrastructure**

***Five construction companies awarded contracts for SP's largest project to date***

1. Singapore Power today announced a S\$2 billion Transmission Cable Tunnel Project to ensure that households and businesses in Singapore continue to enjoy reliable, secure and quality power supply to meet future demand. Two cross-island cable tunnels will be constructed 60 metres underground to provide a long-term solution to the on-going upgrading and renewal of the power cable grid infrastructure in Singapore.

2. The deep tunnels are designed to overcome the existing congestion of underground space and utility services in Singapore. They will facilitate faster and more efficient maintenance and replacement of cables, thereby reducing the frequency of road-digging works and thus minimising inconvenience to the public in the long run.

3. Singapore Power will award six contracts to five construction companies for its largest undertaking to date. From end of this year till 2018, they will build the North-South and East-West tunnels, measuring a total of 35 km in length, to house extra-high voltage electricity transmission cables. The companies are:

- Hyundai Engineering and Construction Co Ltd
- Nishimatsu Construction Co Ltd & KTC Civil Engineering and Construction Pte Ltd Joint Venture
- Obayashi Corporation
- Samsung C & T Corporation, and
- SK Engineering & Construction Co Ltd.

4. Mr. Wong Kim Yin, Group Chief Executive Officer, Singapore Power said, "Singapore's power supply is among the most reliable in the world. With the city's rapid growth and the corresponding increase in power demand, we are challenged to sustain this level of reliability and cost-effectiveness in achieving this performance."

5. "The deep cable tunnels will form the backbone of Singapore's power supply, serving future generations effectively, securely and with minimum inconvenience. It will translate to improved standards of living and performance for our residential, industrial and commercial consumers," Mr Wong added.

6. The tunnels will be located under major public roads and will not encroach into any private properties. Along with the tunnels, there will be 14 utility buildings built to house ventilation facilities and equipment, and provide access to the tunnels. During the construction phase, Singapore Power will work closely with government agencies and community partners to minimise inconvenience to the public. These



include steps to control noise, minimise dust, dirt and congestion, and to maintain environmental safety.

7. Members of the public can find out more about the project from its website <http://cabletunnel.singaporepower.com.sg> from 1 October 2012.

*(Please refer to Appendix 1 to 3 for more details on the project and contractors)*

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### **About Singapore Power**

Singapore Power (SP) Limited is a leading energy utility company in Asia Pacific. It owns and operates electricity and gas transmission and distribution businesses in Singapore and Australia. Over a million industrial, commercial and residential customers in Singapore benefit from SP's world-class transmission, distribution and market support services.

## Factsheet on Cable Tunnel Project

### A. Tunnel specifications

- Cost of project: S\$2 billion
- North-South tunnel: 18.5km long from Gambas to May Road
- East-West tunnel: 16.5km long from Ayer Rajah to Paya Lebar
- Depth: 60 metres underground
- Tunnel internal diameter: 6 metres
- Construction: End 2012 to 2018
- The 18 Shafts are located at:

<b>Permanent Shafts and Utility Buildings</b>	<b>Temporary Shafts*</b>
<ul style="list-style-type: none"> <li>▪ Gambas</li> <li>▪ Sembawang</li> <li>▪ Mandai</li> <li>▪ Tagore</li> <li>▪ Ang Mo Kio</li> <li>▪ Marymount</li> <li>▪ Ayer Rajah</li> <li>▪ North Buona Vista</li> <li>▪ Holland</li> <li>▪ Dunearn</li> <li>▪ Rangoon</li> <li>▪ May Road</li> <li>▪ Kallang</li> <li>▪ Paya Lebar</li> </ul>	<ul style="list-style-type: none"> <li>▪ Mandai</li> <li>▪ Thomson PIE</li> <li>▪ Holland</li> <li>▪ Airport Road</li> </ul>

*\*Temporary Shafts will be built to facilitate the construction of the tunnels and will be backfilled when the tunnels are completed.*

### B. During construction phase:

**Measures to minimise inconvenience to public; in accordance to strict standards set by the National Environmental Agency and other authorities**

- Noise mitigating measures
  - Noise barriers will be installed at strategic locations to further reduce construction noise impact
  - Site activities and layout are planned as such that they take place away from residential areas
  - Use of low-noise machinery and noise enclosures
- Blast control measures

