

## JURONG ISLAND HOME TO LEADING GLOBAL CHEMICAL COMPANIES



### JURONG ISLAND – THE HEART OF SINGAPORE’S ENERGY AND CHEMICALS INDUSTRY.

Jurong Island is the cornerstone of Singapore’s energy and chemicals industry and home to a vibrant portfolio of more than 100 leading global petroleum, petrochemical and specialty chemical companies.

Developed by JTC, Jurong Island boasts a set of seamlessly integrated infrastructure solutions, and one of which is a network of common pipelines which enables companies to buy and sell feedstock and products literally over the fence, as the output of one plant is the raw material of the neighbouring plants. This saves time and transportation costs as well as reduces the risk of spillage and contamination.

A comprehensive host of shared third party utilities and services are also readily available on the island. With its dedicated “plug and play” infrastructure, companies are able to enjoy cost savings and at the same time build synergy through product integration.



**Breaking New Ground**

### **Jurong Island Version 2.0.**

In a bid to enhance Jurong Island's competitiveness and spearhead next phase of growth for the chemicals industry, JTC is working hand in hand with other government agencies including the Economic Development Board (EDB), National Environment Agency (NEA) and the Energy Market Authority (EMA) on the Jurong Island version 2.0 (Jlv2.0) initiative. The Jlv2.0 masterplan aims to develop and implement innovative system-level solutions in order to overcome the challenges of limited resources for land, energy and raw materials.

Jlv2.0 encompasses a thorough review of five core areas – energy, logistics and transportation, feedstock options, environment and water. The initiatives include system level optimisation of valuable resources like energy, water and land and integrated innovative solutions such as tapping on waste heat to power productive processes.

Jlv2.0 will further reinforce Jurong Island's position as an innovative platform for the development and demonstration of future-ready solutions that are set to transform the chemicals industry. With Jlv2.0 in place, the companies located on the island can look forward to enjoying enhanced energy efficiency and overcoming resource limitations on Jurong Island.

### **Jurong Rock Caverns**

Even as the amalgamation of the 7 small islands into what is now the Jurong Island was taking place, demand for industrial land continued to be a constant challenge. JTC had to dig deep and break new ground - literally, and the Jurong Rock Caverns (JRC) was conceptualised.

When ready in 2014, it will be Singapore and South-east Asia's first underground hydrocarbon storage facility to meet the increasing demand for storage capacity by the petrochemicals cluster of companies on the island. By constructing the JRC, JTC has been able to

free up to 60 ha of surface land space (the equivalent of land needed for 6 petrochemical plants) for higher value-added projects.

Located 130 metres below the seabed of Banyan Basin on Jurong Island, the JRC will store liquid hydrocarbons such as crude oil, condensate, gas oil and naphtha. Phase One of the JRC project comprises five caverns and will provide approximately 1.47 million cubic metres of oil storage space, equivalent to approximately 9 million barrels or 600 Olympic-sized pools. The first two caverns under Phase One will be completed this year and the operator to manage, operate and maintain the first phase of the JRC will come on board by mid this year.

### **New Developments on Jurong Island**

INFINEUM, a UK-based joint-venture between ExxonMobil and Shell, broke ground in April 2012 for its Salicylate Plant. The US\$150 million facility is the company's second Salicylate plant globally, with its sister plant located in France. The facility is slated for start-up in 4Q 2013.

LANXESS broke ground for its new neodymium-based performance butadiene rubber (NdPBR) plant in September 2012. The German specialty chemicals company expects to invest approximately S\$317 million in the 140,000 metric tons per annum facility which will be the largest of its kind globally. The facility will serve the growing market for "Green Tires" and is expected to start up in the first half of 2015.

TUAS POWER officially opened the S\$2 billion Tembusu Multi-Utilities Complex (TMUC) in February 2013. The TMUC is a one-stop solutions centre that provides an integrated suite of utility services, management of industrial waste to achieve economies of scale for industries in Tembusu. In line with customers' demands, the TMUC will be developed in stages to produce 900 ton/hr of steam and 160 MW of electricity when fully completed by 2017.