



STORAGE CODE

Edison Stoccaggio S.p.A.



Edison Stoccaggio

STORAGE CODE

VERSION 23

DECEMBER 2021

CONTENTS

<u>INTRODUCTION TO THE DOCUMENT</u>	1
<u>THE INVOLVED OPERATORS AND OTHER PARTIES</u>	2

SECTION 1 – INFORMATION

CHAPTER 1 – REGULATORY FRAMEWORK	4
CHAPTER 2 – DESCRIPTION OF THE STORAGE FACILITIES AND OF THEIR OPERATION	21
CHAPTER 3 – DESCRIPTION OF THE SERVICES	57
CHAPTER 4 – INFORMATION COORDINATION PROCEDURES	75
ANNEX 4A – TABLE OF TIMES AND METHODS OF INFORMATION COORDINATION	82

SECTION 2 – ACCESS TO THE STORAGE SERVICE

CHAPTER 5 – ASSIGNMENT OF STORAGE CAPACITY	109
---	------------

SECTION 3 – PERFORMANCE OF THE STORAGE SERVICE

CHAPTER 6 – INJECTION AND WITHDRAWAL RESERVATIONS AND COMMITMENTS	157
CHAPTER 7 – CAPACITY AND GAS TRANSACTIONS	180
CHAPTER 8 – BALANCING AND REPLENISHMENT OF THE STORAGE SITES	187
CHAPTER 9 – GAS MEASUREMENT	211
CHAPTER 10 – GAS QUALITY	217
ANNEX 10A – TECHNICAL SPECIFICATION ON THE CHEMICAL-PHYSICAL CHARACTERISTICS OF NATURAL GAS	223
CHAPTER 11 – INJECTION AND WITHDRAWAL PRESSURES	227

SECTION 4 – QUALITY OF SERVICE

CHAPTER 12 – QUALITY OF SERVICE.....	230
ANNEX 12A – STANDARDS OF QUALITY OF SERVICE	246
 <u>SECTION 5 – SCHEDULING</u>	
CHAPTER 13 – SCHEDULING AND MANAGING MAINTENANCE OPERATIONS.....	250
CHAPTER 14 – OPERATIONAL COORDINATION.....	255
 <u>SECTION 6 – ADMINISTRATION</u>	
CHAPTER 15 – TAX AND CUSTOMS REGULATIONS.....	258
CHAPTER 16 – INVOICING AND PAYMENT	262
ANNEX 16A – PROCEDURE FOR THE ATTRIBUTION OF ELECTRICITY CONSUMPTION, OF EXCISE DUTIES AND OF THE REGIONAL SURTAXES.....	270
CHAPTER 17 – RESPONSIBILITIES OF THE PARTIES.....	275
 <u>SECTION 7 – EMERGENCY</u>	
CHAPTER 18 – MANAGEMENT OF SERVICE EMERGENCIES	291
CHAPTER 19 – PROCEDURES FOR SHIFTING FROM NORMAL OPERATING CONDITIONS TO GENERAL EMERGENCY CONDITIONS.....	295
 <u>SECTION 8 – REVISION OF THE STORAGE CODE</u>	
CHAPTER 20 – REVISION OF THE STORAGE CODE	298
 <u>GLOSSARY</u>	 303

INTRODUCTION TO THE DOCUMENT

The purpose of this Storage Code is to provide Requesting Users with access to one or more storage services offered by the Storage Company, in accordance with Article 12 Paragraph 2 of Italian Legislative Decree no. 164 of 23 May 2000.

The Storage Company has prepared its own Storage Code considering the specific features of the System it manages.

The storage reservoirs comprised in the System managed by Edison Stoccaggio are currently undergoing development and flow regulation works, as described in Paragraph 2.1 of the Chapter “Description of the Storage Facilities and of their Operation”. The work is carried out adopting the most up to date technical-economic criteria.

CONTRACTUAL PROVISIONS

Subject to the prescriptions of the law, the provisions contained in the Storage Code constitute the set of the Parties’ rights and obligations in relation to the performance of storage services on the System managed by the Storage Company.

The Storage Company and the Shipper mutually undertake to comply with said rights and obligations, by virtue of the execution of the Storage Contract.

For all matters not expressly regulated by the Storage Contract, reference shall be made to the provisions of the Storage Code whose rules, insofar as they are applicable, shall be an integral and substantial part of each Contract.

If one of the provisions contained in this Storage Code should be found to be impracticable or should become so, the Storage Company hereby reserves the right to replace it with a new provision, as established in the Chapter “Revision of the Storage Code”.

THE INVOLVED OPERATORS AND OTHER PARTIES

Definition:	Description
Authority	The Authority for Electricity, Gas and Water, established with Italian Law no. 481 of 14 November 1995, is an independent body and it regulates and controls public utility services in the sectors of electricity, gas and water services.
GME	Gestore dei Mercati Energetici S.p.A.
Storage Company	Edison Stoccaggio S.p.A., which provides the Storage Service, managing in an integrated manner the storage concessions it holds.
Transport Company	The company S.G.I. S.p.A. (Società Gasdotti Italia S.p.A.).
Major Storage Company	The company Stogit. S.p.A. (Stoccaggi Gas Italia S.p.A.).
Major Transport Company	The company Snam Rete Gas S.p.A.
MSE	Italian Ministry of Economic Development (<i>Ministero dello Sviluppo Economico</i>)
Shipper	A user of the gas system that purchases storage Capacity for its own use or for sale to others and that stipulates a Storage Contract with Edison Stoccaggio S.p.A.

UNMIG	<p>Italy's National Office for Hydrocarbons and Geothermal Energy, which operates within the General Directorate for Energy and Mining Resources of the Ministry of Economic Development; it performs the following duties:</p> <ul style="list-style-type: none">• Enforcing the regulations and managing the administrative procedures that govern the assignment of mining rights and the consequent research and exploitation activity;• Approving plans and operations and carrying out inspections thereon.
--------------	--

CHAPTER 1

REGULATORY FRAMEWORK

THE FOLLOWING PARAGRAPHS SPECIFY THE MOST PERTINENT REGULATIONS AND LAWS FOR THE PURPOSES OF THE STORAGE ACTIVITY AND OF THE PREPARATION AND APPLICATION OF THE STORAGE CODE..... 6

1.1 EUROPEAN COMMUNITY REGULATIONS 6

1.1.1 Directive 2009/73/EC – Concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC 6

1.1.2 Regulation (EU) No. 994/2010 concerning measures to safeguard security of gas supply..... 6

1.2 DOMESTIC REGULATIONS 6

1.2.1 Italian Legislative Decree no. 164 of 23 May 2000 – Implementation of Directive 98/30/EC 6

1.2.2 The Ministerial Decree 9/05/2001 – Criteria that make the storage service technically and economically feasible 7

1.2.3 Italian Law no. 239 of 23 August 2004 – Reorganisation of the energy sector9

1.2.4 Decree of 21 January 2011 - Methods for assigning the underground natural gas storage concession and related bill 9

1.2.5 Directorial Decree of 4 February 2011 9

1.2.6 Italian Legislative Decree no. 93 of 1 June 2011..... 10

1.2.7 Italian Law no. 27 of 24 March 2012..... 11

1.2.8 Italian Law no. 134 of 7 August 2012 11

1.2.9 Italian Decree of 29 March 2012 (Strategic storage)..... 11

1.2.10 MISE Decrees implementing Article 14 of Italian Law Decrees no. 1 of 24 January 2012 (Storage capacities destined to the services offered to the users of the gas system)..... 12

1.3 ARERA REGULATIONS 13

1.3.1 Resolution no. 119/05 13

1.3.2 Resolution 531/2014/R/Gas “Criteria for regulating the tariffs of the natural gas storage service for the 2015-2018 period” (RTSG 2015-2018)..... 13

1.3.3 Resolution 596/2014/R/Gas “Regulation of the quality of the natural gas storage service for the 2015-2018 regulatory period” (RQSG 2015-2018) 14

1.3.4 Resolutions implementing MISE Decrees concerning “Provisions for the assignment of storage capacity for the storage thermal year ...” 14

1.3.5 193/2016/R/Gas “Provision regarding assignment of storage capacity on a monthly basis or less and mechanisms for managing contractual congestions in the use of the storage capacity” 15

1.3.6 312/2016/R/Gas and 66/2017/R/Gas “Gas balancing, in adopting (EU) Regulation 312/2014”	16
1.4 PERTINENT LAWS AND REGULATIONS	17
1.4.1 European Community Regulations.....	17
1.4.2 Domestic Regulations	17
1.4.3 ARERA Regulations.....	19

The following paragraphs specify the most pertinent regulations and laws for the purposes of the storage activity and of the preparation and application of the Storage Code.

1.1 EUROPEAN COMMUNITY REGULATIONS

1.1.1 *Directive 2009/73/EC – Concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC*

Directive 2009/73/EC, defining common rules for the transmission, distribution, supply and storage of natural gas, continued the process for completing the European energy market through the progressive liberalisation of the gas market.

The new Directive lays down the rules relating to the organisation and functioning of the natural gas sector, access to the market, the criteria and procedures applicable to the granting of authorisations for transmission, distribution, supply and storage of natural gas and the operation of systems.

1.1.2 *Regulation (EU) No. 994/2010 concerning measures to safeguard security of gas supply*

The Regulation reformed the rules governing the security of gas supplies indicating roles and responsibilities at the national and Community level between the competent Authorities and market operators.

1.2 DOMESTIC REGULATIONS

1.2.1 *Italian Legislative Decree no. 164 of 23 May 2000 – Implementation of Directive 98/30/EC*

Italian Legislative Decree no. 164/00 (known as the “Letta Decree”), transposing Directive 98/30/EC, launched the reorganisation of the natural gas market in Italy. This decree promoted the development of competition, regulating the times and methods of implementation.

The objective is to offer End Customers a service at ever more competitive prices, promoting on one hand the presence of multiple operators in Gas supply and on the other stimulating consumption.

Italian Legislative Decree no. 164/00 prescribes, in particular, that:

- the activity of storing gas in reservoirs is carried out under concession, with a validity of no more than twenty years, granted by the Ministry of Industry (currently, the Ministry of Economic Development);
- the storage activity is subject to corporate separation from every other activity in the gas sector, with the exclusion of the transport and dispatching activities, for which in any case accounting and managerial separation is required;
- each holder of multiple concessions is obligated to manage in a coordinated and integrated manner the set of the working gas storage capacities available to it;
- holders of natural gas storage concessions have to obligation to secure and provide hydrocarbon storage, strategic storage and modulation services to shippers that request them provided that the system they use has suitable capacity and provided that the services requested by the user are technically and economically achievable according to criteria established by a decree of the Italian Ministry of Industry;
- the Authority for electricity and gas shall set, by a resolution, the access criteria and priorities to assure that all shippers have freedom of access at equal conditions, the utmost impartiality and neutrality of the storage service under conditions of normal operation and the obligations of the parties that perform the storage activities.

No later than three months from the publication of the aforesaid resolution, the involved parties shall adopt their own storage code, which is transmitted to the Authority that shall verify its compliance with the promulgated criteria;

- Available storage shall be destined on a priority basis to the needs of the exploitation of gas reservoirs in the territory of Italy;
- Strategic storage shall be under the responsibility of the entities that import natural gas from Countries not belonging to the European Union (provision superseded by Italian Ministerial Decree of 29 March 2012, see below);
- Modulation storage, the service directed at enabling to modulate gas delivery according to daily, seasonal and peak consumption trends, shall be under the responsibility of entities exercising the sale activity.

1.2.2 The Ministerial Decree 9/05/2001 – Criteria that make the storage service technically and economically feasible

The Ministerial Decree of 9 May 2001 establishes:

- The criteria according to which the hydrocarbon, strategic and modulation storage services are considered technically and economically feasible;
- The methods for communicating to the Ministry, by the holders of exploitation concessions, of the available storage capacities necessary to modulate the production deriving from the reservoirs under concession;

- The limits and technical rules to regulate the recognition of the strategic modulation storage capacities, also in relation to the peak capacities of the storage;
- The transitional directives to assure the start of the filling cycle of domestic storage, in order to safeguard the secure operation of the system and the customers' modulation needs.

In particular, with regard to hydrocarbon storage, the main provisions contained in the decree are set out below.

To identify the availability of hydrocarbon storage necessary for production, holders of exploitation concessions, depending on expected production and their contractual commitments to supply the produced gas, may request a hydrocarbon storage performance calculated in the following way:

- a) the period of time over which the storage service is expected to be used, which may not be shorter than 120 days, corresponding to the seasonal peak period;
- b) the ratio between the average daily flow rate on an annual basis, referred to the total production originating from the concessions of a same holder, and the flow rate equivalent to the sum of the maximum daily quantities to be withdrawn according to each supply contract, defined as "load factor", shall be no lower than the average modulation assured by the import contracts in force in the reference year, published each year by the Ministry of Industry, Commerce and Crafts in the official bulletin of hydrocarbons and geothermal energy;
- c) the difference between the two flow rates defined in the previous point determines the maximum daily flow rate that can be requested as hydrocarbon storage, which, multiplied by the seasonal peak period per letter a), represents the maximum working gas space that can be requested as hydrocarbon storage;
- d) in addition to the value per letter c), to secure the continuity of the supply in case of unforeseen production interruptions, each holder of one or more exploitation concessions may request, during the storage withdrawal phase, an additional service, for up to 8 days in total, corresponding to the maximum production capacity of the holder associated with a single treatment station, to be indicated when submitting the request. The daily flow rate is defined as the production forecast for the next calendar year of the treatment station indicated, divided by the number of days in the year.

The Minister shall verify the data provided by the holders of production concessions and communicates them to the Authority for electricity and gas, which in turn allocates the hydrocarbon storage service relating to the subsequent injection phase among the companies that hold storage concessions in Italy.

1.2.3 Italian Law no. 239 of 23 August 2004 – Reorganisation of the energy sector

The Marzano Law, “Reorganisation of the energy sector and delegation of powers to the Government for the reorganisation for the current provisions on energy” identifies, *inter alia*, the duties of the State in the natural gas sector.

With specific regard to the storage activity, the most significant points are as follows:

- The underground storage of hydrocarbons is confirmed to be attributed in concession according to the provisions of law
- To assure “the security, flexibility and continuity of energy supplies”, Article 17 provides for “parties that invest (...) in the construction (...) of new underground storage of natural gas, or in significant enhancements of the capacity of existing infrastructure (...), the possibility of requesting exemption from the rules that provide for third parties’ access rights for newly constructed capacity. The exemption is granted, on a case by case basis, for at least twenty years and for at least 80 percent of new capacity, by the Ministry of Productive Activities, taking into consideration the opinion of the Authority for electricity and gas”. The residual portion of the new storage capacity is allocated according to procedures defined by the Authority, based on criteria of efficiency, cost-effectiveness and safety of the system.
- Holders of underground natural gas storage concessions may not be granted more than two ten-year extensions, if they have carried out the storage plans and fulfilled all obligations deriving from said concessions.

1.2.4 Decree of 21 January 2011 - Methods for assigning the underground natural gas storage concession and related bill

The Decree describes the methods for assigning a storage concession, specifying the duration of the concession, the methods for granting any extensions, invalidity and termination of the concession and any new methods for its attribution. All aspects tied to the management of a storage concession are contained in a subsequent Directorial Decree.

1.2.5 Directorial Decree of 4 February 2011

The Directorial Decree establishes the operating procedures for implementing the Ministerial Decree of 21 January 2011 and the methods for performing storage and control activities.

In particular, the instruction contains the following significant points:

- to overcome the original pressure, the MSE may authorise injection tests, provided they are compatible with the geo-mechanical characteristics of the reservoir;
- possibility to re-process existing seismic surveys as an alternative to 3D seismic mapping. However, the MSE may impose 3D seismic surveying if it deems it necessary;
- the Ministry may authorise extensions to other parties of the title to storage concession applications after verifying their technical, economic and organisational capabilities;
- insertion of the obligation to prove the stable and actual employment, within the workforce of the user requesting the storage concession, of 4 professionals: person in charge of geology, of the reservoirs, of operating management and of the environment and safety;

1.2.6 *Italian Legislative Decree no. 93 of 1 June 2011*

The decree transposing the “Third Energy Package” of the European Union (Directives 72 and 73/2009/EC) introduced important changes concerning strategic storage and modulation storage.

With regard to strategic storage, it is no longer solely under the responsibility of the entities that import natural gas from Countries not belonging to the European Union, but of all importer and producer entities.

In addition, the procedures for the annual calculation of the total volume of the strategic reserve by the Ministry of Economic Development are modified, along with the rules relating to the importer entities’ obligations to contribute to that total volume.

