

District Cooling System at the Kai Tak Development Phase III (Package B) Project

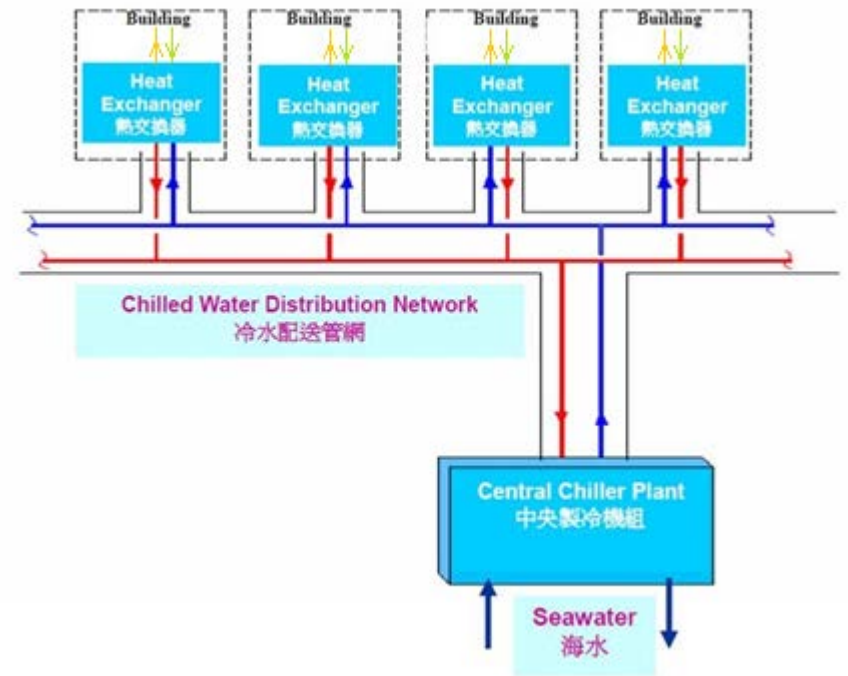
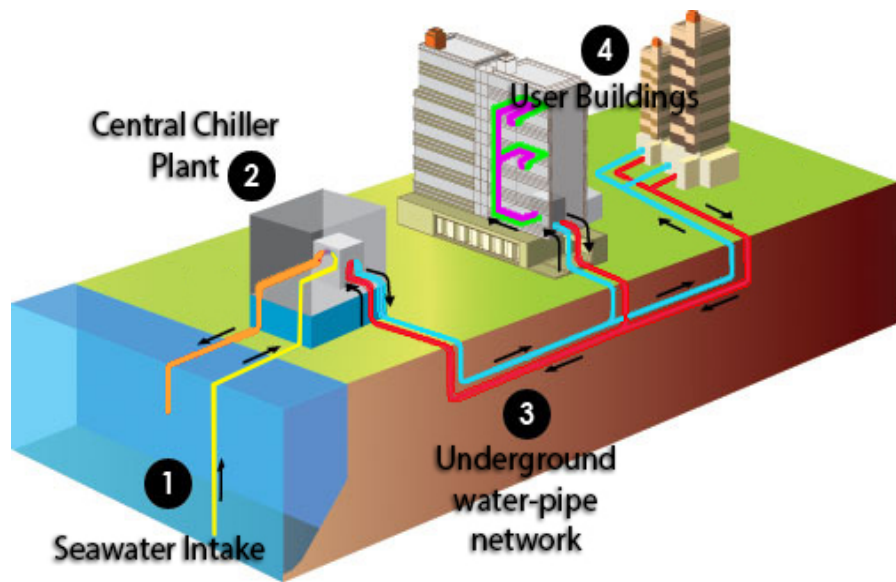
啟德發展計劃 區域供冷系統 第 III 期(組合乙)工程

28 April 2015
2015年4月28日



District Cooling System

區域供冷系統



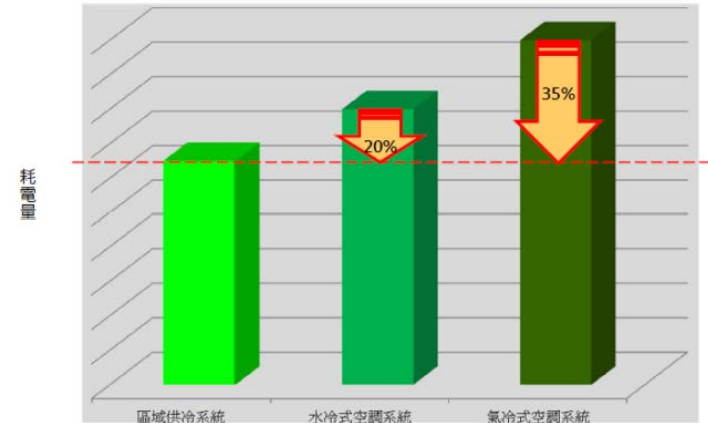
Benefits of District Cooling System

區域供冷系統的優點

- More energy-efficient & less emission as compared to traditional air-conditioning system