- Controlled blasting will be restricted to twice daily from 12.00pm to 3.00pm
- Vibration levels at boundaries of sites and sensitive locations will be monitored
- All blasting activities have to be approved and permitted by the Singapore Police Force
- Safety and Environmental initiatives
  - Bare earth surface will be reduced
  - Earth stockpile will be covered, where necessary
  - Washing bays will be set up for all vehicles moving in and out of the construction sites
  - Road surfaces will be wet regularly as a dust control measure
  - Water treatment plants will be set up at sites to ensure all outgoing water has been treated
  - Vector control will be conducted regularly
- Traffic management
  - Traffic impact assessment will be made prior to construction works
  - Signage and traffic marshals will be provided to manage traffic
  - Construction traffic movements will be planned and controlled
  - Traffic management measures will be continuously monitored and enforced

## Appendix 2

### **About the Contractors**

#### **Hyundai Engineering & Construction Co., Ltd**

Hyundai Engineering & Construction Co., Ltd., the recognised leader of the Korean construction industry, was established in 1947 by Hyundai Group's revered founder, Chung Ju-Yung. It has continued to grow ever since, playing a significant role in boosting Korea's economic development while winning a world-wide reputation for itself and the nation. The company's history is one of innovative technologies amassed from its activities throughout the world. Its expertise, experience, and leadership in all construction areas – including civil, building, power & energy, and plants works – cannot be equaled. And in April 2011, Hyundai E&C started a new chapter in its history by becoming a member of the Hyundai Motor Group. This move will energise its evolution into a "global comprehensive engineering leader" through continuous investments as a core growth engine of the Group. In ENR 2010 report, Hyundai Engineering & Construction was positioned as 23 among International Contractors worldwide, and was 2<sup>nd</sup> Power market contractor worldwide.

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#### **Obayashi Corporation**

Since its founding in 1892, Obayashi Corporation has drawn on its technology and integrity to provide customers with high-quality construction services and earn their trust.

Our goal is to carry on this legacy and to become a leading Earth-friendly company. We at Obayashi will not only contribute to our customers' business, but also respond to social needs such as safety, peace of mind, and environment-consciousness, by providing high-function and high-added-value construction services.

Website address: <http://www.obayashi.co.jp/english/>

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#### **NISHIMATSU-KTCCE Joint Venture**

The partners of the Joint Venture of Nishimatsu Construction Co., Ltd. and KTC Civil Engineering & Construction Pte Ltd have previously worked together on numerous projects and decided to combine their respective strengths to work as a JV in infrastructural projects commencing with the cable tunnels for Singapore Power.

With its humble beginnings in 1874 in Japan in the railway subcontracting business, **Nishimatsu Construction Co., Ltd.** has grown to its present state with expertise in civil engineering projects like highways, tunnels for roads, rails and utilities, viaducts, dams, airports, plant facilities and building projects like office buildings, shopping centres, universities, residential apartments, factories, incinerators, hotels and other similar institutions. The Singapore Branch commenced operations in year 1980 and



has been involved in projects like UOB Plaza I, Bugis Junction, Causeway Point, Paragon, Valley Park, Valley Point, LTA's Bishan Depot, City Hall Station, Lavendar and Bugis Stations and the bored tunnels connecting them; bored tunnels between Changi Airport and Expo Stations; Clarke Quay Station and bored tunnels and the Stations at Paya Lebar, Mountbatten, Dakota, Stadium and Nicoll Highway, including the connecting tunnels.

KTC Group Holdings (KTC) has grown from 1988 to a workforce of 2,000 staff and a fleet of more than 500 heavy machinery & dump trucks in both Singapore and Indonesia. Over the years, KTC has successfully been positioned at the centre of the civil engineering industry's best practices. Involvement in many challenging projects including the Integrated Resorts has spurred the firm's ongoing belief in delivering quality work in a timely manner.

In Singapore, KTC's devotion to excellence and growth has led to our flagship company **KTC Civil Engineering & Construction Pte Ltd** being included in Singapore's Building & Construction Authority (BCA)'s Contractors Registry permitting KTC to tender for all public sector civil engineering projects of unlimited contract value.

