

CB(1)401/12-13(01)

# Natural Gas Supply to CAPCO/CLP

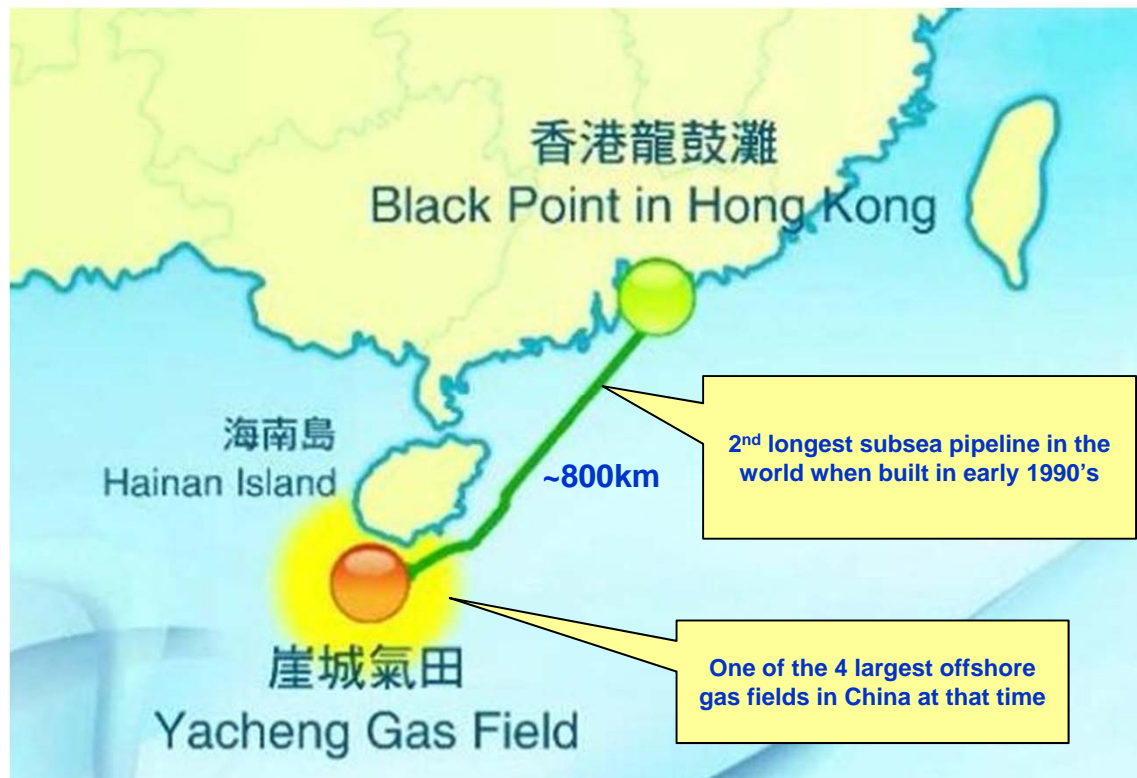
An Introduction to LegCo Panel on Economic Development  
8<sup>th</sup> January 2013

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## CLP Pioneered Gas-fired Power Generation in Hong Kong in 1996



**Black Point Power Station**

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## Energy MoU signed with National Energy Administration

- 3 sources of new natural gas supply identified to be pursued:
  - Second West-East Natural Gas Pipeline (WEPII)
  - A new Liquefied Natural Gas Terminal in Shenzhen
  - New gas supplies from the South China Sea



The Energy MoU signed in 2008 ensured long term clean energy supply to Hong Kong

# The Second West-East Gas Pipeline – the earliest available gas supply to Hong Kong to sustain gas-fired power generation



## Second West-East Gas Pipeline

Length	<ul style="list-style-type: none"> <li>• Approx. 9,000km, the world's longest gas pipeline</li> <li>• 1 truck line &amp; 8 branches</li> <li>• Cover 15 provinces &amp; regions including Hong Kong</li> </ul>
Serving	<ul style="list-style-type: none"> <li>• 500 million people</li> </ul>
Capacity	<ul style="list-style-type: none"> <li>• 30 billion cubic metres annually</li> </ul>



