

## CHAPTER 6

INJECTION AND WITHDRAWAL RESERVATIONS AND  
COMMITMENTS

<b>6.1 INTRODUCTION.....</b>	<b>158</b>
<b>6.2 CONSTRAINTS TO INJECTION AND WITHDRAWAL SCHEDULES .....</b>	<b>159</b>
<b>6.3 ANNUAL SCHEDULING .....</b>	<b>160</b>
<i>6.3.1 Annual schedule of maintenance operations .....</i>	<i>160</i>
<i>6.3.2 Shipper’s Annual Schedule (Period scheduling) .....</i>	<i>160</i>
<i>6.3.3 Half-yearly revision of the Schedule of Maintenance Operations.....</i>	<i>160</i>
<i>6.3.4 Revision of the reservation .....</i>	<i>160</i>
<b>6.4 MONTHLY SCHEDULING .....</b>	<b>161</b>
<i>6.4.1 Available performance.....</i>	<i>161</i>
<i>6.4.2 Shipper’s Monthly Reservation.....</i>	<i>161</i>
<b>6.5 WEEKLY SCHEDULING .....</b>	<b>162</b>
<i>6.5.1 Available performance.....</i>	<i>162</i>
<i>6.5.2 Weekly reservation .....</i>	<i>162</i>
<b>6.6 DAILY SCHEDULING .....</b>	<b>163</b>
<i>6.6.1 Available Daily Performance .....</i>	<i>163</i>
<i>6.6.2 Daily reservations .....</i>	<i>163</i>
<i>6.6.3 Reformulation of daily schedule on Gas-Day G.....</i>	<i>165</i>
<i>6.6.4 Confirmation of the daily schedule and of the reformulation of the daily schedule.....</i>	<i>166</i>
<i>6.6.5 Criteria for the acceptance of the reformulation of the daily schedule on Gas-Day G .....</i>	<i>167</i>
<i>6.6.6 Criteria for determining the direction of the prevalent flow F<sub>Pi</sub> for Gas-Day G and management of the daily reverse flow renominations:.....</i>	<i>171</i>
<i>6.6.7 Criteria for accepting the reformulation of the daily schedule on Gas-Day G in the event of the prevalent flow “in reverse phase” .....</i>	<i>174</i>
<i>6.6.8 Verification of the congruence and consistency of the stock, space, injection performance and delivery performance data.....</i>	<i>174</i>

## 6.1 INTRODUCTION

The Storage Company, in order to plan and optimize the performance of its storage fields, needs to know accurately and adequately in advance the quantities of gas that the Shippers intend to inject or withdraw from the system.

Adequate knowledge of the aforementioned information also allows the Storage Company to dialogue with the infrastructure operators, in order to coordinate as much as possible the reciprocal activities.

For this reason, Shippers must notify the Storage Company of their reservations with the level of detail and deadlines described below.

It is specified that the only reservations that are binding both for the Shipper and for the Storage Company are the daily reservations and those as defined in the subsequent paragraph 6.6 of this chapter.

If the Shipper does not send his reservations to the Storage Company, or if the reservations do not contain all the information requested, the Storage Company will use the reservations at a higher time level.

If this is not possible and in the case of absolute lack of data, the Storage Company will set the required parameters as zero.

Pursuant to Resolution 297/2012/R/Gas and subsequent amendments, the Storage Company requires the transportation capacity for the purpose of providing its services to the Shippers and becomes, according to the indications received from the latter, responsible for the obligations that result from the relative transport contract, functional to the injection and withdrawal of the gas under the ownership of its Shippers respectively at the points of entry and exit for the national network of gas pipelines interconnected with the Storage System. The aforementioned obligations include the scheduling of the quantities injected and withdrawn by each Shipper at the aforementioned points and compliance with the quality and pressure parameters.

The Storage Company delivers the quantities of gas owned by its Shippers to the Major Transport Company and the latter delivers them to the Storage Company for the use of the Storage Services by said Shippers.

Based on the schedules received from its Shippers, the Storage Company transmits to the Major Transport Company the schedules relating to the points of entry and exit for the transport network connected with the Storage System. These schedules are provided indicating the details for each Shipper.

## 6.2 CONSTRAINTS TO INJECTION AND WITHDRAWAL SCHEDULES

The Shipper, for all Storage Services signed with the Storage Company, is required to respect the PEs and PIs that fall under its responsibilities and usage profiles in the formulation of Injection and Withdrawal Programs.

Considering the close interdependence between the performance of the Storage System and the overall behaviour of all Shippers, in order to safeguard the functionality and performance of the system itself, the Shipper is required to comply with the schedules, whose calculations, methods of communicating acceptance, and modification are indicated in this chapter.

The Shipper can use, on each Gas-Day G, the Injection and Withdrawal Capacities assigned to it and available, according to what is established in the following paragraphs of this chapter, against the initial assignment and any subsequent transfers and/or sales as per this Code, which should occur during the Thermal Year.

The Shipper does not have Injection Capacity if its exceeds the Space assigned to it and does not have Withdrawal Capacity if it uses more gas than its owns.

The quantity of gas that can be supplied by the Shipper or transferred as part of the transfers or exchanges of gas referred to in the following chapter 7 does not include the quantity of Gas Provided as Guarantee in favour of the Responsible for Balancing, as per paragraph 8.2.1.4 below and the quantity referred to in paragraph 16.4.4 below.

