

# CODE OPERATIONNEL DE RESEAU TRANSMISSION



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# Article 1 Part constitution, amendments and changes

The present part forms integral part of the Contract which is part of the appendices of Sections A B C D1 and D2 of the Contract since applicable to the title of the Contract.

All the Contract stipulations apply mutatis mutandis to the present part.

In accordance with article 2 of the Contract, the Shipper commits himself becoming acquainted with any evolution or update of this posterior part at the date of signature of the Contract, notified by GRTgaz.

# 1.1 Amendments following legislative and regulatory changes of the legal framework

The stipulations of article "Amendments following legislative and regulatory changes" Section A of the Contract apply mutatis mutandis in the case of new legislative or regulatory provisions from any competent authority that may apply directly or indirectly to this part or a decision of the Energy Regulatory Commission under the article L 134-2 of the energy Code or a final decision of the CoRDIS under the articles L 134-19 to 24 of the energy Code, would come into effect after the Contract signature.

# 1.2 Other changes

The stipulations of article "Other changes" Section A of the Contract apply mutatis mutandis in the case of GRTgaz should amend the Contract for reasons other than those referred to in sub-clause 1.1 above.

### Article 2 Introduction

This document sets out:

- The Network Operational Limits of the GRTgaz network
- The conditions of capacity availability on GRTgaz' main transmission system for each contractual point with interruptible capacity.
- The conditions of capacity availability at the Montoir, Fos and Le Havre Terminal Interface Points.

The terms used in this document are in accordance with the definitions presented in the Appendix A1 of the Transmission Contract.

# Article 3 Presentation of the Network operational limits of the GRTgaz Network

In accordance with the provisions of the transmission contract, Firm Capacity means a capacity whose utilisation is guaranteed by GRTgaz under normal network operating conditions, outside the occurrence of



works and force majeure. Normal network operating conditions are fixed according to the Network Operational limits as described in this clause.

# 3.1 Methodology for identifying the Network Operational Limits

The Network Operational Limits cover for a maximum and minimum utilisation on an array of contractual points potentially leading to the physical congestion on the transmission network infrastructures.

As the infrastructure investments achieved ahead of the Single Market Zone do not cover for all the flow schemes that could be requested by the users of the Network, certain Network Operational Limits remain.

An Operational Limit within the Network is reached in the event of one or several cases of infrastructure congestion occurrences in a given direction, preventing the transmission of gas from an upstream zone – where gas is in surplus – towards a downstream zone, where there is a deficit in gas.

Each Network Operational Limit has an impact on the contractual points upstream and downstream:

- In the upstream direction: the sum of the capacity flows at contractual points on entry (subtracted from the exit flows) must be inferior to a certain level;
- In the downstream direction: the sum of the capacity flows on the contractual points on exit (subtracted from entry flows) must be inferior to a certain level.

In the event of one of the Network Operational Limits being reached, the Nominations may be reduced in accordance with the terms of the Mutualized Restriction or the Anticipated Restriction mechanism as a last resort mechanism and further to the prior application of the remainder of the mechanisms already in place.

# 3.2 List of the Network Operational Limits



Map of the North ⇒ South and West ⇒ East limits



Map of the South ⇒ North limits

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List of the points upstream and downstream of each limit/constraint identified as part of the TRF functional survey:

Limits	Points upstream of the limit	Points downstream of the limit
NS1	Virtualys PIR, Obergailbach PIR, Oltingue PIR	Dunkirk PIR, Dunkerque LNG PITTM, Le Havre PITTM, Northeast PITS, Northwest PITS, Southeast PITS, Montoir PITTM, Atlantic PITS, Fos PITTM, Pirineos PIR, Lussagnet PITS
NS2	Dunkirk PIR, Dunkerque LNG PITTM, Le Havre PITTM, Virtualys PIR, Obergailbach PIR, Oltingue PIR, Northeast PITS, Northwest PITS, Montoir PITTM	Southeast PITS, Atlantic PITS, Fos PITTM, Pirineos PIR, Lussagnet PITS
NS3	Dunkirk PIR, Dunkerque LNG PITTM, Le Havre PITTM, Virtualys PIR, Obergailbach PIR, Oltingue PIR, Northeast PITS, Northwest PITS, Southeast PITS, Montoir PITTM	Atlantic PITS, Fos PITTM, Pirineos PIR, Lussagnet PITS
NS4	Dunkirk PIR, Dunkerque LNG PITTM, Le Havre PITTM, Virtualys PIR, Obergailbach PIR, Oltingue PIR, Northeast PITS, Northwest PITS, Southeast PITS, Montoir PITTM, Atlantic PITS	Fos PITTM, Pirineos PIR, Lussagnet PITS
S1	Dunkirk PIR, Dunkerque LNG PITTM, Le Havre PITTM, Virtualys PIR, Obergailbach PIR, Oltingue PIR, Northeast PITS, Northwest PITS, Southeast PITS, Montoir PITTM, Atlantic PITS, Fos PITTM	Pirineos PIR, Lussagnet PITS
EO2	Dunkirk PIR, Dunkerque LNG PITTM, Le Havre PITTM, Virtualys PIR, Obergailbach PIR, Oltingue PIR, Northeast PITS, Northwest PITS, Southeast PITS, Fos PITTM, Montoir PITTM	Atlantic PITS, Pirineos PIR, Lussagnet PITS
SN1	Fos PITTM, Pirineos PIR, Lussagnet PITS	Dunkirk PIR, Dunkerque LNG PITTM, Le Havre PITTM, Virtualys PIR Obergailbach, PIR, Oltingue PIR, Northeast PITS, Northwest PITS, Southeast PITS, Montoir PITTM, Atlantic PITS
SN3	Montoir PITTM, Atlantic PITS, Fos PITTM, Pirineos PIR, Lussagnet PITS	Dunkirk PIR, Dunkerque LNG PITTM, Le Havre PITTM, Virtualys PIR, Obergailbach PIR, Oltingue PIR, Northeast PITS, Northwest PITS, Southeast PITS

The above list is non-exhaustive and may change according to the flow schedules experienced under TRF.

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# Article 4 Reminder concerning Capacity

# 4.1 Firm Capacity: Definition

In accordance with the general conditions of the transmission Contract, a Firm capacity is a capacity whose availability is contractually guaranteed by GRTgaz under normal operating conditions, in particular excluding maintenance works or case of force majeure.

## 4.2 Reverse Capacity: Definition

In accordance with the general conditions of the transmission Contract, a Reverse capacity is a capacity in the opposite direction to the Main Physical Flow at an Entry Point or at a Delivery Point.