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### Samsung C&T Corporation

Founded in 1938 as a member of the prestigious Samsung brand, **Samsung C&T Corporation** has grown into a leading EPC contractor and developer in residential, infrastructure, water resources, power, oil and gas plants. There are four major business sectors covering the Building, Civil Engineering, Plant and Housing Works. Over the years, Samsung C&T Corporation has successfully completed many renowned projects ranging from high-rise buildings, healthcare, fast-track industrial, residential, roads, MRT, reclamation, bridges, ports, LNG terminals, power plant to nuclear power plant. Some of the iconic projects include the Burj Khalifa, Pentras Tower, Yeongjong Bridge, Incheon Airport, Pusan Port and Braka Nuclear Power Plant.

Currently, Samsung C&T Corporation employs more than 10,400 employees in 133 overseas offices in 50 countries. Being the South East Asia Regional Headquarters in Singapore, Samsung C&T Corporation had its first entity in the early 1990s. Ever since, it has become one of the prominent players in the local market with an impressive track-records of 15 on-going projects on hand. Some of the civil engineering projects under construction are Marina Coastal Expressway C483 & C486, Downtown Line C908, North South Line C156, Downtown Line C922 & 923, LNG Terminal, Pulau Ayer Merbau Reclamation. For more information, please refer to our company's website.

Website address: <http://www.samsungcnt.com>

### SK Engineering & Construction

Since its founding in 1977, SK E&C has continuously pursued stability and growth based on its top-notch technical expertise and outstanding management capabilities

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in various areas of construction including national infrastructure, housing, plants, eco-friendly incinerators and nuclear power plants, as well as its U-business that includes wireless mobile communication equipment. Through the years SK E&C has been evolving and developing to create **“Build the Great, Great Life, Great World.”** In addition, **SK E&C continues to build trust and reputation as the global top-tier company by achieving balanced growth, building efficient management system, forecasting global talent, and establishing a dynamic corporate culture.**

Furthermore, SK E&C is building its image as a global top-tier company with TSP (Total Solution Provider) business model, offering complete solutions from the earliest planning & development phase to the operation & maintenance phase by maximizing synergy with the affiliates in the SK Group. SK E&C will efficiently manage targets and plans of each business, and ultimately realise its vision of becoming a **“Global Top-tier City Developer and Infrastructure Builder.”**

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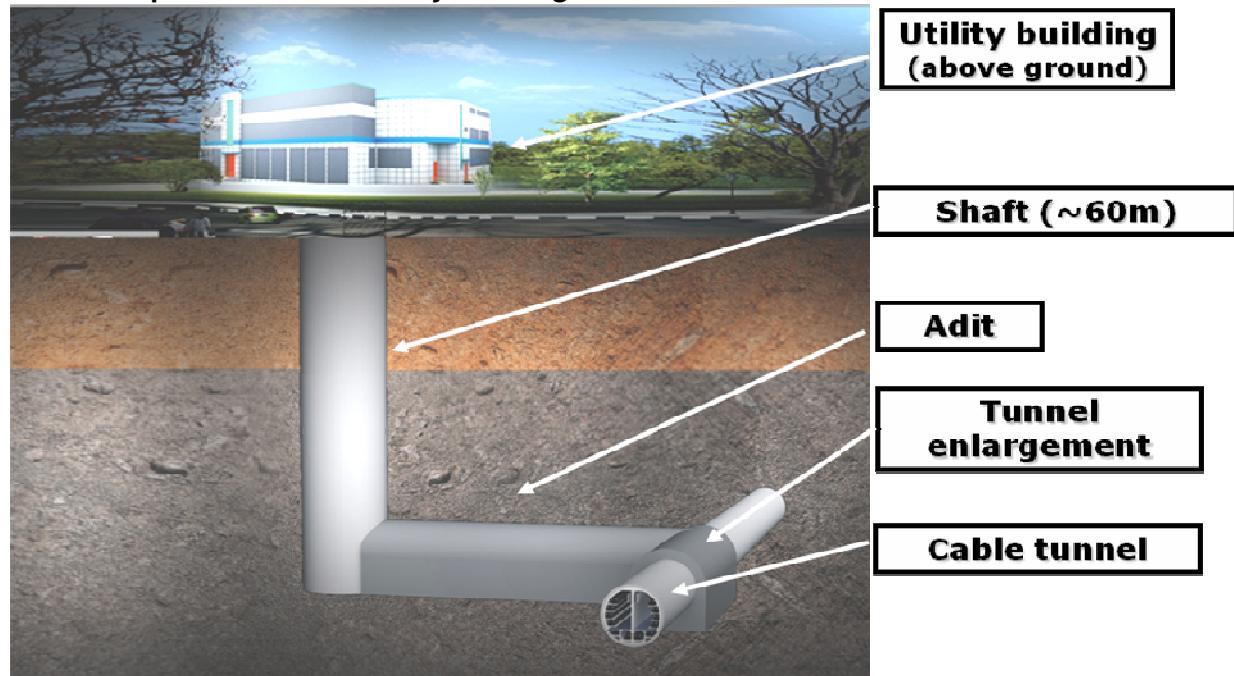
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### Appendix 3