The Shipper is also required to make all the Reservations and in particular the daily reservation and the reformulation of the daily schedule, also considering the possible amount of Gas Provided as Guarantee in favour of the Responsible for Balancing, as per paragraph 8.2.1.4 below and of the quantity referred to in paragraph 16.4.4 below.

Edison Stocaggio SpA will not confirm the Reservations or Reformulations that involve the use of this quantity.

## 6.3 ANNUAL SCHEDULING

### ***6.3.1 Annual schedule of maintenance operations***

By 28 February of each year (or, if public holiday, the last previous working day), the Storage Company publishes on its website and makes available on Escomas, the Schedule of Maintenance Operations planned for the next Thermal Year, which will cause unavailability or reduction of Storage Capacity. The Schedule of Maintenance Operations, its content and its updating methods are defined in paragraph 13.3 of the chapter “Scheduling and Managing Maintenance Operations”.

### ***6.3.2 Shipper’s Annual Schedule (Period scheduling)***

After the assignment process and before the start of each Thermal Year, the Escomas application requires its Shippers to enter the daily values for the seasonal schedule for both the Injection and Withdrawal phases, according to the following methods.

1. The Injection Reservation indicating the daily Gas Injection profile up to the level of the assigned Space;
2. The Withdrawal Reservation indicating the daily Gas Withdrawal profile, which provides for the complete withdrawal of the gas owned by the Shipper, except for any quantities of gas held in storage for strategic purposes.

The period scheduling must take into account what is indicated by the Storage Company in the Annual Schedule of Maintenance Operations.

### ***6.3.3 Half-yearly revision of the Schedule of Maintenance Operations***

The Storage Company reserves the right to update the Schedule of Maintenance Operations on a half-yearly basis, as indicated in paragraph 13.3.2 of the chapter “Scheduling and Managing Maintenance Operations”.

### ***6.3.4 Revision of the reservation***

At any time, the Shipper can change its scheduling on Escomas through the appropriate functionality, also taking into account any updates provided by the Storage Company both for revisions of the Schedule of Maintenance Operations and for any changes to the adjustment coefficients or usage profiles, and for changes in services resulting from the sale/purchase of capacity in the context of competitive procedures carried out on a monthly,

weekly and daily basis. The methods envisaged are detailed in paragraph 4A.4.1 of the Annex “Table of Times and Methods of Information Coordination”.

## 6.4 MONTHLY SCHEDULING

### 6.4.1 Available performance

The Storage Company makes available, for every day of the Thermal Year on Escomas, for each service, and in accordance with the procedures prescribed in paragraph 4A.4.2 of the Annex “Table of Times and Methods of Information Coordination”, the Daily Performance (expressed in energy) available for the following month.

With regard to the available Performance following the assignment of capacity on a monthly basis, it is communicated at the same time as the conclusion of the competitive procedure per paragraph 5.9.2 above, according to the times in paragraph 4A.3.2 of the Annex “Table of Times and Methods of Operational Coordination”.

The aforesaid Performance is calculated taking into account the most up to date Schedule of Maintenance Operations available to the Storage Company.

### 6.4.2 Shipper’s Monthly Reservation

The Shipper may, at any time, update, for each service, the reservation for every day of the following month with respect to the figures communicated through the period scheduling. The Escomas application, according to the procedures prescribed in paragraph 4A.4.2 of the Annex “Table of Times and Methods of Information Coordination”, no later than 4:00 pm of the 20th day of each preceding month, confirms the reservations in the system, containing the quantities of gas, expressed in energy (kWh/day), which the Shipper plans to inject/withdraw for each day of the following month for each service.

The Shipper that participates in the competitive procedures to assign Modulation Capacity on a monthly basis makes its reservation available on Escomas, containing the quantities of gas, expressed in energy, it-expects to inject/withdraw for each day of the month of the assignment no later than 4:00 pm of the last working day preceding the start of the month M as specified in Annex 4.A3.2 of the Annex “Table of Times and Methods of Information Coordination”.

The Storage Company also ensures that the reservations formulated by its Shippers match the transport schedule requested by the Storage Company from the Major Transport Company. The Shipper must formulate the Reservations for Withdrawal net of internal consumption of gas as defined in chapter 8.

If the Shipper does not follow the instructions contained in this paragraph, the Storage Company will consider the scheduling values for the current period in Escomas as valid for the following month.

## **6.5 WEEKLY SCHEDULING**

### ***6.5.1 Available performance***

The Storage Company makes available on Escomas, for every day of the Thermal Year, for each service, and in accordance with the procedures prescribed in paragraph 4A.4.3 of the Annex "Table of Times and Methods of Operational Coordination", the Daily Performance (expressed in energy) available for the following week.

With regard to the available Performance following the assignment of capacity on a weekly basis, it is communicated at the same time as the conclusion of the competitive procedure per paragraph 5.9.2 above, according to the times in paragraph 4A.3.3 of the Annex "Table of Times and Methods of Operational Coordination".

The aforesaid Performance is calculated taking into account the most up to date Schedule of Maintenance Operations available to the Storage Company.

### ***6.5.2 Weekly reservation***

The Shipper may, at any time, update, for each service, the reservation for every day of the following week with respect to the figures communicated through the period scheduling. The Escomas application, according to the procedures prescribed in paragraph 4A.4.3 of the Annex "Table of Times and Methods of Information Coordination", confirms, no later than 1:00 pm on Thursday, the reservations in the system containing the quantities of gas, expressed in energy, which the Shipper plans to inject/withdraw for each day of the following week for each service. Reservations shall take into account any capacity reductions/interruptions planned in the weekly schedule of the Storage Company.