#### 4.3 Case of PITS

In the specific case of Transport Storage Interface Points (PITS), allocated capacities are of « Transport Storage Interface Capacity » (CITS) type.

GRTgaz makes its best efforts, as a prudent and reasonable operator, in order to accept nominations at PITS higher than subscribed capacity.

#### 4.3.1 Nord B PITS

Availability of the CITS at the Nord B PITS (DEL) varies over the year depending of the consumptions in the L-gas zone, as described in Appendix 13.

Availability of the CITS at the Nord B PITS (REC) is guaranteed under normal operating conditions.

#### 4.3.2 All PITS except Nord B

The CITS of all PITS in the DEL direction, except Nord B, is made of a firm and of an interruptible part. The availability of the firm part is guaranteed under normal operating conditions. The availability of the interruptible part is guaranteed under normal operating conditions and up to the occurrence of congestion. The interruptible part of the CITS and the conditions of availability are described in appendices 14 to 17.

Availability of the CITS in the REC direction is guaranteed under normal operating conditions.

# Article 5 Availability of Interruptible Capacity

#### 5.1 Definition

In accordance with the general terms and conditions of the Transmission Contract, an Interruptible Capacity is a capacity whose use is not guaranteed by GRTgaz.

## 5.2 Availability conditions

The availability of Interruptible Capacity depends of several factors:



- The consumption level, seasonality and considered month,
- The network configuration, especially related to nomination¹ requests of all shippers on a given point or an array of points,
- The maintenance works.

Each interruptible capacity can be divided into a "climate-related" part and a "scheduled" part, respectively associated to the consumption or temperature parameter and to the nomination parameter of all shippers.

This document sets out the relations between the capacity on the considered contractual point and these 2 parameters, excluding periods of maintenance works and under normal Operating Conditions.

This document predicts the availability of interruptible capacities by cross-referencing the weather scenarii experienced over the past few years with a reference supply scenario based on preferential utilisation by the shippers operating on the interconnection points located in the north for network supply purposes.

# 5.3 Curtailment Order of Interruptible Capacity

In case of interruption, accordingly to Article 24 of Netword Code CAM, Interruptible Capacity of higher maturity prevails over Interruptible Capacity of lower maturity. Thus, interruption order is as follows: daily Interruptible Capacity are interrupted first, then monthly, then quarterly, then yearly.

# 5.4 Description of information forms

The main features of the contractual points listed below are provided in the attached appendices.

#### PIR Entry points

- OBERGAILBACH: Forward & backhaul
- DUNKERQUE
- TAISNIERES B: Forward & backhaul
- OLTINGUE: Forward

#### PIR Exit points

VIRTUALYS: Forward & backhaul

#### Other points

Conversion B to H

#### **PITTM**

- MONTOIR
- FOS
- LE HAVRE

#### PITS Exit points

- Injection into PITS Nord B
- Injection into PITS Nord Est
- Injection into PITS Atlantique
- Injection into PITS Sud Est

Each of the forms provided in the Appendix is divided into 3 sections with the following information:

#### 5.4.1 « Capacity » section

This section summarizes the capacities available each month that includes the firm part, the "climate-related" interruptible part, and the interruptible part depending on nomination requests.

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<sup>&</sup>lt;sup>1</sup> The "nomination" term here (and for the rest of this document) stands for nomination requests at 2pm D-1.



## 5.4.2 « Conditions of capacity availability » section

This section provides indicative formulas concerning the availability in relation with the temperature or consummation parameter (for the "climate-related" part) and the nomination requests parameter for all shippers (for "the scheduled" part).

The interpretation key for the tables are supplied as follows:

- The available interruptible parts "climate-related" and "scheduled" can be aggregated,
- The interruptible capacities are always between 0 and the maximum interruptible capacity specified in the table for each of the "climate-related" and "scheduled" parts.

The formulae supplied allow for an estimate of the available capacity:

- Gas consumption forecasts on GRTgaz network, in H gas or L gas, are used to determine the "climate-related" parts.
- Total resultant nomination request on a point or an array of points is used to determine the "scheduling-related" parts.

The total resultant nomination request on a contractual point or an array of contractual points correspond with the difference between:

- The Entry nomination requests sum of all shipper on this point,
- The Exit nomination requests sum on this same point.

A shipper can estimate the availability of Interruptible Capacity on a certain point with a hypothesis of total resultant nomination request on other points.

#### 5.4.3 Section « History » section

This section allows comparing the historical achievements of allocations (quantities allocated) over the period 1 January – 31 December for monthly profiles of the available capacities.

# Article 6 Capacity at the Montoir, Fos and Le Havre LNG Terminal Interface Points

#### 6.1 PITTM Montoir

The available entry capacity at the Montoir Transport LNG Terminal Interface Point depends on the local level consumptions. The maximum additional "climatic" capacity is obtained for an average daily temperature experienced on two occasions over 100 years in the month considered.

On the basis of these relations and taking into account the delivery history over the last two years as all as climatic data, it is also possible to conduct a statistical analysis to determine the minimum capacity available each day at a given level of probability. The curve provided in Appendix 10 thus represents the minimum capacity available each day using a 50% and 90% probability scenario. The probability level is determined using the consumption parameter.



#### 6.2 PITTM Fos

The entry capacity at the Transport LNG Terminal Interface Point depends on the following system parameters:

- Rhône pipeline transit capacity. Which depends on the performance of the pipeline's infrastructures.
- The consumption level in the southeast area. Which depends on the temperature and operations of certain major industrial customers (for example Combined-Cycle Gas Turbines power plants).
- **Deliveries towards** Teréga **via the Midi pipeline.** These deliveries depend global balances of the GRTgaz and Teréga balancing zones.
- The level of injection and/or withdrawal into/from the Manosque storage facility. This level depends on shipper's nominations on PITS Sud Est.

The Firm Capacity at PITTM of Fos is guaranteed in normal operating conditions of the network.

The curve provided in Appendix 12 presents the entry capacity available each day using a 50% and a 90% probability scenario. The probability level is calculated on the basis of all consumption parameters taken together, including deliveries to Cruzy and Manosque (and not on the basis of each parameter separately).

#### 6.3 PITTM Le Havre

The available entry capacity at the Le Havre Transport LNG Terminal Interface Point depends on the local level consumptions, and especially on the operation of certain major industrial consumers in the Normandy basin.

The level of Firm Capacity for a given month is determined on the basis of a statistical analysis of historical deliveries and consumer behavior scenarios, in order to calculate the minimum level of daily consumption during that month.

