

## Ruling:

# Supplementary air conditioning in meeting & computer server rooms

This ruling is added to the current NABERS Rules, and is used in preference where there is conflict with the *NABERS Energy and Water for Office, Rules for collecting and using data* version 3.0.

21 June 2017

## 1 Purpose and Principle

This ruling is intended to resolve ambiguities and practical issues associated with the allocation of supplementary air conditioning between base building and tenancy ratings for meeting rooms and computer server rooms. The ruling was developed in line with key NABERS principles.

- **Environmental Benefit:** Rulings should encourage design and operation that is compatible with overall building operation efficiency.
- **Equity:** Rulings should aim to create fairness between buildings with differing servicing strategies for supplementary air conditioning; and minimise the opportunity for energy transfer from the base building rating to the tenancy rating that creates a significant difference relative to normal practice.
- **Accuracy:** Rulings should be enforceable and must not impose significant additional workload into the execution of the rating.

## 2 Scope

This ruling will impact NABERS Energy for Office base building and tenancy ratings. The focus is specifically on meeting rooms and computer server rooms.

## 3 Explanatory Notes

The NABERS rules for supplementary air conditioning have been subject to several revisions over time. This ruling will simplify the rating process by allowing the inclusion of some small spaces such as meeting rooms and computer server rooms, regardless of the servicing arrangements. It makes sense for the office base building rating to account for the energy use in meeting rooms as they are the most common type of office support facility within a tenancy. However:

- The total area of meeting room space is small in comparison to general office space. Impact on the rating in terms of both energy and area is minimal. The inclusion/exclusion of the area makes an insignificant difference to the rating.
- Meeting and computer server rooms are typically spread throughout the building and it is not uncommon to see a large number of them with diverse servicing arrangements within the building. The cost of properly checking the servicing arrangement and measuring the room can be significant.

This ruling removes the cost burden of checking each individual meeting room and measuring it as the benefit to the accuracy of the rating is small for the investment.

## 4 New Definitions

<b>Meeting room</b>	A meeting room is separated from adjacent spaces by full-height walls and a door designed to accommodate meetings for short periods of time, on a temporary basis, as opposed to a permanent working area that primarily services internal tenant staff and their visitors.
<b>Computer server room</b>	A computer server room is separated from adjacent spaces by full-height walls and a door that primarily accommodates computer and associated communications equipment.
<b>Direct HVAC energy</b>	Direct HVAC energy includes all energy associated with the provision of an HVAC service with the exception of energy use associated with the operation of a tenant condenser water loop.
<b>Local HVAC energy</b>	Local HVAC energy includes fan energy, electric reheat, package unit compressor and indoor/outdoor fan energy but does not include condenser water, chilled water or hot water reticulated from either tenant or base building plant.
<b>Supplementary air-conditioning system</b>	A supplementary air-conditioning system is an air-conditioning system, that is physically independent of and distinguishable from the normal base building air-conditioning system, that has been added in order to service a specific load requirement arising from the nature of occupant usage.

## 5 Rated Area

### 5.1 Base Building

The existing Rated Area rules are largely unchanged.

Computer server rooms and meeting rooms below a certain size can be included in the Rated Area, even if the base building does not provide direct HVAC to the space.

In practice, this means that for most meeting and computer server rooms, the presence or absence of supplementary air-conditioning systems has no impact upon its inclusion in the Rated Area.

#### 5.1.1 Computer server room area

Computer server rooms that have a total measured area less than 5% of the floor plate NLA can be included in the Rated Area. The area is included whether or not direct HVAC energy is provided by the base building.

Computer server rooms that have a total measured area equal to or more than 5% of the floor plate NLA they are located on must each have their air conditioning servicing arrangement checked. Where:

- a) Direct HVAC energy is provided by the base building to at least the same standard of the surrounding office space, the area of the computer server room is included in the rated area.

A tenant supplementary unit may be present, however so long as the base building provides air conditioning to the same standard as the surrounding office, the area can be included.

- b) Direct HVAC energy is provided by the base building but has been thermally metered (as per the thermal allocation rules) and excluded from the rating. The area of the computer server room is excluded from the rated area.
- c) Direct HVAC energy is provided by tenant supplementary units, the area of the computer server room is excluded from the Rated Area. Computer server rooms provided condenser water only from the base building fall into this category.

Approximately 80% of computer server rooms are less than 5% of the floor plate NLA. The intent of this rule is to ensure that large data centres do not provide an amount of area that will impact on the rating where the base building is not servicing it. Assessors should only measure and exclude large data centres within the building – measurement of small computer server rooms is no longer necessary.

This is a subjective test based on observation from the Assessor. When in doubt, server rooms should be measured.

Section 3.5 *Dividing the Net Lettable Area into Functional Spaces* is amended: Computer server rooms do not need to be separated into their own functional spaces.

### **5.1.2 Meeting room area**

A meeting room, or a series of contiguous meeting rooms that have a total area less than 10% of the floor plate NLA are included in the rated area. The area is included whether or not direct HVAC energy is provided by the base building.

A meeting room, or a series of contiguous meeting rooms, that have a total area equal to or more than 10% of the floor plate area must each have their air conditioning servicing arrangement checked. Where:

- a) Direct HVAC energy is provided by the base building to at least the standard of the surrounding office space, the area of the meeting room(s) is included in the rated area.

A tenant supplementary unit may be present, however so long as the base building provides air conditioning to the same standard as the surrounding office, the area can be included. Spill air (air from the surrounding functional space 'spilling' into the meeting room) is not considered direct HVAC.

- b) Direct HVAC energy is provided by tenant supplementary units, the area of the meeting room(s) is excluded from the Rated Area. This is the case even if condenser water from the base building is provided to the tenant supplementary units.

A meeting room, or series of contiguous meeting rooms, may be large enough to be a functional space in its own right, such as a half floor meeting room or an entire floor of meeting rooms. These spaces should be separated out as their own functional spaces.

### **5.1.3 Other office support facilities**

There is no change to the way other office support facilities are assessed.

## **5.2 Tenancy**

There is no change upon the inclusion or exclusion of space within the rated area for a tenancy rating.

## 6 Rated Hours

### 6.1 Base Building

#### 6.1.1 Computer server room hours

The rated hours of a computer server room are either:

1. The hours of operation of the air-conditioning if the direct HVAC energy is captured within the energy coverage of the rating; or
2. The same as the Rated Hours of the adjoining functional space if any of the direct HVAC energy is not captured within the energy data used for the rating.

In practice this means that for most base buildings, the Assessor does not have to identify the computer server rooms or separate them as functional spaces. If the base building provides all of the computer room air-conditioning then the Assessor can identify the computer server room as a separate functional space and allocate hours on the hours of service.

### 6.2 Tenancy

#### 6.2.1 Computer server room hours

The rated hours of a computer server room are the hours that ventilation and air conditioning are provided to the space. There is no change to the current rules.

# 7 Energy Coverage

## 7.1 Base Building

### 7.1.1 Computer server room

The minimum energy coverage for base building ratings is amended to exclude centrally provided chilled water for computer server rooms, communications rooms and data centres.

The thermal allocation rules must be used where central chilled water is excluded from the central chiller plant. Either the Standard or Simplified methodology may be used.

For the simplified methodology, either the area or flow methodology may be used. The flow methodology must use either design or actual nominal flow rates. Maximum flow rates are not acceptable.

Condenser water for computer server rooms remains part of the minimum energy coverage, where it is a base building allocation.

## Tenancy

There is no change to the minimum energy coverage for a tenancy rating.