The Shipper that participates in the competitive procedures to assign Modulation capacity on a weekly basis makes its reservation available on Escomas, containing the quantities of gas, expressed in energy (kWh/day), it expects to inject/withdraw for each day of the week following the assignment of capacity on a weekly basis, no later than 6:00 pm of the working day following communication of the results of the competitive procedure described in paragraph 5.9.2, as specified in paragraph 4.A3.3 of the Annex "Table of Times and Methods of Information Coordination".

The Storage Company also ensures that the reservations formulated by its own Shippers match the transport schedule requested by the Storage Company from the Major Transport Company.

The Shipper must formulate the Reservations for Withdrawal net of internal consumption of gas as defined in chapter 8.

If the Shipper does not follow the instructions contained in this paragraph, the Storage Company will consider the values for the monthly schedule in Escomas as valid for the following week.

## 6.6 DAILY SCHEDULING

### 6.6.1 Available Daily Performance

No later than 12:00 pm of each Gas-Day G, the Storage Company communicates, through Escomas, for each service, and in accordance with the procedures prescribed in paragraph 4A.4.4 of the Annex "Table of Times and Methods of Information Coordination", any changes to the Daily Performance, expressed in energy (kWh/day), available for the next Gas-Day G+1 as well as the Daily Performance available for day G.

### 6.6.2 Daily reservations

No later than 2:00 pm of each Gas-Day G, the Shipper communicates to the Storage Company, through Escomas and in accordance with the procedures prescribed in paragraph 4A.4.4 of the Annex "Table of Times and Methods of Information Coordination", the reservation, expressed in energy (kWh/day) for the next Gas-Day G+1 for each service.

The Storage Company confirms the Shipper's reservation within two hours (by 4:00 pm) through the Escomas application.

The Shipper may reformulate the reservation on Gas-Day G for Gas-Day G+1 through the Escomas application according to the following procedures and times: a cycle of reformulation of the reservation starting from 2:00 pm and ending at 7:00 pm of Gas-Day G with confirmation at 7:30 pm of Gas-Day G or under the conditions established by Snam Rete Gas for acceptance of the nominations.

As part of the daily competitive procedure described in paragraph 5.9.2.1, the Shipper that enters a bid for “Flex” capacity has the right to reformulate the reservation for day G+1.

At the end of the daily competitive procedure, the automatic renomination is carried out, equal to the higher value between the requested schedule (increased for the capacities transferred for purchases and decreased for the capacities transferred for sales) and the quantity that is constrained following the combination of the bids for “Flex” capacity.

Capacities sold/purchased as part of competitive procedures for the daily assignment described in paragraph 5.9.2.1 that occur following the last cycle of the renominations on Gas-Day G are subject to automatic renomination, no later than 10:00 pm, by the Storage Company on behalf of the assignee Shipper.

The Storage Company also ensures that the reservations formulated by its own Shippers match the transport schedule requested by the Storage Company from the Major Transport Company.

The Shipper must formulate the Reservations for Withdrawal net of internal consumption of gas as defined in chapter 8.

If the Shipper does not follow the instructions contained in this paragraph, the Storage Company will consider the values of the weekly or monthly or period schedule present in Escomas as valid for Gas-Day G+1.

For the purposes of determining the Expected System Imbalance, if the Reformulations per paragraph 6.6.3 below are not received, the quantities confirmed by the Storage Company shall be deemed valid.

The Shipper shall also formulate the reservation considering any quantity of Gas Provided as Guarantee in favour of the Responsible for Balancing per paragraph 8.2.1.4 below and the quantity per paragraph 16.4.4 below. Edison Stocaggio S.p.A. will not confirm the Reservations that entail the utilisation of said quantity.

### **6.6.3 Reformulation of daily schedule on Gas-Day G**

The Shipper may reformulate its reservation for Gas-Day G itself, communicating to the Storage Company, through Escomas and in accordance with the procedures prescribed in paragraph 4A.4.4 of the Annex “Table of Times and Methods of Information Coordination”, its Reformulation of the reservation, expressed in energy (kWh/day), for each service.

For this purpose, a reformulation cycle for the reservation is provided, with Edison Stoccaggio confirmation within the following two hours starting from 6:00 am of the Gas-Day. The subsequent cycles of reservation reformulation in the course of Gas-Day G are at hourly intervals starting from the first cycle of reservation reformulation, which ends at 7:00 am of the Gas-Day with confirmation at 9:00 am of the same day until the last hourly cycle which ends at 3:00 am of the Gas-Day with confirmation at 5:00 am.

In the event of assignment of “Flex” capacity pursuant to paragraph 3.2.2.1.3 as part of the competitive procedures indicated in paragraphs 5.9.2.1 and 5.9.2.2, neither the selling Shippers nor the purchasing Shippers are permitted to reformulate their reservations during the Gas-Day.

Furthermore, this assignment results, for both the selling Shippers and the purchasing Shippers, in the allocation at the beginning of the Gas-Day of quantities purchased and sold.

As part of the hourly renomination cycles on Gas-Day G, the Storage Company also accepts renominations from Shippers that exceed their contractual capacity (known as “overnomination” and described in paragraph 3.2.1.2), provided that these renominations are compatible with the system’s renomination limit.