GWh/d	avr-23	mai-23	juin-23	juil-23	août-23	sept-23
Firm	620	620	620	620	620	620
Max interruptible, part of climatic parameter	0	0	0	0	0	0
Max interruptible, part of scheduling parameter	30	30	30	30	30	30
Maximum capacity	650	650	650	650	650	650

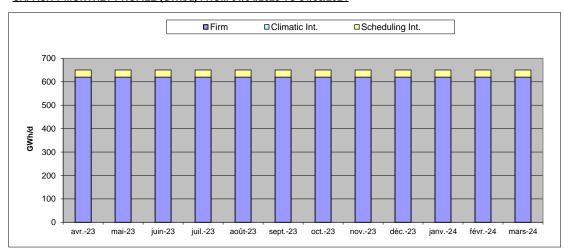
GWh/d	oct-23	nov-23	déc-23	janv-24	févr-24	mars-24
Firm	620	620	620	620	620	620
Max interruptible, part of climatic parameter	0	0	0	0	0	0
Max interruptible, part of scheduling paramete	30	30	30	30	30	30
Maximum capacity	650	650	650	650	650	650

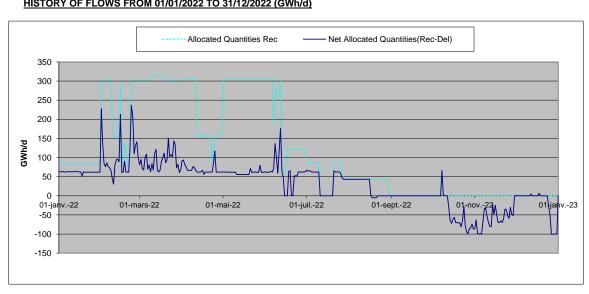
#### AVAILABILITY CONDITIONS OF INTERRUPTIBLE CAPACITY

The interruptible capacity of the Obergailbach entry is available:

- according to the net scheduled quantities on Virtualys, Obergailbach and Oltingue up to the appearance of the NS1 limit,
- according to the net scheduled quantities on Dunkerque, Dunkerque GNL, Virtualys, Obergailbach, Oltingue, North-East PITS, North-West PITS and South-East PITS, up to the appearances of the NS2 limit and the NS3 limit during average to very
- according to the net scheduled quantities on Dunkerque, Dunkerque GNL, Virtualys, Obergailbach, Oltingue, Montoir, North-East PITS, North-West PITS, South-East PITS and Atlantic PITS up to the appearance of the NS4 limit during very cold
- and also depending on net scheduled quantities on points upstream the EW2 limit.

#### CAPACITY MONTHLY PROFILE (GWh/d) FROM 01/04/2023 TO 31/03/2024





GWh/d	avr-23	mai-23	juin-23	juil-23	août-23	sept-23
Firm	0	0	0	0	0	0
Reverse	250	250	250	250	250	250
Maximum capacity	250	250	250	250	250	250

GWh/d	oct-23	nov-23	déc-23	janv-24	févr-24	mars-24
Firm *	0	0	0	0	0	0
Reverse	250	250	250	250	250	250
Maximum capacity	250	250	250	250	250	250

#### **AVAILABILITY CONDITIONS OF REVERSE CAPACITY**

Reverse capacity at Obergailbach (Del) depends on a technical minimum flow (net entry flow > 42 GWh/d), up to the appearance of the SN1 limit and the SN3 limit.

Since the gas day of Wednesday 17 August 2022, the formula for calculating the backhaul CTE at the Obergailbach point has changed temporarily, in derogation to the usual rules. The technical minimum is removed and the operating margin is reduced in order to maximise the backhaul CTE. This exceptional and transitional measure, due to the current crisis, results in the closur of the Obergailbach station, and is likely to cause operaional difficulties for GRTgaz's network, paticularly in the event of major fluctuations in nominations. GRTgaz will therefore revert to the usual rules in the event of operational difficulties.

#### \* CONDITIONS OF AVAILABILITY OF FIRM CAPACITY

GRTgaz creates a physical exit flow at Obergailbach of a maximum level of 100 GWh/d. This capacity will only be marketed on a daily basis, under the conditions of Article 4.1.4 of Section B of the Transmission Contract. The marketed level will be determined daily and will vary between 0 and 100 GWh/d depending on different network parameters. However, daily capacities will not be offered to the Shipper in the following cases:

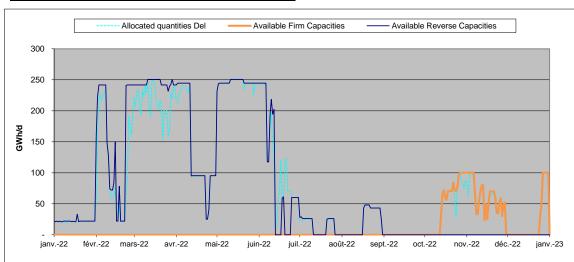
- Reaching the South/North Operational Limits of the Network;
- Reversal of physical flows at Obergailbach from the "France exit" direction to the "France entry" direction that took place less than a week before;
- Different technical specifications between the Operators preventing gas from being exported to Germany;
- Works preventing the physical flow at Obergailbach in the "France exit" direction;
- At the request of the competent administrative authority when there is a risk of no longer being able to ensure the continuity of natural gas supply on the continental metropolitan territory.

#### MARGIN FOR DETERMINATION OF REVERSE CAPACITY FROM 01/04/2023 TO 31/03/2024

The reverse capacity is based on Schedulings. The within-day renominations are likely to alter the level of reverse capacity. Therefore, the reverse capacity is proposed with a margin to cover the main part of the differences between the reverse capacity calculated based on the scheduled quantities and the reverse capacity calculated based on the allocated quantities, without overly affecting its availabity.

GRTgaz reserves its right to to adapt the margin between 10 and 60 GWh/d during the year according to market conditions.