#### Tunnel routes



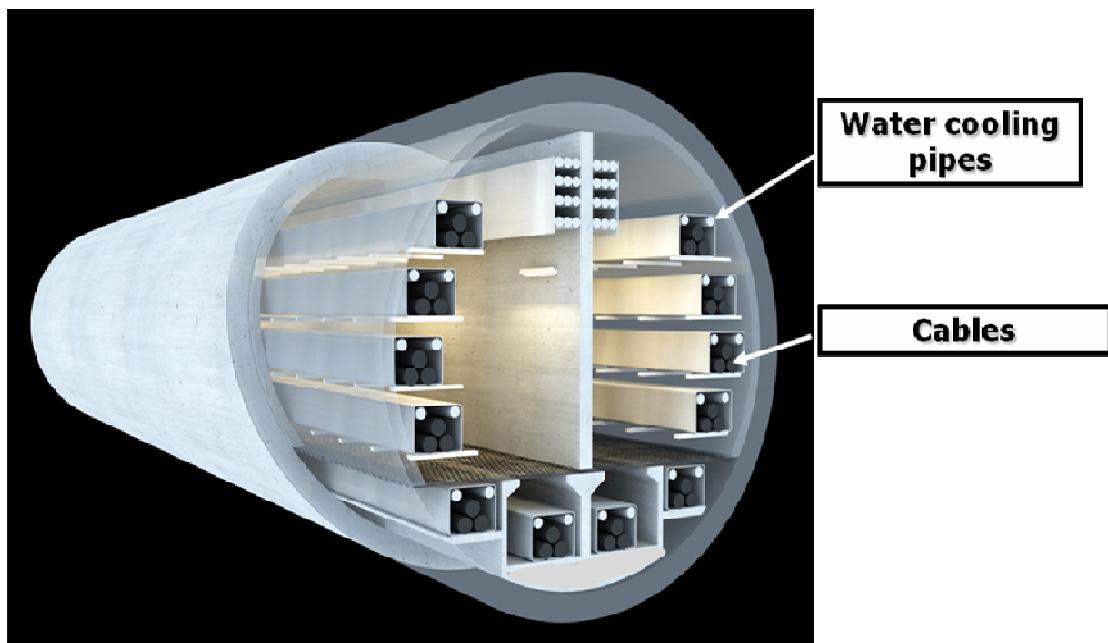
#### Artist's impression of the utility building and shaft





