

Storage Specification Rehden Underground Storage Facility

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

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Article 1 Introduction

1. The **Storage Specification** for the Rehden **Storage Facility** defines all the details required to enable **astora** to provide **Storage Services** at the Rehden **Storage Facility**.
2. The definitions for the storage of **Gas** contained in the **General Terms and Conditions for Storage Access** shall apply. 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** the **Storage Specification** of the **Storage Location** on which the **Storage Services Agreement** is based shall form an integral part of the **Storage Services Agreement**.

Article 2 Storage Services

Article 2.1 astora-pack

1. The **astora-pack Storage Service** shall be a **Bundled Storage Service** with a minimum term of one (1) **Year**. In case **astora-pack** is only available for a period within a **Storage Year** less than the aforementioned term, **astora** shall be entitled to deviate from this minimum term.
2. At Rehden **astora-pack** shall comprise the following **Storage Capacities**:
 - a) **Injection rate**: 6.50 kWh/h and
 - b) **Withdrawal rate**: 10.00 kWh/h and
 - c) **Working gas volume**: 17,500.00 kWh
3. The minimum quantity of **astora-pack** shall be 500 bundles. In case **astora-pack** is only available for a quantity less than the aforementioned quantity, **astora** shall be entitled to deviate from this minimum quantity.
4. The availability of **astora-pack** shall be subject to the limitations of the applicable curves for injection and withdrawal according to Article 13.

Article 2.2 astora-add

1. The **astora-add Storage Service** shall be an **Unbundled Storage Service** with a minimum term of one (1) **Storage Day** which **Storage Customers** can contract in addition to **astora-pack**.
2. For the Rehden **Storage Location** the following **Storage Capacities** of **astora-add** have been offered in Phase II:
 - a) **Injection rate:** 390,000 kWh/h and
 - b) **Withdrawal rate:** 600,000 kWh/h and
 - c) **Working gas volume:** 6,055,000,000 kWhThese **Storage Capacities** can be booked independently of each other and in any combination.
3. The availability of **astora-add** shall be subject to the limitations of the applicable curves for injection and withdrawal according to Article 13.

Article 2.3 astora-part

1. The short-term and **Interruptible Storage Service astora-part** shall be a **Bundled Storage Service** with a minimum term of one (1) **Month** and a maximum term of two (2) **Years**. The service can be interrupted according to Section 5.
2. At Rehden **astora-part** shall comprise the following **Storage Capacities**:
 - a) **Injection rate:** 10.00 kWh/h and
 - b) **Withdrawal rate:** 10.00 kWh/h and
 - c) **Working gas volume:** 3,000.00 kWh
3. **astora-part** will not be offered between September 15th and November 15th.
4. The minimum quantity of **astora-part** shall be 100 bundles. In case **astora-part** is only available for a quantity less than the aforementioned quantity, **astora** shall be entitled to deviate from this minimum quantity.
5. For the **astora-part Storage Service astora** may interrupt the **Injection** and/or **Withdrawal Rate** of the **Storage Customer** completely or partially during the interruptible periods with at least two (2) **Hours** notice.
6. In case of interruption the **Storage Customer** shall be refunded the **Storage Services Fee** for the interrupted usage time on a pro rata basis; however, the refund shall be limited to 50% of the **Storage Services Fee**. This may be offset against the monthly payments.
7. The limitation of the **Injection** and/or **Withdrawal Curve** according to Article 13 shall not apply.

Article 3 Storage Services Fee

1. The **Storage Customer** shall be obligated to pay the respective **Storage Services Fee** for the **Storage Capacities** made available by **astora**. The claim to payment of this **Storage Services Fee** shall arise at the start of the **First Utilisation Day** of the respective **Storage Services Agreement**.
2. The **Storage Tariff** that applies to the **Storage Services Fee** shall be calculated on the basis of the **Basic Storage Tariff** according to Article 4 and the provisions defined in Article 5.
3. To determine the **Storage Services Fee** the number of contracted **Storage Services** shall be multiplied by the **Storage Tariff** according to Section 2 and a grand total of all **Storage Services** is formed.
4. In case **Short-term-** or **Long-term Factors** should apply, the **Storage Services Fee** calculated according to Section 3 shall be multiplied by the respective factors according to Article 6 and Article 7.
5. For **Storage Periods** less than one (1) **Year** the annual **Storage Services Fee** calculated according to Section 3 and Section 4 shall be divided by twelve (12) in order to calculate the **Storage Services Fee** per **Month**. In order to calculate the **Storage Services Fee** per **Storage Day** the **Storage Services Fee** per **Month** according to sentence 1 shall be divided by thirty (30).
6. In case seasonality factors according to Article 8 should apply, the **Storage Services Fee** calculated according to Section 5 shall be multiplied by the respective factors.