The capacity subject to “overnomination” is the overall capacity nominated by Shippers on Gas-Day G-1, as resulting from the competitive procedures described in paragraph 5.9.2 of Gas-Day G-1, without prejudice to the right of each individual Shipper to modify its nomination on an hourly basis within the limit of its contractual capacity.

The renominated capacity of the Shipper beyond its contractual capacity is assigned on an interruptible basis; thus, it is preserved the right of the owner of the continuous capacity to renominate the capacity over the course of the Gas-Day.

The interruption criteria for Interruptible Capacity assigned with the “overnomination” mechanism is described in paragraph 6.6.5.2.

The interruption of some or all of the Interruptible Capacity is communicated to the Shippers by the Storage Company to which said capacity was assigned, as part of the acceptance of the daily renomination.

If the Shipper does not follow the instructions contained in this paragraph, the Storage Company will consider most recent data present in Escomas as valid for Gas-Day G.

The Storage Company also ensures that the Reformulation of the reservation matches the transport schedule requested by the Storage Company from the Major Transport Company.

The Shipper must reformulate the Reservations for Withdrawal net of internal consumption of gas as defined in chapter 8.

If the Reformulation of the reservation provided to the Storage Company does not match the one provided to the Major Transport Company, for purposes of calculating the Total System Imbalance by the Responsible for Balancing, the Reformulations confirmed by the Storage Company shall be deemed valid.

The Shipper shall also reformulate the daily schedule, considering also any quantity of Gas Provided as Guarantee in favour of the Responsible for Balancing per paragraph 8.2.1.4 below and the quantity per paragraph 16.4.4 below.

Edison Stoccaggio S.p.A. will not confirm the Reformulations that entail the utilisation of said quantity.

#### ***6.6.4 Confirmation of the daily schedule and of the reformulation of the daily schedule***

The Shipper's daily reservation for Gas-Day G+1, for each service, is confirmed no later than 10:00 pm of Gas-Day G after the auctions have been carried out as described in paragraph 5.9.2 *or within the terms established by Snam Rete Gas for the acceptance of the nominations.*

For each Gas-Day G, no reservations or reformulations will be accepted if they exceed:

1. For Injection, the lower value between the Injection Capacity and the Shipper's residual Space available with reference to the same Gas-Day G;
2. For Withdrawal, the lower value between the available Withdrawal Capacity and the residual stock available for the Shipper on the same Gas-Day G, to which may be added quantities of Strategic Gas subject to the MSE's prior authorisation, and until exhausting the quantities corresponding to the bank guarantee or to the amount paid per paragraph 8.4.3 below, subtracting any quantity of Gas Provided as Guarantee in favour of the Responsible for Balancing per paragraph 8.2.1.4 below and the quantity per paragraph 16.4.4 below. In these cases, the quantities confirmed by the Storage Company shall be equal to the values per the above points.

#### ***6.6.5 Criteria for the acceptance of the reformulation of the daily schedule on Gas-Day G***

The Storage Company shall verify on an hourly basis, depending on the petrophysical characteristics of the reservoirs comprising its own Hub, the available performance and the quantities recorded upon receipt of the reformulation, the maximum and minimum levels of the total performance that can be guaranteed, for each service, following reformulations of the Shipper's daily reservation for each service. The Storage Company will not accept reformulations of the Shipper's daily reservation if the total amount submitted by the Shippers is not included in the minimum and maximum feasibility ranges described above.

If it is technically possible, the Storage Company will include in the aforesaid limits the result of the reformulations, partially accepting the reformulations of the daily reservation, confirming first the requests referred to continuous capacities over those referred to interruptible capacities and repositioning the quantities required, when necessary, based on the criteria in paragraphs 6.6.5.1 and 6.6.5.2, the quantities assigned on an interruptible basis respectively through competitive procedures pursuant to paragraphs 5.9.2 and through the overnomination mechanism referred to in paragraph 3.2.1.2, respecting the priority of the storage services.

For reformulation cycles in the course of the Gas-Day both with prevalent injection flow and withdrawal flow as described in paragraph 6.6.6, the following conditions hold true:

- The Shipper has a maximum contractual daily Flow Rate (**P**), expressed in kWh/day;

- On the basis of this flow rate  $P$ , the maximum hourly flow rate available to the Shipper ( $P_h$ ) equal to  $P/24$ , is determined, expressed in kWh/hour;
- The Storage Company operationally carries out the Shipper's daily schedules, including any renominations, always with a daily flow rate equal to the maximum  $P_h$ , identifying the number of hours of operation  $H$ ;
- Quantities lower than  $P_h$  or integer multiples thereof shall be provided starting from the first hour of operation defined by the algorithm for the implementation of the accepted scheduling.

The Shipper's schedule, for each service, valid from the beginning of Gas-Day G (6:00 am), will be that which is confirmed by the Storage Company for each Shipper no later than 10:00 pm of Gas-Day G-1 (**PROG<sub>G-1</sub>**), as modified with automatic renominations by the Storage Company on behalf of the assignee Shippers no later than 10:00 pm as a result of the competitive procedures for the daily assignment, as described in paragraph 5.9.2 that take place following the aforementioned confirmation.