Source: PetroChina website



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## Black Point Power Station – New Gas Receiving Station & Plant Modifications



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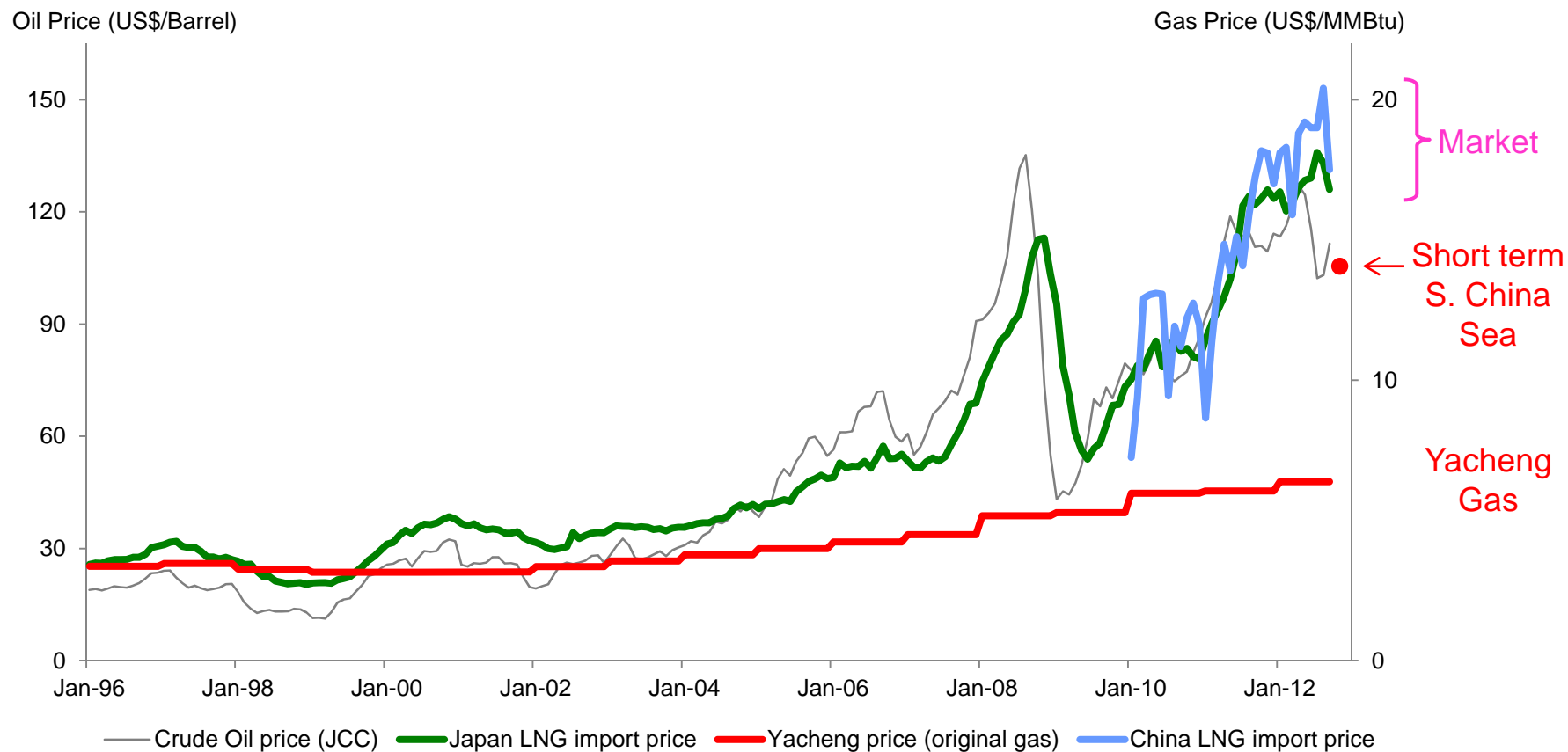
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## Gas Supply Agreement (GSA) for WEPII Gas