Article 4 Basic Storage Tariff

1. The **Basic Storage Tariff** for **astora-pack** according to Article 2.1 shall be:
€ 106.85 per **Year** per bundle.
2. The **Basic Storage Tariff** for **astora-add** according to Article 2.2 shall be:
 - a) **Injection Rate:** 5.17 €/(kWh/h)/y
 - b) **Withdrawal Rate:** 7.70 €/(kWh/h)/y
 - c) **Working Gas Volume:** 0.05 ct/kWh/a
3. The **Basic Storage Tariff** for **astora-part** according to Article 2.3 shall be:
€ 97.63 per **Year** per bundle.
The **Storage Tariff** shall be determined according to Article 7.
4. All the prices listed here are net prices; any statutory turnover tax that is due shall be charged separately at the applicable tax rate.

Article 5 Adjusting the Storage Tariff

1. Based on the **Basic Storage Tariff** according to 4 the **Storage Tariff** that applies to billing and payment shall be adjusted on April 1 every year - the first time on April 1, 2009 - according to the following formula:

$$E = E_0 \times \left(0.70 + 0.15 \times \frac{I}{I_0} + 0.15 \times \frac{L}{L_0} \right)$$

In this formula the terms mean:

E = **Storage Tariff** in €/year or €/month.

E_0 = **Basic Storage Tariff** as per Article 4.

I = Average annual value of the Capital Goods Price Index in the calendar year preceding the adjustment date.

The Capital Goods Price Index is published in Series 17 of the German Federal Statistical Office; Prices; Series 2; – Index der Erzeugerpreise gewerblicher Produkte (Inlandsabsatz) (Producer Price Index (domestic sales)).

I_0 = 102.4 points = Value of Index (2005 = 100) in base year 2009.

L = Average annual value of the Contractual Wage Index in the Energy Industry in the calendar year preceding the adjustment date.

The Contractual Wage Index for the Energy Industry (together) is published in Series 16 of the German Federal Statistical Office; Series 4.3; Index der tariflichen Stundenverdienste im produzierenden Gewerbe und im Dienstleistungsbereich; Basis 2005 = 100; Früheres Bundesgebiet; WZ 35 (Contractual wage index in industry and service business, former federal territory).

L_0 = 111.6 points = Value of Index (2005 = 100) in base year 2009.

2. In case any of the quotations or indices mentioned under Section 1 will not be published anymore or in an altered way being incomparable to the way in which they have been published before, **astora** shall - from the time, when the publication in the original way was suspended - be entitled to determine quotations or indices reflecting the economic keynote of the rule for adjusting the **Storage Tariff** as precisely as possible.

Article 6 Long-term Factors

In Rehden in the event of long-term booking of **Storage Capacities** in the form of the offered **Storage Services astora-pack** and **astora-add** as per Article 2, the following **Long-term Factors** shall apply:

contract duration	factor
≥ 24 months	0.9850
≥ 36 months	0.9700
≥ 48 months	0.9550
≥ 60 months	0.9400
≥ 72 months	0.9250

Article 7 Short-term Factors

For booking the **astora-add** or **astora-part Storage Services** in the Rehden **Storage Location** with duration of less than one **Year** the following **Short-term Factors** shall apply:

contract duration	factor
≥ 6 months	1.050
≥ 3 months	1.100
≥ 1 storage day	1.200

Article 8 Seasonality Factors

For booking the **astora-add Storage Service** with duration of less than one **Year** the following seasonality factors shall apply for certain **months** depending on the type of single service:

- a) **Injection Rate** from April to September: 1.1000
- b) **Withdrawal Rate** from October to March: 1.2000
- c) **Working Gas Volume** from July to December: 2.0000

Article 9 Fee for Exceeding the Storage Capacities

1. The **Fee for Exceeding the Storage Capacities** will be calculated daily by using the **Tariff for Exceeding the Storage Capacities** according to the following Article 10 on the basis of the maximum hourly volume which exceeds the available capacity for injection and withdrawal as defined in Article 13 per **Storage Day**.