In terms of modulation storage, changes were made to the set of end customers (“vulnerable customers”) whose consumption determines the portion of the modulation storage capacity to be assigned on a priority base (with pro-rata criterion) to the companies that assure the supply for the aforesaid consumption. Starting from 1 October 2011, the category of vulnerable customers shall comprise, in addition to households, also public service activities, including hospitals, nursing and retirement homes, penitentiaries, schools, and other public or private facilities that carry out a recognised assistance activity, but it shall not longer include civil and non-civil customers with consumption not exceeding 200,000 cubic metres per year, but rather those with consumption up to 50,000 cubic metres per year.

The remaining portion of modulation storage capacity shall be assigned to wholesale companies through competitive procedures defined by the Authority for electricity and gas.

1.2.7 Italian Law no. 27 of 24 March 2012

The law converting, with amendments, Italian Law Decree no. 1 of 24 January 2012 (the “Liberalisations Law Decree”), introducing urgent provisions for competition, infrastructure development and competitiveness, establishes that the storage capacities available as a result of the recomputations of the strategic storage volume (500 Million Smc), as well as of the new procedures for calculating the modulation obligations, shall be assigned, for a space established and updated with a decree of the Ministry of Economic Development, to industrial companies, by means of integrated transportation services via foreign pipelines and regasification, including natural gas storage, as well as to the regasification companies, to guarantee compliance with their shippers’ regasification schedules in the presence of unforeseeable events.

1.2.8 Italian Law no. 134 of 7 August 2012

The Law converting Law Decree no. 83 of 22 June 2012 (“Growth Law Decree”) determined the part of the modulation storage space to be assigned with competitive auction procedures and the part of the same modulation storage space to be assigned with the current allocation procedures. The same (competitive auction) procedures are also used for additional natural gas storage capacities available for other types of service, including any of the aforesaid ones that have not been assigned. The higher revenues compared to the tariffs remunerating the modulation services deriving from the execution of the competitive procedures are destined by the Authority for Electricity and Gas to the reduction of the distribution tariffs, whilst those pertaining to the offer of the storage space that becomes physically available as a result of the enhancements made in accordance with Italian Legislative Decree no. 130/2010 are destined to the reduction of the transport tariff.

1.2.9 Italian Decree of 29 March 2012 (Strategic storage)

Starting from 1 April 2012, the costs for the availability of strategic storage are borne by the entities that import natural gas and by the holders of exploitation concessions obligated to pay a portion of the exploitation product, in accordance with Article 19 of Italian Legislative Decree 625/1996, by means of a unit price (C_{ST}), set by the ARERA, applied to the volumes of imported gas and of gas subject to the aforesaid portion.

With this measure, the Italian Ministry of Economic Development (MISE) also redefines the volume of strategic storage, which starting from 1 April 2012 is reduced to 4.6 billion Smc.

With the MISE Notice of 29 January 2014, the strategic reserve was brought up to 4.62 billion Smc, of which 4.48 GSmc at the Stogit hub and 0.14 GSmc from the Edison Stoccaggio sites.

This capacity was ultimately confirmed with the MISE Communication of 21 January 2016.

1.2.10 MISE Decrees implementing Article 14 of Italian Law Decrees no. 1 of 24 January 2012 (Storage capacities destined to the services offered to the users of the gas system)

This refers to the Ministerial Decree of 15 February 2013, to the Ministerial Decree of 19 February 2014, to the Ministerial Decree of 6 February 2015, to the Ministerial Decree of 25 February 2016, to the Ministerial Decree of 14 February 2017 and, lastly, to the Ministerial Decree of 22 February 2018, to Ministerial Decree 15 February 2019 and lastly to Ministerial Decree 5 March 2020

In addition to establishing the storage capacities to be destined to the Modulation Storage services for the thermal year that opens on 1 April after they come into effect, in view of the availabilities for the hydrocarbon service, the transport network and strategic reserve balancing service, these measures contain provisions concerning the competitive procedures for assigning the aforesaid capacities.

Compared to the previous measures, the latest Ministerial Decree sets aside part of the capacity for flexibility services to offer through auctions, which make additional peak performance available to the shippers, also with regard to time periods more limited than the entire withdrawal cycle.

With reference to the procedures for assigning the capacities of the modulation service, they are carried out in the months from March to September, until the capacities are exhausted, according to a schedule published by the storage companies.

A ceiling of 35% of the total value of the capacity is set to the supply of said capacity by a single entity.

The withdrawal of the gas from the storage system for the peak modulation service takes place on the basis of capacity profiles (maximum withdrawable monthly capacities and maximum withdrawable daily capacities) determined by the storage companies and optimised in such a way as to assure the highest performance availability in the months of January and February for the major transport company.

These profiles are annexed to the decree separately by storage company.

To guarantee the safety of the system, the MISE decrees in question contain a provision directed at assuring a minimum filling of the storage if the

assignment is lower than the average volume of gas withdrawn in the last 5 years.

1.3 ARERA REGULATIONS

A description of the rules contained in the industry regulations that are most pertinent for the purposes of the preparation of this code is provided below.

1.3.1 *Resolution no. 119/05*

Implementing Article 12 Paragraph 7 of Italian Legislative Decree no. 164/00, the Authority for electricity and gas published Resolution no. 119/05 on 24 June 2005. The document defines “the conditions capable of assuring that all users of storage facilities have freedom of access at equal conditions, the utmost impartiality and neutrality of the storage service under conditions of normal operation and the obligations of the parties that perform the storage activities.”

In particular, the Resolution:

- prescribes the storage companies' obligations of disclosure to the Authority;
- defines the services that the storage company has the obligation to provide;
- provides the possibility for the storage company to offer different services from the mandatory ones;
- provides for the additional right, for company and shippers, to negotiate services with technical-economic conditions other than those defined in the code;
- provides for the offer of interruptible services;
- provides a procedure for assigning capacity in case of excess demand;
- defines a Storage Code outline;
- defines a procedure for the consultation of the involved parties.

1.3.2 *Resolution 531/2014/R/Gas “Criteria for regulating the tariffs of the natural gas storage service for the 2015-2018 period” (RTSG 2015-2018)*

This is the measure that sets the criteria for the determination and approval of the revenues recognised to storage companies, for the purposes of calculating the specific entity tariff prices for storage services (tariff regulation for the 4th Storage regulatory period 2015-2018).

Starting from 2015, there no longer is a variable price to be applied to the volumes of gas moved, but the “capacity” prices also include the portion of the revenues recognised to cover operating costs.

1.3.3 Resolution 596/2014/R/Gas “Regulation of the quality of the natural gas storage service for the 2015-2018 regulatory period” (RQSG 2015-2018)

This is the measure that revised the provisions pertaining to the quality of the storage service, previously introduced with ARG/gas resolution 204/10.

Quality of the storage service means compliance, by the storage company, with the obligations and objectives pertaining to:

- Service continuity;
- Service safety;
- Commercial quality of the service.

The provisions pertaining to the aforesaid obligations/objectives are an integral part of the present code.

1.3.4 Resolutions implementing MISE Decrees concerning “Provisions for the assignment of storage capacity for the storage thermal year ...”

Reference is made to the ARERA measures, most recently the Resolutions no. 85/2014/R/Gas (2014-2015 thermal year), 49/2015/R/Gas (2015-2016 thermal year), 77/2016/R/Gas (2016-2017 thermal year), 76/2017/R/Gas (2017-2018 thermal year) and 121/2018/R/gas (2018-2019 thermal year), promulgated to implement the ministerial decrees that set the rules for the assignment of storage capacity for the different services, and that provide the detailed rules for the organisation and execution of the competitive procedures for the aforesaid assignment, including the criteria for calculating the reserve prices, the methods for using the assigned capacity, criteria for determining the specific entity tariff prices to be applied to the services assigned with other than market criteria, as well as the price (Cst) to cover the costs for the availability of strategic storage.

With regard to the specific tariff prices, Resolution 49/2015 defined the procedures for calculating the three capacity prices (which also include the portion of revenue to cover the operating costs) of space, of injection capacity, of withdrawal capacity (respectively, C_s , C_i , C_e), procedures that were confirmed by the most recent Resolution 121/2018.

1.3.5 Resolution 419/2019/R/Gas "Tariff regulation and natural gas storage service quality criteria for the fifth regulation period (2020 – 2025)" – Att. A (RTSG) and Att. B (RQSG)

The RTSG (storage service tariff regulation) sets out the criteria for establishing and approving the fees granted to the storage companies, in order to calculate the specific company fees for storage services.

The RQSG (storage service quality regulation) contains the dispositions that must be complied with by the storage company regarding safety, continuity and commercial quality of the storage service.

1.3.6 193/2016/R/Gas "Provision regarding assignment of storage capacity on a monthly basis or less and mechanisms for managing contractual congestions in the use of the storage capacity"

Mechanisms for solving congestions in the use of the storage capacity on a monthly, weekly or daily basis were introduced with this measure.

The new mechanisms will take effect starting from the date the new Balancing system starts up pursuant to EU Regulation 312/2014.

They will replace those provided for by Resolution 165/2009 (Shipper balancing service).

The storage companies must organise competitive procedures for assignment (auctions) on a monthly, weekly and daily space, withdrawal and injection capacity basis (in unbundled form), both on a continuous and an interruptible basis, following the last renomination cycle on day G-1.

The first session of each auction is dedicated to the continuous capacities, in the second the interruptible withdrawal and injection capacities are offered.

The following are offered as continuous capacities:

- primary capacity (capacity not yet allocated or obtained from short-term optimisation);
- secondary capacity (capacity not used by the shippers, including the transport companies) possibly made available by the shippers;
- (only on daily basis) so-called "early" capacity (it is the capacity that can be made available each day for the next one when there is a reduction in the withdrawal performance at a later time);
- (only on daily basis) so-called "not otherwise usable" capacity (it is the injection and withdrawal capacity corresponding to the difference between the assigned capacity and the maximum programmable capacity on the gas day, taking into account renomination restrictions on the capacities scheduled the previous day).

The Storage Company communicates to the Authority the detailed results and publishes on its own Website the aggregate results of the assignment procedure by the day after its conclusion.

1.3.7 312/2016/R/Gas and 66/2017/R/Gas “Gas balancing, in adopting (EU) Regulation 312/2014”

With this measure the Authority defines the aspects that make the Balancing rules pursuant to the EU regulation once and for all implementable in the Italian context.

These aspects are specified in a single Integrated Text (Integrated balancing regulation - TIB).

The provisions regarding management of the trading of the locational products and of gas stored within the scope of the pre-existing PB-Gas and then MGS platform will then be regulated with the issuing of Resolution 66/2017 and of the annexed Integrated Text “Amended Act relative to provisions regarding regulatory conditions for performing management activities for physical gas markets” - (TICORG).

Specifically, the TIB relates in detail:

- the general criteria covering intervention of the responsible for balancing (RdB) in the market (the M-GAS exchange platform managed by the GME);
- the methods with which the responsible for balancing can propose recourse to the so-called balancing services;
- the methods with which the responsible for balancing can resort to the so-called locational products through the M-GAS session called MPL;
- the imbalance price for the aspects not defined by the Regulation, including the extent of the small adjustment;
- introduction to the GME-regulated market of a market organised to exchange stored gas between shippers (M-GAS session called MGS) to which also the responsible for balancing can access if it is necessary to meet any operational and safety requirements.

The TIB also establishes that the responsible for balancing and the other infrastructural operators (storage companies, minor transport companies, regasification companies) establish interconnection agreements (operational balancing accounts or OBAs) aimed at guaranteeing the interoperations and allocation of the imbalance costs to the shippers that caused them.

The TIB rules went into effect starting from 1 October 2016, while full operations of the regulated market for the trading of gas stored pursuant to the

TICORG and the conventions consequently stipulated between storage companies and GME approved with resolution 630/2017/R/Gas starting from 1 October 2017.

1.4 PERTINENT LAWS AND REGULATIONS

The references of the main laws and regulations applicable to the natural gas storage activity and to the preparation of the present code are provided below.

1.4.1 *European Community Regulations*

- Directive 2003/55/EC of 26 June 2003 “Common rules for the internal market in natural gas”;
- Directive 2009/73/EC - Concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC.
- Regulation (EU) No. 994/2010 concerning measures to safeguard security of gas supply

1.4.2 *Domestic Regulations*

- Law no. 481 of 14 November 1995, “Rules for competition and regulation of services of public utility”;
- Law no. 239/04 of 23 August 2004, “Reorganisation of the energy sector and delegation of powers to the Government for the reorganisation for the current provisions on energy”;
- Law no. 340 of 24 November 2000, “Provisions for deregulation and for the simplification of administrative procedures”;
- Legislative Decree no. 164 of 23 May 2000 implementing Directive no. 30/98/EC introducing common rules for the internal market in natural gas, in accordance with Article 41 of Law no. 144 of 17 May 1999 - published in the Official Gazette no. 142 of 20 June 2000;
- Decree by the Ministry of Productive Activities of 23 March 2005 “Simplification of administrative compliance requirements in the natural gas sector”;
- Decree by the Ministry of Productive Activities of 25 June 2004 “Emergency procedure to address shortfalls in the natural gas supply in case of unfavourable weather events”;
- Decree by the Ministry of Industry, Commerce and Crafts of 9 May 2001 “Criteria making the hydrocarbon, strategic and modulation storage services technically and economically feasible”.
- Legislative Decree no. 93 of 1 June 2011 Implementation of Directives 2009/72/EC, 2009/73/CE and 2008/92/EC providing common rules for the

internal market in electricity and natural gas and a Community procedure to improve the transparency of gas and electricity prices charged to industrial end-users, and repealing Directives 2003/54/EC and 2003/55/EC;

- Law Decree no. 1 of 24 January 2012, converted into Law no. 27 of 24 March 2012 “Urgent provisions for competition, infrastructure development and competitiveness”, established the integrated transport and regasification services, inclusive of the natural gas storage services, and the storage services intended for regasification companies, on the occurrence of unforeseeable events;

- Ministry of Economic Development Decree 29/3/2012 “Rules on the strategic storage of natural gas”;

- Law Decree no. 83 of 22 June 2012, converted into Law no. 134 of 7 August 2012, “Urgent measures for the growth of the Country”, amended Article 14 Paragraph 3 of Law Decree no. 1 of 24 January 2012 introducing competitive auction procedures among the criteria for the assignment of modulation storage capacity;

- Ministry of Economic Development Decree of 15 February 2013 on storage and regasification, which defines the Storage Service associated with regasification and the Storage Service for LNG supply;

- Ministry of Economic Development Decree of 15 February 2013 on modulation storage, which defines, for thermal year 2013/2014, the Modulation Storage space to be assigned according to the procedures prescribed by Law Decree no. 1 of 24 January 2012 and defines provisions for the withdrawal of gas from the storage system;

- Ministry of Economic Development Decree of 19 February 2014 which defines, for thermal year 2014/2015, the Modulation Storage space to be assigned according to the procedures prescribed by Law Decree no. 1 of 24 January 2012;

- Ministry of Economic Development Decree of 6 February 2015 “Determination and method for allocating the storage capacity, 2015-2016” which defines, for thermal year 2015/2016, the Modulation Storage space to be assigned according to the procedures prescribed by Law Decree no. 1 of 24 January 2012;

- Ministry of Economic Development Decree of 25 February 2016 which defines, for thermal year 2016/2017, the Modulation Storage space to be assigned according to the procedures prescribed by Law Decree no. 1 of 24 January 2012;

- Ministry of Economic Development Ministerial Decree of 14 February 2017 which defines, for thermal year 2017/2018, the Modulation Storage space to be assigned according to the procedures prescribed by Law Decree no. 1 of 24 January 2012;

- Ministry of Economic Development Ministerial Decree of 22 February 2018 which defines, for thermal year 2018/2019, the Modulation Storage space and the space for additional flexibility services to be assigned according to the procedures prescribed by Law Decree no. 1 of 24 January 2012.

