AU Optronics (友達光電) - Taiwan

Electricity supply rates differ 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 7.4 MWh (2,100 ton-h) +8C (47F) PCM thermal energy storage (TES) in 2 nos tanks with minimal modifications for the chilled water circuit.

By simply shifting the day peak loads to off-peak night period it is estimated not only a reduction of approximately 15~20% actual power consumption but most importantly avoiding day time punitive electricity rates overall annual running cost could be reduced dramatically. These savings are so impressive as it is estimated a pay back less than 2 years for the overall retrofit PCM-TES installation in their factory in Taiwan. Installation is carried by an investment company who has already installed a few similar PCM-TES system as an Energy Management Contract.