



Annex B

**Storage Specification
Etzel Gas-Lager - Statoil**

Statoil Deutschland Storage GmbH
Dithmarscher Str. 13
26723 Emden

(hereinafter referred to as "SDS")

1. Introduction

The Storage Specification for the Etzel Gas-Lager – Statoil defines all the details required to enable SDS to provide Storage Services at the Etzel Gas-Lager – Statoil.

The definitions contained in the Terms and Conditions shall apply.

Upon the conclusion of a Storage Contract between SDS and the Storage Customer the Storage Specification shall form an integral part of the Storage Contract.

2. Adjustment of Storage Services

- a. SDS shall make available to the Storage Customer the Storage Services and Additional Services agreed upon in the Storage Contract subject to the conditions described in the Storage Specifications.
- b. If the availability of the Storage Capacities differs from the contracted Storage Services and/or from the weekly forecast, SDS shall be entitled to adjust the availability of the Storage Services to the availability of the Storage Capacities.
- c. Should the amount of Storage Services that have been contracted by all storage customers of SDS exceed the amount of available Storage Capacities, SDS shall be entitled to adjust all storage customers' amount of contracted Storage Services proportionally to the amount of available Storage Capacity.
- d. The Adjustment of Storage Services as set out in this Art. 2 shall also apply to contracted Additional Services.

3. 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.

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4. Convergence adjustment

Salt caverns used for the underground storage of natural gas are subjected to the natural convergence behaviour of rock-salt. This is why the storage volumes of caverns utilized at the Storage Facility Etzel Gas-Lager need to be adjusted on an annual basis, at the start of the German natural gas storage year, i.e. on April 1 each year. The convergence behaviour of Etzel Gas-Lager caverns is a reduction of total cavern volume of 1% per annum.

5. Technical data

The Storage Customer has to acknowledge and comply with following technical data which apply for Etzel Gas-Lager - Statoil:

General Storage Facility data	
Owner	Statoil Deutschland Storage GmbH
Storage facility	Etzel Gas-Lager - Statoil
Type	Salt cavern storage facility
Gas quality	H-Gas
Location	Friedeburg-Etzel, Schienenstrang
Average superior calorific value	11.60 kWh/Nm ³
Maximum available capacities from 05.12.2014	
<ul style="list-style-type: none"> • Maximum Capacities = The sum of injection or the sum of all withdrawal at all Delivery Points. • Storage Capacities do not consider available transportation capacities to and from the delivery points. 	
Minimum injection rates and minimum withdrawal rates	
Min. physical withdrawal rate*	100.000 Nm ³ /h
Min. physical injection rate*	75.000 Nm ³ /h
* Physical rate results from aggregated nominations of all users of Etzel Gas-Lager	
Firm Storage Capacities	
Max. withdrawal rate**	312.840 Nm ³ /h
Max. injection rate**	169.501 Nm ³ /h
** applies to firm nomination rights	
Max. working gas capacity	197.105.224 Nm ³
Interruptible Storage Capacities	
Max. withdrawal rate***	1.007.160 Nm ³ /h
Max. injection rate***	600.499 Nm ³ /h
** applies to interruptible nomination rights acquired by Additional Services	
Max. working gas capacity	To be agreed upon

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Times					
Lead time for injection	2 h				
Lead time for withdrawal	2 h				
Flow reversal time injection/withdrawal	2 h				
Time to process re-nomination	2 h				
Limitations by the injection and withdrawal curve	Depending on cavern pressure, permit and outside pressure: Decline in curve of approx. 50% after 60% on plateau.				
Gas Quality Specifications					
For gas quality specifications the following standards and references apply:					
<ul style="list-style-type: none"> • Arbeitsblatt G 260 2013-03 Gasbeschaffenheit • "Common Business Practice" by EASEE-gas • DIN EN ISO 18453 					
Storage connection					
Delivery Point		Neighbouring Network Operator	Market Areas	Working Gas Account	Gas pressure at Delivery Point
Friedeburg-Etzel, Schienenstrang, EGL	(Inj / Exit) (WD / Entry)	Open Grid Europe	NCG	MA	According to TSO specification
Etzel, Etzel Gas-Lager H 171 S	(Inj / Exit)	jordgas Transport	Gaspool	MA	
Etzel, Etzel Gas-Lager H 152 S	(WD / Entry)	jordgas Transport	Gaspool	MA	
Delivery Point		Neighbouring Network Operator	Market Areas	Working Gas Account	Gas pressure at Delivery Point
Emden NPT-R	(Inj / Exit) (WD /Entry)	Gassco	-	SAL	According to TSO specification
Emden EPT-R	(Inj / Exit) (WD /Entry)	Gassco	-	SAL	
Friedeburg-Etzel, Schienenstrang, EGL (SAL)	(WD / Entry)	Open Grid Europe	NCG	SAL	
Etzel, Etzel Gas-Lager SAL H216S	(WD /Entry)	jordgas Transport	Gaspool	SAL	



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6. Injection and withdrawal curve

The utilisation of the contracted Storage Services is limited through the injection and withdrawal curve. The injection and withdrawal curve for Etzel Gas-Lager – Statoil depends among others on the following factors:

- Behaviour of other Etzel Gas-Lager users (not only SDS customers)
- Cavern pressure
- Requirements based on rock-mechanical permits
- Grid pressure of the Netra pipeline

The injection and withdrawal curve will be outlined to the Storage Customer based on the contracted Storage Services.

7. Changes in the Storage Specifications

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