

# 為大會堂提供後備空調方案

## Back-up Air-conditioning Solution for City Hall

香港在六七十年代經濟騰飛，大量政府建築物相繼落成，惟時至今天，建築物內不少機電設施都逐漸老化。機電署以配合客戶需要和服務市民為己任，為確保客戶提供的公共服務不會因設施老化引起的故障而受到影響，我們除做好維修保養和進行定期更換外，還主動制訂後備應急方案、克服技術困難，以及改良和重新設計現有系統，使機電設施安全可靠，從而優化客戶為市民提供的公共服務。

香港大會堂的空調系統主要利用海水進行散熱，由於連接海水的管道深藏地底，若輸水管道有任何損壞都會導致水冷式製冷機組停止運作，這不但影響空調供應，甚至可能要即時封路搶修水管，影響交通。

為防微杜漸，我們設計了遠距冷凝系統作為後備方案。經審慎研究後，團隊在大會堂低座天台加裝了兩套風冷式遠距冷凝機組，並改裝現有的冷凝劑喉管，以連接中央機組。當海水供應中斷或不足時，有關系統能迅速替代現有的水冷式冷凝機組，使空調系統在短時間內恢復運作，並讓工程人員有足夠時間為海水管道進行維修保養，而不會影響大會堂的服務。

應急方案是我們為客戶提供的完備工程及資產管理方案之一，能有效保障其公共服務的質素。

如客戶有意優化現有設施，歡迎致電 2808 3804與我們的高級工程師周旭麒先生聯絡。

Many of the government buildings in the territory were completed in the sixties and seventies when Hong Kong's economy took off. Today, most of the E&M facilities in these buildings are ageing gradually. With the mission of satisfying our clients' needs and serving the public, EMSD is committed to ensuring that our clients' services to the community will not be disrupted by equipment failure due to ageing. Apart from proper maintenance and regular replacement services, we proactively assist our clients in formulating back-up solutions for contingencies, overcoming technical difficulties, as well as enhancing and redesigning the existing systems. Our aim is to provide safe and reliable E&M facilities to enhance our clients' services to the public.

The air-conditioning system of the Hong Kong City Hall (City Hall) mainly uses seawater for cooling. As the pipelines circulating seawater are buried deep underground, any damage in the pipelines will stop the water-cooled chiller. This will not only disrupt the air-conditioning operation, but also affect the traffic as immediate road closure may be required for emergency repair.

As a precaution, we designed a remote



遠距冷凝系統的風冷式冷凝機組安裝於大會堂低座天台，作為應急方案的一部分。As part of the contingency plan, the air-cooled condensers of the remote condensing system are installed on the rooftop of the City Hall Low Block.

condensing system as a back-up plan. After careful study, our team installed two remote air-cooled condensers on the rooftop of the City Hall Low Block. We modified the existing refrigerant pipelines to connect the condensers to the central unit. When the seawater supply is interrupted or insufficient, the system can quickly take over the existing water-cooled condensers and the air-conditioning operation can resume in a short period of time. The system also allows ample time for maintenance and repair work to be conducted on the seawater pipelines, without affecting the services of the City Hall.

The contingency plan is an integral part of our comprehensive engineering and asset management solution for our clients. It effectively ensures their quality services to the public.

If you are interested in enhancing your existing facilities, please contact our Senior Engineer, Mr. Yorkie Chow, at 2808 3804.