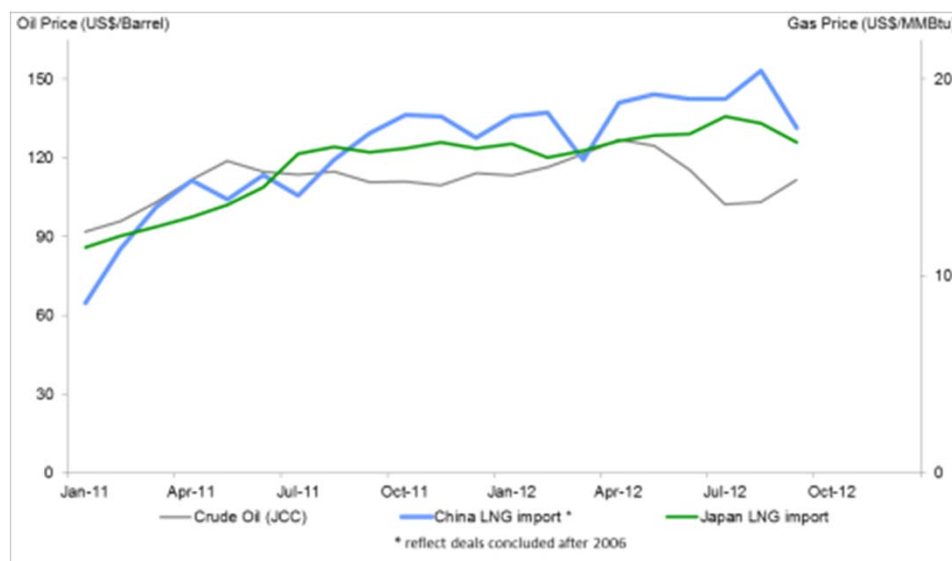
Parties	<ul style="list-style-type: none"> <li>▪ PetroChina International Company Limited (PCI)</li> <li>▪ CAPCO</li> </ul>
Terms	<ul style="list-style-type: none"> <li>▪ 20 years duration from 2013</li> </ul>
Price	<ul style="list-style-type: none"> <li>▪ Clear and transparent pricing mechanism</li> <li>▪ Contract Price consists of following components:                             <ul style="list-style-type: none"> <li>a) A commodity element, reflecting cost of gas imported from Central Asia to China, in which typically moves in line with prices of oil</li> <li>b) Transportation element, reflecting cost of pipeline transportation charge for taking gas from the border in Xinjiang to Hong Kong</li> <li>c) Applicable taxes and duties and administration costs</li> </ul> </li> </ul>
Government's scrutiny	<ul style="list-style-type: none"> <li>▪ Scrutinizing GSA terms and its implementation</li> </ul>

# Gas Price Trend



CLP Gas Prices : Yacheng ~\$6 ; Short term South China Sea ~\$14; Market ~\$18-20

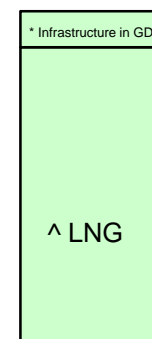
# WEPII Gas Price Competitiveness



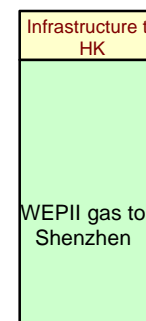
**Comparison of LNG Import Prices to China and Japan versus Crude Oil Price**

## End Users - Cost Estimates (For illustration purpose at US\$100/Barrel crude)

### Guangdong



### Hong Kong



\* Referencing Dapeng LNG terminal  
^ 2012 average import price adjusted to US\$100/Barrel crude (deals concluded after 2006)

