

# Certificate



The certification body of TÜV NORD CERT GmbH hereby awards this certificate to the company

**Stadt Zürich**  
**Organisation und Informatik**  
**Albisriederstrasse 201**  
**8047 Zürich, Switzerland**

to confirm that its security area

**OIZ Data Center Hagenholz**

fulfils all requirements of the Criteria Catalog

**TSE.STANDARD V2.1**  
**Energy Efficiency - Maturity Degree 4**

of TÜV NORD CERT GmbH. The requirements are summarized in the appendix to the certificate.

The appendix is part of the certificate and consists of 5 pages.

Certificate ID: 6941.25

valid from 2025-02-28 until 2026-02-28

To Certificate



Essen, 2025-02-20

Certification Body of TÜV NORD CERT GmbH

**TÜV NORD CERT GmbH**  
Am TÜV 1, 45307 Essen, Germany  
tuev-nord-cert.com

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## Certification scheme

The certification body of TÜV NORD CERT GmbH performs its certifications based on the following certification scheme:

- German document: “Zertifizierungsprogramm für IT-Zertifikate (nicht akkreditierter Bereich) der Zertifizierungsstelle der TÜV NORD CERT GmbH”, D503-CP-001, Rev. 00/09.24, TÜV NORD CERT GmbH

## Evaluation report

- German document: “Evaluierungsbericht – Trusted Site Energy Efficiency (TSE.STANDARD), OIZ Rechenzentrum Hagenholz”, version 1.0 as of 2025-02-17, TÜV NORD CERT GmbH

## Evaluation requirements

- “TSE.STANDARD Criteria Catalog“, TSE.STANDARD V2.1 as of 2022-10-01, TÜV NORD CERT GmbH

The evaluation requirements are summarized at the end. Not applicable requirements are printed in grey.

## Evaluation target

Evaluation target is the security area „OIZ Data Center Hagenholz“ of Stadt Zürich. It is detailed in the evaluation report.

## Evaluation result

The evaluation result is “Energy Efficiency Maturity Degree 4”.

## Summary of the Evaluation Requirements

Evaluation requirements for Trusted Site Energy Efficiency (TSE), TSE.STANDARD V2.1:

### **Maturity Degree 1 – Energy Efficiency READY**

The following requirements have to be fulfilled for the Maturity Degree 1:

#### Energy Management System (MGM)

- MGM01.1 Energy Management System Handbook based ISO 50001
- MGM02.1 Determination of the energy sources and evaluation of energy use
- MGM03.1 Determination of the areas with significant energy use
- MGM04.1 Determination of variables with significant influence on energy use
- MGM05.1 Determination of opportunities for improving energy performance
- MGM06.1 Determination of an energy baseline
- MGM07.1 Definition of Energy Goals and Energy Performance Indicators (EnPIs)
- MGM08.1 Creation of a document template for introduction, documentation, responsibilities and updating of action plans Communication of the energy management system
- MGM09.1 Designation of the EnMS team
- MGM10.1 Creation of a document template for scope, time intervals, how auditors are appointed, schedule of internal auditing and audit reports
- MGM11.1 Creation of a document template for the Management Review

#### Information and Communications Technology (ICT)

- ICT01.1 Development of a Documentation of ICT Inventory including energy efficiency information
- ICT02.1 Creation of a document template for energy-efficient procurement of ICT components
- ICT03.1 Drafting a concept for energy efficiency monitoring of ICT

#### Infrastructure (INF)

- INF01.1 Existence of schematics for supply of utilities/services to the data centre (energy supply, cooling supply) for energy-efficient operation

- INF02.1 Documentation of an concept for an asset management of the DC infrastructure
- INF03.1 Description of the monitoring concept and measuring systems used (type, accuracy, installation sites)
- INF04.1 Definition of EnPIs at least for PUE and CER
- INF05.1 Selection of Best Practices from Annex A of the TSE.STANDARD criteria catalogue with at least an efficiency value of 500