For example, in Kai Tak Development:

- 85 million kWh annual saving in electricity consumption; and
- 59,500 tonnes annual reduction of CO₂ emission
- Not required to install individual chillers & associated electrical equipment
 - Reduced noise, vibration, heat, etc.
- 較傳統空調系統更加節能減排
以啓德發展計劃為例，
 - 每年可節省8,500萬度電；及
 - 每年可減少59,500噸二氧化碳排放
- 無需個別安裝製冷機組和相關電氣設備
 - 減少噪音、震動、熱力等



Noise, Vibration, Heat



Benefits of District Cooling System

區域供冷系統的優點

- Reduced "heat island effect"
 - More flexible building designs
 - More adaptable to varying demand as compared to individual air-conditioning system
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- 可減低「熱島效應」
 - 令建築物設計更具彈性
 - 較獨立空調系統更能配合不同空調需求



Kai Tak Development 啟德發展計劃



Scope of Project under Phase III (Package B)

第III期(組合乙)的工程範圍

Kowloon East Regional
Headquarters and
Operational Base cum
Ngau Tau Kok Divisional
Police Station
東九龍總區總部及行動基地暨
牛頭角分區警署

Pipe laying contract
水管敷設工程

E&M contract
電機及機械裝置工程

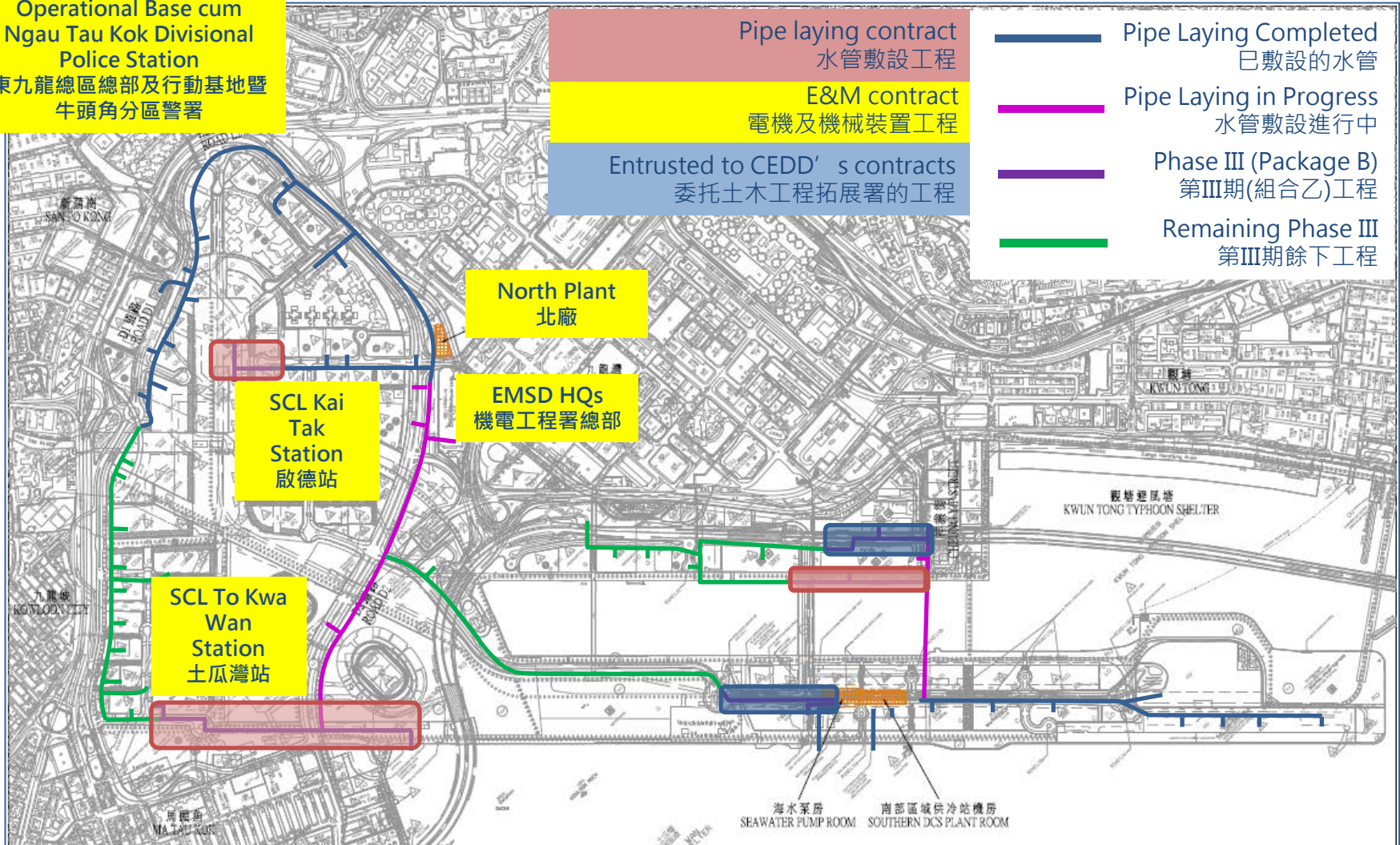
Entrusted to CEDD' s contracts
委托土木工程拓展署的工程