1.4.3 ARERA Regulations

- Resolution no. 26/02 of 27 February 2002 “Criteria for determining the tariffs for the storage of natural gas”;
- Resolution no. 137/02 of 17 July 2002 “Adoption of guarantees for free access to the natural gas transport service and of rules for the preparation of network codes”;
- Resolution no. 119/05 of 24 June 2005 “Adoption of guarantees for free access to the natural gas storage service, obligation of the parties that perform storage activities and rules for the preparation of storage codes”;
- Resolution no. 185/05 of 6 September 2005 “General provisions for the quality of natural gas in accordance with Article 2, Paragraph 12, Letters g) and h) of Law no. 481 of 14 November 1995”;
- Resolution no. 50/06 of 3 March 2006 “Criteria for determining the tariffs for the storage activity and amendments and additions”;
- Resolution no. 56/06 of 16 July 2006 “Approval of company prices and determination of single prices for the storage activity, for thermal year 2006-2007”;
- Resolution ARG/gas 165/09 “Urgent measures for revising the rules for balancing and regulating natural gas storage services in accordance with Law Decree no. 78 of 1 July 2009”;
- Resolution ARG/Gas 119/10 “Consolidated regulations for the quality and tariffs of the natural gas storage service for the 2011-2014 period (TUSG): approval of part II “Regulation of tariffs for the natural gas storage service for the 2011-2014 regulatory period (RTSG)”, provisions on transitional price for the gas transport measurement service for the year 2011”;
- Resolution ARG/Gas 204/2010 “Consolidated regulations for the quality and tariffs of the natural gas storage service for the 2011-2014 regulatory period (TUSG): approval of Part I “Regulation of the quality of the natural gas storage service for the 2011-2014 regulatory period (RQSG)”;
- Resolution no. 149/2012/R/Gas “Provisions for the implementation of the Minister of Economic Development Decree of 29 March 2012 concerning strategic storage, and amendments and additions to Annex A to Resolution ARG/gas 119/10 of 3 August 2010 by the Authority for Electricity and Gas”;
- Resolution 152/2012/R/Gas “Changes to the variable price and to technical storage consumption”;
- Resolution 297/2012/R/Gas “Provisions concerning access to the natural gas transport service in the entry and exit points of the transport network interconnected with the storage or with regasification terminals”;
- Resolution 85/2014/R/Gas “Provisions for the assignment of storage capacity for the storage thermal year 2014 – 2015”;
- Resolution 423/2014/R/Gas “...provisions on pledging gas located in storage as collateral in favour of third parties”;
- Resolution 531/2014/R/gas “Criteria for regulating the tariffs of the natural gas storage service for the 2015-2018 period” (RTSG 2015-2018);

- Resolution 596/2014/R/Gas “Regulation of the quality of the natural gas storage service for the 2015-2018 regulatory period” (RQSG 2015-2018);
- Resolution 49/2015/R/Gas “Provisions for the assignment of storage capacity for the storage thermal year 2015-2016 and definition of the storage tariffs”;
- Resolution 182/2015/R/Gas “Regulatory incentivising schemes for the development of additional peak performance from storage of the national gas system”;
- Resolution 77/2016/R/Gas “Provisions for the assignment of storage capacity for the storage thermal year 2016-2017”;
- Resolution 193/2016/R/Gas “Provision regarding assignment of storage capacity on a monthly basis or less and mechanisms for managing contractual congestions in the use of the storage capacity”;
- Resolution 312/2016/R/Gas “Gas balancing, in adopting (EU) Regulation 312/2014” - Annex A “Integrated balancing regulation” – TIB;
- Resolution 66/2017/R/Gas “Provisions on the subject of rules of the gas market, functional for starting up the balancing system” - Annex A “Amended Act relative to provisions regarding regulatory conditions for performing management activities for physical gas markets” - (TICORG);
- Resolution 76/2017/R/Gas “Provisions for the assignment of storage capacity for the storage thermal year 2017 – 2018”;
- Resolution 630/2017/R/Gas “Approval of the conventions between the Energy Markets Manager and Snam Rete Gas S.p.A., Stogit S.p.A. and Edison Stoccaggio S.p.A., functional for managing gas markets”;
- Resolution 855/2017/R/Gas “Temporary determination of company revenue for the storage service relating to the year 2018”;
- Resolution 68/2018/R/Gas “Initiation of a process for the formation of measures pertaining to tariffs and quality of the natural gas storage service for the fifth regulatory period (5PRS) and extension of the criteria in force to the year 2019”;
- Resolution 121/2018/R/Gas “Provisions for the storage services for the 2018-2019 thermal year”;
- Resolution 67/2019/R/Gas “Regulation of access to the storage services and their withdrawal. Provisions for the assignment of storage capacity for the 2019/2020 thermal year”, and Annex A “Regulations pertaining to guaranteeing free access to the natural gas storage service” (RAST).
- Resolution 419/2019/R/Gas “Tariff regulation and natural gas storage service quality criteria for the fifth regulation period (2020 – 2025)” – Att. A (RTSG) and Att. B (RQSG)

CHAPTER 2

DESCRIPTION OF THE STORAGE FACILITIES AND THEIR MANAGEMENT

2.1 INTRODUCTION.....	22
2.2 GENERAL DESCRIPTION OF THE STORAGE SYSTEM.....	22
<i>2.2.1 The storage reservoir</i>	<i>23</i>
<i>2.2.2 The wells.....</i>	<i>26</i>
<i>2.2.3 Connecting flow lines</i>	<i>27</i>
<i>2.2.4 Treatment and compression stations.....</i>	<i>28</i>
2.3 DISPATCHING AND MANAGEMENT	31
<i>2.3.1 Controlling the production and the treatment and compression processes</i>	<i>32</i>
<i>2.3.2 Optimising production.....</i>	<i>32</i>
<i>2.3.3 Managing commercial problems.....</i>	<i>33</i>
2.4 DETERMINING THE AVAILABLE CAPACITIES	34
<i>2.4.1 Hydrocarbon aspects.....</i>	<i>35</i>
<i>2.4.2 Technical-management aspects</i>	<i>36</i>
<i>2.4.3 Determining System Performances</i>	<i>37</i>
<i>2.4.4 From the System performances to the available Capacities.....</i>	<i>42</i>
<i>2.4.5 Use profiles and adjustment coefficients of the IP and WP Performances</i>	<i>50</i>
<i>2.4.6 Revision of the use profiles and adjustment coefficients</i>	<i>54</i>
2.5 INFORMATION PUBLISHED ON THE WEBSITE	55

2.1 INTRODUCTION

The Storage Company offers a storage service that avails itself of the coordinated and optimised use of storage reservoirs currently undergoing changes in the optimisation and upgrading phase of the gas Cushion and the Working Gas.

The storage activity is currently being carried out through three reservoirs (Collalto, Cellino and San Potito e Cotignola) with exhausted gases of the conventional type and with simple expansion, and that are under concession granted by the Ministry of Economic Development (MSE).

The performance available comes from the optimised aggregation of the performance of the single storage sites attributed to the Storage Company in concession, determined considering the hydrocarbon properties of each one of them and also the existing restrictions on the surface systems and wells.

In order to meet the obligation of coordinated and integrated management of its capacities provided for by Article 12, paragraph 1 of Italian Law Decree 164 of 23 May 2000 and to guarantee transparency and non-discrimination to all System Shippers, the Storage Company has defined a single virtual hub for accessing the Storage System (Edison Stoccaggio Hub) through which the processes for reservation and assignment of the capacities reserved by the Shippers will be managed. The Storage Company offers Shippers its services through the Edison Stoccaggio Hub regardless of which specific storage site is activated during the injection and withdrawal phase.

This chapter describes the Storage System, its management methods and the methods for determining the capacities offered.

2.2 GENERAL DESCRIPTION OF THE STORAGE SYSTEM

Based on what is established by Italian Legislative Decree 164/00, storing natural gas in reservoirs or deep geological units is performed based on a concession issued by the MSE to requesting user that have the necessary technical, economic and organisational capability.

From the technical system viewpoint, a storage site is made up of:

- The storage reservoir;
- The wells;

- The flow lines;
- The treatment and compression stations.

The plants making up the Storage System were designed and built in consideration of the period during which they were conceived and of their specific use, based on the domestic and international legislation on the sector, the consolidated experience acquired and with the final objective of guaranteeing operation distinguished by a high level of safety, reliability and operational efficiency.

A brief description of the types of storage, reservoirs, wells and systems mentioned above follows.

2.2.1 The storage reservoir

Underground storage sites of natural gas consists of geological structures having characteristics such as to permit the accumulation, the preservation and, when required, the withdrawal of natural gas.

Storage sites are considered conventional when built using reservoirs producing exhausted or semi-exhausted gases, semi-conventional when exhausted oil reservoirs or aquifers (i.e. geological structures containing water) are used, and special when they are built in abandoned coal mines or in cavities dug out in underground salt formations.

2.2.1.1. The different types of reservoirs and their problems

Exhausted gas reservoirs: the elements of greatest interest are the shape and size of the reservoir, the size and properties of the aquifer, gas-water contact, and the properties of the reservoir and covering rocks.

The physical parameters of the reservoir rock of greatest interest that must be carefully assessed are:

- a. Interconnected porosity: the greater the interconnected porosity of the reservoir rock, the greater is the accumulation capacity of the natural gas;
- b. Permeability: the greater the permeability of the reservoir rock, the greater it is suited to being used for storage;
- c. Saturation in interstitial water: the lower it is, the better it is since it reduces the usable volume.

Another element to bear in mind is the “production mechanism” that affects the movements of the aquifer in the reservoir rock after the reservoir is filled and emptied. With reference to the production mechanism, there are:

- i. Simple expansion reservoirs in which the aquifer remains basically at the same height during withdrawal and injection, offering high performance and fewer problems during production;

- ii. Water drive reservoirs, in which the aquifer quickly rises during withdrawal and must then be cleared when injecting into the reservoir. Performance is limited in these reservoirs by the possible transport of water (withdrawal phase) and by the increase in pressure necessary to clear the water out of the reservoir (injection phase).

As regards the storage sites in aquifers, it is first of all necessary to find the geological structure, and best if it is the anticlinal type. This structure is identified with geological surface surveys, then located with geophysical systems.

The most important requirement of an aquifer storage site is its seal against the passage of gas through the covering rocks, which must have an adequate thickness and low permeability, like in the case of clayey formations; this requirement is due to the fact that in order to be able to inject the gas, the hydrostatic pressure is always exceeded.

For storage in salt formations, cavities made by dissolving the salt mass with water pumped through one or more wells and then used to extract the salt are used.

Knowledge of the shape of the cavity and of the properties of the rocks surrounding it are important elements for determining the minimum and maximum pressure on which this type of storage can be exercised.

Generally speaking, these storage sites do not have high working gases, but provide remarkable peak flow rates.

Storage in partially or totally exhausted oil reservoirs has characteristics similar to those in gas reservoirs converted for storage; therefore, some of the operating and development methods applied to the latter are valid.

In this case, injecting gas into an oil reservoir can be part of the secondary oil recovery project; in these cases, the classic advantages of storage are associated with those of additional recovery of oil.

It is also to be said that the treatment plants for giving the gas the necessary quality specifications before being introduced into the transport network are often different from those used in the previous types of storage since they must be able to retain the fraction of liquid hydrocarbons suspended in the gas.

2.2.1.2. Technical hydrocarbon management of the conventional storage reservoirs

Knowledge of the production parameters acquired during the primary production stage is essential for the technical hydrocarbon management of the conventional storage reservoirs.

The aforesaid parameters, and those acquired during the storage cycles, indeed allow the dynamic behaviour of the sites to be monitored, whether they are optimised or about to be optimised.

Monitoring the behaviour of the reservoirs allows appropriate reservoir behaviour simulation models to be implemented for the purpose of optimising use of the available capacities, thus preventing damage to the levels used for storage.

The main phases distinguishing each storage reservoir are:

- Injection phase: during this phase, the pressure in the reservoir rises as the injected gas volumes increase, and is conditioned by the petrophysical/geostructural characteristics of the reservoir, by the production mechanism and by the compression capacity of the surface systems. In particular, the accommodation capacity of the reservoir decreases with the progressive approach to the maximum pressure value; this value corresponds to the original static pressure of the reservoir or to the different value that may have been authorised by the MSE for the single storage reservoir;
- Withdrawal phase: during the withdrawal phase, the pressure in the reservoir drops as the withdrawn gas volumes increase, and is conditioned by the petrophysical/geostructural characteristics of the reservoir and by the production mechanism. Specifically, the withdrawal capacity of the reservoir decreases as the pressure drops since it is the function of the difference between static and dynamic pressure applicable to the wellhead.

The evolution of performance in injection and withdrawal of every single reservoir is therefore the function of the trend of the gas volumes injected/withdrawn over time and therefore of the level of pressure of the same reservoir.

In the case of reservoirs still in the upgrading phase, the injection and withdrawal capacity is mainly limited to the surface plants, the type of wells and the pressure conditions on the national gas pipeline network (NGPN) to which the system is connected, while the reservoir pressure is not a real management restriction since it is not yet possible to reach the original static pressure in the injection phase.

The parameters distinguishing a storage reservoir are:

- Cushion gas;
- Working Gas;
- Peak availability.

Cushion gas is the amount of gas in the reservoir necessary to use the storage site, and it is the minimum necessary amount present or injected into the reservoirs during the storage start-up phase, which is necessary to always keep in the reservoir. The function of the cushion gas is to allow working gas to be withdrawn while keeping the reservoir at a certain pressure level that serves to impede the aquifer from rising without jeopardising the hydrocarbon characteristics of the storage reservoirs over time.

Working Gas is the quantity of gas present in the reservoirs during the storage phase which can be made available and replenished to be used for the Hydrocarbon Storage, Modulation, Operational and Strategic Balancing Services, including the part of gas (called “pseudo working gas”) producible but in longer times than those required by the market, which is essential to assure the peak performance that can be required by the variability of demand in daily and hourly terms.

Peak availability is the amount of gas that the reservoir is able to withdraw and inject in one hour (shown at the daily value multiplying the hourly flow rate by 24).

2.2.2 The wells

The wells connect the mineralised levels of the reservoir with the surface structures and allow the gas to be handled and other specific auxiliary activities to be carried out, such as re-injection of the production waters, if possible, and reservoir monitoring.

Each well is equipped at the surface with equipment able to separate water at the free and/or condensation state and with a control system connected to a station able to ensure overall protection of the well and of the other equipment through an air-hydraulic type of control system.

The well part directly in contact with the mineralised levels, called “completion”, is specifically structured to allow injection and withdrawal of the gas directly in/from the rock formation.

The average depth of the wells is naturally tied to the depth of the levels used for storage, currently situated between 500 and 1500 metres below sea level.

From the technical viewpoint, the structure of the wells can be described as follows:

- on the outside, toward the crossed geological formations, the well is made up of concentric hole sections covered by steel pipes (casing) with cement

filling the annular space between the formation and the casing. This filling guarantees the mechanical anchorage of the pipes and the hydraulic insulation from the formations they cross;

- other steel pipes are located inside the casing, called “*completion tubing*”, and their purpose is to guarantee the flow of gas in totally safe conditions.

To guarantee the best performance, the wells for gas movement are sometimes completed with the “*sand control*” technique by positioning special filters (“*gravel pack*”) able to hold back the finer solid components of the rock formation at the bottom of the well.

The casings and production tubing are connected on the surface with the set of valves making up the “wellhead”, the only part of the well assembly seen on the surface.

Each gas injection/withdrawal well is equipped with “*safety valves*” that are able to automatically stop the flow of gas from the reservoir after any anomalies of the surface systems directly connected with the well.

From the operational viewpoint, each well is run with a pre-determined *deltaP* (maximum difference in admissible pressure between the static pressure and the dynamic pressure to prevent problems for the formation and well and, at the same time, to guarantee continuity of the service supply) that takes into account petrophysical characteristics of the level concerned, of the production mechanism, of the type of completion and of the very location of the well with respect to the morphology of the level.

The wells in the Storage System are classified based on their use:

- Operational wells, used for the gas movement both in injection and in withdrawal;
- Monitoring wells, used to control pressures and the degree of gas/water saturation in the mineralised levels of the reservoir;
- Possibly wells for re-injection of the water coming from the formation during the gas withdrawal phase following appropriate separation from the gas itself.

2.2.3 Connecting flow lines

The wells, isolated or grouped in “clusters”, are distributed so as to properly cover the reservoir area and for this reason can also be located several kilometres away from the compression and treatment plants. Connecting pipes called “*flow lines*” are therefore used to permit movement of the gas between the wells and the plants.

These lines are equipped with their own gate valves and safety devices for management and control, both local and remote.

The size and characteristics of the flow lines are also important. In fact, they affect the performance of the System since during its journey the Gas sustains a load loss (reduced pressure) proportionate to the Gas flow passing through the pipes.

2.2.4 Treatment and compression stations

All of the machinery and systems necessary for performing the process and control operations for injecting the natural gas coming from the transport system in the underground reservoirs and for withdrawing volumes of gas from the reservoir to the transport network are installed in the storage station.

The main processes to which the gas is subjected in the storage stations are:

- Treatment of the gas to give it the necessary quality specifications before being introduced into the national gas pipeline network (or NGPN);
- Compression in the reservoir and/or in the NGPN.

