

# DATA CENTRES



Use NABERS to improve your data centre's energy efficiency

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# WHY NABERS?

At NABERS, we know that environmentally friendly buildings are better for the bottom line, better for our staff and customers and better for the planet.

NABERS (which stands for the National Australian Built Environment Rating System) provides simple, reliable and comparable sustainability measurement you can trust across building sectors like data centres, apartments, hotels, offices, shopping centres and more.

Over the last 20 years we have proven that “what gets measured gets managed”. Our customers have saved an

average of 30-40% on their energy over 10 years. Our rating system has driven financial growth and solid returns in portfolios across building sectors by clearly demonstrating their operational performance and sustainability achievements.

A NABERS rating helps you to accurately measure, understand and communicate the environmental performance of your building, while identifying areas for cost savings and future improvements.

## ABOUT NABERS FOR DATA CENTRES

NABERS ratings for data centres provide an indication of the operational energy efficiency and environmental impact of data centres in Australia. We give your data centre a rating from one to six stars based on its Power Usage Effectiveness (PUE), a globally accepted metric. NABERS for data centres is based on a facility’s actual operational data, not design.

Your NABERS rating can then be used to identify areas for operational improvements and cost savings, as well as to promote your environmental credentials to help you win business from blue chip clients. You can use your NABERS rating to compare your data centre’s energy performance to others across Australia.

### NABERS STAR RATING GUIDE

★ ★ ★ ★ ★ ★	MAKING A START
★ ★ ★ ★ ★ ★	OPPORTUNITIES FOR UPGRADES
★ ★ ★ ★ ★ ★	MARKET STANDARD
★ ★ ★ ★ ★ ★	HIGH PERFORMANCE
★ ★ ★ ★ ★ ★	SUPERIOR PERFORMANCE
★ ★ ★ ★ ★ ★	MARKET LEADER

## RATING YOUR DATA CENTRE

### NABERS ENERGY FOR DATA CENTRES (IT EQUIPMENT)

This rating is for organisations who own or manage their IT equipment (including servers, storage devices, network equipment) and do not control data centre support services such as air conditioning, lighting and security.

The rating benchmarks the emissions associated with the energy consumed by the IT equipment, allowing organisations to determine the efficiency of their equipment. The less energy consumed for a given level of capacity, the more efficient the data centre and the higher the rating.

### NABERS ENERGY FOR DATA CENTRES (INFRASTRUCTURE)

This rating is for data centre owners and managers. It allows them to determine their facility’s energy efficiency in supplying the infrastructure services to the IT equipment housed in a data centre. This rating is suitable for co-location centres where the operators do not have control of any tenant IT equipment but provide the cooling and power delivery systems.

### NABERS ENERGY FOR DATA CENTRES (WHOLE FACILITY)

This rating combines both the IT Equipment and Infrastructure tools and is designed for organisations that both manage and occupy their data centre or where internal metering arrangements do not permit a separate IT Equipment or Infrastructure rating.

## BENEFITS TO DATA CENTRES



LOWER ENERGY BILLS & OPERATIONAL COSTS



REDUCE ENVIRONMENTAL IMPACT



ATTRACT PREMIUM TENANTS



VERIFY & VALIDATE INTERNAL TRACKING



IDENTIFY COST SAVINGS



BECOME A SUSTAINABILITY LEADER



BRIDGE THE INFORMATION GAP



COMPARE ASSET PERFORMANCE ACROSS PORTFOLIO

## YOUR SUSTAINABILITY STRATEGY

### COMPARE AND IMPROVE

A NABERS rating is the basis of a rigorous sustainability strategy because it enables fair comparison of your data centre against others in Australia. With annual ratings, you can see how improved activities at sites improve your rating.

### COMPETITIVE EDGE

NABERS ratings benchmark your data centre in the sector. Many tenders now expect evidence of sustainability action and impact. Including NABERS ratings in proposals can help you engage with clients with Net Zero sustainability targets.