The Shipper's daily schedule (both injection and withdrawal), for each service, valid at the start of Gas-Day G shall be carried out starting from the hourly schedule defined by the following algorithm:

$$\begin{aligned}
 H_{PROG_{G-1}} &= \text{start time of the service} \\
 H_{PROG_{G-1}} &= \left(24h - \frac{PROG_{G-1}}{P_h}\right) + 6h && \text{if } \frac{PROG_{G-1}}{P_h} \geq 6 \\
 H_{PROG_{G-1}} &= \left(6h - \frac{PROG_{G-1}}{P_h}\right) && \text{if } 0 < \frac{PROG_{G-1}}{P_h} < 6
 \end{aligned}$$

- Until the hourly schedule  $H_{PROG_{G-1}}$ , the Shipper's daily schedule valid at the start of the Gas-Day G **PROG<sub>G-1</sub>**, shall be understood not to have been completed for all effects and no gas volume shall be allocated to the Shipper.
- Starting from the hourly schedule  $H_{PROG_{G-1}}$ , the operational execution of the **PROG<sub>G-1</sub>** schedule will be carried out, allocating to the Shipper gas volumes equal to  $P_h$  for each hour of execution of the **PROG<sub>G-1</sub>** schedule.
- If **PROG<sub>G-1</sub> = P**, the execution of the **PROG<sub>G-1</sub>** schedule shall be started at 6:00 am of Gas-Day G.

If there are no renominations in Gas-Day G, the volume of gas allocated at the end of day G shall be equal to:

$$V_{ALL} = PROG_{G-1}$$

If, during Gas-Day G, the Shipper notifies additional changes to the daily schedules ( $PROG_{RIN\ n}$ ), these changes will be accepted only if, at the time of the notification of the new schedule:

$$V_{ALL\ RIN\ n} \leq PROG_{RIN\ n} \leq V_{ALL\ RIN\ n} + V_{RES\_Hn}$$

where:

$V_{ALL\ RIN\ n}$  = volume already allocated in the execution of the Shipper's daily schedule that was previously in force ( $PROG_{RIN\ n-1}$ ),

$$V_{ALL\ RIN\ n} = 0 \quad \begin{array}{l} \text{if } (H_{RIN\ n} + 2) \\ \leq H_{PROG\ (n-1)} \end{array}$$

$$V_{ALL\ RIN\ n} = P_h \times (H_{RIN\ n} + 2 - H_{PROG\ (n-1)}) \quad \begin{array}{l} \text{if } (H_{RIN\ n} + 2) \\ > H_{PROG\ (n-1)} \end{array}$$

with:

$H_{RIN\ n}$  = ending time of renomination cycle  $n$  of the schedule previously in force ( $PROG_{RIN\ n-1}$  if  $1 < n \leq 21$  or  $PROG_{G-1}$  if  $n = 1$ );

$PROG_{RIN\ n}$  = the schedule in force for Gas-Day G confirmed starting from  $H_{RIN\ n} + 2$ ;

$H_{PROG\ (n-1)}$  = starting time of execution of the Shipper's daily schedule that was previously in force ( $PROG_{RIN\ n-1}$ )

$H_{PROG\ (n-1)}$  =  $H_{PROG\ (G-1)}$  in the calculation of the first renomination of Gas-Day G ( $H_{RIN\ 1}$ )

$V_{RES\ Hn}$  = maximum residual volume operationally achievable during Gas-Day G starting from  $H_{RIN\ n} + 2$ , where:

$$V_{RES\ n} = P_h \times H_{RES\ n}$$

$H_{RES\ n}$  = residual hours for execution of the new daily schedule  $PROG_{RIN\ n}$  with:

$$H_{RES\ n} = 6 - (H_{RIN\ n} + 2) \quad \text{if } h\ 12:00\ \text{am} \leq H_{RIN\ n} \leq h\ 3:00\ \text{am}$$

$$H_{RES\ n} = 24 - (H_{RIN\ n} + 2) + 6 \quad \text{if } h\ 7:00\ \text{am} \leq H_{RIN\ n} \leq h\ 12:00\ \text{pm}$$

Once the validity of the renomination  $n$  is verified, as highlighted above, the Storage Company shall confirm the accepted schedule  $PROG_{RIN\ n}$  to the Shipper and shall realise the differential between the new accepted schedule and the volumes already allocated for Gas-Day G ( $V_{DIFF\ n}$ ):

$$V_{DIFF\ n} = PROG_{RIN\ n} - V_{ALL\ RIN\ n}$$

The differential  $V_{DIFF\ n}$  for Gas-Day G shall be operationally realised starting from the hourly schedule defined by the following algorithm:

$H_{DIFF\ n}$  = start time of the differential realization  $V_{DIFF\ n}$

$$H_{DIFF\ n} = \left(24h - \frac{V_{DIFF\ n}}{P_h}\right) + 6h \quad \text{if } \frac{V_{DIFF\ n}}{P_h} \geq 6$$

$$H_{DIFF\ n} = \left(6h - \frac{V_{DIFF\ n}}{P_h}\right) \quad \text{if } 0 < \frac{V_{DIFF\ n}}{P_h} < 6$$

At the end of Gas-Day G, the volume of gas allocated to the Shipper for day G ( $V_{ALL}$ ) shall be determined as follows:

$$V_{ALL} = \sum_1^n V_{ALL\ RIN\ n} + V_{DIFF\_n}$$

where:

$n$  = number of renominations by the Shipper of the daily schedule for Gas-Day G, carried out during Gas-Day G;

$V_{ALL\ RIN\ n}$  = volume already allocated to the Shipper at the time of the renomination  $n$ , in the execution of the Shipper's daily schedule that was previously in force ( $PROG_{RIN\ n-1}$ ), as defined above;

$V_{DIFF\ n}$  = differential between the last accepted schedule  $PROG_{RIN\ n}$  and the volumes  $V_{ALL\ RIN\ n}$  already allocated for Gas-Day G in execution of the Shipper's daily schedule that was previously in force ( $PROG_{RIN\ n-1}$ ).

