

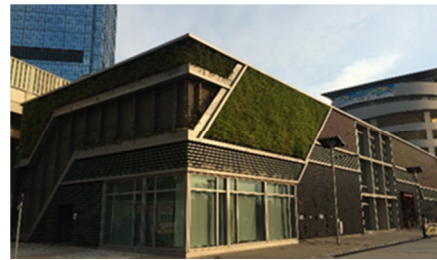
### Technical Visit to The District Cooling System (DCS) at Kai Tak Development (KTD) of Hong Kong 香港啟德發展區區域供冷系統技術參觀

The District Cooling System (DCS) at Kai Tak Development (KTD) of Hong Kong is a large scale centralized air-conditioning system. It utilizes sea water to produce chilled water at the central plants and distributes the chilled water to consumer buildings in the KTD through underground water piping network.

The cooling capacity of the DCS is about 284 megawatt of refrigeration (MW<sub>r</sub>) for serving the non-domestic air-conditioned floor area of about 1.73 million m<sup>2</sup>, equivalent to a cooling supply for 40 nos. of 30-storey high commercial buildings. Upon completion of the project, about 40 kilometres of underground chilled water pipes would have been laid and there would be around 50 buildings in KTD connected to the DCS.

DCS consumes 35% and 20% less electricity as compared to traditional air-cooled air-conditioning systems and individual water-cooled air-conditioning systems using cooling towers respectively. With its high energy efficiency, the implementation of DCS at KTD will achieve estimated annual saving of 85 million kilowatt-hour (kWh) in electricity consumption, with a corresponding reduction of 59,500 tons of carbon dioxide emissions per annum.

In this technical visit, participants can visit the control centre and chiller plant of DCS to know more about its design, operation and maintenance.



香港啟德發展區 (KTD) 的區域供冷系統 (DCS) 是一個大型集中式空調系統。它利用海水於中央機房生產冷凍水，並通過地下水管網將冷凍水分配到 KTD 的各個大樓。

DCS 的冷卻能力約為 284 兆瓦製冷 (MW<sub>r</sub>)，用於服務非家用空調樓面面積約 173 萬平方米，相當於 40 幢 30 層高的商業建築的製冷供應。項目完成後，將鋪設約 40 公里的地下冷凍水管，並且將在 KTD 中大約 50 座建築物連接到 DCS。

與傳統的風冷空調系統和分別使用冷卻塔的單獨水冷空調系統相比，DCS 的耗電量減少 35% 和 20%。憑藉其高能效，在 KTD 實施 DCS 將實現估計每年節省 8500 萬千瓦時 (kWh) 的電力消耗，相應減少每年 59,500 噸的二氧化碳排放量。

在本次技術訪問中，與會者可以參觀 DCS 的控制中心和冷水機組，了解更多有關其設計，運行和維護的信息。



Sponsor 贊助商：



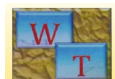
## Technical Visit to The District Cooling System (DCS) at Kai Tak Development (KTD) of Hong Kong

### 香港啟德發展區區域供冷系統技術參觀

Date 日期	23 March 2019 (Saturday) 2019 年 3 月 23 日 (星期六)		
On-Line Application 網上申請	<a href="https://docs.google.com/forms/d/e/1FAIpQLSclojWKODik14YX1txNeNx6SN8q-HQ1XYL-tYsXkwi6RDEMq/viewform?usp=pp_url">https://docs.google.com/forms/d/e/1FAIpQLSclojWKODik14YX1txNeNx6SN8q-HQ1XYL-tYsXkwi6RDEMq/viewform?usp=pp_url</a>		
Application Fee 申請費用	1. Member 會員 MOP 300 2. Non-member 非會員 MOP 400	Quota 名額	30
Application Deadline 申請限期	9 March 2019 (Saturday) 2019 年 3 月 9 日 (星期六)		
Remarks 備註	<p>Application Fee is for Macau to HK Ship Ticket, HK Tour Bus Fee and Lunch.          申請費用於澳門至香港船票, 香港旅遊巴士和午餐。          Return Ship Ticket is by Applicant.          返程船票由申請人負責。          Whatever reason, Applicant fail to meet on time, will not be refunded.          不論任何理由, 未能準時集合人士, 不會安排退還申請費用。          Successful Applicant shall be notified by 16 March 2019 (Saturday)          成功申請者將於 2019 年 3 月 16 日 (星期六) 前被通知。          3-Hour CPD certificate will be distributed after the Technical Visit.          技術參觀後分發 3 小時 CPD 證書。          Macau Government CAEU CPD Approval No. : 46/FC/2019 [ELE, MEC]          建築、工程城市規劃專業委員會持續進修活動認可編號: 46/FC/2019 [電機工程, 機電工程]</p>		
Enquiry 查詢	<p>For any queries, please contact our Student Branch – President, Mr. Lin Bin (林斌 先生) at (853) 68276290 or email at <a href="mailto:info@ashrae-macao.com">info@ashrae-macao.com</a>          如有任何疑問, 請致電 (853) 68276290 聯繫我們的學生分會 – 會長 林斌先生, 或發送電子郵件至 <a href="mailto:info@ashrae-macao.com">info@ashrae-macao.com</a></p>		

Time 時間	Content 內容
7:45am - 8:00am	集合地點: 澳門外港碼頭上層, 往香港上環開口 Meeting point: Upper level of Macau Outer Harbour Terminal, Gate: Hong Kong
8:15am - 8:30am	入關辦理出境手續 Immigration Check
8:45am - 9:45am	從澳門出發往香港上環碼頭 Depart from Macau to HK Sheung Wan Pier
9:45am - 10:15am	到達香港, 辦理入境手續 Arrive in Hong Kong and go through Immigration Check
10:15am - 11:00am	旅遊巴士接送到九龍灣 - 香港機電工程署總部參觀 Tour Bus to Kowloon Bay - HK EMSD Headquarters
11:00am - 12:00pm (1 Hour)	系統介紹 System Introduction
12:00pm - 2:00pm (2 Hours)	區域供冷系統廠房參觀 District Cooling Plant Visit
2:00pm - 3:15pm	<b>Lunch 午飯 - 宏天廣場 百樂門酒樓</b>
3:15pm - 4:00pm	旅遊巴士接送到香港上環碼頭解散 Tour Bus to HK Sheung Wan Pier - Dismiss

Sponsor 贊助商:



永達工程



新益冷氣工程有限公司  
SAN YIK AIR CONDITIONING ENG.CO.,LTD