

## PRESS RELEASE

### **PUB & NEA to call tenders for DTSS Phase 2 and IWMF projects**

*'Water-Energy-Waste Nexus: The Singapore Journey' showcase was also unveiled on the opening day of SIWW & CESS 2016*

**Singapore, 11 July 2016** – PUB, Singapore's national water agency and the National Environment Agency of Singapore (NEA), will be calling tenders from this year onwards for the Deep Tunnel Sewerage System (DTSS) Phase 2 and the Integrated Waste Management Facility (IWMF) to spearhead the implementation of Singapore's world-class used water and solid waste management solutions.

DTSS Phase 2, which includes enhanced deep tunnels with advanced sensing and maintenance features, associated link sewers, Tuas Water Reclamation Plant (TWRP) and integrated NEWater factory, is estimated to cost some S\$6.5 billion. With a total treatment capacity of 800,000 cubic metres per day, TWRP will also be the largest membrane bioreactor facility in the world. Currently at the detailed design milestone of the project, PUB will be calling for consultancy and construction tenders for the various project components in phases beginning from Q3 2016. These include professional engineering services for the detailed design of the TWRP and link sewers. Other tenders will cover the design and construction of deep tunnel sewers, associated shafts and manholes.

IWMF, equipped with state-of-the-art technologies, will be able to effectively process various waste streams which include incinerable waste, household recyclables collected under the National Recycling Programme (NRP), source-segregated food waste and dewatered sludge from the TWRP. The IWMF will be designed with an incineration capacity of 5,800 tonnes per day and is estimated to cost S\$3.0 billion. NEA will be calling tender to engage professional engineering services to assist in project management, supervision of the construction works and commissioning of the IWMF. Tenders will also be called to appoint Engineering, Procurement and Construction contractors to design and construct the IWMF.

## **Driving Synergies through TWRP and IWMF**

One of the highlights of both projects, is the co-location of PUB's TWRP with NEA's IWMF, which marks Singapore's first initiative to integrate used water and solid waste treatment processes.

“As one of the world's most anticipated water infrastructure projects, DTSS Phase 2 continues to harness advanced technologies to enhance Singapore's used water management system and ensure its water sustainability for generations to come,” said **Mr Yong Wei Hin, Director, DTSS Phase 2, PUB**. “The co-location of TWRP and IWMF is also the first project of its kind in the world to be planned from ground-up, and is designed to bring about a multitude of synergies harnessing the Water-Energy-Waste Nexus while optimising Singapore's land-use”.

A good example of the synergies is the co-digestion of food waste with used water sludge at TWRP to increase the yield of biogas production. Biogas will be utilised at IWMF to improve steam quality and give rise to higher overall plant thermal efficiency. This will increase electricity production and enable IWMF to export more to the Grid while allowing both facilities to be energy self-sufficient.

“The co-location of the TWRP and IWMF marks a new chapter in the way used water and solid waste are managed in land-scarce Singapore. Leveraging the use of advanced technologies and project innovations, the two facilities will be able to maximise energy and resource recovery efficiencies while minimising their environmental and land footprint,” said **Mr Joseph Boey, Project Director, IWMF, NEA**. “The IWMF plays an integral part in meeting Singapore's future waste management needs, and ensuring long term environmental sustainability.”

### ***Water-Energy-Waste Nexus: The Singapore Journey Showcase***

PUB and NEA also unveiled a joint showcase on the opening day of the Singapore International Water Week (SIWW) and CleanEnviro Summit Singapore (CESS) 2016. Titled *Water-Energy-Waste Nexus: The Singapore Journey*, the showcase is a physical representation of the DTSS Phase 2 and the IWMF, and demonstrates Singapore's vision in integrated solutions designed to solve complex water and environmental sustainability challenges such as limited land space, energy and resource recovery.

The *Water-Energy-Waste Nexus: The Singapore Journey* Showcase at City Solutions Singapore is located on Expo Hall F, Basement 2, Sands Expo and Convention Centre. The DTSS-IWMF Business Forum will take place on 13 July 2016 (Wednesday) from 9:30am to 12:00pm, also located at Expo Hall F, Basement 2 of Sands Expo and Convention Centre.

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### **About PUB**

PUB is a statutory board under the Ministry of the Environment and Water Resources. It is the water agency that manages Singapore's water supply, water catchment and used water in an integrated way.

PUB has ensured a diversified and sustainable supply of water for Singapore with the Four National Taps (local catchment water, imported water, NEWater, desalinated water).

To provide water for all, PUB calls on all to play our part to conserve water, keep our water catchments and waterways clean and build a relationship with water so we can enjoy our water resources. If we all play our part, we can have enough water for all our needs – for industry, for living, for life.

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### **About National Environment Agency**

Formed on 1 July 2002, the National Environment Agency (NEA) is the leading public organisation responsible for improving and sustaining a clean and green environment in Singapore. The NEA develops and spearheads environmental initiatives and programmes through its partnership with the People, Public and Private sectors. It is committed to motivating every individual to take up environmental ownership and to care for the environment as a way of life.

By protecting Singapore's resources from pollution, maintaining a high level of public health and providing timely meteorological information, the NEA endeavours to ensure sustainable development and a quality living environment for present and future generations. For more information, please visit <http://www.nea.gov.sg/>.

### **About World Cities Summit, Singapore International Water Week, and CleanEnviro Summit Singapore**

WCS, SIWW and CESS will be held concurrently from 10-14 July 2016 at the Sands Expo and Convention Centre, Marina Bay Sands. The three events provide a unique integrated global platform for government and industry leaders to share solutions for sustainable urban development and the latest innovations in water and clean environment solutions. Exhibitors and participants would be able to explore synergies, network and forge partnerships with a wider range of global industry leaders, policy-makers and experts. Together, the three events showcase global thought leadership in sustainable development. For more information, visit: [www.worldcityssummit.com.sg](http://www.worldcityssummit.com.sg), [www.siww.com.sg](http://www.siww.com.sg), [www.cleanenvirosummit.sg](http://www.cleanenvirosummit.sg)

*Please refer to the DTSS-IWMF fact sheet for more details of the facilities.*

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