Guangdong Singwear Garments Co., Ltd
(廣東欣薇爾服裝有限公司)

Electricity supply rates differs significantly during the day and any load shifting helps to reduce the overall operational costs.

Existing chilled water based A/C system peak loads are shifted by simply adding 5.3 MWh (1,500 ton-h) +8C (47F) PCM thermal energy storage (TES) tanks with minimal modifications for the chilled water circuit.

By simply utilising the excess capacity over-night from the installed chillers existing system charges the PCM tanks using conventional 5C (47F) water and later this stored energy utilised during day time to reduce the peak power demand.

Compared to the original system, incorporation of PCM System, it is recorded that the daily electricity consumption is reduced by 882.98 kWh (6150.2 - 5267.2) which correspondences to an energy reduction rate of approximately 14.36%