

推動機電署總部大樓可持續發展

Promote Sustainable Development of the EMSD Headquarters Building

機電署致力推動環保，積極落實可持續發展的工作。過去數年，機電署以身作則，在總部大樓實行了多項節約能源措施，包括應用新能源效益技術、實行優化的內務管理方法，以及減省不必要的能源消耗，成效顯著。在2017至18年度，總部大樓的總用電量較上年度減少了約130萬度電，大約相等於390個住宅用戶全年的平均用電量，達到環境局所訂(以2013至14年度為基礎)每年減少1%的目標。至今年6月，總部大樓所節省的用電量，甚至超越我們所訂(以2013至14年度為基礎)合共節省4%的目標。

總部大樓在正式接駁啟德發展區區域供冷系統後，與使用設有獨立冷卻塔的水冷式空調系統相比，能源效益提高約20%。事實上，區域供冷系統有助改善空氣質素，實現低碳經濟的目標。此外，我們亦與初創企業合作，在總部大樓的空調系統安裝智能風機盤管控制器，以更有效地控制電流來調節所需風速，優化能源使用。

除了利用基建配套設施或新技術來達致節能目標外，我們更養成節能的習慣，在日常生活中實踐節能之道，例如在總部大樓全面實行午飯時間關掉辦公室部分照明設施的安排，並重新調節燈光自動開關感應的閒置時間，以減少電力消耗。為進一步提升能源效益，辦公室、走火通道等地方的傳統燈具亦已更換為發光二極管燈具，其發光效率更佳，使用壽命亦更長。

我們樂意與客戶分享各項節約能源措施，有興趣的客戶請致電3155 4302與高級工程師王志亮先生聯絡。



總部大樓的辦公室、汽車工場、走火通道、洗手間、行車通道等地方的傳統燈具已更換為發光二極管燈具，其使用壽命較長，耗電量亦較低。In the headquarters building, all traditional luminaires in the offices, vehicle workshops, fire escape routes, washrooms, driveways, etc. have been replaced with LED lightings, which have longer service life and lower energy consumption.



區域供冷系統的能源效益較傳統風冷式空調系統高約35%，亦較使用獨立冷卻塔的水冷式空調系統高約20%。The energy efficiency of the district cooling system is about 35% higher than that of the conventional air-cooled air-conditioning system, and about 20% higher than that of the water-cooled air-conditioning system which uses separate cooling towers.

The EMSD is committed to promoting environmental protection and proactively implementing sustainable development. Over the past few years, the EMSD has set an example by implementing at its headquarters building a number of energy conservation measures, including the application of new energy efficiency technologies, implementation of optimised housekeeping practices, and reduction of unnecessary energy consumption. These measures have achieved remarkable results. Compared with the previous year, the total electricity consumption of the headquarters building was reduced by about 1.3 million kWh in 2017-18, which is approximately equivalent to the average annual electricity consumption of 390 residential households. The 1% annual electricity reduction target (2013-14 as base) set by the Environment Bureau has been achieved. As at June this year, the building's accumulative saving in electricity consumption even exceeded our electricity reduction target of 4% (2013-14 as base).

After being connected to the District Cooling System at Kai Tak Development, the headquarters building has achieved an increase of 20% in energy efficiency as compared to using the water-cooled

air-conditioning system equipped with separate cooling towers. In fact, the district cooling system helps improve air quality and achieve the target of low-carbon economy. We also worked with start-ups to install a Fan Coil Unit Energy Saver in the air-conditioning system of the headquarters building for optimisation of energy use by effectively control the voltage to adjust the fan motor speed.

In addition to using ancillary infrastructure or new technologies to achieve energy-saving targets, we have also developed good energy-saving habits in our daily lives, e.g. turning off part of the office lightings during lunchtime and readjustment of the idling time of automatic light sensor switches for reduction of power consumption. To further enhance energy efficiency, all traditional luminaires in the offices and fire escape routes have also been replaced with Light Emitting Diode (LED) lightings, which have better luminous efficiency and longer service life.

We are happy to share with our clients various energy-saving measures. If you are interested, please contact Mr. Wong Chi-leung, Senior Engineer, at 3155 4302.