#### HISTORY OF FLOWS FROM 01/01/2022 TO 31/12/2022 (GWh/d)



Over 2022, there was available reverse capacity (as a % of days): Over 2022, the availabilty of a reverse capacity of 100 GWh/d was:

55% 28%

GWh/d	avr-23	mai-23	juin-23	juil-23	août-23	sept-23
Firm	570	570	570	570	570	570
Max interruptible, part of climatic parameter	0	0	0	0	0	0
Max interruptible, part of scheduling paramete	36	36	36	36	36	36
Maximum capacity	606	606	606	606	606	606

GWh/d	oct-23	nov-23	déc-23	janv-24	févr-24	mars-24
Firm	570	570	570	570	570	570
Max interruptible, part of climatic parameter	0	0	0	0	0	0
Max interruptible, part of scheduling paramete	36	36	36	36	36	36
Maximum capacity	606	606	606	606	606	606

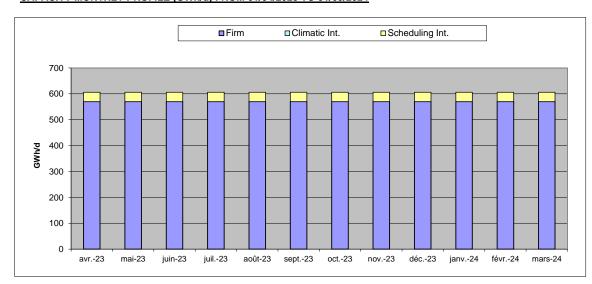
#### **AVAILABILITY CONDITIONS OF INTERRUPTIBLE CAPACITY**

The interruptible capacity of the Dunkerque entry is available :

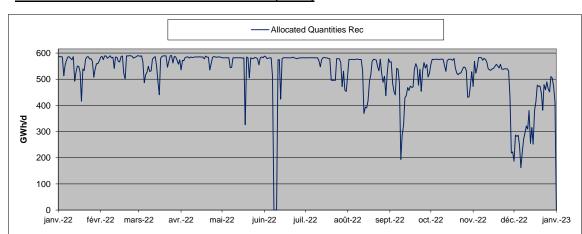
- according to the net scheduled quantities on Dunkerque, Dunkerque GNL, Virtualys, Obergailbach, Oltingue, North-East PITS, North-West PITS et South-East PITS, up to the appearances of the NS2 limit and the NS3 limit during average to very cold Winters.
- according to the net scheduled quantities on Dunkerque, Dunkerque GNL, Virtualys, Obergailbach, Oltingue, Montoir, North-East PITS, North-West PITS, South-East PITS and Atlantic PITS up to the appearance of the NS4 limit during very cold Winters
- and also depending on net scheduled quantities on points upstream the EW2 limit.

In Summer and during mild Winters, the interruptible capacity on Dunkerque is always available (except if works).

#### CAPACITY MONTHLY PROFILE (GWh/d) FROM 01/04/2023 TO 31/03/2024



#### HISTORY OF FLOWS FROM 01/01/2022 TO 31/12/2022 (GWh/d)



On this time period, 90% of the time, the net allocated quantities were lower than 585 GWh/d On this time period, 50% of the time, the net allocated quantities were lower than 573 GWh/d

GWh/d	avr-23	mai-23	juin-23	juil-23	août-23	sept-23
Firm	100	100	100	100	100	100
Max interruptible, part of climatic parameter	0	0	0	0	0	0
Max interruptible, part of scheduling parameter	100	100	100	100	100	100
Maximum capacity	200	200	200	200	200	200

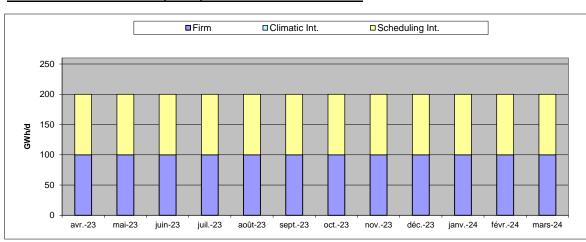
GWh/d	oct-23	nov-23	déc-23	janv-24	févr-24	mars-24
Firm	100	100	100	100	100	100
Max interruptible, part of climatic parameter	0	0	0	0	0	0
Max interruptible, part of scheduling parameter	100	100	100	100	100	100
Maximum capacity	200	200	200	200	200	200

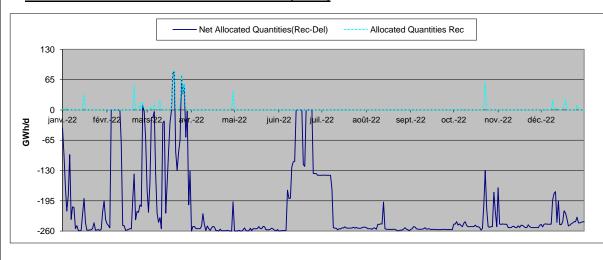
#### **AVAILABILITY CONDITIONS OF INTERUPTIBLE CAPACITY**

The interruptible capacity of the Oltingue entry is available :

- according to the net scheduled quantities on Virtualys, Obergailbach and Oltingue up to the appearance of the NS1 limit,
- according to the net scheduled quantities on Dunkerque, Dunkerque GNL, Virtualys, Obergailbach, Oltingue, North-East PITS, North-West PITS and South-East PITS, up to the appearances of the NS2 limit and the NS3 limit during average to very cold Winters.
- according to the net scheduled quantities on Dunkerque, Dunkerque GNL, Virtualys, Obergailbach, Oltingue, Montoir, North-East PITS, North-West PITS, South-East PITS and Atlantic PITS up to the appearance of the NS4 limit during very cold Winters
- and also depending on net scheduled quantities on points upstream the EW2 limit

#### CAPACITY MONTHLY PROFILE (GWh/d) FROM 01/04/2023 TO 31/03/2024





VIRTUALYS (Del) Appendix 5

#### CAPACITES (GWh/d)

GWh/d	avr-23	mai-23	juin-23	juil-23	août-23	sept-23
Firm	271	271	271	271	271	271
Max Reverse, part of climatic parameter	0	0	0	0	0	0
Max Reverse, part of scheduling parameter	200	200	200	200	200	200
Maximum capacity	471	471	471	471	471	471

GWh/d	oct-23	nov-23	déc-23	janv-24	févr-24	mars-24
Firm	271	271	271	271	271	271
Max Reverse, part of climatic parameter	0	0	0	0	0	0
Max Reverse, part of scheduling parameter	200	200	200	200	200	200
Maximum capacity	471	471	471	471	471	471

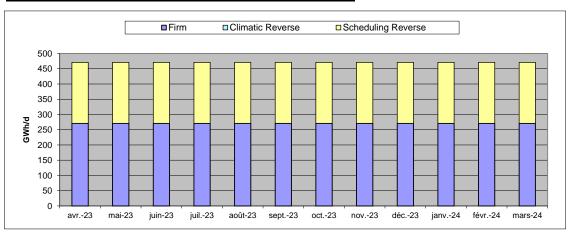
#### **AVAILABILITY CONDITIONS OF INTERRUPTIBLE CAPACITY**

Interruptible capacities are available if a maximum physical flow is maintained on VIRTUALYS(Del): VIRTUALYS(Del - Rec) < 271 GWh/d - DKB and up to the appearance of the SN1 limit and the SN3 limit.

