

Retro-Commissioning (RCx) – Fact Sheet



Wan Chai Training Pool

FaS_005



Wan Chai Training Pool

Address: 27 Harbour Road, Wan Chai

User: Leisure and Cultural Services Department

O&M Team: EMSD/MunSD

~4%
Building
Electricity
Saving

Background

Year of Completion: 2015

Normal Operating Hours: 07:00 - 22:00

Building Description: A 4-storey building with training pool area.

Air Cooled Chiller Capacity: 3 x 1250kW ACC

Energy Saving Opportunities in RCx

- (1) **Adjustment of chillers operation schedule** Before RCx, the chiller plant operated from 05:05 to 23:45. It is recommended to adjust the chiller plant operation schedule to align with the opening schedule of the swimming pool and the adjacent sports centre.
- (2) **Adjustment of primary air unit (PAU) operation schedule** Before RCx, the operation of PAUs occasionally exceeded the operating hours of the facility. It is recommended to adjust the PAUs operation schedule to align the operating hours.
- (3) **Application of cleansing mode** Before RCx, there was no separate operation mode for cleansing period. The facility has scheduled a cleansing period every Friday from 10:00 to 16:00. It is recommended to reduce the lighting during the cleansing period.

Energy Saving Opportunities in RCx (Cont'd)

- (4) **Tuning of chilled water pump (CHWP) speed** Before RCx, the CHWPs were equipped with variable speed drive (VSD) but operated at full speed constantly. It is recommended to reset the VSD speed periodically.
- (5) **Tuning of hot water pump (HWP) speed** Before RCx, the HWPs were equipped with VSD but operated at full speed constantly. It is recommended to reset the VSD periodically.

- (6) **Tuning of VAV damper control of PAU** Before RCx, the pre-treated fresh air was supplied by PAU through respective constant air volume (CAV) and variable air volume (VAV) boxes and the space cooling was provided by fan coil units (FCUs). It is recommended to adjust to the minimum position setting of VAV boxes in order to improve the air side cooling and save energy.

Energy Saving Opportunities (ESO) Summary

Energy Saving Opportunities (ESOs)

Adjustment of chiller operation schedule

Action

Adjust the chiller operation schedule based on operating hours of the facility

Adjustment of PAU operation schedule

Adjust the PAU operation schedule based on operating hours of the facility

Application of cleansing mode

Reduce lighting in operation during cleansing period

Tuning of CHWP speed

Manually reset CHWP speed periodically

Tuning of HWP speed

Manually reset HWP speed periodically

Tuning of VAV damper control of PAU

Reset to the minimum position of VAV damper