## **Maturity Degree 2 – Energy Efficiency IMPLEMENTED**

The following requirements have to be fulfilled for the Maturity Degree 2:

### Energy Management System (MGM)

- MGM06.2 Validation of the energy baseline
- MGM07.2 Planning the resources to achieve the energy goals
- MGM08.2 Introduction, documentation and updating of action plans
- MGM09.2 Documentation of responsibilities for interfaces of ICT and facility management
- MGM10.2 First execution of internal audits
- MGM11.2 Initial execution of management reviews
- MGM12.2 Fulfilment of TSE Maturity Degree 1

### Information and Communications Technology (ICT)

- ICT01.2 Completed documentation of ICT-Inventory including energy efficiency information
- ICT02.2 Implementation of energy-efficient procurement of ICT components
- ICT03.2 Initial measurements from the energy efficiency monitoring for ICT

### Infrastructure (INF)

- INF01.2 Regular updates of the documentation of the infrastructure
- INF02.2 Implementation of an asset management of the DC infrastructure
- INF03.2 Installation of an energy efficiency monitoring for the DC infrastructure

- INF05.2 Implementation of Best Practices from Annex A of the TSE.STANDARD criteria catalogue with at least an efficiency value of 500

### **Maturity Degree 3 – Energy Efficiency IMPROVED**

The following requirements have to be fulfilled for the Maturity Degree 3:

#### Energy Management System (MGM)

- MGM06.3 Demonstration of an increase in energy efficiency
- MGM07.3 Review of the energy goals
- MGM08.3 Review of the measures from action plans
- MGM09.3 Process for coordination the interfaces of ICT and facility management
- MGM 10.3 Regular Execution of internal TSE Audits
- MGM11.3 Regular execution of management reviews
- MGM12.3 Fulfilment of TSE Maturity Degree 2

#### Information and Communications Technology (ICT)

- ICT01.3 Investigation of consolidation of ICT equipment
- ICT02.3 Implement guidelines for energy-efficient product design as part of the procurement of ICT components
- ICT03.3 Progress report for energy efficiency monitoring for ICT

#### Infrastructure (INF)

- INF01.3 Regular updates of the documentation of the infrastructure.
- INF02.3 Implementation of an asset management includes energy efficiency of the DC infrastructure
- INF03.3 Progress report for energy efficiency monitoring of the DC infrastructure
- INF05.3 Implementation of Best Practices from Annex A of the TSE.STANDARD criteria catalogue leading to an increase of 50 efficiency points compared to Maturity Degree 2.

## **Maturity Degree 4 –Energy Efficiency EXCELLENCE**

The following requirements have to be fulfilled for Maturity Degree 4:

Energy Management System (MGM)

- MGM06.4 Demonstration of an increase in energy efficiency
- MGM07.4 Review of the energy goals
- MGM08.4 Action plans contain integrated measures for the areas of ICT and facility management
- MGM09.4 Integrated Planning of ICT and Facility Management
- MGM10.4 Regular Execution of internal TSE Audits
- MGM11.4 Regular execution of management reviews
- MGM12.4 Fulfilment of TSE Maturity Degree 3
- MGM13.4 EnMS Reports for Stakeholders

Information and Communications Technology (ICT)

- ICT01.4 Investigation of the consolidation of services
- ICT02.4 Considering of energy-efficient with reference to ICT performance as part of the procurement
- ICT03.4 Determination of energy performance indicators for ICT devices
- ICT05.4 Determination of the Life Cycle Costs for the ICT

Infrastructure (INF)

- INF01.4 Regular updates of the documentation for the energy-efficient infrastructure
- INF02.4 DC Infrastructure Management considering resource and energy efficiency
- INF03.4 Allocation of the energy sources to the intended use and the systems
- INF05.4 Regular review of best practices
- INF06.4 Determination of life cycle costs for the DC infrastructure