— Pipe Laying Completed
已敷設的水管

— Pipe Laying in Progress
水管敷設進行中

— Phase III (Package B)
第III期(組合乙)工程

— Remaining Phase III
第III期餘下工程



Estimated Cost of the Project

工程估計所需費用

- The total project cost of **45CG** is estimated to be **\$4,945.5 million** in MOD prices.
- Funding approval from LegCo has been secured for Phases I, II and III (Package A) at an APE of \$3,145.9 million in MOD prices. Together with the estimated cost of **\$606.1 million** in MOD prices for Phase III (Package B), we plan to seek endorsement and funding approval from PWSC and FC in the Q2-2015 to increase the APE of **45CG** to \$3,752 million in MOD prices.
- **45CG**號整項工程計劃的預算費用估計為49億4,550萬元。
- **45CG**號工程計劃的第I、II和III期(組合甲)的核准預算費，按付款當日價格計算，為31億4,590萬元，並已獲立法會批准撥款。第III期(組合乙)擬議工程的建設費用，按付款當日價格計算，約為6億610萬元。我們希望按計劃在2015年第2季提請工務小組委員會和財務委員會(“財委會”)支持計劃並批准撥款，把**45CG**號工程計劃的核准預算費提高至37億5,200萬元。

Capital Cost and Latest Development of the Project

工程費用及最新狀況

Phases (期)	Capital Cost and Latest Development (工程費用及最新狀況)
Phases I and II 第I及第II期	<p>APE of \$1,861.8 million (in MOD prices) approved in 2011; the construction works for Phases I and II were completed (within budget) in Q1 2013 and Q3 2014 respectively.</p> <p>2011年獲得核准預算費為18億6,180萬元(按付款當日價格計算)；第I期及第II期的建造工程已分別在2013年第1季及2014年第3季完成(在預算內)。</p>
Phase IIIA 第III期(組合甲)	<p>APE of \$1,284.1 million (in MOD prices) approved in 2013; works are on schedule and within budget, and are expected to complete by the end of 2017.</p> <p>2013年獲得核准預算費為12億8,410萬元(按付款當日價格計算)；工程現正如期按預算進行，預計最遲在2017年年底完成。</p>
Phase IIIB 第III期(組合乙)	<p>Estimated cost of about \$606.1 million (in MOD prices), to dovetail the latest progress of infrastructure and building developments at Kai Tak.</p> <p>估計所需費用約為6億610萬元(按付款當日價格計算)，以配合啟德基建設施和建築物的最新發展進度。</p>
Remaining works under Phase III 第III期餘下工程	<p>To seek FC's approval for the funding, which is estimated to be \$1,193.5 million (in MOD prices), by phases in next two years depending on the development schedule of KTD.</p> <p>視乎啟德發展計劃的發展時間表，未來兩年以分期方式，尋求財委會批准撥款，按付款當日價格計算，估計為11億元9,350萬元(按付款當日價格計算)。</p>

Tendering Status of Phase III (Package B)

第III期(組合乙)的招標情況

- The tenders for main laying, supply and installation of electrical and mechanical installations were invited in January 2015 and returned in April 2015.
- 敷設水管道網絡以及提供和安裝機電設備的工程合約已於2015年1月招標並已於4月回標。

Entrustment of Contracts for Phase III (Package B)

第III期(組合乙)的委託工程

- Main laying under sections of Shing Fung Road, Cheung Yip Street and Shing Cheong Road will be entrusted to CEDD' s project PWP no. 711CL “Kai Tak development – infrastructure works for developments at the southern part of the former runway” .
- 敷設位於承豐道、祥業街和承昌道的水管道網絡，將會委託土木工程拓展署在工務計劃項目第711CL號 “啟德發展計劃–前跑道南面發展項目的基礎設施工程” 中進行。

Charging Principles

收費原則

- Cost of district cooling services comparable to that of individual water-cooled air-conditioning system using cooling towers
- Recovering both capital and operating costs within the system operating life, which is estimated to be 30 years
- 使用區域供冷服務與自行安裝使用冷卻塔的水冷式空調系統費用相若
- 系統使用期(估計約30年)內收回建造和營運成本

District Cooling Services Ordinance

區域供冷服務條例

- “District Cooling Services Ordinance” was passed by LegCo and enacted in March 2015.
- The Ordinance provides for the imposition of charges for the District Cooling Services and other related matters. The key tariff components include:
 - Capacity charge (calculated based on contract cooling capacity)
 - Consumption charge (calculated based on actual cooling consumption)
- 《區域供冷服務條例》已於2015年3月獲立法會通過並生效。
- 條例訂明區域供冷服務收費及其他相關事宜。收費主要組成部份：
 - 製冷量收費 (按合約製冷量計算)
 - 耗冷量收費 (按實際耗冷量計算)

Thank you
多謝