

The Blue Angel for Climate Friendly Colocation Data Centers (DE-UZ 214)



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Information for manufacturers and the retail trade

www.blauer-engel.de/en/uz214

- energy efficient
- climate friendly
- transparent reporting

Reliable guidance for sustainable purchasing

The Blue Angel – the environmental label from the German federal government – has set stringent standards for environmentally friendly, healthy and durable products and services in an independent and credible way since 1978. The Blue Angel is Germany's most well-known environmental label. You can thus benefit from the clear competitive advantages and added level of trust that this environmental label enjoys in the economy and amongst consumers. The label's credibility and competence, its objective criteria, its institutionalised award process and its governmental links increase your corporate and brand value.

The advantages offered by the Blue Angel

The environmental label for "Climate Friendly Colocation Data Centers" (DE-UZ-214) may be awarded to those colocation data centers:

- whose building technology is operated in a particularly energy efficient and resource-conserving manner,
- who motivate their customers to use energy-efficient information technology and
- who offer guaranteed minimum standards and transparent reporting to create the conditions for colocation customers to operate information technology in an environmentally friendly manner.



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Scope

The environmental label is awarded to colocation data centers – meaning the building space and technical building equipment used to offer colocation as a service.

The scope of these Basic Award Criteria covers data centers whose main purpose is to provide colocation services. This is indicated by the fact that at least 50% of the floor area or total IT output is used or intended for IT equipment operated by colocation customers.

Climate-Friendly Colocation Data Centers

Due to the increasingly prevalent use of information technology in all areas of business and life, the demand for data centers in Germany will continue to increase in the future. In private households, the use of information technology (e.g. smartphones, computers, Internet-capable television sets, smart home devices) and digital services (e.g. voice-over-IP telephony, video streaming, cloud storage, Internet) is now taken for granted. In the commercial and industrial sector, the use of digital technologies (for accounting, transactions, simulation, computer-aided design and production, logistics, artificial intelligence, etc.) has become an integral part of future-oriented management. Strong growth in the transmission and processing of data in real time is expected due to mobility solutions (autonomous vehicles) and the increasing use of sensors (Internet-of-Things). The processing of this digital data is only carried out to a small extent locally, meaning at the location where it is generated. The data is usually transferred via the Internet and then processed and stored in central data centers. As a result of business models that provide software and services in the cloud, computing power and also energy consumption will be increasingly transferred to data centers in the future.

A study carried out on behalf of the German Federal Ministry for Economic Affairs and Energy (BMWi) forecasts that data centers will account for around 7 percent of the electricity consumption in Germany in 2025 (16.4 terrawatt hours). In terms of the building infrastructure, it is anticipated that the floor space occupied by data centers will increase from 1.5 million square meters in 2010 to around 2.3 million square meters in 2020. This amounts to annual growth in the floor space of 4.4 percent. The expansion in the floor space occupied by data centers will primarily be due to new colocation data centers. It is anticipated that the floor space occupied by these types of data centers will almost triple from 375 thousand square metres in 2010 to 1 million square metres in 2020 (ibid.).



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What does the Blue Angel for Climate-Friendly Colocation Data Centers take into consideration?

Requirements at the time of application

- Building technology and energy provision
 - » Power Usage Effectiveness (PUE)
 - » Energy efficiency of the cooling system
 - » Refrigerant
 - » Electrical energy
- Efficient use of floor space
- Incentives for saving energy
 - » Obligation to provide information
 - » Consumption-based billing
- Energy Efficiency Report at the time of application

Requirements during the term of the contract

- Building technology and energy monitoring
 - » Monitoring of the electrical energy and water
 - » Acquisition of new components for the cooling system, Uninterruptible Power Supply (UPS) system, switching systems and intelligent power distribution units (PDUs)
 - » Taking into account life cycle costs when making acquisitions

Compliance verifications

Compliance with all requirements according to the Basic Award Criteria must be verified at the time of application before the environmental label is awarded with the “Energy Efficiency Report at the time of application” and before the end of the term of contract with the “Energy Efficiency Report for final evaluation”.

Application, use of the environmental label and costs

RAL gGmbH is responsible for handling the applications and concluding the contracts (contact: Henrike Buttner, E-mail: henrike.buttner@ral.de, Service hotline: 0228 - 688 95-190). Use of the environmental label is limited to the period of validity of the Basic Award Criteria. The current Basic Award Criteria are valid until 31/12/2023. RAL gGmbH – the awarding body for the environmental label – will charge a one-off handling fee of 400 Euro for the application. The annual fee is based on the annual sales of the certified product. If the sales figures are, for example, between 1 and 2.5 million Euro, the annual fee will be 1,300 Euro. More information is available at <https://www.blauer-engel.de/en/companies/costs-blue-angel-schedule-fees>.

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Further information: www.blauer-engel.de