

# **Storage Specification**

## **“Rehden SY 24/25 (4) – 2.5 TWh”**

**astora GmbH**  
Karthäuserstr. 4  
34117 Kassel, Germany

(hereinafter referred to as "**astora**")

## Contents

Article 1	Introduction.....	3
Article 2	Storage Location .....	3
Article 3	Storage Service .....	3
Article 4	Storage Services Fee .....	4
Article 5	Exceeding of Storage Capacities.....	4
Article 6	Technical Limitations .....	4
Article 7	Curves for Injection and Withdrawal .....	5
Article 8	Delivery Points.....	7
Article 9	Gas Quality Specifications.....	7
Article 10	Changes in the Storage Specification.....	7
Article 11	Provision of Storage Capacities in the event of non-use .....	7

## Article 1 Introduction

1. This **Storage Specification** completes the **Storage Services Agreement** and defines all the details required to enable **astora** to provide **Storage Services** in the Rehden **Storage Location** based on the **Storage Services Agreement** which will be concluded with regards to the Auction Procedure held by **astora** on the PRISMA Capacity Platform.
2. For storage of **Gas** the **General Terms and Conditions for Storage Access**, the definitions for the storage of **Gas** contained in the **General Terms and Conditions for Storage Access** and the conditions of the **Storage Services Agreement** shall apply, unless this storage specification contains different arrangements. The terms used in the singular also include the plural and vice versa, assuming this has not been expressly agreed otherwise or is obvious from the respective situation.
3. Upon the conclusion of a **Storage Services Agreement** this **Storage Specification** shall be an integral part of the **Storage Services Agreement**. For this product the **General Terms and Conditions for Storage Access** shall apply with the exclusion of part four, part five and part six.

## Article 2 Storage Location

The **Storage Customer** contracts the **Storage Service** of **astora** listed under Article 3 in the **Storage Location** Rehden.

**astora** may temporarily deviate from the location commitment mentioned in sentence 1 in order to avoid the following limitations or restrictions - and thus to increase the availability of the **Storage Service** as well as the flexibility:

- planned and unplanned maintenance measures
- injection and withdrawal curves
- minimum flows and lead times.

For the **Storage Customer**, this shall not result in any changes to the technical and/or commercial conditions under its **Storage Contract**, including the **Storage Specification** and the **Storage Access Conditions**.

## Article 3 Storage Service

Name of product: "Rehden SY 24/25 (4) – 2.5 TWh"  
Allocation: Pay-as-bid  
Term: 01.04.2024 (6:00 a.m.) until 01.06.2025 (6:00 a.m.)

**Scope of (1) bundle 01.04.2024 until 01.04.2025:**

	<u><b>firm</b></u>
<b>Working Gas Volume</b>	100.1 GWh
<b>Injection Rate</b>	32,943 kWh/h
<b>Withdrawal Rate</b>	50,681 kWh/h

**Scope of (1) bundle 01.04.2025 until 01.06.2025:**

	<u><b>interruptible</b></u>
<b>Working Gas Volume</b>	10.01 GWh
<b>Withdrawal Rate</b>	8,900 kWh/h

**Article 4 Storage Services Fee**

The **Storage Services Fee** shall be determined by the offer within the Auction Procedure. The **Storage Customer** shall be obliged to pay the **Storage Services Fee** for the **Storage Capacities** made available by **astora** independent of the use. The invoicing will occur as defined under § 33 Section 1 until 6 of the **General Terms and Conditions for Storage Access**.

In amendment of Article 33 Section 1 of the **General Terms and Conditions for Storage Access**, the monthly invoice amount shall be determined on the basis of the number of calendar days of each month (example: **Storage Fee** / number of calendar days in the storage year \* number of calendar days of the relevant month).

**Article 5 Exceeding of Storage Capacities**

The fee for exceeding the **Storage Capacities** will be calculated daily by using the tariff for exceeding the **Storage Capacities** on the basis of the maximum hourly volume. The tariffs for exceeding the **Storage Capacities** shall be:

<b>Injection rate:</b>	2.8 ct/(kWh/h)/d
<b>Withdrawal rate:</b>	4.2 ct/(kWh/h)/d

**Article 6 Technical Limitations**

1. All **Storage Capacities** of the **Storage Services** described in Article 2 shall be subject to the technical limitations listed in Section 2 to Section 5 which the **Storage Customer** is informed of according to the **General Terms and Conditions for Storage Access** via the **Nomination Procedure** that is regulated in the **Operating Agreement**.

