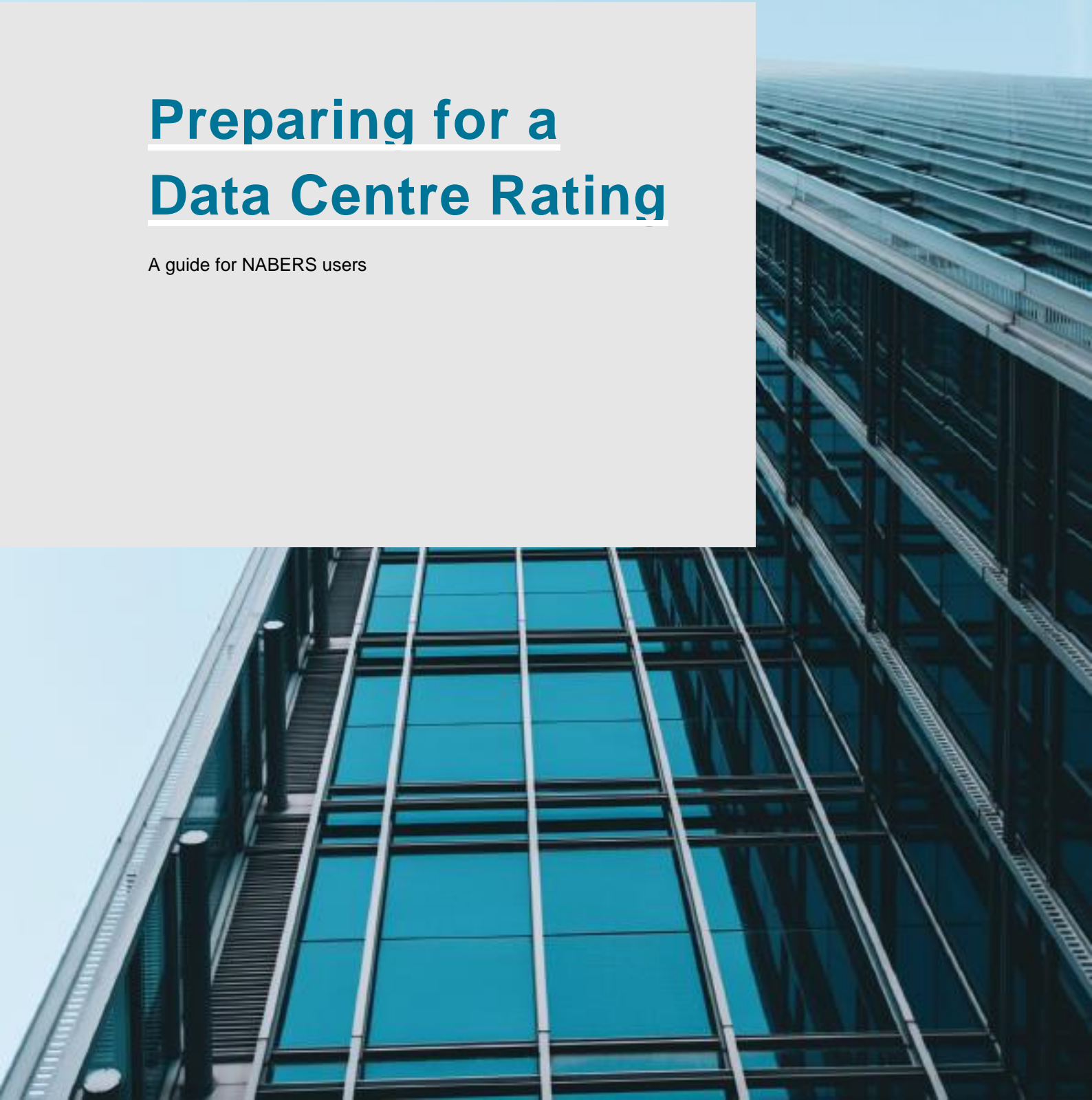




Preparing for a Data Centre Rating

A guide for NABERS users



Data Centre Ratings

This is a guide to help customers or potential customers prepare for a NABERS Data Centre rating. It outlines what you need to do in preparation for your rating.

What's involved in a NABERS Data Centre rating?

NABERS ratings for data centres provides an indication of the operational energy efficiency of data centres in Australia.

NABERS ratings for data centres are based on actual operational performance of a facility.

Rating your data centre

There is 1 type of rating available for data centres:

- Energy

Depending on the setup and ownership of a data centre, there are 3 types of energy rating that assess different facilities and equipment including:

- IT equipment
- Infrastructure
- Whole facility

IT equipment ratings measure the efficiency of the energy consumed by IT equipment within a data centre over the period of 1 month.

Infrastructure ratings measure the efficiency of energy supplied to the infrastructure that supports the IT equipment within a data centre over 12 months.

Whole facility ratings measure the efficiency of both the IT equipment and infrastructure facilities associated with a data centre.

The Process

In all cases, a NABERS rating can only be carried out by an Accredited Assessor.

An Accredited Assessor will calculate and lodge a rating application with the NABERS Technical Team which sits within the NSW Department of Planning, Industry and Environment (DPIE). These technical specialists will check that the application complies with the NABERS Rules,

before certifying the rating application and producing a rating certificate.

Once certified, you will receive an electronic certificate and report. Our Technical Team endeavours to process rating applications within two working weeks of their receipt.

Note that this process may take longer if a rating application is found to not comply as a follow up with the Accredited Assessor may be required.

Finding an Accredited Assessor

The NABERS website provides [contact details for all Accredited Assessors](#).

