College with limited power supply uses CITY MULTI VRF peak cut control to deliver an air conditioning system with load shedding.

Project Info

Application
Charles Campbell College

Location
Paradise, SA

The Team

HVAC Contractor
Westside Services

HVAC Consultant
SECON Consulting Engineers

The challenge:

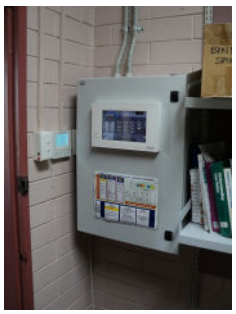
Charles Campbell College in Adelaide, South Australia required an upgrade to their air conditioning system but was constrained by the limited power supply. A new system would require load shedding.

The solution:

Mitsubishi Electric designed a CITY MULTI VRF system with peak cut control through the incorporation of current transformers (CT), watt-hour meter (WHM), and pulse input (PI) controller via the AG-150A centralised controller.

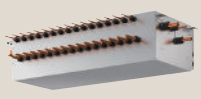
The system monitors all of the zones and adjusts load accordingly. Rather than shut off a zone completely, the rotation function in the system programming reduces capacity in one zone and directs it elsewhere.

The addition of LOSSNAY heat recovery ventilation added to the quality of air being circulated within the school and reduces energy demands further.



This load shedding air conditioning system has proven to be a viable option where the power supply is limited.

UNIT INFORMATION



Outdoor Units
PURY-P900YLM-A x 2
PURY-P850YSLM-A x 2
PURY-P750YSLM-A x 2
PURY-P450YLM-A x 6

PURY-P400YLM-A x 4
PURY-P350YSLM-A x 2

Indoor Units
PLFY-P125VBM-E.TH x 17
PLFY-P63VBM-E.TH x 15
PLFY-P100VBM-E.TH x 8
PLFY-P80VBM-E.TH x 11

PKFY-P40VHM-ER2 x 3
PKFY-P32VHM-ER2 x 2
PKFY-P25VBM-ER2 x 2
PKFY-P20VBM-ER3 x 3

PLFY-P50VBM-E.TH x 1
PEFY-P100HE x 1
LGH-100RX5 x 36

BNC
CMB-P1016V-HA1 x 6

Controllers
AG-150A-J x 1
PAR-31MAAE-J x 46