If  $PROG_{RIN\ n} \leq V_{ALL\ RIN\ n}$ , then the new accepted schedule shall be:

$$PROG_{RIN\ n} = V_{ALL\ RIN\ n}$$

If  $PROG_{RIN\ n} > V_{ALL\ RIN\ n} + V_{RES\_Hn}$ , then the new accepted schedule shall be:

$$PROG_{RIN\ n} = V_{ALL\ RIN\ n} + V_{RES\_Hn}$$

#### 6.6.5.1. Interruption criteria for capacity assigned on an interruptible basis

The Shipper to which a PI is assigned, in accordance with the procedures described in paragraph 5.9.2, acquires the right to reserve, for the period for which the performance was assigned, an incremental interruptible withdrawal or injection flow rate with respect to the PI or PE that was guaranteed to the Shipper, governed according to that which is described below.

In the event the difference between the total continuous Capacity available for a given Day and the total scheduled Capacity is lower than the Interruptible Capacity transferred for the same Day, the Storage Company will reallocate the aforementioned difference on a *pro-rata* basis to the Shippers to which the incremental interruptible Capacity was assigned.

In the event the aforementioned difference is equal to zero, the incremental interruptible Capacity will not be made available.

If there is, at the same time, types of interruptible Capacity that have different contractual validities, interruptible Capacity resulting from “overnomination” will not be initially accepted, followed by daily interruptible Capacity, then weekly interruptible Capacity, and finally, month Capacity. If there is interruptible Capacity that refers to different types of contracts, the interruptible Capacity associated with Flat contracts will be rejected as a priority over Peak contracts.

The interruption of some or all of the Interruptible Capacity is communicated to the Shippers by the Storage Company to which said capacity was assigned, as part of the acceptance of the daily renomination.

In these cases, the Storage Company considers subject to the prices contained in paragraph 8.4 the quantities of gas that, allocated during the day to the Shipper, are greater than the sum of the total Capacity available for that Shipper on a continual basis and any portion of interruptible Capacity that was not interrupted.

#### *6.6.5.2. Interruption criteria for capacities transferred with the “overnomination” mechanism*

The Storage Company will accept “overnominations” according to the criteria established in paragraph 3.2.1.2 and will reallocate it according to a criterion based on economic merit after each individual hourly renomination band.

If there are two or more requests at the same amount whose sum, in terms of quantity, is greater than the interruptible portion, the assignment shall be carried out according to a *pro-rata* mechanism.

#### **6.6.6 Criteria for determining the direction of the prevalent flow $FP_i$ for Gas-Day G and management of the daily reverse flow renominations:**

The Storage Company, after accepting the reformulation of the daily schedule on Gas-Day G-1 for Gas-Day G per the previous paragraph as well as the results of daily assignment procedure described in paragraph 5.9.2, on the basis of the physical movement from storage and unless otherwise indicated as a result of requests received for the purposes of the physical balancing of the system from the Responsible for Balancing in particular situations (emergency due to

insufficient or excess gas, *force majeure* events, etc.) as identified in the emergency procedures defined by the MISE, publishes on its website, no later than 10:00 pm of Gas-Day G-1, the direction of the prevalent flow  $FP_i$  for Gas-Day G according to the following criteria:

$FP_i$  will coincide with:

- a) the direction of injection, if the quantities expected to be injected on Gas-Day G are greater than the quantities expected to be withdrawn on the same Gas-Day G;
- b) the direction of withdrawal, in the opposite case.

$FP_i$  is considered:

- a) “in phase”, if the envisaged injection and withdrawal quantities on Gas-Day G in the injection and withdrawal phases, respectively, are greater than the envisaged quantities expected in the opposite direction, respectively, in withdrawal or injection on said Gas-Day G;
- b) “in reverse phase”, in the opposite case.

If the prevalent flow  $FP_i$  for Gas-Day G+1 is in the “in phase” direction, the acceptance criteria for the reformulation of the daily schedule on Gas-Day G+1 are described in paragraph 6.6.5 above.

If the prevalent flow  $FP_i$  for Gas-Day G is in the “in reverse phase” direction, the Storage Company must change the operational structure of the storage hub. In this case, the acceptance criteria for the reformulation of the daily schedule on Gas-Day G are described in paragraph 6.6.7 below.

If the outcome of the day-ahead auctions or the of the storage data consistency verifications detailed under the subsequent part. 6.6.8 entail a change to the prevailing flow direction for day G this variation is promptly communicated to the users by e-mail, by 10.00 pm and 4.30 am respectively.

After determining the prevalent flow for the Gas-Day, Edison Stoccaggio shall accept renominations that imply only the condition of virtual reverse flow according to the following procedure:

#### 1. Determination of the Scheduled Daily Flow Rate

The Scheduled Maximum Daily Flow Rate (PMGPF) of day G is equal to:

- a. Sum of the Shippers' Withdrawal reservations for day G during the Withdrawal Period;
- b. Sum of the Shippers' Injection reservations for day G during the Injection Period.



If the reservation of one or more of the Shippers is not available, the Storage Company shall use, for the purposes of calculating the PMGPF, the Shippers presumed PE or PI on day G.