2.2.4.1. Treatment stations

The gas injected into the reservoirs becomes enriched with water and sometimes with greater hydrocarbons (which condense into gasoline at the surface) present in the cracks of the geological formations used for storage. The presence of water in the extracted gas is particularly accentuated in the aquifers or in the reservoirs with the water drive production mechanism.

This is why the gas, before being returned to the NGPN, must pass through the wellhead separators, the station separators and then go through the treatment plants.

2.2.4.1.1. Notes on the treatment plants

The treatment plants can be divided into first stage plants and final treatment plants.

The first stage plants comprise:

- Separators;
- Heaters;
- Pumps for injecting hydrate formation inhibitors (glycol and/or methanol).

The job performed by the separators, usually installed at the wellhead and at the inlet/outlet of the treatment station, is treating the free water (or other liquids such as glycol and/or gasoline) and the water that condenses due to the cooling and reduction in gas velocity because of the change in diameter of the separator.

The function of the heaters and glycol/methanol injection pumps is to prevent the formation of hydrates in the equipment and in the lines that run from the wellhead to the treatment station.

The final treatment plants are:

- Dehydration by absorption plants (glycol plants);
- Dehydration by cooling plants (LTS);
- Solid bed treatment plants.

The treatment plants currently installed in the Storage Company stations are glycol plants. Triethylene glycol is used in these plants for dehydrating gas. The water associated with the gas is absorbed by simple physical contact between the wet gas and the glycol; the glycol saturated with water is then recovered and sent to a regeneration circuit to later be reused in the dehydration process.

2.2.4.2. *Compression stations*

During the withdrawal phase, both the conventional and semi-conventional storage sites need compression only towards the final stage of the cycle since the reservoir pressure on average stays above that of the NGPN with which they are connected (free flow). The amount of operational working gas that can be extracted without need for compression depends on the production mechanism and on the pressure value reached at the end of filling.

2.2.4.2.1. Description of the compression station

The compression station is located between the national gas pipeline network and the pipeline connecting the station to the storage wells (flow line). The station is connected to the national gas pipeline network and the flow line with pipes properly sized to contain the load losses and limit the noise generated by the gas in transit. The pipes are called “intake and delivery manifold”, depending on the direction of the gas and the inlet and outlet from the compressor.

The compression station is usually made up of multiple modular units that are connected to each other with valves installed on each manifold. The valves allow different types of operation, different running conditions and the maintenance operations on the units to be configured without jeopardising the overall operation of the plant.

The compression station is made up of the compression units (that may be more than one) equipped with feeding, cooling and flow rate control/adjustment systems.

2.2.4.2.2. Sizing of the compression stations

The main function of the compression stations at the storage sites is to enable the injection volumes of gas into the reservoir after being withdrawn from the national gas pipeline network at a pressure level lower than that of the reservoir. The compression can also be useful during the withdrawal phase, usually towards the end, when the reservoir pressures tend to reach the values of the transport network. Use of compression during this stage nevertheless is marginal.

In sizing the compressors, the injection cycle is therefore mostly binding.

So at the basis of the sizing are the daily flow rates, and the intake pressure (pressure at which the Gas arrives from the national gas pipeline network) and delivery pressure at which the compressor has to work, bearing in mind the maximum instantaneous intake pressure limits applicable in order to prevent damage to the reservoir and to the covering rocks.

2.2.4.2.3. Type of compressors

The compressors are divided into two classes:

- Reciprocating compressors
- Centrifugal compressors

The reciprocating compressor is part of those machines called volumetric compressors because they reduce the volume available to the fluid in order to increase its pressure.

There are various types of reciprocating compressors: horizontal, vertical, “V”-shaped and square. Furthermore, the cylinders in reciprocating compressors can be double acting and single acting.

The centrifugal compressor, on the other hand, turns the kinetic energy of the fluid into pressure energy.

The compressors are coupled with motors that move their mechanical parts. The power supply of the motors can be electric (constant speed or possibly with a speed variator), or gas-powered.

The compressors that the Storage Company uses are reciprocating and are powered by electric motors.

2.2.4.2.4. Configuration criteria of the compression stations

Many parameters are considered when configuring a compression station, including the amount of flexibility that the system must allow, the energy output and efficiency of the machine and the level of investment, which all play a key role.

For the typical flow rates of the Storage Company sites, the reciprocating compressors generally best meet the flexibility requirements while at the same time preserve higher outputs than the centrifugal compressor.

2.2.4.2.5. Compression monitoring and control systems

Managing storage sites demands a certain flexibility in terms of daily peak performance, both for purely commercial considerations and constraints arising from the characteristics of the reservoir.

The interval of the withdrawal and injection flow rates depends on the filling of the reservoir and on the instantaneous working pressures, and may be very extensive; the need to be able to adjust the pressure and flow rate parameters at the compressor outlet is therefore an essential factor. When possible, it is preferable to make the adjustments by changing the speed of rotation of the motor shaft connected to the compressor. This is done, for example, when the compressor is connected to gas combustion motors (the combustion charge is changed) or to variable speed motors.

If the motor runs at constant speed, adjustment is carried out by recycling. There are also other adjustment possibilities, but tied to the type of compressor and to its construction elements; in reciprocating compressors, it can be done by changing the clearance volume of the compression chambers, exclusion of the effects, and the on/off system (not recommended due to the impact that it can have on the machines and instrumentation).

2.3 DISPATCHING AND MANAGEMENT

Dispatching is a fundamental element of the system since it is the operations, control and supervision centre for:

- Monitoring the plant safety of the process;
- The supply provided by the Storage System;
- Performing specific activities linked to the service.

Dispatching makes use of dedicated software that minimises the controls and manipulations that the operator is required to perform on the single parts of the storage facility.

Specifically, the computerised management systems are used for the following activities:

1. Controlling the production and the treatment and compression processes;
2. Optimising production;
3. Managing commercial problems.

2.3.1 Controlling the production and the treatment and compression processes

The activity entails:

- a. Monitoring operation of the site systems and instrumentation at all times while guaranteeing the safety of the equipment, people and environment at all times;
- b. Remote management of the plants in conditions where personnel are totally or partially absent, thus significantly cutting the operating costs and making production control more effective and dynamic;
- c. Centralising management and production planning to improve the response time for many market demands.

2.3.2 Optimising production

The activity entails:

- a. Optimally using the various hydrocarbon characteristics of each site, also when there are surface constraints, in such a way as to significantly increase performance volume moved from the storage system being equal;
- b. Optimally using each site level based on its petrophysical properties and production mechanism;
- c. Determining the daily flow rate of each well at all times in consideration of its location, type of completion, and the draw-off/storage achieved.

Injection and withdrawal capacities are optimised starting from the overall demand on the different storage sites (basic or peak storage sites) forming the system, considering the constraints on the treatment/compression plants and on the national gas pipeline network.

As mentioned above, the storage sites are divided into two broad categories:

- Basic storage sites;
- Peak storage sites.

A brief description of the two types of storage sites follows.

2.3.2.1. Basic storage sites

They are used during the entire winter season and are generally storage sites that have high operational working gas and a slow decline of daily peak capacity during the withdrawal stage.

Most of the storage sites in exhausted gas reservoirs and a certain part of the storage sites in aquifers belong to this category.

2.3.2.2. Peak storage sites

They are used only for short periods during the winter season in order to meet the daily demand peaks; the number of days of use may range from a minimum of 15-20 days to a maximum of 40-50 days, depending on their size.

The operational working gas is usually less than 0.5 Gm³, and the decline of the daily peak during withdrawal is somewhat accentuated.

Most of the storage sites in salt cavities and a certain part of the storage sites in exhausted gas reservoirs and in aquifers belong to this category.

The reservoirs through which the Storage Company performs the storage activity belong to the basic storage site category in view of their hydrocarbon properties and level of development.

The total demand in the different storage reservoirs making up the System is distributed while optimising the hydrocarbon properties of each one of them and considering any constraints on the treatment/compression plants and on the national gas pipeline network.

This methodology of use and management of the Storage Systems makes it possible to identify the optimum withdrawal/injection profile of each reservoir with the aim of ensuring the System the best possible performance.

In other words, the methodology both maximises the peak availability of the System withdrawn volume being equal and ensuring filling in the time frame planned for the injection stage and with the appropriate flexibilities.

The input data for optimisation are built by the withdrawability/injectability curves of all the sites making up the Storage System in question and by the load curve that the System has to meet.

2.3.3 Managing commercial problems

The activity entails:

- Managing the reservation, assignment and reassignment processes;
- Managing the processes of allocating the gas moved from storage;
- Managing the invoicing processes.

The Storage Company has developed an IT System (hereinafter also Escomas) to make available the functionalities stated below in an impartial and non-discriminatory manner and to optimise management of the following processes in terms of effectiveness and efficiency:

- Assignments of Storage capacity at the beginning and during the Thermal Year;
- Availability of supplies and scheduling;
- Allocations;

- Storage position in terms of stock;
- Capacity and Gas transactions;
- Balancing and replenishment of the storage sites;
- Invoicing;
- Communications between Storage Company and Shipper, where envisaged;
- Other functionalities and information.

This system and its functionalities will be better described in the sections and chapters below, and in the Escomas user's manual.

2.4 DETERMINING THE AVAILABLE CAPACITIES

Determining minimum supplies that can be guaranteed and then daily distributing the overall demand over the storage reservoirs making up the system is done while optimising the hydrocarbon properties of each one of them (basic or peak storage sites) and considering any constraints on the treatment/compression plants and on the transport system and the schedule of works to optimise, upgrade and develop the System.

This methodology of use and management of the storage systems makes it possible to identify the optimum withdrawal/injection profile of each reservoir with the aim of ensuring the System the best possible performance.

In other words, the methodology both maximises the peak availability of the System withdrawn volume being equal and ensuring filling in the time frame planned for the injection stage.

The input data for optimisation are built by the withdrawability/injectability curves of all the sites making up the Storage System in question and by the load curve that the System has to meet; for the sake of completeness, remember that the load curve is nothing other than the quantity of gas that the set of sites to be optimised must meet and that the withdrawability/injectability curves are made with the three functions:

- Q_g = daily flow rate based on the draw-off/storage
- S = draw-off/storage based on time
- P = pressure based on the draw-off/storage

The gas volumes are moved and transferred between the transport system and the underground storage reservoirs through the natural gas storage station. During the development and upgrading stages of a storage site, the storage station facilities (flow line, treatment and compression system) may be a

constraint in determining the maximum supplies that can be withdrawn from the Site.

During operations management, the configuration and type of surface systems may represent limits to the flexibility of the Storage System (flow reversal, minimum withdrawable flow rates).

All equipment installed at the stations is sized to perform a complete storage cycle, bearing in mind the maximum supplies that can be obtained from the reservoir. The cycle is made up of an operational injection (or storage) stage and an operational withdrawal (or production) stage in which the volumes stored in the previous stage are redelivered to the system from which they were withdrawn.

Therefore, determining the Storage Capacity is based on:

- Hydrocarbon aspects;
- Technical-management aspects.

The methods based on which the Storage Capacities are defined are described in the following sections.

The above capacities may be subject to changes over time since they depend on the actual draw-off and storage at the end of the injection and withdrawal campaign, the technical-management conditions of the transport system connected to the system and the work schedules for interventions on the system.

2.4.1 Hydrocarbon aspects

Storage Capacity first of all depends on the geometry of the reservoir and on its geophysical properties, which are identified through the following activities:

- a. Geological study of the structure identified and of the covering rocks;
- b. Study of behaviour during the production stage in the case of exhausted or semi-exhausted gas reservoirs (conventional storage sites);
- c. Dynamic simulation of behaviour of the structure in the injection and withdrawal stage using specially drawn up mathematical models;
- d. Determination of the supplies with filling both at the original pressure and at a pressure higher than the original pressure, assuming different dynamic pressure values at the wellhead;
- e. Determination of the supplies based on the number and type of wells (vertical, horizontal wells) and the type of completion (completion with gravel pack, large diameter tubing, etc.).

In the case of exhausted or semi-exhausted gas reservoirs, the studies at points a) and b) have already been conducted and updated during the reservoir production lifetime; in particular, the analysis of the dynamic behaviour made during the primary production stage allows the characteristic parameters of the reservoir-aquifer system (single expansion, moderate water drive, strong water drive production mechanism) that are at the basis of the sizing in terms of capacity and productivity of the future storage.

The simulations that we briefly mentioned allow the attainable technical performance and other storage parameters (working gas, withdrawal/injection peak, cushion gas) to be determined as the reservoir pressure and dynamic pressure of the wellhead change.

2.4.2 Technical-management aspects

In addition to the hydrocarbon aspects, the Storage Capacity also depends on several technical-management parameters:

- a) Major Maintenance Plan: the services made available by the Storage Company are heavily influenced by the Major Maintenance operations, as defined in paragraph 13.2 of the chapter “Scheduling and Managing Maintenance Operations” and notified to the MSE pursuant to the Bill. A change in the times or type of operation may change the availabilities of the system for an amount higher than 40% of the available performance.
- b) Delivery/Redelivery Pressures: the purpose of the compression station is to raise the pressure of the gas coming from the national gas pipeline network to values such as to permit its injection into the reservoir during the filling (injection) stage or, vice versa, the introduction into the national gas pipeline network during the reservoir emptying (withdrawal) stage. The working pressures of the storage reservoirs considerably vary depending on the filling level and are, on average, higher than the working values of the primary pipeline network; therefore, the minimum guaranteed pressure level is an extremely important management constraint for allowing the Performances to be guaranteed, especially during injection.
- c) The characteristic trend of the modulation requirements of the Shippers;
- d) Flow reversibility: in order to be able to provide the physical Reverse Flow service explained in sub-paragraph 3.2.1.1, it is necessary that the Storage Company perform the following activities:
 - Alter the set-up of the station (switching compressors on/off, opening/closing valves, enabling/disabling the dehydration plant, etc.);
 - Alter the set-up of the well areas (opening/closing valves, switching on/off separators, heaters, regulating valves, etc.);

- Reverse the technical and fiscal measurements both at the station and at the well areas;
- Request the connected Transport Company to reverse the corresponding metering station;
- Inform the Ministry of Economic Development, UNMIG Division, of all of the above operations by fax, specifying the metering lines in operation.

Therefore, as specified in chapter 6, “Injection and withdrawal reservations and commitments”, the Shipper can request the reverse flow service only of the virtual type since it is not possible to perform the actions above in a time span compatible with the hourly renominations.

- e) Plan of periodic checks and other scheduled operations: any type of operation needing interruption of the activities on part of the System obviously has impacts on the available services.

2.4.3 Determining System Performances

Considering what has already been explained in this chapter, the Storage Company simulates the dynamic behaviour of its storage reservoirs and performances associated with it using computing tools and dedicated software. The simulations conducted have the objective of optimising the services offered in the Injection and Withdrawal Stages in compliance with the standards issued by the MSE and with the provisions of ARERA while taking into consideration petrophysical parameters and the production history of each storage reservoir.

2.4.3.1. Simulation tools

As part of its activity to develop its own reservoirs that are not yet optimised, the Storage Company is developing the dynamic behaviour simulation models of the storage reservoirs and the physical quantities associated with them (injected/withdrawn volumes, static and dynamic pressure, storage capacity in terms of Space, Injection and Withdrawal availability over time, etc.). It currently simulates the behaviour of its sites both using an “Eclipse” 3D mathematical simulator (normally used in the oil industry) and using specially developed models. These models, based on the geodynamic and structural data acquired over time and on the production history of the reservoirs during both the primary production and storage stages, are constantly updated and recalibrated.

Specifically, all of the static and dynamic models reflect the geodynamic, physical and petrophysical parameters characteristic of each reservoir. It is in fact emphasised that the dynamic behaviour of a reservoir is actually neither linear nor stationary, so the reservoir needs a precise definition of the relevant model for its management safe from possible damage.

In the case of storage sites not yet optimised and that are therefore subject to continuous plant changes, and for which new wells are being built, it is evident

that the simulation models are mainly based on information collected during the production stage and so they still do not contain information on the behaviour of the new wells and of the reservoir in the new conditions.

2.4.3.2. *Technical and management constraints and input data for simulations*

The Space values and peak Injection and Withdrawal availabilities regarding the single reservoirs are determined starting from the above-mentioned simulations in observance of the reservoir, well, technical surface equipment constraints.

The simulations necessary for determining the performances are performed considering distinct input data for the injection and withdrawal stage, without prejudice to the constraints of each storage reservoir, depending on the production history, such as the state of the wells, their location with respect to the hydrocarbon area, their type of completion and the shut-downs or partialisations affecting the injection and/or withdrawal stage due to upgrading or development operations.