## 2. Injection

Up to an overall storage level of working gas in the storage location of 31.8 billion kWh a minimum volume flow of 1,680,000 kWh/h shall be required.

Beyond an overall storage level of working gas in the storage location of 31.8 billion kWh a minimum volume flow of 3,920,000 kWh/h shall be required.

## 3. Withdrawal

Regardless of the overall storage level of working gas in the storage location, a minimum volume flow of 896,000 kWh/h shall be required.

4. In the operation of the Rehden **Storage Facility** the following times have to be considered:

Lead time for injection: up to 2.0 h

Lead time for withdrawal: up to 6.0 h

5. In the Rehden **Storage Location** the time required to process a **Renomination** shall be two (2) hours.

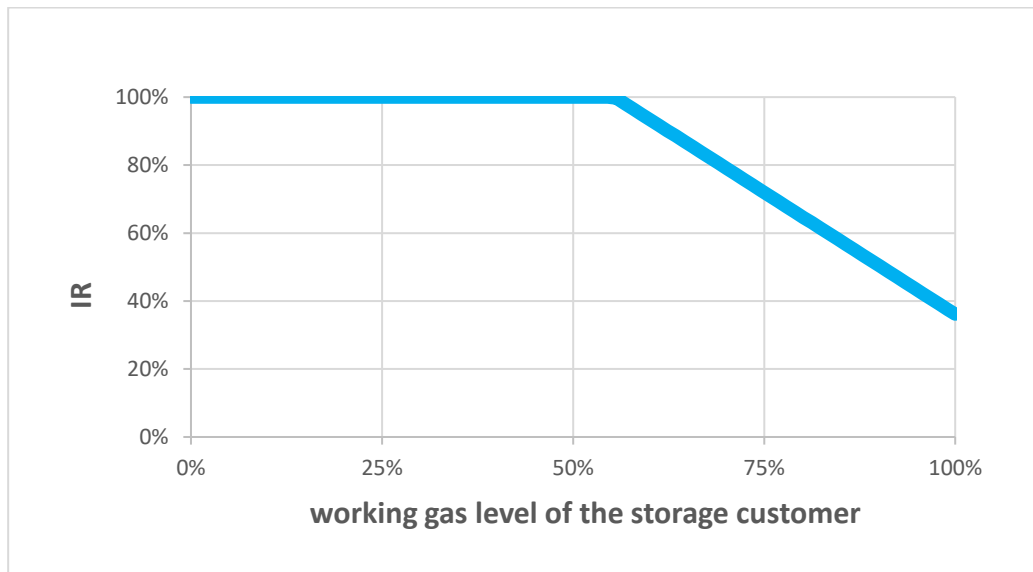
## Article 7 Curves for Injection and Withdrawal

1. The usage of the firm **Storage Services** as per Article 3 is limited by the **Curves for injection and withdrawal**.

The below described **Injection and Withdrawal Curves** of the Rehden **Storage Facility** shall apply with respect to the **Storage Services** as per Article 3 and also to the respective **Storage Services Agreement**.

If a percentage of the stored **Working Gas Volume** as per Sections 2 and 3 should be reached, **astora** may lower the **Injection** or **Withdrawal Rate** to the percentage specified according to Sections 2 and 3.

2. The **Injection Curve** shows the **Injection Rate** (IR) as a function of the **Storage Customer's Working Gas Volume** which it shall be entitled to use.