The cost of a rating is negotiated between the Assessor and the customer.

We advise that you seek more than one quote to ensure you receive a competitive price for your rating.

For further information on fees please visit our [Pricing page](#).

Requirements for Data Centre Rating Applications

Energy Rating (IT Equipment) - What You'll Need



Energy consumption	✓
Storage capacity	✓
Processing capacity	✓
Data centre layout	✓

Energy consumption

An Assessor needs 1 month of data for all sources of energy that power the IT equipment within a data centre.

Energy consumption data must be provided for:

- All servers
- Storage devices
- Networking equipment
- Any other IT equipment within the data centre

To measure energy consumption, a minimum of 5 meter reads must be taken to ensure accuracy. It is important that the meter reads occur on the same day at approximately the same time during the month when measurements are taken.

Storage capacity

To accurately measure the efficiency of IT equipment an Assessor requires information about storage equipment located within a data centre.

Specifically, an Assessor needs to be provided with a list of all functioning storage equipment and information about the equipment including:

- The model number and manufacturer with;
- Terabyte (TB) of unformatted storage for each unit and;
- Location within the data centre such as rack ID number

An Assessor will also carry out a site visit to validate the storage capacity of a data centre.

Processing capacity

In addition to information about storage capacity an Assessor also needs a list of all functioning server equipment located within a data centre.

Specifically, an Assessor requires:

- Equipment model number and manufacturer
- Clock speed
- Number of cores for each server
- Location within the data centre such as rack ID number

An Assessor will also carry out a site visit to validate the processing capacity of a data centre.

Data centre layout

An Assessor will need a marked up drawing of the data centre to help locate individual items of equipment to calculate the processing capacity and storage capacity of a data centre.

Energy Rating (Infrastructure) - What You'll Need



Energy consumption (IT)	✓
Energy consumption (Infrastructure)	✓
Single line diagram	✓
Postcode	✓

Energy consumption (infrastructure)

You will need to provide an Assessor with 12 months of electricity consumption for all relevant utility or validated non-utility meters. This includes:

- Servers
- Storage equipment
- Network equipment, and;
- Other information technology equipment within a data centre

For more information on validating non-utility meters please refer to the NABERS fact sheet: *Validating non-utility meters for NABERS ratings*.

An Assessor is primarily interested in knowing about the consumption data, i.e. the amount of electricity in kWh or gas in MJ, rather than the energy costs. As such please provide full copies of your bills and not just the first page.

If you are unable to obtain energy bills for a 12 month period, Assessors can contact energy suppliers to verify energy supply information. To arrange this, you will need to get in touch with your energy supplier to grant your Assessor permission to access the data.

Energy consumption (infrastructure)

You will need to give an Assessor 12 months of energy consumption for all relevant utility or validated non-utility meters for infrastructure services that support a data centre, including:

- Air-conditioning to a data centre
- Lighting for a data centre
- Power back-up, including generator fuel and Uninterrupted Power Supplies (UPSs)

- Power distribution including Power Distribution Units (PDUs)
- Security services for a data centre

For more information on validating non-utility meters refer to the NABERS fact sheet:
Validating non-utility meters for NABERS ratings.

An Assessor is primarily interested in knowing about the consumption data, i.e. the amount of electricity in kWh or gas in MJ, rather than the energy costs. As such please provide full copies of your bills and not just the first page.

If you are unable to obtain energy bills for a 12 month period, Assessors can contact energy suppliers to verify energy supply information. To arrange this, you will need to get in touch with your energy supplier to grant your Assessor permission to access the data.

Single line diagram

A diagram will need to be provided to an Assessor indicating the energy distribution within the centre to show the location of meters used for the rating.

Postcode

An Assessor needs to know the postcode for a data centre to account for potential impacts of climate on the energy consumption.

Energy Rating (Whole facility) - What You'll Need



Energy consumption (entire data centre)	✓
Single line diagram	✓
Postcode	✓
Storage capacity	✓
Processing capacity	✓
Data centre layout	✓

Energy consumption (whole facility)

A Whole facility rating measures the energy efficiency of the IT equipment and infrastructure services associated with a data centre over 12 months.

An Assessor requires 12 months of energy consumption from utility or validated non-utility meters for the entire data centre.

For more information on validating non-utility meters refer to the NABERS fact sheet:
Validating non-utility meters for NABERS ratings.

An Assessor is primarily interested in knowing about the consumption data, i.e. the amount of electricity in kWh or gas in MJ, rather than the energy costs. As such please provide full copies of your bills and not just the first page.

If you are unable to obtain energy bills for a 12 month period, Assessors can contact energy suppliers to verify energy supply information. To arrange this, you will need to get in touch with your energy supplier to grant your Assessor permission to access the data.

Single line diagram

A diagram will need to be provided to an Assessor indicating the energy distribution within the centre to show the location of meters used for a rating.

Postcode

An Assessor needs to know the postcode for a data centre to account for potential impacts of climate on the energy consumption.

Storage capacity

This is as per the Data Centre (IT Equipment) rating (see previous).

Processing capacity

This is as per the Data Centre (IT Equipment) rating (see previous).

Data centre layout

This is as per the Data Centre (IT Equipment) rating (see previous).

Get in Touch

If you'd like further information on NABERS ratings for data centres please email nabers@environment.nsw.gov.au or phone 02 9995 5000 and ask for the NABERS team.



**NABERS is administered by the
NSW Department of Planning,
Industry and Environment.**

59 Goulburn Street
Sydney NSW 2000

T (02) 9995 5000

E nabers@environment.nsw.gov.au

nabers.gov.au