The inputs considered for the simulations relating to the Injection Stage are:

- The maximum static reservoir pressure not to be exceeded, which is equal to the original static pressure or to the different value authorised by the MSE for the single storage reservoir in the case of optimised reservoirs;
For reservoirs in the upgrading stage and not yet optimised, the pressure considered in the simulations is the one expected to be reached with the volume deemed possible to inject, considering the upgrading operations and/or constraints existing on the current surface systems.
The injectable volume and associated pressure are therefore calculated repetitively by setting whether it is possible to withdraw during the withdrawal stage the gas injected by the Shippers during the previous injection stage as the constraint.
- The maximum receiving capacity of each well during the injection stage;
- The maximum receiving capacity of each reservoir during the injection stage, which depends on the properties of the reservoir and on the operating limits of the compression plants;
- The shut-downs that become necessary for measuring the static bottom hole pressure at the end of the injection stage, as required by Article 18 of Italian Ministerial Decree of 26/8/05, and those that may be scheduled during the cycle. These latter shut-downs are particularly important, above all during the reservoir upgrading and development stage, when monitoring the trend of the restocking becomes necessary;
- The operations schedule authorised by the MSE for carrying out Major Maintenance;

- The operating times of the Injection Stage, which must be about 6-7 months.

The inputs considered for the simulations relating to the Withdrawal Stage are:

- The maximum withdrawal capacity of each well;
- The maximum capacity of each reservoir during the withdrawal stage, which depends on the properties of the reservoir and on the maximum operating limits of the surface plants;
- The minimum withdrawal performance, usually coinciding with the minimum limit of the treatment and compression plants;
- The minimum dynamic wellhead pressure value;
- The maximum quantity of producible water on a daily and annual basis, in compliance with the volumes to be re-injected into underground levels;
- The shut-downs that become necessary for measuring the static bottom hole pressure at the end of the withdrawal stage, as required by Article 18 of Italian Ministerial Decree of 26/8/05, and those that may be scheduled during the cycle. These latter shut-downs are particularly important, above all during the reservoir upgrading and development stage, when monitoring the trend of the withdrawal becomes necessary;
- The operations schedule authorised by the MSE for carrying out Major Maintenance;
- The operating times, about 5-6 months.

The injectability and withdrawability curves of the models of each site form the basis on which determination of the capacities made available during the assignment stage.

2.4.3.3. Results of the simulations

The results of the simulations described in the forgoing section consist of the injectability and withdrawability curves of the Storage System that associate the moved volumes with the peak availability.

- Connections between Space and Injection (injectability curves): optimum Injection profile and peak Injection availability

The optimum Injection profile is initially defined in January - taking into account the best forecasts of the evolution of the overall withdrawal up until the end of the Thermal Year and the technical and management constraints described in paragraph 2.4.2 - on the basis of the following operational concepts:

- Injection of high volumes during the initial phase, existing systems permitting.
- Optimisation of the injection flow rates after the initial phase, based on the actual reservoir capacities and the systems in order to maximise the injection availability.

Based on these consideration, the optimum filling conditions and the consequent trend of the peak availability during Injection, the reverse function of the total volume injected, are defined.

The purpose of the decreasing trend of this availability over time is to direct the injection of the monthly volumes according to the real capacities of the reservoirs without causing overpressure phenomena, which would consequently result in a subsequent reduction of volumes to be injected.

In order to take under adequate consideration the operational flexibility demanded by the System Shippers and the fact that the optimum profile might not be precisely observed, alternative minimum and maximum progressive profiles that in any case ensure proper overall filling of the reservoirs have proven correct.

- Connections between Space and Withdrawal (withdrawability curves): optimum Withdrawal profile and peak Withdrawal availability

The Withdrawal profile for the next Thermal Year is initially defined in January, bearing in mind the complete filling of the assigned Space, the upgrading, optimisation and development operations, and the technical and management constraints described under point a), with the goal of maximising the space and withdrawal flow rate made available to the Shippers.

The Withdrawal profile is determined based on the following criteria:

- Keeping the maximum withdrawal capacity available over time;
- Withdrawal of high volumes during the period of greatest climate demand (between January and February);
- Optimisation of the withdrawal flow rates, based on the actual reservoir capacities in order to maximise the withdrawal availability of the Storage System;
- Maximisation of the operational working gas made available to the Shippers.

The Storage Company determines the use profiles and the withdrawal adjustment factors consistent with the trend of the optimised performance curve of the System and can offer additional Withdrawal performances to the Shippers continuously or interruptedly, bearing in mind the need to maintain the continuity

of the optimised withdrawal performance up until the end of the Withdrawal Stage.

- Determination of the Space, Injection Flow Rate (PI) and Withdrawal Flow Rate (PE)

Starting from the results of the simulations, the Storage Company determines the capacities available for the mandatory services described in chapter 3 below “Description of services”, in terms of Space, Injection Performance and Withdrawal Performance.

Space or S

The total space made available for the assignment is defined based on the injectability and withdrawability curves of the System, and on the forecasted assignment for the different types of services (Strategic, Operational Balancing, Hydrocarbon and Modulation).

Since each service is associated with a different Withdrawal and Injection Performance, a change in the assignment assumptions formulated in terms of distribution of the capacities available in the different types of service alters the total volume made available.

For example, an incremental space assigned for the hydrocarbon storage service does not simply reduce the space assignable for the modulation service, but indeed reduces the total assignable space.

It is therefore evident that if the requests for the storage services with higher assignment priority should be other than those assumed, the Storage Company should recalculate and again publish the data on the S, PI and PE capacities available before the end of the assignment cycle.

In order to offer the services, the Storage Company makes available to the Shippers:

- Space for the Modulation Storage service (S_{MOD}), including the Space for the Constant Peaks of Modulation service ($S_{MOD,PC}$).

If further Space capacity becomes available during the Thermal Year, it will be assigned as primary capacity on a monthly, weekly basis in the competitive procedures described in paragraph 5.9.2.1 for the Modulation Service on a monthly, weekly, daily basis described in paragraph 3.2.2.

Injection Flow Rate or PI

The total PI made available for assignment is defined based on the technical capacity of the system and has a decreasing trend during the Injection Stage depending on the progressive draw-off, while it is made available during the Withdrawal Stage depending on the characteristics of its storage system and according to the methods described in sub-paragraph 3.2.2.1 of the chapter “Description of services”.

In order to offer the mandatory services, the Storage Company makes available to for assignment a CI capacity equal to the value of the PI available at the beginning of the injection stage:

- Injection Flow Rate for the Modulation Storage service and to replenish the Strategic Storage (CI_{MOD}), including the Injection Flow Rate for the Constant Peaks of Modulation service ($CI_{MOD,PC}$).

If further Injection capacity becomes available during the Thermal Year, it will be assigned to the shippers while modifying the use coefficients or, if it is a capacity not sold during the assignment procedures on an annual and interim basis as described in paragraph 5.8.2.4 and paragraph 5.9.1, as primary capacity on a monthly, weekly and daily basis in the competitive procedures described in paragraph 5.9.2.1 for the Modulation Service on a monthly, weekly, daily basis described in paragraph 3.2.2.

Withdrawal Flow Rate or PE

The total Withdrawal Flow Rate made available for assignment is determined based on the technical characteristics of the system and has a decreasing trend depending on the total storage of the system.

In order to offer the mandatory services, the Storage Company makes available to for assignment a CE capacity equal to the value of the PE still available at the end of the storage of the modulation Working Gas:

- Withdrawal Flow Rate for the Modulation Storage service and to replenish the Strategic Storage (CE_{MOD}), including the Withdrawal Flow Rate for the Constant Peaks of Modulation service ($CE_{MOD,PC}$).

If further Withdrawal capacity becomes available during the Thermal Year, it will be assigned to the shippers while modifying the use coefficients according to the methods described in paragraph 3.2.1.4 or, if it is a capacity not sold during the assignment procedures on an annual and interim basis as described in paragraphs 5.8.2.4 and 5.9.1, as primary capacity on a monthly, weekly and daily basis in the competitive procedures described in paragraph 5.9.2.1 for the Modulation Service on a monthly, weekly, daily basis described in paragraph 3.2.5. Specifically, the withdrawal capacity will be sold in these competitive procedures during the injection stage.

2.4.4 From the System performances to the available Capacities

2.4.4.1. Strategic Storage Service Capacities

The Storage Company determines the Space available for the Strategic Storage Service (hereinafter S_{STR}) to the extent of what lies within its competence, deriving from the distribution carried out between the storage companies as compared to the total quantity established by the MSE.

2.4.4.2. Modulation Service Capacities

The Storage Company determines the Capacities for the Modulation Service in the following way:

- The Space (hereinafter S_{MOD}) allocated to the Modulation Service, as defined below in paragraph 3.2.2, equals:

$$S_{MOD} = S - S_{STR}$$

where S is equal to the total Space made available and possibly revised for assignment as described in forgoing paragraph 2.4.3.3.

$$S_{MOD} = S_{MODP} + S_{MODU} + S_{MOD,PC}$$

Where:

S_{MODP} is the Space offered for the Seasonal Peak Modulation Service;

S_{MODU} is the Space offered for the Flat Modulation Service;

$S_{MOD,PC}$ is the space allocated to the Constant Peaks of Modulation Service described below in paragraph 2.4.4.5.

The Ministry of Economic Development determines the division of S_{MOD} with annual measures.

Pursuant to the Decree of the Ministry of Economic Development in force at the time of assignment at the beginning of the thermal year, Edison Storage does not assign capacities for the Flat Modulation Service.

Space S_{MODP} is in turn divided into

$$S_{MODP} = S_{MODPS} + S_{MODPM}$$

and similarly

Space S_{MODU} is in turn divided into

$$S_{MODU} = S_{MODUS} + S_{MODUM}$$

Where:

S_{MODPS} = Space for the Seasonal Peak Modulation Service

S_{MODPM} = Space for the Monthly Peak Modulation Service

S_{MODUS} = Space for the Seasonal Flat Modulation Service

S_{MODUM} = Space for the Monthly Flat Modulation Service

The seasonal services contemplate availability of Injection Capacity during the period falling between the month after the one when the Capacities are assigned and the month of October.

The monthly services contemplate availability of Injection Capacity only during the month after the one when the Capacities are assigned.

The Capacities for the Peak Modulation Service are made available by the month of March for assignments at the beginning of the thermal year and are by priority offered for the Seasonal Peak Modulation Service, according to the assignment on annual basis procedures described in paragraph 5.8.2.1.

In the case in which there should be quantities not assigned at the end of the allocation process described above, Edison Stoccaggio will define the assignable quantity for the Peak Modulation service with injection in the month of April and, should additional capacities become available, Edison Stoccaggio will make these quantities available through assignments when the Thermal Year has commenced, based on competitive procedures (procedures to assign capacity on an interim basis pursuant to paragraph 5.9.1) separate for the Seasonal and Monthly Peak Modulation Service.

The quantities of Space for the monthly products are repeatedly determined following the results of the assignment of seasonal products and depending on the injection capacity not assigned that is available for the month of assignment. For example, if capacities should be left over after the procedure to assign the seasonal product of the Seasonal Peak Modulation Service starting on 1 April, the Space offered for the monthly product of the month of April will be determined as the minimum value between the available Space not assigned for the Seasonal Peak Modulation Service and the maximum quantity injectable in only the month of April.

Consequently, if capacity should remain after the assignment procedures for month $m-1$ of the seasonal product and monthly product starting in month m , by repeating the procedure described above Edison Stoccaggio will make available in month m :

- the Space corresponding to the total injectable quantity from month $m+1$ until the end of the Injection Stage for the seasonal product;
- the Space corresponding to the maximum injectable quantity in only month $m+1$ for the monthly product.

- The Injection Flow Rate (hereinafter CI_{MOD}) is equal to:

$$CI_{MOD} = CI$$

where CI is equal to the total Injection Flow Rate made available and possibly revised for assignment as described in forgoing paragraph 2.4.3.3.

The Injection Capacity for the Modulation service CI_{MOD} is divided into a portion allocated to the peak modulation service, a portion allocated to the flat modulation space and a portion allocated to the constant peaks of modulation space.

$$CI_{MOD} = CI_{MODP} + CI_{MODU} + CI_{MOD,PC}$$

Where:

CI_{MODP} is the Injection Capacity offered for the Seasonal Peak Modulation Service;

CI_{MODU} is the Injection Capacity offered for the Flat Modulation Service;

$CI_{MOD,PC}$ is the injection capacity allocated to the Constant Peaks of Modulation Service described below in paragraph 2.4.4.5.

Determination of the CI_{MOD} distribution is established by the Storage Company according to the following criterion of proportionality:

$$CI_{MODP} = (CI_{MOD} - CI_{MOD,PC}) \times S_{MODP} / (S_{MOD} - S_{MOD,PC})$$

$$CI_{MODU} = (CI_{MOD} - CI_{MOD,PC}) \times S_{MODU} / S_{MOD} (S_{MOD} - S_{MOD,PC})$$

The Injection Capacity for the Peak Modulation Service CI_{MODP} is in turn divided into

$$CI_{MODP} = CI_{MODPS} + CI_{MODPM}$$

and similarly

the Injection Capacity for the Flat Modulation Service CI_{MODU} is in turn divided into

$$CI_{MODU} = CI_{MODUS} + CI_{MODUM}$$

Where:

CI_{MODPS} = Injection Capacity for the Seasonal Peak Modulation Service

CI_{MODPM} = Injection Capacity for the Monthly Peak Modulation Service

CI_{MODUS} = Injection Capacity for the Seasonal Flat Modulation Service

CI_{MODUM} = Injection Capacity for the Monthly Flat Modulation Service

The injection flow rate associated with the single product of the Modulation Service will be equal to:

$$C_{I\text{MOD},k} = C_{I\text{MOD}} \times S_{\text{MOD},k}/S_{\text{MOD}}$$

Where: i distinguishes the type of service - peak or flat - and k the time reference of the assignment - seasonal or monthly product.

$C_{I\text{MOD},PC}$ is determined as space $S_{\text{MOD},PC}$ divided by 100 days.

- The Withdrawal Flow Rate (hereinafter CE_{MOD}) is equal to:

$$CE_{\text{MOD}} = CE$$

where CE is equal to the total Withdrawal Flow Rate made available and possibly revised for assignment as described in forgoing paragraph 2.4.3.3.;

Note that the CE_{MOD} for the modulation storage service can be formed by a continuous component and possibly by an interruptible component.

The Withdrawal Capacity for the Modulation service CE_{MOD} is divided into a portion allocated to the peak modulation service, a portion allocated to the flat modulation space and a portion allocated to the constant peaks of modulation space.

$$CE_{\text{MOD}} = CE_{\text{MODP}} + CE_{\text{MODU}} + CE_{\text{MOD},PC}$$

where $CE_{\text{MOD},PC}$ is the withdrawal capacity allocated to the Constant Peaks of Modulation Service described below in paragraph 2.4.4.5.

The Peak Modulation Service has associated a withdrawal capacity (CE_{MODP}) equal to the space capacity multiplied by the ratio between the maximum withdrawal performance associated with said service as defined by the Decree of the Ministry of Economic Development in force at the time of assignment and the total space capacity available at each storage company for said service as defined by the same decree.

The performances associated with the withdrawal capacity assigned to each Shipper for the Peak service are determined, in compliance with the constraints set by the Decree of the Ministry of Economic Development in force at the time of the assignment, as the product between the same capacity and the adjustment factor, a variable depending on the shipper's stock, defined in this Code, and updated in compliance with the provisions of the aforesaid decree. For the Peak Modulation Service, the profiles of use of the Withdrawal Capacity are annexed to the Ministerial Decree in force at the time of assignment at the beginning of the thermal year.

The Flat Modulation Service has associated a constant withdrawal capacity with the assigned space S_{MODU} equal to:

$$CE_{MODU} = S_{MODU} / 150$$

The withdrawal capacity of the Constant Peaks of Modulation service $CE_{MOD,PC}$ is determined as space $S_{MOD,PC}$ divided by 100 days.

During the thermal year, the Storage Company organises the capacity assignment procedures on a monthly, weekly and daily basis as described in paragraph 5.9.2.1 for the Modulation Storage Service on a monthly, weekly and daily basis.

