



BLUE IoT



A Case Study approach

Fujitsu achieved 4 Star NABERS Energy for Data Centre Infrastructure rating

PROJECT SUMMARY

Two halls of Fujitsu's Noble Park data centre were the first in Australia that have been awarded an official NABERS rating, a complex six-month audit conducted by Bob Sharon that was approved by the NSW Government.

The National Australian Built Environment Rating System (NABERS) is a national rating system that measures energy efficiency, water usage, waste management and indoor air quality within the built environment. The rating system was launched in February 2013 and assesses the building infrastructure and IT equipment of data centres.

Bob Sharon conducted the world's first NABERS audit for a Data Centre which was for Fujitsu in 2013 making him the only NABERS accredited assessor for DCs and IT Workload in Australia at that time. Bob was fully equipped to deal with the unique challenges presented by the plant that supplied power and cooling to 2,000+ square metres of server rooms at Building One of Noble Park (Halls 1 and 2). The rating was completed by calculating twelve months of energy consumption based on third party verifiable data. Bob Sharon said "the first official NABERS audit resulted in a lot of lessons for all parties."

As part of the Infrastructure audit process, extensive metering and energy management system was used to provide a detailed record of energy consumption. **Some of the key components of the assessment include:**

- Gather single line diagrams.
- Conduct site inspection to follow the single line diagrams – looking for the right PDU, meters etc.
- Investigate racks, IT equipment and in rack mechanical kit during the site inspection.
- Facilitate meetings with the data centre managers, facilities and the stakeholders.
- Certify selected and relevant meters for testing/validation in terms of accuracy.
- Read all relevant meters and compare them to the readings of their Scada system to ensure that the remote meter reading functions were accurate.
- Source right data and logs from Fujitsu that was held within their Scada system.
- Validate power information and provide details for the certification to achieve the NABERS rating.

This assessment uncovered accurate findings that enabled Fujitsu to achieve a 4 Star NABERS rating and strengthen its sustainability strategy. The NABERS rating has been invaluable in helping Fujitsu to validate its efforts to reduce data centre power consumption and further help to pre-empt the future demands of federal government clients.

"This was the very first NABERS DC rating in history and there were many queries and about 300 hours of my time to get to a final result. Another problem here was that, within the IT load one of the CTs on a main PDU was faulty and didn't record one of the three phases. This was in fact the difference of going 3.5 star or 4 star, so the loss of that power within the IT load was a huge difference. NABERS rules do not allow extrapolation as we looked at various options. In the end, we found another system within Fujitsu that recorded and measured the power apart from the faulty CT. This was accepted and made the difference, allowing for a 4 star rating." - **said Bob Sharon**

CLIENT TESTIMONIAL

Lee Stewart, head of sustainability at Fujitsu Australia, said "The company opted to be the first to achieve a rating to validate its efforts to reduce data centre power consumption." Further adding to his comment, Lee Stewart said "Fujitsu used Bob Sharon because he was already certified and had extensive Data Centre experience."

PRESS RELEASE

Story published in 'ITNEWS' (<http://www.itnews.com.au/news/nabers-bestows-four-stars-on-first-data-centre-audit-361863/page0>) by Brett Winterford Oct 29 2013.

To find out more about this project or to discuss how Bob Sharon can help you with your requirement, contact us on: Phone: +61 407-245-335 or visit www.greenglobalsolutions.com.au



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