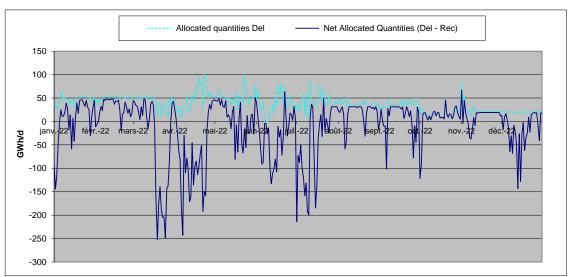
DKB = nominated flow from the Dunkerque gas terminal to Belgium

In order to cover the variations due to the within-day nominations, a 20 GWh/d margin is applied on the interruptible capacity from 01/04/2023 to 31/03/2024.

#### CAPACITY MONTHLY PROFILE (GWh/d) FROM 01/04/2023 TO 31/03/2024



# HISTORY OF FLOWS FROM 01/01/2022 TO 31/12/2022 (GWh/d)



Over this period, 10% of time, the allocated quantity Del was greater than Over this period, 50% of time, the allocated quantity Del was greater than

54 GWh/d 37 GWh/d

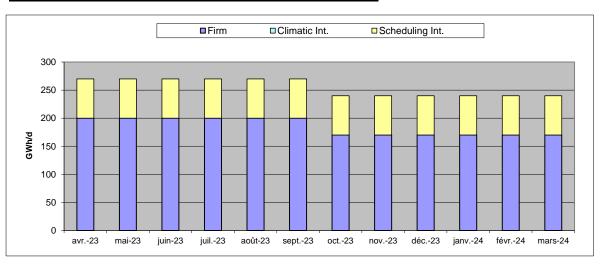
GWh/d	avr-23	mai-23	juin-23	juil-23	août-23	sept-23
Firm	200	200	200	200	200	200
Max interruptible, part of climatic parameter	0	0	0	0	0	0
Max interruptible, part of scheduling parameter	70	70	70	70	70	70
Maximum capacity	270	270	270	270	270	270

GWh/d	oct-23	nov-23	déc-23	janv-24	févr-24	mars-24
Firm	170	170	170	170	170	170
Max interruptible, part of climatic parameter	0	0	0	0	0	0
Max interruptible, part of scheduling paramete	70	70	70	70	70	70
Maximum capacity	240	240	240	240	240	240

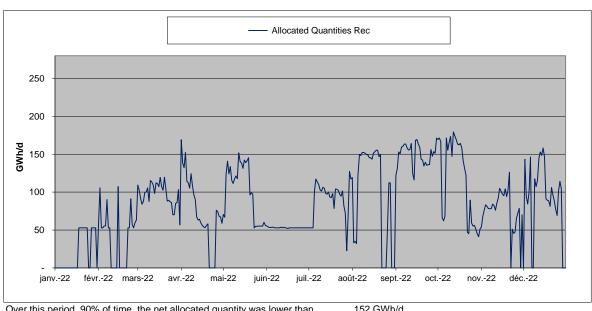
#### **AVAILABILITY CONDITIONS OF INTERRUPTIBLE CAPACITY**

Interruptible capacity is available if transfer B -> H is scheduled. Each GWh/d of B -> H scheduled quantity increases interruptible capacity at Taisnières B (Rec) by 1 GWh/d, within the limit of 70 GWh/d.

#### CAPACITY MONTHLY PROFILE (GWh/d) FROM 01/04/2023 TO 31/03/2024



#### HISTORY OF FLOWS FROM 01/01/2022 TO 31/12/2022 (GWh/d)



Over this period, 90% of time, the net allocated quantity was lower than Over this period, 50% of time, the net allocated quantity was lower than

152 GWh/d 85 GWh/d

GWh/d	avr-23	mai-23	juin-23	juil-23	août-23	sept-23
Firm	0	0	0	0	0	0
Reverse	7,5	7,5	7,5	7,5	7,5	7,5
Maximum capacity	7,5	7,5	7,5	7,5	7,5	7,5
mazamam sapasny	, -	,-	,	,	,	, i
GWh/d	oct-23	nov-23	déc-23	janv-24	févr-24	mars-24
· · ·		,	déc-23 0	janv-24	févr-24	mars-24
GWh/d	oct-23	nov-23	déc-23 0 7,5		févr-24 0 7,5	

#### **AVAILABILITY CONDITIONS OF REVERSE CAPACITY**

The reverse capacity in Taisnières B (Del) depends on a minimum technical level (net entry flow > 52 GWh/d), and on scheduling in Taisnières B (Rec), up to 7.5 GWh/d:

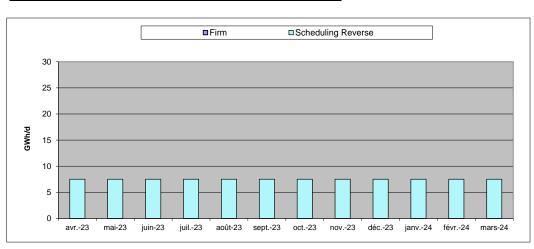
Reverse capacity = (TaisnB(Rec)-52)/24

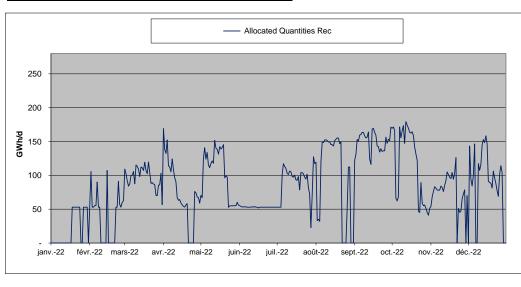
#### MARGIN FOR DETERMINATION OF REVERSE CAPACITY FROM 01/04/2023 TO 31/03/2024

The reverse capacity in Taisnières B is based on Schedulings. The within-day renominations are likely to alter the level of reverse capacity. Therefore, the reverse capacity is proposed with a margin to cover the main part of the differences between the reverse capacity calculated based on the scheduled quantities and the reverse capacity calculated based on the allocated quantities, without overly affecting its availibity.

GRTgaz reserves the right to adjust this margin during the year according to market conditions.