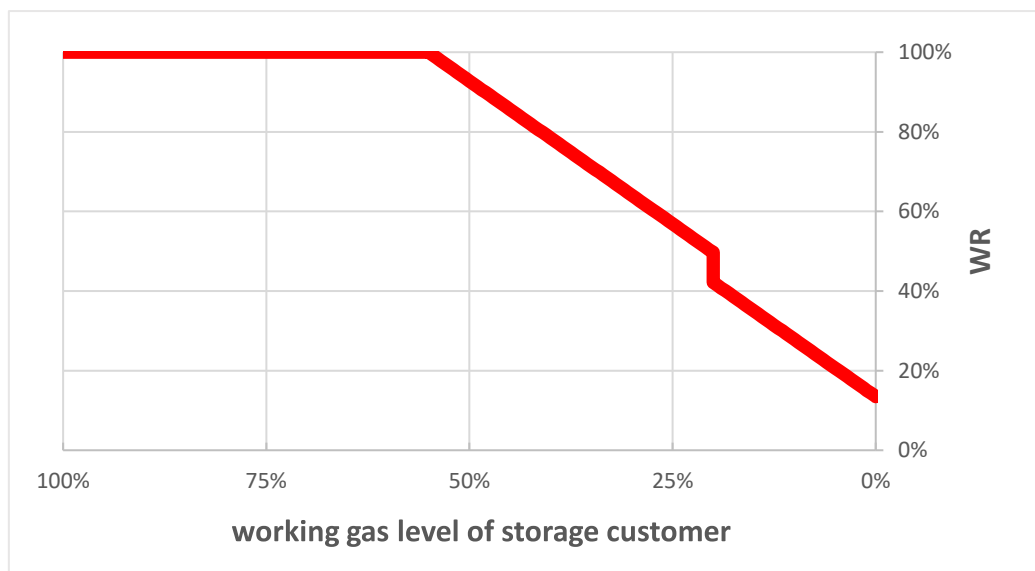


If the **Storage Customer's** storage level exceeds 55.7827298050139 % of the **Working Gas Volume** he has booked, the IR is calculated as follows:

$$IR [\%] = WG\text{V} [\%] \times (-1.436) + 180.104$$

If the outside temperature at the **Storage Location** Rehden exceeds 30°C, **astora** has the right to reduce the firm **Injection Rate** by up to 15%.

- The **Withdrawal Curve** shows the **Withdrawal Rate (WR)** as a function of the **Storage Customer's Working Gas Volume** which it shall be entitled to use.



If the **Storage Customer's** storage level drops below 55.0348189415042 % of the **Working Gas Volume** he has booked, the WR is calculated as follows:

Working gas level between 55.0348189415042 % and 20%:

$$WR [\%] = WGV [\%] \times 1.436 + 20.97$$

Working gas level lower than or equal to 20%:

$$WR [\%] = WGV [\%] \times 1.436 + 13.47$$

The **Withdrawal Rate** requires an outdoor temperature below 20°C. In case the outdoor temperature at the **Storage Location** Rehden is 20 °C or higher, the nominated withdrawal by the **Storage Customer** for can only be provided on best effort basis.

4. The actual temperature measured by the metering station of MeteoGroup in Diepholz for the respective hour, serves as a reference for the outdoor temperature at the **Storage Location** Rehden.

## Article 8 Delivery Points

The **Point of Injection** and **Withdrawal** shall be the point of the Rehden **Storage Location**, which corresponds to the point at which the **Storage Location** is connected to the **Neighbouring Natural Gas Network**. The **Neighbouring Natural Gas Network** of the Rehden **Storage Location** is operated by GASCADE Gastransport GmbH (GASCADE). The **Point of Injection** and the **Point of Withdrawal** at GASCADE are designated as follows:

- Sp. Rehden -

The **Allocation Procedure** in Rehden shall be declaratory.

## Article 9 Gas Quality Specifications

For the Rehden **Storage Facility** the published quality parameters of the network operator at the **Delivery Points** listed in Article 8 shall apply.

## Article 10 Changes in the Storage Specification

**astora** shall be entitled to change the **Storage Specification** at any time.

With regard to changes in the **Storage Specification** Article 44 of the **General Terms and Conditions for Storage Access** shall apply accordingly.

## Article 11 Provision of Storage Capacities in the event of non-use

1. Pursuant to Section 35a (2) Sentence 1 of the Energy Industry Act ("EnWG"), the levels prescribed in Section 35b (1) Sentence 2 of the EnWG or on the basis of a regulation pursuant to Section 35b (3) of the EnWG must be maintained at certain cut-off dates in every storage facility that has at least one connection point to the German transmission system.

**astora** is entitled to make available to the market area manager (hereinafter referred to as "**MAM**") all or part of the **Storage Capacities** booked by the **Storage Customer** on a firm basis in accordance with the **Storage Services Agreement** if the **Storage Customer** has not used the **Storage Capacities** booked on a firm basis in time to an extent that technically enables compliance with the level requirements pursuant to Section 35b (1) Sentence 2 EnWG as amended from time to time and/or a regulation pursuant to Section 35b (3) EnWG as amended from time to time (hereinafter referred to as "**Level Requirements**").

2. The decision on the provision of **Storage Capacities** shall be based on the **Working Gas Volume** filled by the **Storage Customer** two **Working Days** (Day D-2 **Working Days** (WT)) prior to the delivery of the capacities at 08:00 a.m. If this filled **Working Gas Volume** is not sufficient to reach a certain **Level Requirement** on **Storage Day** D+1, 06:00 a.m., taking into account the level curve, a certain proportional **Working Gas Volume** shall be made available to the **MAM**.

