

CERTIFICATE

Certificate-ID: C-09-2019-21247229

Certificate for: **PowerRadar® from Centrica Business Solutions**

Certificate holder:

centrica
Business Solutions

Centrica Business Solutions
Millstream, Maidenhead Road
Windsor, Berkshire, SL4 5GD
England

Test report: B-07-2019-21247229



Energy Data
Management
System
Regular
Surveillance



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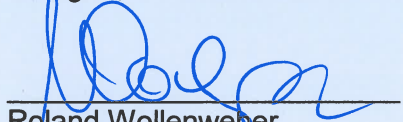
Basis of certification: Audited energy data management system in accordance with the catalogue of requirements Version 3.0 (as of 06/2018)

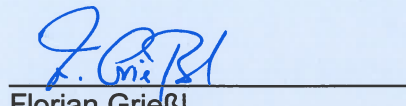
Scope of certification: Document and system review of functionalities for use with energy management systems in accordance with ISO 50001 et al. and energy audits in accordance with ISO 50002

It is herewith confirmed that the functionalities and characteristics of Centrica Business Solutions' energy data management system, PowerRadar®, as described in the test report as well as in the appendix I to the certificate, have been verified within the framework of a document and system review. PowerRadar® and Centrica Business Solutions' self-powered, wireless miniature sensors and high-performance bridge technology verifiably support compliance with the requirements of the chapters of the standards ISO 50001 et al. and ISO 50002 as listed in the appendix to the certificate.

This certificate is valid until 30 September 2021.

Cologne, 14 October 2019


Roland Wollenweber
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Appendix I to Certificate No. C-09-2019-21247229

Certification Procedure Audited Energy Data Management System

Centrica Business Solutions
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The following characteristics and functionalities of the energy data management system PowerRadar® were verified within the framework of the auditing:

- Determination of customised business key figures (EnPIs)
- Performance of dependency analyses
- Prices can be stored for determination of costs
- The software is compatible with standard communication interfaces and data transfer technology for the import of the measurement data recorded
- Various types of diagrams and depictions of energy consumption can be selected
- Time-controlled and event-controlled reports can be drawn up automatically
- The contents of the automatic reports can be customised
- Reports are generated in established, common formats
- Customised threshold values can be specified for an early warning system
- The software is set-up according to the PDCA-cycle or supports implementation thereof
- Access rights can be customised for each user
- The system can be operated intuitively and is user-friendly

Centrica Business Solutions' energy data management system, PowerRadar®, is proven to support the requirements of the following chapters of the ISO 50001:2018 standard:

6.3 a), b)	Energy review
6.4	Energy performance indicators
6.5	Energy baseline
9.1.1	Monitoring, measurement, analysis and evaluation of energy performance and the EnMS
9.3.2 c)	Input to management review
10.1	Nonconformity and corrective action

Furthermore, the energy data management system PowerRadar® is proven to support the requirements of the following chapters of the ISO 50002:2014 standard:

5.4 a), c) 1) and 3), d)	Data collection
5.7.2	Analysis of current energy performance
5.8.2 c) 2., 3.	Energy audit report content

The following hardware components support compliance of the chapter 9.1.1 Monitoring, measurement, analysis and evaluation of energy performance and the EnMS of the ISO 50001:2018 standard:

- Gen3 and Gen4 Bridge for transmitting sensor data to PowerRadar® and 3rd party systems
- PAN-10 and PAN-12 wireless sensors - snaps and fits without disconnection for non-invasive installation, self-powered, no maintenance
- PAN-14 wireless high-current sensor - snaps and fits without disconnection for non-invasive installation to any size standard 0-5 A current transformer, self-powered, no maintenance
- PAN-42 wireless power sensor – fast and easy installation, advanced power quality measurements for main power monitoring, submetering and metering of large devices