#### CAPACITY MONTHLY PROFILE (GWh/d) FROM 01/04/2023 TO 31/03/2024





GWh/d	avr-23	mai-23	juin-23	juil-23	août-23	sept-23
Firm	0	0	0	0	0	0
Max interruptible, part of climatic parameter	0	0	0	0	0	0
Max interruptible, part of scheduling parameter	70	70	70	70	70	70
Maximum capacity	70	70	70	70	70	70

GWh/d	oct-23	nov-23	déc-23	janv-24	févr-24	mars-24
Firm	0	0	0	0	0	0
Max interruptible, part of climatic parameter	0	0	0	0	0	0
Max interruptible, part of scheduling paramete	70	70	70	70	70	70
Maximum capacity	70	70	70	70	70	70

#### **AVAILABILITY CONDITIONS OF INTERRUPTIBLE CAPACITY**

The B->H transfer is possible only if the GCVs of the H-gas and L-gas are such as the GCV of the commingled gas complies with the H-gas quality specifications.

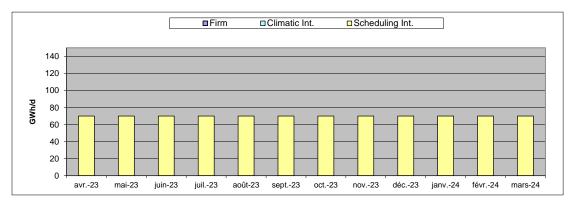
The interruptible capacity of the B->H transfer is available :

- according to the net scheduled quantities on Virtualys, Obergailbach and Oltingue up to the appearance of the NS1 limit,
- according to the net scheduled quantities on Dunkerque, Dunkerque GNL, Virtualys, Obergailbach, Oltingue, North-East PITS, North-West PITS and South-East PITS, up to the appearances of the NS2 limit and the NS3 limit during average to very cold Winters,
- according to the net scheduled quantities on Dunkerque, Dunkerque GNL, Virtualys, Obergailbach, Oltingue, Montoir, North-East PITS, North-West PITS, South-East PITS and Atlantic PITS up to the appearance of the NS4 limit during very cold Winters
- and also depending on net scheduled quantities on points upstream the EW2 limit

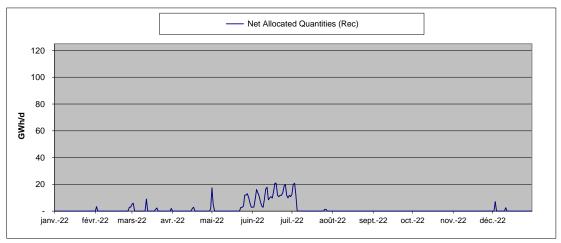
The available capacity is:

- if Nord B withdrawal < 60 GWh/j (or Nord B injecting), then conversion capacity = 70 GWh/d
- otherwise, conversion capacity = min(45; Taisnières B REC)

#### CAPACITY MONTHLY PROFILE (GWh/d) FROM 01/04/2023 TO 31/03/2024



#### HISTORY OF FLOWS FROM 01/01/2022 TO 31/12/2022 (GWh/d)



6 GWh/d

Over this period, 90% of time, the allocated quantity was lower than

MONTOIR (Rec) Appendix 9

#### CAPACITES (GWh/d)

GWh/d	avr-23	mai-23	juin-23	juil-23	août-23	sept-23
Firm	370	370	370	370	370	370
Max climatic capacity	140	120	90	50	30	90
Max interruptible, part of scheduling parameter	0	0	0	0	0	0
Maximum capacity	510	490	460	420	400	460

GWh/d	oct-23	nov-23	déc-23	janv-24	févr-24	mars-24
Firm	370	400	400	400	400	400
Max climatic capacity	150	155	165	165	160	145
Max interruptible, part of scheduling parameter	0	0	0	0	0	0
Maximum capacity	520	555	565	565	560	545

#### **AVAILABILITY CONDITIONS OF CAPACITY**

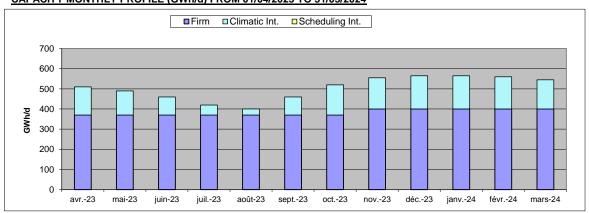
The 50% and 90% probabilities to have a level of capacity on a given day at PITTM Montoir are shown on the following appendix.

The climatic capacity depends on the gas consumption in Montoir area, which itself depends on the temperature. The maximum extra climatic capacity is available for a daily average temperature that occurs twice every 100 years for a given month

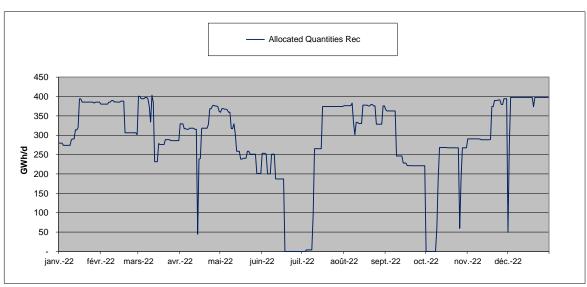
Both firm and climatic capacities are updated each year according to the observed evolution of consumption.

Besides, in the frame of the TRF, the rules of congestion management apply to the gas terminals.

# CAPACITY MONTHLY PROFILE (GWh/d) FROM 01/04/2023 TO 31/03/2024

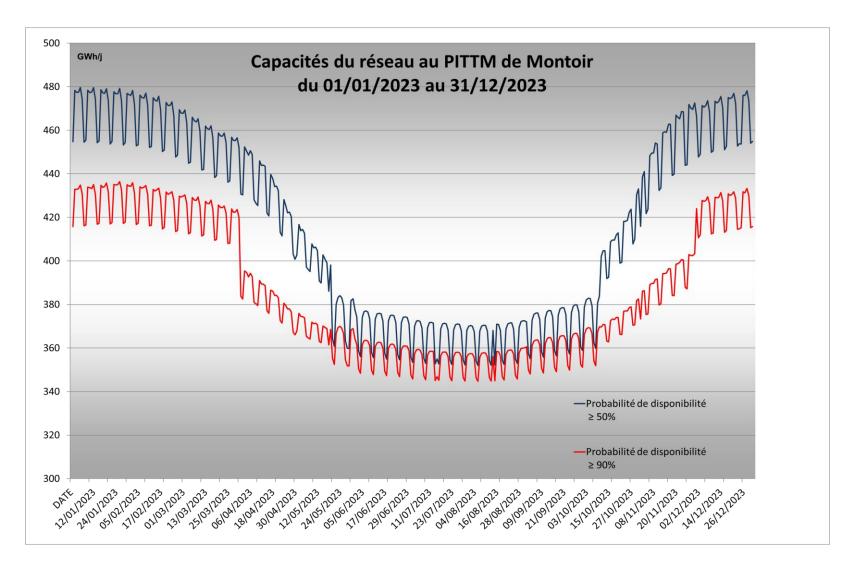


#### HISTORY OF FLOWS FROM 01/01/2022 TO 31/12/2022 (GWh/d)



Over this period, 90% of time, the allocated quantity was lower than Over this period, 50% of time, the allocated quantity was lower than