The amount of this pro rata **Working Gas Volume** to be made available is the difference between the filled **Working Gas Volume** necessary to achieve the corresponding **Level Requirement** on the next cut-off date and the **Working Gas Volume** of the **Storage Customer** on **Storage Day** D, 06:00 a.m. This pro rata **Working Gas Volume** shall be made available to the **MAM** from **Storage Day** D, 6:00 a.m. until the end of the **Storage Year**.

The corresponding filling level curve results from the minimum filled **Working Gas Volume** required to achieve the corresponding **Level Requirement** based on the firm booked **Working Gas Volume** as well as the firm booked **Injection Rate** under Article 3 of this **Storage Specification**, taking into account planned downtimes and the **Injection Curve**.

3. Whereas the **Level Requirements** on October 1st and November 1st refer to the **Working Gas Volume** booked by the **Storage Customer**, the **Level Requirement** on February 1st refers to the minimum of i) the **Working Gas Volume** booked by the **Storage Customer** and ii) the **Working Gas Volume** remaining after provision in accordance with figure 2.
4. In addition to the proportional **Working Gas Volume** pursuant to Section 2, the provision to the **MAM** shall also include the contractually agreed maximum firm **Injection Rate** of the **Storage Customer** from **Storage Day** D 6:00 a.m. until the next cut-off date pursuant to the **Level Requirement** as well as the pro rata firm **Withdrawal Rate** from **Storage Day** D 06:00 until the end of the **Storage Year**. The share of the firm **Withdrawal Rate** to be made available in percentage of the booked firm **Withdrawal Rate**, corresponds to the share of the firm **Working Gas Volume** to be made available of the booked firm **Working Gas Volume**.



5. From **Storage Day D** 06:00 a.m. until the next cut-off date in accordance with the **Level Requirement**, the **Working Gas Volume** remaining to the **Storage Customer** may be used by means of interruptible and/or firm **Injection Rate** acquired in addition.

From **Storage Day D** 06:00 a.m. until the next cut-off date according to the **Level Requirement**, the **Working Gas Volume** remaining to the **Storage Customer** cannot be used by means of firm and/or interruptible **Withdrawal Rate**.

6. The provision of **Storage Capacities** to the **MAM** shall include in addition to the firm **Storage Capacities**, the pro rata **Working Gas Volume** booked by the **Storage Customer** on an interruptible basis from 01.04. to 01.06. as well as the **Withdrawal Rate** booked by the **Storage Customer** on an interruptible basis from 01.04. to 01.06. - in each case to the extent corresponding to the share of the firm **Working Gas Volume** to be made available of the booked firm **Working Gas Volume**.
7. Withdrawals are not permitted in the period from **Storage Day D-2WT** 08:00 a.m. to **Storage Day D** 06:00 a.m. Already existing withdrawal nominations for the period after **Storage Day D-2WT** 08:00 a.m. can be shortened by **astora**.

Injections are permitted in the period from **Storage Day D-2WT** 08:00 a.m. to **Storage Day D** 06:00 a.m., provided that the nominations were made before **Storage Day D-2WT** 08:00 a.m. However, renominations of **Injection Rate** from day D 2WT 08:00 a.m. are no longer possible.

8. **astora** shall notify the **Storage Customer** of the amount of **Storage Capacities** to be made available under Sections 2 and 3 on **Storage Day D-2WT** by 08:00 a.m.
9. Notwithstanding the provision of **Storage Capacities** to the **MAM**, the **Storage Customer** shall remain obliged to pay the **Storage Services Fee** in accordance with its **Storage Services Agreements**.
10. Article 22 of the **General Terms and Conditions for Storage Access** shall not apply to the provision of **Storage Capacities** pursuant to this Article 11.
11. **astora** shall be entitled at any time to unilaterally adjust the parameters for the calculation of the **Storage Capacities** to be made available to the **MAM** and/or the provisions for the processing/reversal of such provision as set forth in this Article 11, to the extent this is necessary due to legal and/or regulatory requirements. Official requirements within the meaning of the preceding sentence shall include not only legally binding requirements but also guidelines and/or interpretation aids issued by the Federal Network Agency ("Bundesnetzagentur"). Article 10 of the Storage Specification and Article 44 of the **General Terms and Conditions for Storage Access** shall apply to such adjustment, provided that the **Storage Customer** shall not



be entitled to terminate its ***Storage Services Agreement*** as a result thereof.