**SINGAPORE  
POWER**

Cross-section of the cable tunnel



**Water cooling  
pipes**

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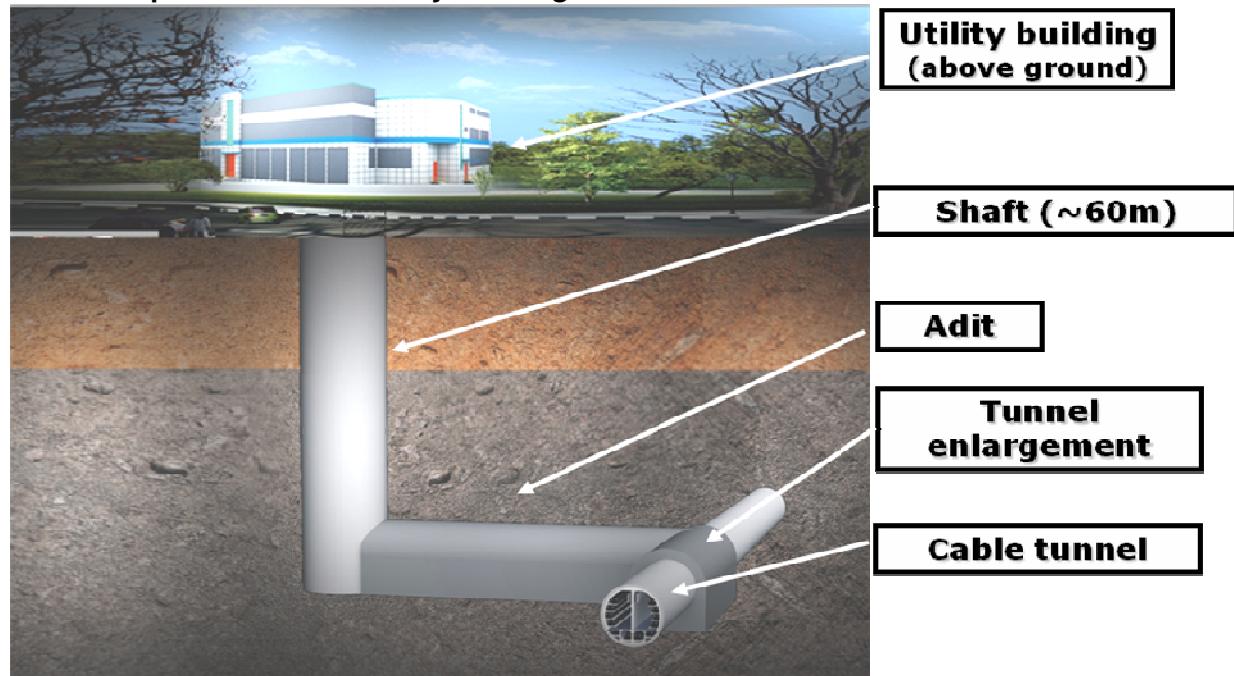
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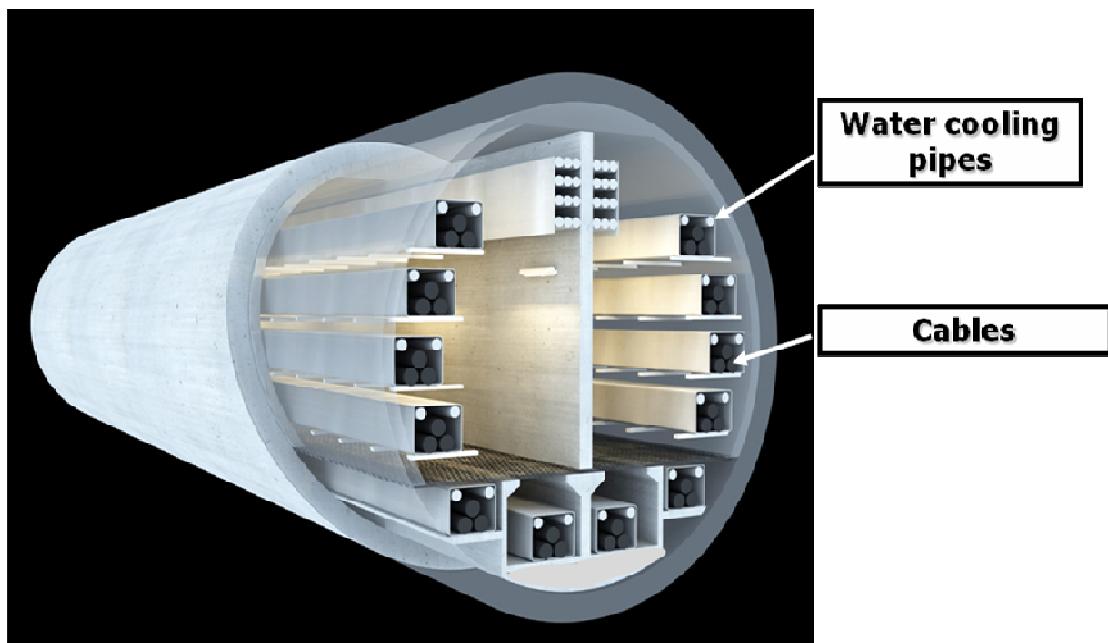
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**SINGAPORE  
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Cross-section of the cable tunnel



**Water cooling  
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