394 GWh/d 306 GWh/d



FOS (Rec) Appendix 11

#### CAPACITES (GWh/d)

GWh/d	avr-23	mai-23	juin-23	juil-23	août-23	sept-23
Firm	397	397	397	397	397	397
Max climatic capacity	120	110	90	80	80	100
Max interruptible, part of scheduling parameter	0	0	0	0	0	0
Maximum capacity	517	507	487	477	477	497

GWh/d	oct-23	nov-23	déc-23	janv-24	févr-24	mars-24
Firm	397	431	431	431	431	431
Max climatic capacity	110	140	150	180	160	120
Max interruptible, part of scheduling parameter	0	-70	-80	-110	-90	-60
Maximum capacity	507	501	501	501	501	491

#### **AVAILABILITY CONDITIONS OF CAPACITY**

The 50% and 90% probabilities to have a level of capacity on a given day at PITTM Fos are shown on the following appendix.

The climatic capacity depends on the gas consumption in Fos area, which itself depends on the temperature. The maximum extra climatic capacity is available for a daily average temperature that occurs twice every 100 years for a given month.

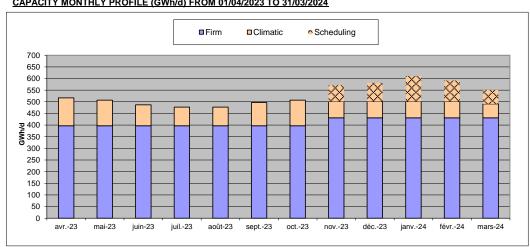
The anticipated evolution of consumption for 2023 will lead to a revision:

- of the firm capacity in summer to 397 GWh/d on April 1, 2023
- of the firm capacity in winter to 431 GWh/d on November 1, 2023

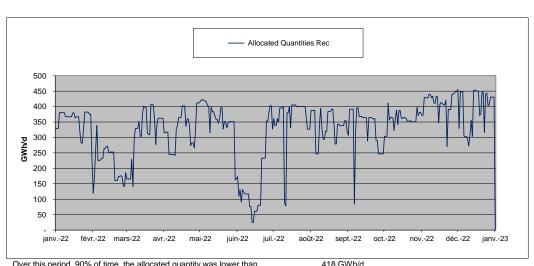
Both firm and climatic capacities are updated each year according to the observed evolution of consumption.

Besides, in the frame of the TRF, the rules of congestion management apply to the gas terminals.

#### CAPACITY MONTHLY PROFILE (GWh/d) FROM 01/04/2023 TO 31/03/2024

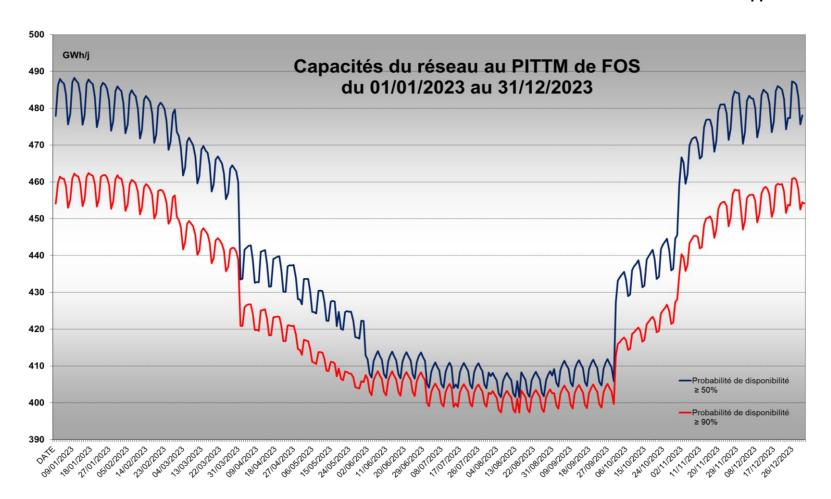


#### HISTORY OF FLOWS FROM 01/01/2022 TO 31/12/2022 (GWh/d)



Over this period, 90% of time, the allocated quantity was lower than Over this period, 50% of time, the allocated quantity was lower than

359 GWh/d



LE HAVRE (REC) Appendix 13

#### CAPACITES (GWh/d)

GWh/d	janv-23	févr-23	mars-23	avr-23	mai-23	juin-23
Firm	0	0	0	0	0	0
•	-	•	•		•	•
GWh/d	juil-23	août-23	sept-23	oct-23	nov-23	déc-23
Firm	0	0	125	125	125	150

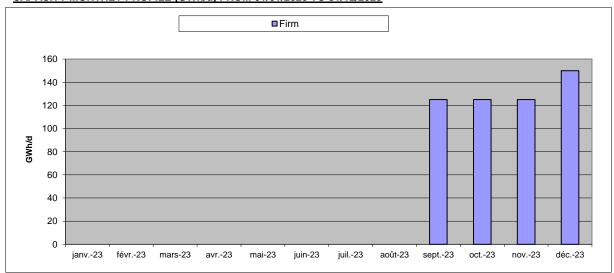
#### **AVAILABILITY CONDITIONS OF CAPACITY**

The capacity will be available from the start of commercial operation of the PITTM that will be notified by GRTgaz.

Entry capacity at the PITTM depends on gas consumption in Normandy. The level of firm capacity will therefore be updated each year according to the observed evolution of this consumption. The revised level will come into effect on January 1st of the following year.

Besides, in the frame of the TRF, the rules of congestion management apply to the gas terminals.

