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## 1200 BUILDINGS PROJECT ADVICE SHEET

### Maintaining the building after a retrofit

Maintaining a building is not just the servicing of equipment, though this is a large part of it. It's also includes monitoring its continual performance, fine-tuning (tweaking) and continuous improvement. A building needs to be thought of as a living organism. It changes over time, with the weather, use, as systems begin to age, as modifications are made.

The Building Management Control System (BCMS) that was installed or upgraded as part of the retrofit will help enormously in this regard.

**Maintenance strategies** Establish a pro-active maintenance regime right from the start using up-to-date documentation.

This means adopting a planned or scheduled maintenance strategy, which is based on regular servicing and repairing or replacing components when necessary. Unfortunately most buildings function on an “operate to fail” strategy - when a component fails, replace it. This strategy must be abandoned.

All maintenance work should be recorded and kept in a maintenance log. This also applies to the maintenance of essential services measures.

Make sure you engage a reputable maintenance contractor who shares your maintenance strategy and commitment to efficiency.

**Where can I find more information** Australian Institute of Refrigeration, Airconditioning and Heating (AIRAH) Heating Ventilation and Cooling (HVAC) Maintenance Manual DA19 Section 5 [www.airah.org.au/Content/NavigationMenu/Publications/TechnicalPublications2/default.htm](http://www.airah.org.au/Content/NavigationMenu/Publications/TechnicalPublications2/default.htm)

National Institute of Building Sciences  
[wbdg.org/om/om\\_manual.php](http://wbdg.org/om/om_manual.php)

**Performance Management** The Building Management Control System (BMCS) will be the tool used to manage the building’s performance. The BMCS provides the operator with controls to adjust the mechanical systems. It also provides real-time data, so that the energy performance of the building can be evaluated at any time.

The BMCS operator needs to be well trained to interpret the data and identify potential problems and to call in appropriate expertise (service contractors, engineers).

Things that lie outside the expertise of the BMCS operator relate to the calibration of heat and pressure sensors, set points and optimum start and stop time sequences.

Performance management is a continuous process.

**Where can I find more information**

See Australian Institute of Refrigeration, Airconditioning and Heating (AIRAH) Heating Ventilation and Cooling (HVAC) *Applications Manual DA 28 Building Management and Control Systems* [www.airah.org.au/Content/NavigationMenu/Publications/TechnicalPublications2/default.htm](http://www.airah.org.au/Content/NavigationMenu/Publications/TechnicalPublications2/default.htm)

**Fine tuning**

Fine-tuning is a process that investigates the building's systems (primarily HVAC) and brings its performance back to as-built (that is, where it was when the retrofit was completed). Individual plant and equipment is tested, and the system balanced so that it once again performs at its optimum level.

A fine-tuning exercise is recommended every 24 months or across two full season cycles. A season approach is taken because varying climatic conditions affect how energy-consuming systems run, and how they should be set up to interact with each other.

A qualified engineer needs to be engaged to conduct the fine-tuning.

**for more information visit**  
[melbourne.vic.gov.au/1200buildings](http://melbourne.vic.gov.au/1200buildings)