2. Determination of the Scheduled Daily Flow Rate in Reverse Flow  
The Scheduled Maximum Daily Flow Rate in Reverse Flow (PMGPF<sub>r</sub>) of day G is equal to:
  - c. Sum of the Shippers' Injection reservations for day G during the Withdrawal period;
  - d. Sum of the Shippers' Withdrawal reservations for day G during the Injection Period.
3. Identification of the type of Reverse Flow:

The Reverse Flow is defined as Virtual if:

$$PMGPF \geq PMGPF_r$$

For each envisaged hourly renomination, Edison Stocaggio shall verify that the differential between the new total quantities renominated in prevalent flow and what is already allocated are compatible with the virtual reverse flow renominations in the system.

Since it cannot make operational set-up changes every hour, Edison Stocaggio, providing appropriate notice, shall change the reverse flow renominations to the maximum allowed value to guarantee, at the end of the Gas-Day, compliance with the prevalent flow and the condition of virtual reverse flow. In case of reduction of multiple reverse flow nominations, the allocation will be *pro-rata*.

#### **6.6.7 Criteria for accepting the reformulation of the daily schedule on Gas-Day G in the event of the prevalent flow "in reverse phase"**

Notwithstanding that which is described in paragraphs 6.6.5, 6.6.5.1 and 6.6.5.2, with the following specifications:

- The Shipper has a maximum contractual daily Flow Rate (**P**), expressed in kWh/day;
- On the basis of this flow rate P, the maximum hourly flow available to the Shipper (**P<sub>h</sub>**) equal to P/16, is determined, expressed in kWh/hour;

- The Storage Company operationally carries out the Shipper's daily schedules, including any renominations, always with a daily flow rate equal to the maximum  $P_h$ , identifying the number of hours of operation  $H$ ;
- Quantities lower than  $P_h$  or integer multiples thereof shall be provided starting from the first hour of operation defined by the algorithm for the implementation of the accepted scheduling.

The Shipper's schedule, for each service, valid from the beginning of Gas-Day G (6:00 am), will be that which is confirmed by the Storage Company for each Shipper no later than 10:00 pm of Gas-Day G-1 (**PROG<sub>G-1</sub>**), as modified with automatic renominations by the Storage Company on behalf of the assignee Shippers no later than 10:00 pm as a result of the competitive procedures for the daily assignment, as described in paragraph 5.9.2, which are carried out following the aforementioned confirmation.

The Shipper's daily schedule (both in injection and withdrawal), for each service, valid at the start of Gas-Day G shall be carried out starting from the hourly schedule defined by the following algorithm:

$$H_{PROG\ G-1} = \left( 22h - \frac{PROG_{G-1}}{P_h} \right)$$

- $H_{PROG\ G-1}$  indicates the start time of the performance.
- Until the hourly schedule  $H_{PROG\ G-1}$ , the Shipper's daily schedule valid at the start of the Gas-Day G **PROG<sub>G-1</sub>**, shall be understood not to have been completed for all effects and no gas volume shall be allocated to the Shipper.
- Starting from the hourly schedule  $H_{PROG\ G-1}$ , the operational execution of the **PROG<sub>G-1</sub>** schedule will be carried out, allocating to the Shipper gas volumes equal to **P<sub>h</sub>** for each hour of execution of the **PROG<sub>G-1</sub>** schedule.
- If **PROG<sub>G-1</sub> = P**, the execution of the **PROG<sub>G-1</sub>** schedule shall be started at 6:00 am of Gas-Day G.

If there are no renominations in Gas-Day G, the volume of gas allocated at the end of day G shall be equal to:

$$V_{ALL} = PROG_{G-1}$$

If, during Gas-Day G, the Shipper notifies additional changes to the daily schedules (**PROG<sub>RIN n</sub>**), these changes will be accepted only if, at the time of the notification of the new schedule:

$$V_{ALL\ RIN\ n} \leq PROG_{RIN\ n} \leq V_{ALL\ RIN\ n} + V_{RES\_Hn}$$

where:

$V_{ALL\ RIN\ n}$  = volume already allocated in the execution of the Shipper's daily schedule that was previously in force ( $PROG_{RIN\ n-1}$ ),

$$V_{ALL\ RIN\ n} = 0 \quad \text{if } (H_{RIN\ n} + 2) \leq H_{PROG\ (n-1)}$$

$$V_{ALL\ RIN\ n} = P_h \times (H_{RIN\ n} + 2 - H_{PROG\ (n-1)}) \quad \text{if } (H_{RIN\ n} + 2) > H_{PROG\ (n-1)}$$

with:

$H_{RIN\ n}$  = ending time of renomination cycle  $n$  of the schedule previously in force ( $PROG_{RIN\ n-1}$   $1 < n \leq 13$  or  $PROG_{G-1}$  if  $n = 1$ );

$PROG_{RIN\ n}$  = the schedule in force for Gas-Day  $G$  confirmed starting from  $H_{RIN\ n} + 2$ ;

$H_{PROG\ (n-1)}$  = starting time of execution of the Shipper's daily schedule that was previously in force ( $PROG_{RIN\ n-1}$ )

$H_{PROG\ (n-1)}$  =  $H_{PROG\ (G-1)}$  in the calculation of the first renomination of Gas-Day  $G$  ( $H_{RIN\ 1}$ )

$V_{RES\ H\ n}$  = maximum residual volume operationally achievable during Gas-Day  $G$  starting from  $H_{RIN\ n} + 2$ , where:

$$V_{RES\ n} = P_h \times H_{RES\ n}$$

$H_{RES\ n}$  = residual hours for execution of the new daily schedule  $PROG_{RIN\ n}$  with:

$$H_{RES\ n} = 22 - (H_{RIN\ n} + 2) \quad \text{with } h\ 7:00\ \text{am} \leq H_{RIN\ n} \leq h\ 7:00\ \text{pm}$$