#### CAPACITY MONTHLY PROFILE (GWh/d) FROM 01/01/2023 TO 31/12/2023



TRF to PITS NORD B Appendix 14

#### CAPACITES (GWh/d)

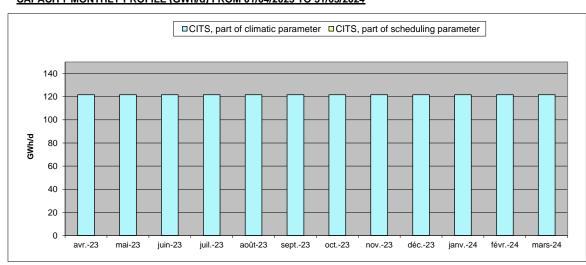
GWh/d	
CITS	121,7
Of which, part of climatic parameter	115
Of which, part of interruptible climatic parameter	6,7
Of which, part of scheduling parameter	0
Maximum capacity	121,7

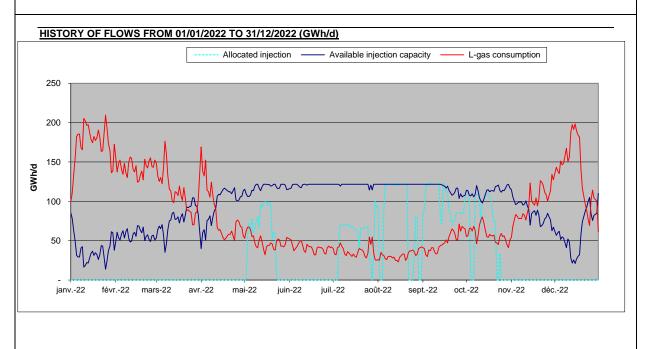
#### **AVAILABILITY CONDITIONS OF CLIMATIC CAPACITY**

The firm capacity from the TRF zone to the Nord B PITS is available under normal operating conditions. It is guaranteed according to the daily consumptions in the L-gas zone with the following formula :

MAX[0; 150 - 0,65 x L-gas consumption] up to 121.7 GWh/d.

#### CAPACITY MONTHLY PROFILE (GWh/d) FROM 01/04/2023 TO 31/03/2024





GWh/d	
CITS	150
Of which, firm	130
Of which, part of climatic parameter	0
Of which, part of scheduling parameter	20
Maximum capacity	150

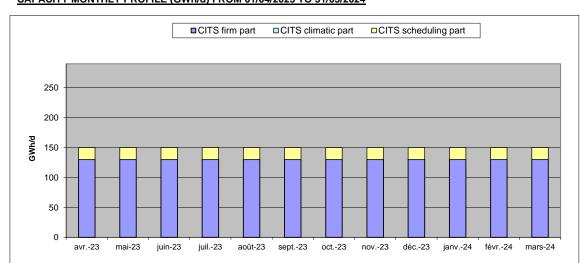
#### **AVAILABILITY CONDITIONS OF INTERRUPTIBLE CAPACITY**

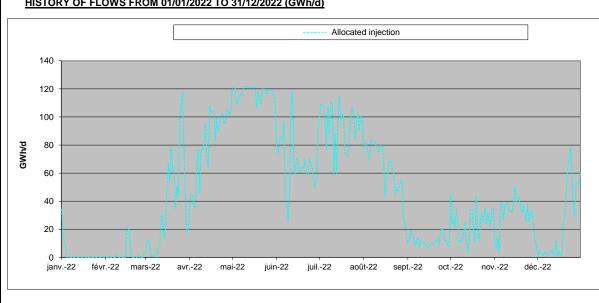
The firm capacity from the TRF zone to the Nord Est PITS is available under normal operating conditions.

The interruptible capacity of the Nord Est PITS (DEL) is available :

- according to the net scheduled quantities on Virtualys, Obergailbach, Oltingue and Nord Ouest PITS up to the appearance of the NS1 limit
- up to the appearance of the SN1 limit and the SN3 limit

#### CAPACITY MONTHLY PROFILE (GWh/d) FROM 01/04/2023 TO 31/03/2024





GWh/d	
CITS	400
Of which, firm	340
Of which, part of climatic parameter	0
Of which, part of scheduling parameter	60
Maximum capacity	400

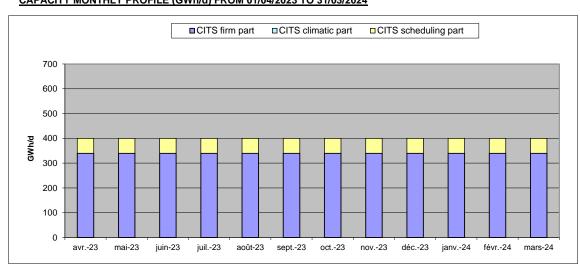
#### **AVAILABILITY CONDITIONS OF INTERRUPTIBLE CAPACITY**

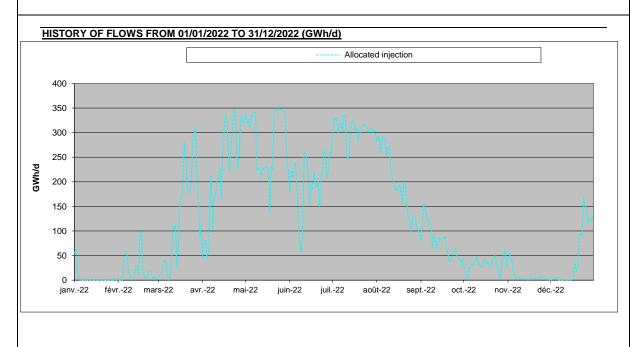
 $\label{thm:capacity:equation:capacity:equation:capacity:equation:capacity: The firm capacity: from the TRF zone to the Atlantique PITS is available under normal operating conditions.$ 

The interruptible capacity of the Atlantique PITS (DEL) is available :

- according to the net scheduled quantities on Virtualys, Obergailbach, Oltingue, Dunkerque, Dunkerque GNL, Nord Est PITS, Nord Ouest PITS, Sud Est PITS up to the appearance of the NS1, NS2 and NS3 limits
- up to the appearance of the SN1 limit

#### CAPACITY MONTHLY PROFILE (GWh/d) FROM 01/04/2023 TO 31/03/2024





GWh/d	
CITS	180
Of which, firm	145
Of which, part of climatic parameter	0
Of which, part of scheduling parameter	35
Maximum capacity	180

#### **AVAILABILITY CONDITIONS OF INTERRUPTIBLE CAPACITY**

The firm capacity from the TRF zone to the Sud Est PITS is available under normal operating conditions.

The interruptible capacity of the Sud Est PITS (DEL) is available :

- according to the net scheduled quantities on Virtualys, Obergailbach, Oltingue, Dunkerque, Dunkerque GNL, Nord Est PITS, Nord Ouest PITS up to the appearance of the NS1 and NS2 limits
- up to the appearance of the SN1 limit and the SN3 limit

#### CAPACITY MONTHLY PROFILE (GWh/d) FROM 01/04/2023 TO 31/03/2024