2. In the case that the **Storage Customer's Storage Level** is less than zero (0), **astora** shall be entitled but not be obliged to buy and to inject **Natural Gas** which is needed for balancing the **Storage Customer's Storage Account**. The **Storage Customer** shall be obliged to pay 150% of the purchase price as well as all the related costs.

Article 10 Tariff for Exceeding the Storage Capacities

1. The **Tariff for Exceeding the Storage Capacities** shall be:
 - a) **Injection rate:** 2.8 ct/(kWh/h)/d
 - b) **Withdrawal rate:** 4.2 ct/(kWh/h)/d
 - c) **Working Gas Volume:** 1.4 ct/MWh/d
2. All the prices listed here are net prices; any statutory turnover tax that is due shall be charged separately at the applicable tax rate.

Article 11 Rounding Procedure

To round the calculations of this **Storage Specification** up or down the intermediate calculations shall be rounded up or down to four (4) decimal places and the final results to two (2) decimal places. If the fifth (5th) or third (3rd) decimal place respectively should be five (5) or more, the sum shall be rounded up, if it is less than five (5), it shall be rounded down.

Article 12 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.

During the time period November 1st until April 1st physical injection can only be provided on best effort basis.

astora shall inform the **Storage customer** in writing about the duration and the extent of such limitations without unreasonable delay.

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.

During the time period April 1st until October 1st physical withdrawal can only be provided on best effort basis.

astora shall inform the **Storage customer** in writing about the duration and extent of such limitations without unreasonable delay.

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.

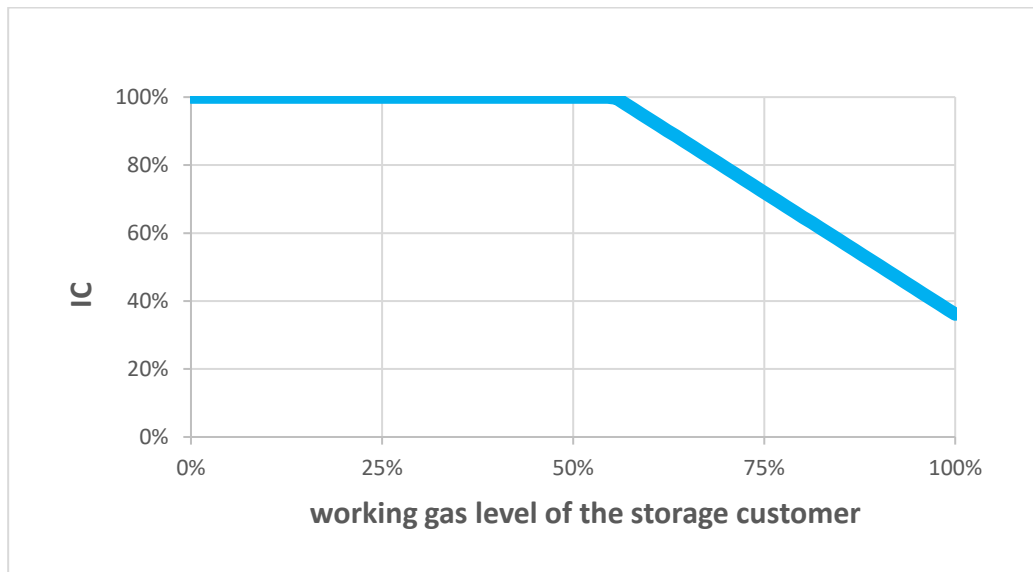
Article 13 Curves for Injection and Withdrawal

1. The usage of the **Storage Services** as per Article 2.1 and Article 2.2 is limited by the curves for injection and withdrawal.

The curves for injection and withdrawal of the Rehden **Storage Facility** assumed shall apply herein in combination with the **Storage Services** as per Article 2.1 and Article 2.2 also for the corresponding **Storage Services Agreements**.

astora is entitled to reduce the **Injection Capacity** or **Withdrawal Capacity** depending on the ratio of the **Storage Customer's** current storage level to his booked **Working Gas Volume**.