2.4.4.3. Capacity for the Modulation Service with assignment on a monthly, weekly, daily and “periodic” basis

The Storage Company determines the Capacities for the Modulation Services on a monthly, weekly, daily and “periodic” basis and assigns them according to the procedures described below in paragraphs 5.9.2.1 and 5.9.2.2 in the following way:

a) the Space made available on a monthly and weekly basis ($S_{MODP,M}$, $S_{MODP,W}$, $S_{MOD,PC,M}$, $S_{MOD,PC,W}$) is established on the basis of the Space capacities that become available during the Thermal Year, and on the basis of the progressively available quantity bearing in mind the quantity of Gas withdrawn and injected and of the monthly, weekly and daily plans of the Shippers;

b) the Injection Capacity made available on a monthly, weekly and daily basis ($CI_{MODP,M}$, $CI_{MODP,W}$, $CI_{MODP,D}$, $CI_{MOD,PC,M}$, $CI_{MOD,PC,W}$, $CI_{MOD,PC,D}$) is equal to:

- During the Withdrawal Period
 - The Injection Capacity on an additional continuous monthly, weekly and daily basis, if available, compared to the Injection Capacity during the available Withdrawal stage assigned at the beginning of the thermal year;
 - Any additional Injection Capacity during the withdrawal stage described in the forgoing point on non-scheduled interruptible basis and not allocated in the first session pursuant to 5.9.2.1 below.
- During the Injection Period
 - The Injection Capacity on an additional continuous monthly, weekly and daily basis, if available, compared to the Injection Capacity (CI_{MODP} e $CI_{MOD,PC}$) described in paragraph 2.4.4.2 and compared to

that assigned to the shippers by modifying the adjustment coefficients and, only on a daily basis, as “in advance” capacity as described in paragraph 3.2.1.5;

- The Injection Capacity on the interruptible monthly, weekly and daily basis pursuant to the forgoing point, on an unscheduled interruptible basis and not allocated in the first session as described below in paragraph 5.9.2.1.

c) the Withdrawal Capacity made available on a monthly, weekly and daily basis ($CE_{MODP,M}$, $CE_{MODP,W}$, $CE_{MODP,D}$, $CE_{MOD,PC,M}$, $CE_{MOD,PC,W}$, $CE_{MOD,PC,D}$) is equal:

- During Withdrawal Period
 - On an additional continuous monthly, weekly and daily basis compared to the available Withdrawal Capacity (CE_{MODP} e $CE_{MOD,PC}$) described in paragraph 2.4.4.2 and compared to that assigned to the shippers by modifying the adjustment coefficients pursuant to paragraph 2.4.4.9 below and, only on a daily basis, as “in advance” capacity as described in paragraph 3.2.1.4;
 - The Withdrawal Capacity on the interruptible monthly, weekly and daily basis pursuant to the forgoing point, on an unscheduled interruptible basis and not allocated in the first session as described below in paragraph 5.9.2.1;
- During Injection Period
 - On a continuous monthly, weekly and daily basis as Withdrawal Capacity during the Injection stage described in paragraph 2.4.4.7, assigned according to the competitive procedures pursuant to paragraph 5.9.2.1;
 - The Withdrawal Capacity on the interruptible monthly, weekly and daily basis pursuant to the forgoing point, on an unscheduled interruptible basis and not allocated in the first session as described below in paragraph 5.9.2.1.

2.4.4.4. Capacity for the Modulation Services with assignment on a daily basis according to the overnomination mechanism

The Storage Company determines the Injection and Withdrawal Capacities for the Modulation Services (CI_o , CE_o) and assigns them on a daily basis according to the procedures described below in paragraph 3.2.1.2, as confirmed after the procedures described in paragraph 6.6.5.

2.4.4.5. Capacity for the Constant Peaks of Modulation Service

The Capacity for the Constant Peaks of Modulation Service is made available at the beginning of the Thermal Year in the following way:

- the Space ($S_{MOD,PC}$) is defined within the scope of the quantity identified by the Ministry of Economic Development in the measures issued to implement Article 14 of Italian Law Decree no. 1 of 24 January 2012 on the subject of determining storage capacities to allocate to the services offered to the gas system shippers;
- the Injection Flow Rate ($CI_{MOD,PC}$) is equal to $S_{MOD,PC}$ divided by 100 days;
- the Withdrawal Flow Rate ($CI_{MOD,PC}$) is equal to $S_{MOD,PC}$ divided by 100 days.

For these capacities the provisions concerning the profiles of use of the storage capacities described below in paragraphs 2.4.5. and 2.4.6 are not applied.

2.4.4.6. Reverse Flow Rate Service Capacity

Taking into account what is specified in paragraphs 2.4.2 and 2.4.3.3, the Storage Company determines the Withdrawal Capacity during the injection stage and the Injection Capacity during the withdrawal stage based on the technical capacities of the system to reverse its flow without limiting the Performances available to the other Shippers.

However, once the need to reverse the flow is established following the scheduling of the Shippers and the set-ups of the sites have been physically determined, the Storage Company, in agreement with the criteria pursuant to paragraph 6.6.6 does not allow changes in the scheduling of the Shippers during the renomination cycle for the same cycle that involves an additional revision of the aforesaid set-up, in actual fact allowing only virtual reverse flows. The capacities are made available and assigned according to the methods described in the following chapters.

2.4.4.7. Additional injection capacity

If the trend of the injection peak availability already assigned during the Injection Period shows an availability of PI on a continuous basis in addition to what is stated in paragraph 2.4.4.2, the Storage Company makes additional PI available to the Shippers by modifying the adjustment coefficients, without prejudice to the need to protect correct use of the reservoirs.

2.4.4.8. Additional withdrawal capacity

If the trend of the withdrawal peak availability already assigned during the Withdrawal Period shows an availability of PE on a continuous basis in addition to what is stated in paragraph 2.4.4, the Storage Company makes additional PE

available to the Shippers according to the methods stated in paragraph 3.2.1.3, without prejudice to the need to protect the System.

2.4.4.9. Capacity on interruptible basis

If capacities remaining after the continuous capacities scheduled by the Shippers of allocated through the procedures explained below in paragraph 5.9.2.1 on a monthly, weekly or daily basis, first session, become available, the Storage Company offers these capacities on an interruptible basis, pursuant to paragraph 3.2.2.2 below, within the scope of the competitive procedures described in paragraph 5.9.2.1, second session and, only on a daily basis, of the overnomination mechanism described in paragraph 3.2.1.2.

2.4.5 Use profiles and adjustment coefficients of the IP and WP Performances

As already pointed out in the forgoing paragraphs, the dynamic evolution of the WPs and IPs mainly depends on the following factors:

- Behaviour of the reservoirs, of the wells;
- Technical characteristics of the systems;
- Technical-management constraints;
- The Maintenance Operations schedule.

In order to optimise the System while at the same time guaranteeing maximum flexibility to the Shippers, the Storage Company defines for the Modulation Service Performances:

- i. Use profile and adjustment coefficients of the storage capacity in the injection stage and the relevant applicability interval;
- ii. Use profile and adjustment coefficients of the storage capacity in the withdrawal stage and the relevant applicability interval.

The Storage Company does not define use profiles and/or adjustment factors or the operational balancing service, considering its different operating procedures and functionality, while it defines - but only for the injection stage - the use profiles for the hydrocarbon storage service in order to guarantee total filling of the assigned space.

2.4.5.1. Use profile, adjustment coefficients of the Storage Capacity and the relevant applicability interval in the injection stage for the modulation storage service

The storage company defines the use profile and adjustment coefficients of the storage capacity for the injection stage in connection with the characteristics of its storage system, the schedules for periodic checks and the need to restock the reservoirs while ensuring appropriate flexibility to the shipper.

These parameters are obtained by assuming total emptying of the S_{MODP} and based on the following criteria:

- Trend of the historic injected quantities of the previous Thermal Years
- Actual storage of the previous thermal year
- Volume to inject in order to guarantee the restocking of the reservoir, including any strategic storage volume;
- Maximisation of the injection capacity in the periods of greatest need for the Shippers, in observance of the technical constraints;
- Guarantee that the assigned space is filled.

The use profile defines the minimum and maximum stock allowed to the Shipper at the end of each month of the injection stage, according to the capacity assigned to the shipper. They are represented by percentage values ($G_{min\%}$ and $G_{max\%}$) that when multiplied by the assigned Space determine the stock interval by which the Shipper should find itself at the end of each month.

The adjustment coefficients and their intervals of applicability on the other hand represent the multiplicative factors to apply to the CI_{MODP} and the CI_{MODU} assigned in order to determine the maximum available Injection Performance (IP_{MODP} and IP_{MODU}) of the system on every service day.

The adjustment coefficients are such as to reflect the decreasing trend of the PI_{MODP} and the IP_{MODU} based on the total draw-off, and any reductions of Performance consequent to the Major Maintenance Operations.

At this time Edison Stoccaggio makes available only the Peak Modulation Service¹.

The performances associated with the injection capacity for the peak service during the injection stage are determined for each shipper as the amount of total injection performance available for the same services corresponding to the following ratio:

$$R_{uk} = \frac{\max(G_{\max u,k} - G_{i u,k}; 0)}{G_{\max s,k} - G_{\min s,k}}$$

where:

¹ Reference is made only to this service below

- $G_{\max u,k}$ is the maximum stock of Shipper u at the end of month k of the injection stage determined based on what is established in paragraph 8.4.2 below;
- $G_{i u,k}$ is the minimum stock, determined based on what is established under paragraph 8.4.1 below, or the actual stock of Shipper u at the beginning of month k of the injection stage, whichever is greater;
- $G_{\max s,k}$ is the maximum stock planned in connection with the total capacities available to the shippers based on the relevant use profiles at the end of month k ;
- $G_{\min s,k}$ is the minimum stock planned in connection with the total capacities available to the shippers at the beginning of month k based on the relevant use profiles.

In order to determine term $G_{i u,k}$ for the month of April, the minimum stock on the basis of what is established in paragraph 8.4.1 below will take into account the actual stock of the system at 31 March.

If in a month k capacity has been assigned to a Shipper u as part of different product allocation procedures with seasonal or monthly injection, terms $G_{\max u,k}$ and $G_{i u,k}$ are determined based on the maximum and minimum stocks referring to the capacities assigned in the various procedures.

Any available performances exceeding those assigned to the totality of the shippers as determined above are assigned to the shippers pro quota on the basis of ratio R_u .

Therefore, the distribution to each shipper of the injection capacities of the system possibly exceeding the total of the capacities assigned to every single shipper through parameter R_u is carried out on the first day of each month of the injection stage with a pro quota criterion based on the single R_{us} .

$$IP_{MODP,k} = IP_{MODP} * R_{uk}$$

It is understood that if the remaining Space of the Shipper is less than the available Injection Capacity, the Injection Capacity is equal to the remaining Space.

The total Injection Capacity available is equal to the product of the total Injection Capacity assigned for the Modulation Service and the Adjustment Coefficient. This latter is the coefficient, falling between zero and one, that is variable inversely of the total System stock according to what is published and updated by the Storage Company on its website.

The use profiles, draw-off intervals and corresponding adjustment coefficients are published on the Website of the Storage Company and are updated according to the methods described in paragraph 2.4.6 below.

If the Shipper of the Modulation Service has sold injection performance under the procedures explained in paragraph 5.9.2.1, its daily Injection Performance will be reduced by the portion sold.

2.4.5.2. Use profile, adjustment coefficients of the Storage Capacity and the relevant applicability interval in the injection stage for the Modulation Storage Service with capacity assignment on a monthly, weekly and daily basis.

The Injection Capacity assigned as part of the procedures explained in paragraph 5.9.2.1 does not sustain changes in connection with the trend of the Shipper's Injection or Withdrawal.

It is also understood that this capacity is zero in the case of complete filling of the Space available for the Shipper and the balancing prices set forth in chapter 8 below for all quantities injected in addition to the available Space apply.

2.4.5.3. Use profile, adjustment coefficients of the Storage Capacity and the relevant applicability interval in the Withdrawal stage for the modulation storage service

The storage company defines the use profile and adjustment coefficients of the storage capacity for the withdrawal stage in connection with the characteristics of its storage system, ensuring appropriate flexibility to the shipper.

These parameters are determined on the assumption of complete filling of the assigned Space and on the basis of the following criteria:

- Keeping the maximum withdrawal capacity available as long a time as possible through hydrocarbon optimisation;
- Guarantee of maximum continuity of the available performances;
- Complete emptying of the assigned Space, except for the S_{STR} ;
- No change to the Major Maintenance Operations schedule.

The use profile defines the minimum stock allowed to the Shipper at the end of each month, in proportion to the assigned S_{MODP} .

The adjustment coefficients and their intervals of applicability on the other hand represent the multiplicative factors to apply to the CE_{MODP} assigned in order to

determine the maximum Withdrawal Performance (WP_{MODP}) available to the Shipper on every day of the period the assigned capacity is valid.

The adjustment coefficients are such as to reflect the decreasing trend of the WP_{MODP} based on the total draw-off and that of each Shipper, and any reductions of Performance consequent to the Major Maintenance Operations.

The use profiles, draw-off intervals and corresponding adjustment coefficients are published on the Website of the Storage Company and are updated according to the methods described in paragraph 2.4.6 below.

If the Shipper of the Modulation Service has sold withdrawal performance under the procedures explained in paragraph 5.9.2.1, its daily Withdrawal Performance will be reduced by the portion sold.

2.4.5.4. Use profile, adjustment coefficients of the storage capacity and the relevant applicability interval in the Withdrawal stage for the modulation storage service with capacity assignment on a monthly, weekly and daily basis.

The Withdrawal Capacity assigned as part of the procedures explained in paragraph 5.9.2.1 on a continuous and interruptible basis does not undergo changes in connection with the trend of the Shipper's Withdrawal or Injection.

It is understood that this capacity is zero if the Gas owned by the Shipper is totally used. It is also understood that in the case of Withdrawal of a quantity of Gas by the Shipper greater than the Gas in the System that it owns, the prices set forth in chapter 8 below are applied to all surplus quantities withdrawn.

2.4.6 Revision of the use profiles and adjustment coefficients

The Storage Company conducts the simulations for the following Thermal Year in such a way as to allow all necessary elements to be published by 1 February before the start of the same Thermal Year.

Bearing in mind the possible changes, also major, tied to the final part of the Withdrawal Stage and to the possible changes in the capacities made available pursuant to forgoing paragraph 2.4.3.3, the simulations for the following Injection Stage can be updated by the middle of March in order to permit adequate seasonal scheduling to the Shippers.

For these same reasons the Storage Company checks consistency with the parameters used for defining the initial simulations by the middle of October by - for example, if the System is not totally filled - updating in order to get better operational scheduling by the Shippers.

This consistency check is carried out also based on a joint technical analysis with the transport companies.

Since the adjustment coefficients and their intervals of applicability are also heavily influenced by the Major Maintenance Operations schedule, as defined in paragraph 13.2 of the chapter “Scheduling and Managing Maintenance Operations”, and by the response of the reservoir in terms of incremental performance available as a result of these operations, the Storage Company reserves the right to change them if the above-mentioned Major Maintenance Operations or performances change compared to what is planned at the time they are determined. The aforesaid coefficients will be changed to such an extent as to however guarantee an injection or withdrawal profile that allows at least the times for the withdrawal and injection stages planned by the previously effective coefficients and the capacity value CE_{MODP} assigned to be kept equivalent.

The changes to the adjustment coefficients will be notified to the Shipper by registered letter, sent in advance by email and published on the website at least 15 days before their application.

The Storage Company also reserves the right to change the Use profiles monthly if the actual trend of the storage or draw-off are not consistent with the use profiles in effect and with the Performances available.

When redefining use profiles, adjustment factors and their validity interval, the Storage Company bears in mind the needs of the Shippers by implementing all actions that can guarantee maximum System flexibility.

2.5 INFORMATION PUBLISHED ON THE WEBSITE

The Storage Company annually publishes and updates on its Website:

- a. The geographic representation of the storage facilities, with their locations;
- b. The schematic representation of the storage facilities;
- c. The list of scheduled upgradings and divestitures;
- d. The Point of Entry on the national gas pipeline network with the interconnected transport company specified.

No later than 1 February of each year, the Storage Company publishes on its Website:

- e. The storage capacities available for the mandatory services, defined in paragraph 2.4.4 of this chapter;
- f. The operation and maintenance plans relating to the storage facilities it owns;
- g. The technical-management constraints arising from the Major Maintenance Operations;
- h. The use profiles, adjustment factors and relevant applicability intervals.