## Comparison of Cost Estimates to End Users

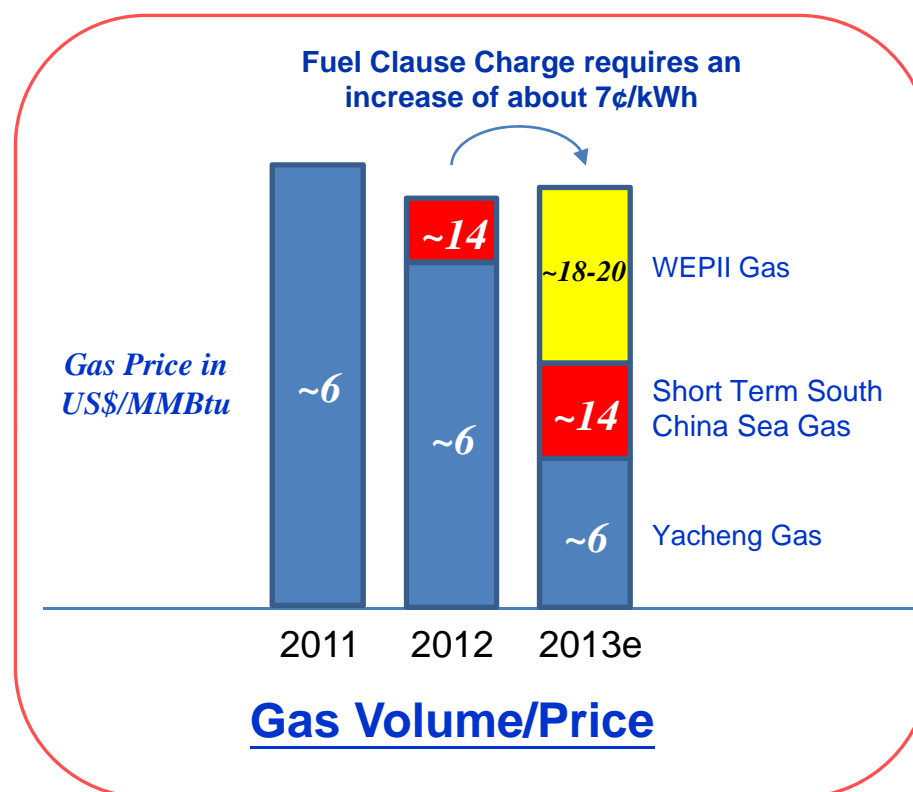
Under current market, 2013 WEPII gas price is expected to be around US\$18 - 20/MMBtu

- Price level of WEPII gas supply to Hong Kong is generally in line with LNG import prices
- Adding infrastructure cost to end users, WEPII gas supply price to Hong Kong is competitive vs. gas supply to South China region based on LNG imports