### VALIDATE AND COMMUNICATE

NABERS provides cost-effective, high-trust and independent validation of your sustainability data, ensuring you can be confident in reporting it publicly and communicating simply. Confidentiality a concern? You can choose to keep your rating private and share it only with customers and prospects.

### TRACK YOUR PERFORMANCE

NABERS forms an essential framework for annual reporting and performance and cost management plans. It is integral to your comprehensive energy management system or a basic building management system.

### MARKET RESILIENCE

With a NABERS rating, you'll gain a head start to take advantage of potential government procurement policy. You'll also be prepared for future changes in energy costs, all while improving your building's resilience to climate change.

## HOW WE DELIVER FAIR COMPARISON

NABERS ratings take into consideration factors that are unique to data centres to ensure a fair, like-with-like comparison. Depending on your rating type, we look at:

- Location
- Heat rejection percentage
- Energy for IT equipment
- Lighting
- Air conditioning, ventilation and process cooling
- In-rack fans
- Energy for power conditioning, distribution and back-up
- Fuel for back-up generators



## JOIN THE LEADERS

Fujitsu is using NABERS across its data centre portfolio to set sustainability targets and measure progress towards those goals.

*“Fujitsu’s portfolio rating is important to us both from the perspectives of environmental leadership and transparency. With the continuing increase in data centre energy use Australia wide, NABERS gives our customers credible assurance of our energy efficiency and environmental commitments”.*

– **Blaise Porter,**  
Director of Responsible Business, Fujitsu Oceania

### AVERAGE ENERGY COST SAVING

**\$2,226,000** per annum

when a data centre improves its NABERS Energy rating from 3 to 5 stars\*

# SUSTAINABILITY REPORTING

Many of your corporate clients prepare annual reports on emissions and broader environmental performance, including on their data storage. NABERS ratings are trusted by the following national and international reporting and sustainable finance schemes, helping you to help your clients:

- Green Building Council of Australia, Green Star Performance
- Various green bonds and finance issuers

## OUR PROMISE

### CONFIDENTIALITY

Your energy data is only shared with your assessor and NABERS.

### IMPROVE ACCOUNTABILITY

By specifying NABERS ratings and improvements in your contracts and performance indicators, you can increase accountability and delivery from your service contractors and technical services.

### TRANSPARENCY

We can arrange a meeting with one of our qualified assessors or a member of the NABERS team and your chief engineer or facilities management team to explain exactly how the program works and why it is the most robust system available.

## STEPS TO A RATING



### 1. GET READY

Visit NABERS website.

Obtain 2-3 quotes from a NABERS accredited assessor to understand scope of work (site hours and consulting hours).

Obtain internal approval from senior management.

**Top tip:** To ensure buy-in, calculate the energy savings from increasing your star rating; it's impressive!



### 2. GATHER YOUR DATA

You'll need 12 months historical data on your energy consumption and some evidence about the size and features of your building. Your assessor will advise you on what you need to provide.



### 3. ACHIEVE NABERS CERTIFICATION

Organise access for your assessor to conduct a site visit to validate your rating.



### 4. IMPROVE YOUR RATING

Your NABERS rating lasts for 12 months.

Take action.

Enjoy savings.

Get annual ratings so you can track improved performance.

## WAYS TO IMPROVE YOUR RATING:

- Sophisticated and flexible cooling systems
- Passive cooling technology
- Reduced heat-transfer rates
- High efficiency lighting
- Control logic to minimise plant energy input
- Energy efficient features and fittings

## GET YOUR RATING

### Visit our website

[www.nabers.gov.au/ratings/spaces-we-rate/data-centres](http://www.nabers.gov.au/ratings/spaces-we-rate/data-centres)

### Contact the NABERS team

[nabers@environment.nsw.gov.au](mailto:nabers@environment.nsw.gov.au)  
(02) 9995 5000

NABERS is a national initiative managed by the NSW Government on behalf of the Federal, State and Territory governments of Australia.

\*Calculated averages from the NABERS dataset as at Jan 2020. Based on a data centre in Sydney CBD with 19,947,837 kWh assessable IT energy and 9,182,651 kWh total energy. Metered heat rejection equals 100% and electricity percentage is 100%.