CHAPTER 3**DESCRIPTION OF SERVICES**

3.1 INTRODUCTION.....	58
3.2 MANDATORY SERVICES.....	59
3.2.1 Modulation Storage Service	59
3.2.2 Modulation Services with assignment of capacity on a monthly, weekly, daily and “period” basis.....	65
3.2.3 Constant Peaks of Modulation Service	69
3.3 SPECIAL SERVICES.....	71
3.3.1 Gas under guarantee deposit service.....	71
3.4 ACCESSORY ACTIVITIES.....	72
3.4.1 Managing the capacity assignment	72
3.4.2 Managing the capacity transactions.....	72
3.4.3 Dispatching	72
3.4.4 Gas allocations	72
3.4.5 Gas measurement and quality	73
3.4.6 Management of storage data.....	73
3.4.7 Balancing prices	73
3.4.8 Maintenance operations	73
3.4.9 Managing emergencies.....	73
3.4.10 Managing general emergencies	73
3.4.11 Invoicing	74
3.5 ACCESS TO THE TRANSPORT SYSTEM.....	74
3.5.1 Assignment and reservation of transport capacity	74

3.1 INTRODUCTION

The Storage Company ensures Shippers having the requirements specified in section 5.2 of the chapter “Assignment of Storage Capacity” freedom of access to the storage services, conditions and transparency of the Service being equal. Note that the Service is offered in an integrated manner on the Storage System that the Storage Company manages.

The Storage Company is required to offer the following services if its System has available capacity and the Service is technically practicable:

- Mandatory Services: that is, the services described in section 3.2 below, regulated by this Storage Code, required by the Shipper and provided by the Storage Company against payment of the considerations determined by the Authority.
- Special Services: that is, the services described in section 3.3 below, regulated by this Storage Code, required by the Shipper and provided by the Storage Company against payment of negotiated economic conditions subject to approval by the Authority.
- Accessory Activities: that is, the activities described in section 3.4 below, regulated by this Storage Code, not required by the Shipper but provided by the Storage Company in so far as they are necessary for proper supply of the Mandatory Services and Special Services.

All Storage Capacities relating to the services described in this chapter are assigned according to the timetables and procedures established in chapter 5 “Assignment of Storage Capacity”.

All Storage Services include the reservation by the Storage Company of the transport capacity functional for injection into the network, or withdrawal from it at the point of entry near the interconnection with the Storage System, of the quantities of Gas withdrawn or to be injected at the same Storage System.

The Storage Company delivers these quantities to the Major Transport Company near the point of entry corresponding to the interconnection with the Storage System, which takes them under delivery in order to redeliver to its Shippers within the scope of the transport service pursuant to its Network Code.

The Major Transport Company delivers the quantities of Gas owned by the Shippers of the transport service so they can be used by the same Shippers of the Storage Services.

3.2 MANDATORY SERVICES

The Storage Company places the following mandatory services at the disposal of the Shippers requesting them:

- the Modulation Storage service, including the Constant Peaks of Modulation Service.

The Storage Company assigns the above capacity, whether continuous or interruptible, according to the procedures defined in chapter 5 “Assignment of Storage Capacity”.

As part of the Modulation Storage Service and Constant Peaks of Modulation Service, the Storage Company makes available to the requesting Shippers capacities with assignment on a monthly, weekly, daily and “period” basis pursuant to paragraph 2.4.4.3, and assigns them according to what is stated in paragraph 5.9.2 below.

Without prejudice to the continuous nature of the Performances, the Storage Company in any case has the right to interrupt the performance for all services offered and assigned in the cases of Force Majeure, Emergency and Operations that cause reduction/interruption of the Performances, as defined in chapter 13 “Scheduling and Managing Maintenance Operations”.

3.2.1 Modulation Storage Service

The Modulation Storage Service is the service directed at meeting the modulation of the daily, seasonal and peak consumption trends.

Based on the method of use of the withdrawal service, the Modulation Service can be offered in the Peak and Flat methods.

The Peak Modulation Service involves a withdrawal performance varying according to the moment of the withdrawal stage, with the constraints specified in the annual ministerial measures regarding the distribution of the storage capacities for the different services.

The Flat Modulation Service involves a constant withdrawal performance for the entire duration of the withdrawal stage.

Both the Peak and Flat Modulation Services can be made available as:

- a) Service with seasonal injection, which injects quantities of gas equivalent to the space assigned starting from the month after the one of assignment until the end of the injection stage, based on the monthly use profiles defined by the Storage Company for the same Service differentiated according to the injection period;
- b) Service with monthly injection, which injects quantities of gas equivalent to the space assigned over the span of only one month of the injection stage.

At this time Edison Stoccaggio provides only the Peak Modulation Service.

This Service is offered to all Shippers meeting the requirements specified in chapter 5.

The Service consists of making available to the Shipper a Space (S_{MODP}), an Injection Performance (PI_{MODP}) and a Withdrawal Performance (PE_{MODP}).

The Shipper to whom the modulation storage capacities are assigned acquires the right to:

- Inject daily a quantity of Gas equal, at the most, to the PI_{MODPk} during the Thermal Year or for periods under the Thermal Year in case of assignment during the Thermal Year for the seasonal type of product;
- Inject daily a quantity of Gas equal, at the most, to the PI_{MODPk} during only one month of the Thermal Year Injection Period for the monthly type of product;
- Withdraw daily, for both the seasonal and monthly types of product, a quantity of Gas equal, at the most, to the PE_{MODPk} during the Withdrawal Period and during the Periods.

Where PI_{MODPk} and PE_{MODPk} referred to in para. 2.4 are respectively the daily Withdrawal Performance and the Injection Performance guaranteed to the k-th Shipper by virtue of the completed assignment pursuant to chapter 5 of capacity CI_{MODPk} and CE_{MODPk} , as defined in paragraphs 2.4.4.2, 2.4.4.3 of chapter 2 “Description of the system”.

The Injection Performances assigned to each Shipper for the modulation service are determined based on ratio $R_{u,k}$ described in paragraph 2.4.5.1. It is understood that if the remaining Space of the Shipper is less than the available Injection Capacity, the Injection Capacity is equal to the remaining Space.

PE_{MODPK} is equal to zero if the Shipper has withdrawn all the gas it owns held in storage for Modulation Storage Service purposes; furthermore, the Shipper loses the right to reserve an injection performance if it has injected a quantity of gas equal to space S_{MODPK} assigned to it.

3.2.1.1. Reverse Flow Service

The Reverse Flow Service consists of making available to the Shipper:

- a) An injection capacity during the Injection Period assigned through allocation procedures on a monthly, weekly and daily basis carried out during the Injection Period pursuant to paragraph 5.9.2, and/or;
- b) An injection capacity during the Withdrawal Period assigned at the beginning of the Thermal Year and the additional capacities not assigned at the beginning of the thermal year involved in the assignment within the scope of the procedures pursuant to paragraph 5.9.2.

The Storage Company offers the Reverse Flow Service only as Virtual, meaning when the totality of reverse flow reservations of the Shippers is less than the Scheduled Daily Flow Rate on the Hub.

If the Reverse Flow Service reserved by the totality of Shippers is higher than the Scheduled Daily Flow Rate on the Hub, the reverse flow is instead termed Physical since it needs to reverse movement of the storage gas as regards the set-up at the time of reservation.

The Storage Company makes available to the Shippers, according to the criteria set out in paragraph 6.6.6, the capacities for the Reverse Flow Service consistent with the characteristics of its storage system; therefore, the Shipper to whom a capacity for the above-mentioned Service is assigned acquires the right to use the reverse flow according to the procedures set out in paragraph 2.4.4.6 and the schedules specified in sub-paragraph 6.2.1 of the chapter “Injection and withdrawal reservations and commitments”.

The Injection Flow Rate (PI) during the Withdrawal Period, as defined in sub-paragraph 2.4.3.3 of chapter 2 “Description of the system” and the withdrawal capacity during the injection stage are assigned according to the procedures specified in paragraphs 5.8.2.3, 5.9.1 and 5.9.2 of the chapter “Assignments of storage capacity”.

3.2.1.2. Overnomination

During the hourly renomination cycles on day G held with the procedures and schedules specified in paragraph 6.6.3, the Storage Company accepts renominations of the Shippers also beyond their contractual capacities as long as said renominations are compatible with the system’s renomination limit.

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

Shippers that exercise the right to overnominate accept to pay the following consideration after acceptance of the renomination:

$$I_o = (p_{Io} \cdot C_{Io} + p_{Eo} \cdot C_{Eo}) \times n_h / 24$$

where:

- p_{Io} and p_{Eo} are the prices offered by the Shipper respectively for the overnominated injection point and the overnominated withdrawal point, respectively $\geq C_{Class}$ and $\geq C_{Eass}$, where C_{Class} and C_{Eass} are the assignment prices recorded during the previous interruptible session for assigning capacity on a daily basis, effective on the Gas-Day when the overnomination is carried out.

In the case of non-assignment of interruptible capacities, C_{Class} and C_{Eass} will be equal to the assignment price recorded during the previous continuous capacity session for assigning capacity on a daily basis, effective on the Gas-Day when the overnomination is carried out.

In the case of non-assignment of continuous capacities, C_{Class} and C_{Eass} will be equal to $1/365 \cdot c_i$ and $1/365 \cdot c_e$, where c_i and c_e are the lesser of the tariff prices of the storage companies.

- C_{Io} is the injection capacity assigned for day G with the overnomination mechanism;

- C_{Eo} is the withdrawal capacity assigned for day G with the overnomination mechanism.

n_h is the number of hours for which the overnomination nomination was accepted.

3.2.1.3. Redetermination of withdrawal capacity

Edison Stoccaggio specifies that the constraints on the period volumes that can be withdrawn by each Shipper and the multiplicative and reducing coefficients of the contractual performance may be redetermined based on optimisations that can be carried out according to the assigned capacities and their use where different from what has been assumed on the date of publication of the offered capacities and their associated performances, as described below.

Increased performance

If during the Withdrawal Period the availability of PE on a continuous basis is higher than that made available at the beginning of the thermal year, the Storage Company - through appropriate increases of the adjustment coefficients and considering the procedures specified on the company's website - will make these increases available to the Shippers.

Decreased overall performance

Likewise, if at the end of the assignment procedures, at the end of the injection period or during the Withdrawal Period, due to use of the withdrawal peak that is not compliant with the contractual limits, the availability of PE on a continuous basis is lower than that made available at the beginning of the thermal year, the Storage Company - through appropriate decreases of the adjustment coefficients, as described hereunder, and considering the procedures specified on the company's website - will notify the Shippers of said decreases with adequate notice prior to the Gas-Day on which these adjustments take effect.

All changes will be determined according to the following criteria:

- If one or more Shippers cause the performance to be reduced, due to failure to fill the assigned capacities during the injection stage or to non-compliance with the contractual withdrawal limits, the Storage Company defines a specific reducing coefficient for said Shippers based on their stock compared to the minimum contractual stock, as provided for by legislation in effect, in order not to alter the contractual performances of the other Shippers.

- If the reduction in performance is due to non-assignment of the available capacities and therefore is not attributable to a specific Shipper, Edison Stoccaggio will update the minimum contractual stocks, as well as the maximum daily volume of each period and the reducing coefficients as regards the contractual reference in terms of Hub and per single Shipper to the same extent, based on the actual performance of the Hub, in order to absorb and minimise any deviations of the performance between the initial injection and withdrawal assumptions and what can actually be withdrawn.

3.2.1.4. *“In advance” withdrawal capacity*

The Storage Company may offer, on a daily basis, a temporary increase in withdrawal capacity called “in advance” withdrawal capacity, which will be made available each day for the next one when there is a reduction in the withdrawal performance at a later time. This capacity will be offered provided that, also in the case of its full use, a performance level no lower than the initial performances and at the technical safety margins is in any case maintained for the entire residual duration of the withdrawal stage. For the purpose of quantifying the reduction in performance during the period following that of use of the “in advance” capacity, the capacities given by the Shippers and selected as part of the procedures described in paragraph 5.9.2.1 are multiplied by the intertemporal conversion coefficients shown in the table published on the website of the Storage Company.

These coefficients are specific for each assignment procedure pursuant to paragraph 5.9.2.1, are published before this procedure is conducted and are not subject to changes after conclusion of the procedure.

The methods for assigning the “in advance” withdrawal capacity are described in paragraph 5.9.2.1.

3.2.1.5. *“In advance” injection capacity*

The Storage Company may offer, on a daily basis, a temporary increase in injection capacity called “in advance” injection capacity, which will be made available each day for the next one when there is a reduction in the injection performance at a later time. This capacity will be offered provided that, also in the case of its full use, a performance level no lower than the initial performances and at the technical safety margins is in any case maintained for the entire residual duration of the injection stage.

For the purpose of quantifying the reduction in performance during the period following that of use of the “in advance” capacity, the capacities given by the Shippers and selected as part of the procedures described in paragraph 5.9.2.1 are multiplied by the intertemporal conversion coefficients shown in the table published on the website of the Storage Company.

The methods for assigning the “in advance” injection capacity are described in paragraph 5.9.2.1.

3.2.2 Modulation Services with assignment of capacity on a monthly, weekly, daily and “period” basis

The space, withdrawal and injection storage capacities pursuant to paragraph 2.4.4.3 with assignment, also in separate form, on a monthly, weekly, daily and “period” basis are assigned by the Storage Company to all Shippers that have requested them pursuant to paragraph 5.7.1, in observance of the RAST provisions (regulation on access to natural gas storage services).

Access to these capacities, determined according to the provisions of paragraph 2.4.4.3, is allowed by participating in the competitive procedures pursuant to paragraph 5.9.2.1; this allows the Shipper to:

- Use the Space for periods equal to the month and week ($S_{MODP,M}$, $S_{MODP,W}$, $S_{MOD,PC,M}$, $S_{MOD,PC,W}$) assigned pursuant to paragraph 5.9.2;
- Inject its Gas into the System during the requested month/week/day ($CI_{MODP,M}$, $CI_{MODP,W}$, $CI_{MODP,D}$, $CI_{MOD,PC,M}$, $CI_{MOD,PC,W}$, $CI_{MOD,PC,D}$);
- Withdraw its Gas from the System during the requested month/week/day ($CE_{MODP,M}$, $CE_{MODP,W}$, $CE_{MODP,D}$, $CE_{MOD,PC,M}$, $CE_{MOD,PC,W}$, $CE_{MOD,PC,D}$).

The competitive procedures pursuant to paragraph 5.9.2.1 are structured in two sessions.

It is understood that for assignment on a weekly basis the first week is reduced starting from the first day of the month, and the last week is extended to the last day of the month.

With assignment on a daily basis, the competitive procedures described below in paragraph 5.9.2.2 are also organised for the sale of only secondary capacities of the Shippers with “period” validity, i.e. during the “weekend” and “working days” periods, and that are carried out according to the schedules specified in paragraph 4A.3.5.

3.2.2.1 Continuous capacities

In the first session, the Storage Company offers, on a continuous basis:

- a) for monthly and weekly assignment, the primary capacity and any secondary capacity made available by the Shippers;
- b) for daily assignment, the primary capacity (except for the space), any secondary capacity (except for the space) made available by the Shippers, and the “in advance” capacity.

3.2.2.1.1 Primary capacity

The primary capacity is the continuous space, withdrawal or injection capacity offered by the Storage Company and that is available after prior assignment procedures or that has been obtained, also not structurally, through the optimisation of the storages during the thermal year.

The withdrawal capacity assigned through the procedures explained in paragraph 5.9.2.1 during injection is to be considered primary capacity.

3.2.2.1.2 Secondary capacity

The secondary capacity is the continuous space, withdrawal or injection capacity that the Shippers make available to the Storage Company for assignment to third parties.

The Shipper can offer for sale, on a monthly, weekly and daily basis, the continuous injection or withdrawal capacity it has available and that is not scheduled for the period the sale concerns and the space on a monthly and weekly basis.

The Shipper can sell the secondary capacity both through the procedures described in paragraph 5.9.2.1 on a monthly, weekly and daily basis and through those described in paragraph 5.9.2.2 on a daily basis for the following day, for the next weekend and for the working days after the aforesaid weekend.

It is specified that any capacity that the Shipper offers for sale and is not assigned, also within the scope of the procedures described in paragraphs

5.9.2.1 and 5.9.2.2, falls within the availability of the Shipper, which therefore is entitled to use it in observance of the scheduling obligations.

3.2.2.1.3 “Flex” capacity

“Flex” capacity is the continuous secondary withdrawal or injection capacity that the system makes available for sale, in the auctions referred to in chapter 5, following remuneration to Shippers who agree to constrain the scheduling of their capacity available in the opposite direction.

In fact, the Shipper who decides to constrain the scheduling of its capacity available in a flow agrees to the sale, on a daily basis, of an equivalent amount of continuous capacity in the opposite direction.

This amount of capacity is sold according to the competitive procedures referred to in paragraphs 5.9.2.1 and 5.9.2.2, depending on whether the assignment relates to the next Gas-Day (“DA Flex”: Day-Ahead procedure) or relates to period Gas-Days (“WE Flex” or “WD Flex”: Week End or Working Days procedure).