Once the validity of the renomination  $n$  is verified, as highlighted above, the Storage Company shall confirm the accepted schedule  $PROG_{RIN\ n}$  to the Shipper and shall realise the differential between the new accepted schedule and the volumes already allocated for Gas-Day  $G$  ( $V_{DIFF\ n}$ ):

$$V_{DIFF\ n} = PROG_{RIN\ n} - V_{ALL\ RIN\ n}$$

The differential  $V_{DIFF\ n}$  for Gas-Day  $G$  shall be operationally realised starting from the hourly schedule defined by the following algorithm:

$H_{DIFF\ n}$  = start time of the differential realization  $V_{DIFF\ n}$ :

$$H_{DIFF\ n} = (22h - \frac{V_{DIFF\ n}}{P_h})$$

At the end of Gas-Day G, the volume of gas allocated to the Shipper for day G ( $V_{ALL}$ ) shall be determined as follows:

$$V_{ALL} = \sum_1^n V_{ALL\ RIN\ n} + V_{DIFF\_n}$$

where:

$n$  = number of renominations by the Shipper of the daily schedule for Gas-Day G, carried out during Gas-Day G;

$V_{ALL\ RIN\ n}$  = volume already allocated to the Shipper at the time of the renomination  $n$ , in the execution of the Shipper's daily schedule that was previously in force ( $PROG_{RIN\ n-1}$ ), as defined above;

$V_{DIFF\ n}$  = differential between the last accepted schedule  $PROG_{RIN\ n}$  and the volumes  $V_{ALL\ RIN\ n}$  already allocated for Gas-Day G in execution of the Shipper's daily schedule that was previously in force ( $PROG_{RIN\ n-1}$ ).

If  $PROG_{RIN\ n} \leq V_{ALL\ RIN\ n}$ , then the new accepted schedule shall be:

$$PROG_{RIN\ n} = V_{ALL\ RIN\ n}$$

If  $PROG_{RIN\ n} > V_{ALL\ RIN\ n} + V_{RES\_Hn}$ , then the new accepted schedule shall be:

$$PROG_{RIN\ n} = V_{ALL\ RIN\ n} + V_{RES\_Hn}$$

If the prevalent flow  $FP_i$  for Gas-Day G+1 is in the "in reverse phase" direction, the acceptance criteria for the reformulation of the daily schedule on Gas-Day G+1 are described in this paragraph.

If the prevalent flow  $FP_i$  for Gas-Day G+1 returns to the "in phase" direction, the Storage Company must change the operational structure of the storage hub to bring it back to the "in phase" gas transport conditions.

In this case, the acceptance criteria for the reformulation of the daily schedule on Gas-Day G+1 are described in paragraph 6.6.5 above.

### **6.6.8 Verification of the congruence and consistency of the stock, space, injection performance and delivery performance data**

Via the Escomas portal the storage company verifies the congruence and the consistency of the data for Gas-Day G logged on the system after the Capacity Transactions, the Bilateral Transactions (Performance and/or Gas Transactions) and of the Unilateral stored gas transactions as detailed under Chap. 7.

The verification:

- makes sure that inconsistent storage and/or available space values compared to the transactions foreseen on the system for day G are included;
- increases the solidity of the IT system, protecting the balance of the storage system in the event of non-compliances by the users.

If, after the last renomination accepted at 06.00 pm of Gas-Day G-1 and in good time to send the programming for day G and the performance of the day-ahead auction, the storage company notes a non-compliance due stock and/or space values that do not match the forecasts for the following day, it shall take action on the Transactions detailed under Chap. 7 and carry out the partial or total cuts required until the performable quantities for the requested transactions are reached.

At 4.00 am of Gas-Day G-1 the storage companies shall perform a new review of the system data, taking into account the renominations performed by the users between 06.00 pm and 03.00 am of the Gas-Day G-1, and verify the sustainability of the sequence:

- Nominations for Gas-Day G pursuant to the previous chapter;
- Unilateral Gas Transactions starting on Gas-Day G as detailed under chap. 7;
- Bilateral Transactions (Performance and/or Gas Transactions) starting on the Gas-Day G as detailed under chapter 7;
- Sales and/or Acquisitions of Performances in the day-ahead auctions and short term starting on Gas-Day G as detailed under chapter 5,

proceeding at the same time with the verification and recalculation of the available performances and, if necessary, in case of user non-compliances, by making total or partial quantity cuts, in the following order, with reference to:

- a. Interruptible quantities exchanges in the day-ahead auction for Gas-Day G;
- b. Nomination of Gas-Day G, with the exclusion of the Flex quantity;
- c. Continuous non-flex capacity exchanges on the day-ahead auction and/or on all the short term auctions (pro-quota performance transactions and continuous non-Flex quantities) valid for Gas-Day G;
- d. Bilateral Performance Transactions valid for Gas-Day G;
- e. Flex capacity exchanges during the short term auctions valid for Gas-Day G;
- f. Unilateral Stored Gas Transactions valid for Gas-Day G;
- g. Bilateral Gas Transactions valid for Gas-Day G;

until all the system data is congruous and consistent.

The storage company sends communication to the users involved in the non-compliance and, on request, makes the data that have generated it available to them.