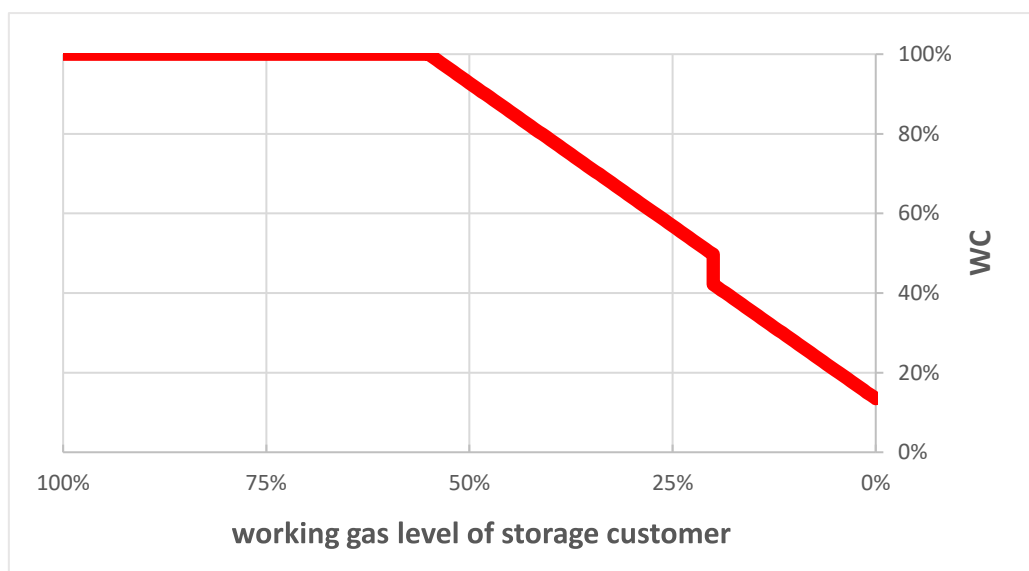
2. The **Injection Curve** shows the **Storage Customer's** usable **Injection Capacity** (IC) as a percentage of his booked **Injection Capacity**. If the **Storage Customer's** storage level exceeds 55.7827298050139 % of the **Working Gas Volume** he has booked, the IC is calculated as follows:



$$IC [\%] = WGV [\%] \times (-1.436) + 180.104$$

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

- The **Withdrawal Curve** shows the **Storage Customer's** usable **Withdrawal Capacity** (WC) as a percentage of his booked **Withdrawal Capacity**. If the **Storage Customer's** storage level drops below 55.0348189415042 % of the **Working Gas Volume** he has booked, the WC is calculated as follows:



Working gas level between 55.0348189415042 % and 20%:

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

Working gas level lower than or equal to 20%:

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

The **Withdrawal Capacity** 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 14 Delivery Points

1. The **Point of Injection** shall be the entry point of the Rehden **Storage Location**, which corresponds to the point at which the **Storage Location** is connected to the **Neighbouring Natural Gas Network** (network interconnection point: 3070 Sp. Rehden). The **Neighbouring Natural Gas Network** of the Rehden **Storage Location** is the gas network operated by GASCADE Gastransport GmbH, Kassel.
2. The **Point of Withdrawal** shall be the exit point of the Rehden **Storage Location**, which corresponds to the point at which the **Storage Location** is connected to the **Neighbouring Natural Gas Network** (network interconnection point: 3070 Sp. Rehden). The **Neighbouring Natural Gas Network** of the Rehden **Storage Location** is the gas network operated by GASCADE Gastransport GmbH, Kassel.
3. The **Allocation Procedure** in Rehden shall be declaratory.

Article 15 Gas Quality Specifications

For the Rehden **Storage Facility** the published quality parameters of the network operator at the **Delivery Points** listed in Article 14 shall apply.

Article 16 Changes in the Storage Specification

1. **astora** may change the **Storage Specification** – except for Article 3, 4 and Article 5 - at any time. Deviating from Sentence 1 **astora** shall be entitled to change Article 3, Article 4 and Article 5 at any time as far as these changes are economically neutral updates or amendments without any impact on existing **Storage Services**.
2. With regard to changes in the **Storage Specification** Article 44 of the **General Terms and Conditions for Storage Access** shall apply accordingly.

Article 17 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.

2. **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**").
3. 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**.
4. 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.
5. 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**.

6. 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**.
7. 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**.
8. 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.
9. **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.
10. 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**.
11. Article 22 of the **General Terms and Conditions for Storage Access** shall not apply to the provision of **Storage Capacities** pursuant to this Article 17.
12. **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 17, 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 16 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.