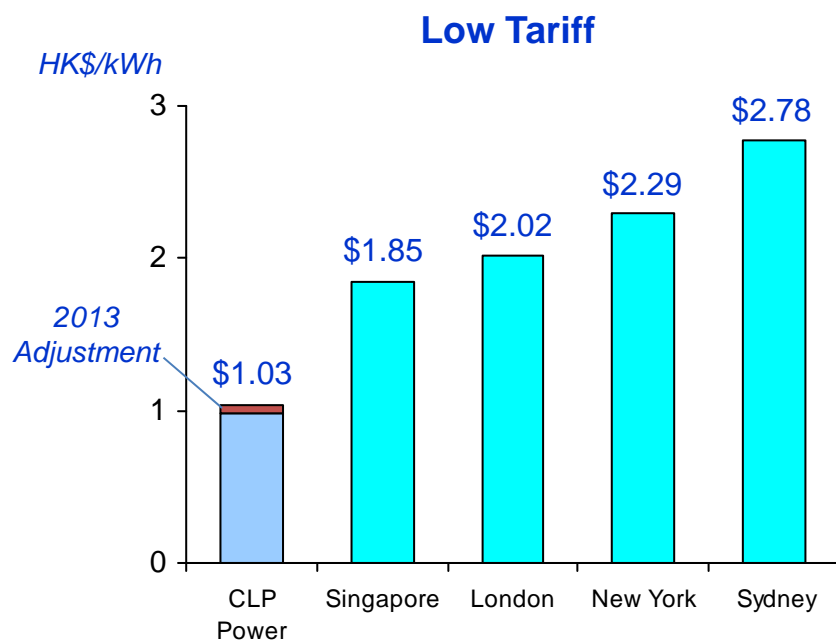


## Tariff Impact – WEPII Gas Supply

- Basic Tariff
  - The additional investment in new gas receiving station and BPPS modification project requires an increase of Basic Tariff by about 0.9¢/kWh in 2013
  - With higher than expected local electricity sales in 2012 and continued stringent cost management, we are able to maintain Basic Tariff unchanged in 2013
- Fuel Clause Charge
  - CLP/CAPCO take various mitigating measures in order to minimize tariff impact due to rising cost of gas
  - Due to current price differential between WEPII and Yacheng gas, Fuel Clause Charge in 2013 requires an increase of about 7¢/kWh as a result of higher priced WEPII gas
  - Considering of total fuel costs together with a widening of Fuel Clause Account deficit, we have managed to contain an increase of Fuel Clause Charge to 4.6¢/kWh in 2013
- Future tariff adjustment is subject to a host of factors including electricity sales, capital investment, operating cost and fuel mix / cost, etc.



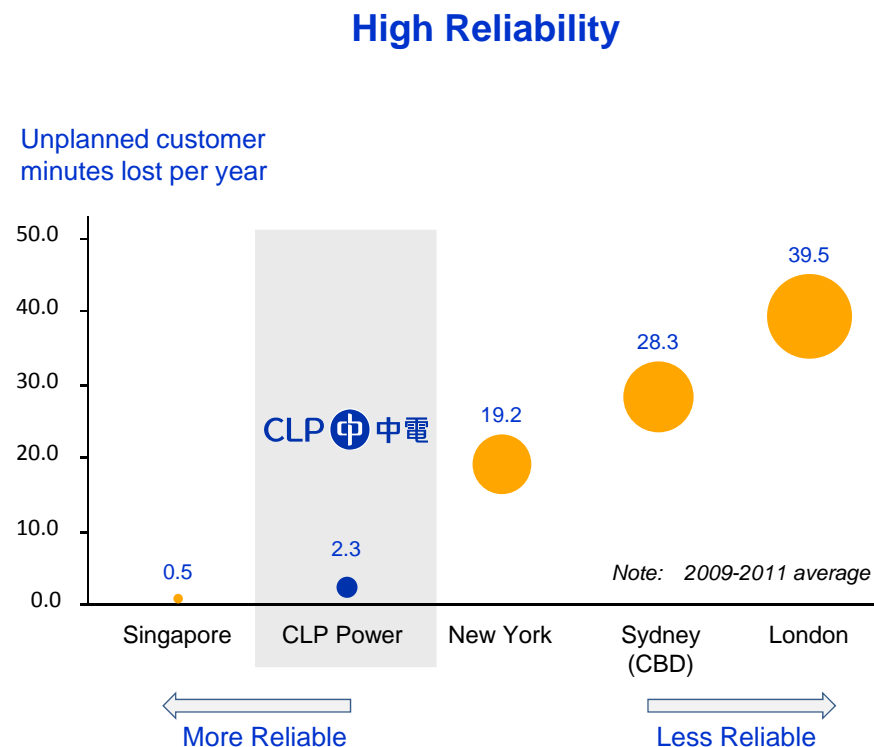
# Reasonable Tariff with World Class Reliability



## Remarks:

Comparison based on average monthly domestic consumption of 275kWh  
Tariff and exchange rate at November 2012 (CLP tariff excludes Rent & Rates Special Rebate)

■ CLP 2013 tariff adjustment



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## Summary

With WEPII gas supply and infrastructure in place, Hong Kong will continue to benefit from:

- Reliable pipeline gas supply replacing depleting Yacheng gas
- Gas supply priced under a clear and transparent mechanism
- Supply resource available to support increasing gas needed to meet future emissions / fuel mix targets