The assignment of secondary “Flex” capacity results, for both the selling Shippers and purchasing Shippers, in the allocation at the beginning of the Gas-Day of quantities corresponding to the Flex capacity purchased and sold.

This principle entails the constraint that the schedule relating to the capacities sold or purchased cannot be changed during the Gas-Day (“renomination restriction”).

The Shipper retains the possibility, during the Gas-Day, to modify its allocation by using other available capacities in the system (e.g. overnomination) or those already in its possession, as part of the daily renomination cycles referred to in chapter 6.

Note that any capacity that the Shipper offers for sale and is not assigned is included in the Shipper’s availability, who is therefore entitled to use it, limited only by the re-scheduling restrictions referred to in chapter 6.

3.2.2.1.4 “Not otherwise usable” capacity

In consideration of the meagreness of these capacities and the complexity in making them available, they are not offered by Edison Stoccaggio.

3.2.2.1.5 “In advance” capacity

“In advance” capacity is the capacity in addition to the primary capacity that can be made available each day for the next day, during both the withdrawal and injection stages.

It is determined and assigned by the Storage Company on a daily basis according to the procedures specified under paragraph 5.9.2.1.

3.2.2.2 Interruptible capacity

In the second session of the competitive procedures pursuant to paragraph 5.9.2.1, the Storage Company offers the interruptible withdrawal and injection capacities available, determined by the Storage Company based on the scheduled capacities and those assigned in the first session.

In this session, the Storage Company makes available the following monthly, weekly and daily capacities on an interruptible basis:

- a) The Injection Capacity and Withdrawal Capacity on an interruptible basis, determined, if in phase, according to what is provided for in paragraph 2.4.4.5.
- b) The Injection Capacity and Withdrawal Capacity on an interruptible basis, determined, if in reverse flow, according to what is provided for in forgoing paragraphs 2.4.4.5 and 2.4.4.7 and regulated according to what is stated below and in any case always and only the virtual type:

- *Withdrawal Period*

In the event the difference between the total continuous Injection Capacity available for a given day and the total scheduled Injection is lower than the interruptible Reverse Flow 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 interruptible Reverse Flow Capacity was assigned, according to the criteria specified in chapter 6.

In the event the aforementioned difference is negative, the interruptible Reverse Flow Capacity will not be made available.

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 daily acceptance of the renomination.

- *Injection period*

In the event the difference between the total continuous Reverse Flow Capacity available for a given day and the total final Withdrawal is lower than the interruptible Reverse Flow 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 interruptible Reverse Flow Capacity was assigned, according to the criteria specified in chapter 6.

In the event the aforementioned difference is negative, the interruptible Reverse Flow Capacity will not be made available.

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 renomination.

3.2.3 Constant Peaks of Modulation Service

The Constant Peaks of Modulation Service is aimed at guaranteeing the Shipper an available injection capacity and an available withdrawal capacity on each day of the Thermal Year.

For the purpose of offering the Constant Peaks of Modulation Service, the Storage Company makes available the relevant capacities (Space, Injection and Withdrawal Capacities) determined according to the amount envisaged in chapter 2.

The Constant Peaks of Modulation Service storage capacities are assigned on an annual basis according to the procedures explained in chapter 5 below.

The space, stock, injection capacity and withdrawal capacity of the Constant Peaks of Modulation Service are used by the Shipper in a manner distinct from those of the other storage services.

The performance supplied by the Constant Peaks of Modulation Service Storage Company allows the Shipper to:

- inject its Gas into the storage system throughout the Thermal Year;
- withdraw its Gas from the storage system throughout the Thermal Year; within the limits of the storage capacity assigned to the same Shipper.

The injection capacity for the Constant Peaks of Modulation Service is assigned in the same measure as the space assigned divided by a number of days, on the basis of the figures published on the website of the Storage Company.

It is understood that if the remaining space of the Shipper is less than the available injection capacity, the injection capacity is equal to the remaining Space.

The withdrawal capacity for the Constant Peaks of Modulation Service is assigned in the same measure as the Space assigned divided by a number of days, on the basis of the figures published on the website of the Storage Company.

It is understood that if the stock of the Shipper is less than the available withdrawal capacity, the withdrawal capacity is equal to the same stock.

For this Service the provisions concerning the profiles of use of the storage capacities described below in paragraphs 2.4.5. and 2.4.6 are not applied.

The Shipper that has been assigned storage capacity for the Constant Peaks of Modulation Service can access the short-term capacities described in paragraph 2.4.4.4 according to the methods and timetables defined in paragraph 5.9.2 below.

Similar to the storage capacity assigned for the Modulation Service, also the Constant Peaks of Modulation Service may be subject to the Overnomination procedures described in paragraph 3.2.1.2, and can be made available for assignment of “in advance” capacities pursuant to paragraphs 3.2.1.4 and 3.2.1.5.

3.3 SPECIAL SERVICES

In addition to the mandatory services listed above, the Storage Company is willing to consider requests from Shippers for services having technical-economic characteristics other than those defined by the other services described in the Storage Code.

If the Service requested is technically executable without jeopardising the storage capacities already assigned to other Shippers, the economic conditions will be negotiated between the Storage Company and the Shipper and later be sent to the Authority for approval, in observance of what is provided for in the Resolution, as indicated in paragraph 4A.7 of the Annex “Table of Times and Methods of Information Coordination”.

3.3.1 Gas under guarantee deposit service

Within the scope of the Special Services, the Storage Company is willing to offer the Deposit Service in order to allow the Shippers to set up, by way of guarantee of payment of a receivable from a third party, such as, in binding form (i) a bank as defined in Article 1, paragraph 1, letter b) of Italian Legislative Decree 385/1993, (ii) another Storage or Transport Shipper, (iii) the Responsible for Balancing, of collateral for the duration of the Thermal Year in progress on the gas owned by the same Shippers that is in Storage (hereinafter “**Gas under Third Party Guarantee**”), in the form of irregular pledge.

Activation of the Deposit Service requires prior sending of a formal request to Edison Stoccaggio and subsequent signing of a specific agreement to the conditions describe in the following chapters and, in any case, without prejudice to (i) the right of retention pursuant to paragraph 17.4.1 and (ii) any set-up of a pledge in the favour of Edison Stoccaggio S.p.A. by the same Shipper in the forms and ways pursuant to Chapter 5 below.

The Deposit Service assumes the role of irregular deposit pursuant to Article 1782 of the Italian Civil Code.

For the purpose of setting up the irregular pledge pursuant to Article 1851 of the Italian Civil Code, please note that Edison Stoccaggio must coordinate with the Responsible for Balancing and that the Gas under Third Party Guarantee will be valued according to the description in chapter 5 when determining the quantity of stored gas available.

Shippers that plan to request the supply of the Deposit Service are required to certify, within the terms and with the methods required and specified in chapter 5, that they are in possession of the requirements provided for therein.

It is understood that the Shipper cannot set up a guarantee in favour of multiple subjects in connection with the same quantity of gas in Storage.

3.4 ACCESSORY ACTIVITIES

3.4.1 Managing the capacity assignment

Within the scope of the assignment activity, the Storage Company comes to an agreement with the Major Storage Company on the procedures for checking the assignable and assigned quantities, publishes the available capacities and forms necessary, manages the procedure for submitting assignment requests, checks the assignable capacities with the Major Storage Company, makes the assignment and prepares and executes the Contracts.

3.4.2 Managing the capacity transactions

The Storage Company defines the methods for requesting capacity transactions, makes available an appropriate dedicated section on the IT System and also publishes any necessary standardised forms on the website for the cases of back-up, and performs the administrative operations connected with the transactions.

3.4.3 Dispatching

With regard to this activity, the Storage Company performs what is defined in chapter 2.

3.4.4 Gas allocations

As part of this activity, the Storage Company manages the allocation and adjustment process of the quantities of gas measured during injection and/or withdrawal based on the methods described in chapter 8 “Balancing and replenishing of the storage sites”.

3.4.5 Gas measurement and quality

The Storage Company records and validates the measurement data at entry and exit of each System site, and checks, records and validates the gas quality parameters in order to determine the energy moved and observance of the quality specifications.

3.4.6 Management of storage data

The Storage Company manages and archives data exchanged with the Shipper and publishes information, with the aid of IT tools, including the IT System and its own website that also has a reserved area.

3.4.7 Balancing prices

The Storage Company calculates and invoices the balancing prices and those for using and replenishing the strategic reserve according to the specifications in chapter 8 “Balancing and replenishing of the storage sites”.

3.4.8 Maintenance operations

Within this scope, the Storage Company performs all inspection, adjustment and maintenance operations on the plants in order to guarantee the safety and continuity of the Service. It schedules operations, except for those unforeseeable, that it publishes and updates constantly according to the methods described in chapter 13 “Scheduling and managing maintenance operations”.

3.4.9 Managing emergencies

The Storage Company has internal procedures and personnel in order to efficiently manage unexpected and transitory situations that prevent or limit normal System operation while minimising the impact on the available capacities.

3.4.10 Managing general emergencies

Within the scope of the general emergencies, the Storage Company performs all operations required by the procedures defined by the Ministry of Economic Development.

3.4.11 Invoicing

The Storage Company manages the entire invoicing and invoice adjustment process according to the provisions contained in chapter 16 “Invoicing and Payments”.

3.5 ACCESS TO THE TRANSPORT SYSTEM

3.5.1 Assignment and reservation of transport capacity

Under resolution 297/2012/R/gas as amended, the Storage Company requests transport capacity for the purposes of providing its services to the Shipper and becomes, in accordance with the indications received from its Shippers, responsible for obligations descending from the related transport contract, instrumental for the injection and the withdrawal of the gas owned by its Shippers respectively at the inlet point and of the outlet point of the national network of the pipelines interconnected with the Storage Sites.

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.

CHAPTER 4

INFORMATION COORDINATION PROCEDURES

4.1 INTRODUCTION.....	76
4.2 IT SYSTEMS.....	76
<i>4.2.1 Description of the IT Systems.....</i>	<i>76</i>
<i>4.2.2 Access and use of the IT system.....</i>	<i>77</i>
4.3 OBLIGATIONS OF THE SHIPPERS AND OF THE STORAGE COMPANY	79
<i>4.3.1 Obligations of the Shippers</i>	<i>79</i>
<i>4.3.2 Obligations of the Storage Company</i>	<i>81</i>
4.4 TRAINING.....	81

4.1 INTRODUCTION

The chapter describes the characteristics of the systems for exchanging data and information between the Shippers and the Storage Company. It also describes the methods for accessing and using the IT system and the obligations of the Parties.

The set of IT systems arranged by Edison Stoccaggio on the Internet system for the information management of the services offered and for exchanging data and communications between Edison Stoccaggio and the Shippers according to the provisions of this Code is made up of the Website of the Storage Company and the IT System. To access them, the Shipper must have available a browser with the most updated Internet technology and in any case compatible with what is required by the technical specifications of the Website and Escomas. Failure to meet this requirement might jeopardise the efficient exchange of data with Edison Stoccaggio, although it does not matter when executing the Storage Contract. The Website and Escomas are the only tools through which the Shipper can schedule use of the storage services, view the contracts executed with Edison Stoccaggio and all of the other information according to what is specified in the paragraphs below. Edison Stoccaggio undertakes to implement, supplement and/or amend the Website and Escomas, as well as the information and applications it contains, with a view to improving the exchange of data and information with the Shippers in connection with development of the services offered.

Possession of the service Shippers of an adequate skill in using IT systems is not binding for executing the Storage Contract. However, it is an essential technical requirement in order to guarantee an effective exchange of data. As far as has been stated, extended improper uses of the system may constitute a reason for terminating the Contract, as described in paragraph 17.4 of the chapter “Responsibility of the Parties”.

4.2 IT SYSTEMS

4.2.1 Description of the IT Systems

To manage the natural gas storage activities and the exchange of data between Users of the service and the storage company, the following IT tools are used:

1. IT System, defined as the entirety of the IT systems organised by the Storage Company on the Internet platform to support the commercial management of its services and to permit an exchange of data and information with the service Shippers and the community involved;
2. Website, the institutional website of the Storage Company

3. Electronic mail that the Storage Company uses for communications with the Shippers and the community involved in the case the IT System or Certified Electronic Mail malfunctions, where expressly provided for by legislation and the regulatory framework in force;
4. Some components of the Microsoft Office (Excel and Access) package that the Storage Company uses to process data of the storage activities pertaining to the obligations arising from the Contract;
5. Architecture of the IT network of the Storage Company, properly sized and used, among the other services, for archiving storage service-associated data.
6. Fax should the Website, IT System and Certified Electronic Mail malfunction at the same time.

4.2.2 Access and use of the IT system

Data is transmitted by the Shippers to the Storage Company and by the Storage Company to the Shippers by using Escomas and/or access to the Website unless otherwise specified.

Should it be impossible to use Escomas or the Website, the data can be sent by/to the Shipper through email or by fax to the number made available on the website of the Storage Company.

The Website provides the Shippers access to the data and information relevant for the purposes of the Contract through:

1. A reserved area protected with user ID and password, accessible through registration. This area allows confidential documents and data to be published and shared with the Shippers enabled from any Internet station;
2. Newsletter service that allows Newsletters to be managed and sent to the Shippers;
3. File Sharing through publication of one or more areas accessible to the Shippers on the Website (with user ID and password) where it is possible to share data and documents organised in folders with exclusive access of each user;
4. A non-reserved area where the Company publishes all the information required by the Storage Code such as the Storage Code and the operating procedures in effect, the description of the plants, the maintenance plans, the available capacities, the Tariffs in force and other information useful for better communication between the Storage Company and the interested parties.

Escomas provides Shippers the possibility to access all data and contractual information through dedicated forms, including the following:

- Contractual position in terms of capacity assigned for every single Contract entered into by the Shipper and the Storage Company, and relevant updates following transfers and sales of capacity;
- Annual, seasonal, monthly, weekly and daily scheduling of operations;

- Daily, weekly and monthly allocations, both final and balance, assigned to the Shipper by the Storage Company, Injection and Withdrawal consumption assigned to the Shippers;
- Storage position in terms of stock, including any sales or transfers of Capacity, sale or purchase of Gas;
- Invoicing status, accounting documents, relevant information and elements for calculating them;
- Administrative documentation, such as “fiscal bills”, in which the quantity of Gas owned by the Shippers is recorded;
- Other documents.

In addition to this, Escomas allows Shippers to access dedicated forms regarding other subjects, such as:

- Registration of the Shipper that has the appropriate application credentials;
- Requests for access to the services;
- Assignment of storage capacity on an annual, monthly and weekly basis, and for periods under one week;
- Maintenance schedules published and updated by the Storage Company according to the time tables and methods set out in this Code;
- Use profiles, adjustment factors and associated information;
- Trend of the Gas moved by the Storage Company at the Storage System, in the Injection and Withdrawal stages;
- Capacities available for the services offered;
- Due register of the most important due dates for the Shipper and for the Storage Company;
- Other information as necessary.

The Shipper is required to access Escomas to use services offered by the Storage Company, enter or receive the information on managing the storage Contract since it represents, unless otherwise specified, the official interaction tool for the functions described above between the Storage Company and the Shippers according to the methods and time tables described in the following sections.

The methods for exchanging information between the Shipper of the service and the Storage Company for the following activities are summarised in Annex 4A:

1. Assignment of storage capacities at the start of the thermal year;
2. Assignment after the start of the thermal year;
3. Injection and withdrawal reservation and commitments;
4. Capacity and gas volume transactions;
5. Allocations and adjustments;
6. Request for special services.

The minimum skills the Shippers need for an efficient exchange of data are:

7. Adequate knowledge of Electronic Mail management;
8. Adequate knowledge of the Microsoft Office package tools (MS Excel in particular);
9. Adequate knowledge of the Internet;
10. Knowledge of the IT System.

4.2.2.1. Security of the IT Systems

The Storage Company and the Shippers of the service are responsible for the security and protection of the data exchanged through the IT systems.

Both undertake to ensure that their data and systems have adequate levels of IT protection.

4.3 OBLIGATIONS OF THE SHIPPERS AND OF THE STORAGE COMPANY

4.3.1 Obligations of the Shippers

As regards the exchange and management of information with the Storage Company, the Shippers undertake to take the appropriate control and prevention measures to guarantee the security and protection of the data.

The Shipper has the obligation of promptly informing the Storage Company in the case of transmission of data contaminated by a virus, deterioration of the data transmitted or in other cases where improper use of the system occurs. The Shipper should contact the Storage Company through the channels defined on the Company website and follow the instructions and obligations published on it.

The Shippers have the obligation to use the forms prepared by the Storage Company¹, found on Escomas or on the Company Website, to exchange data.

At the time of the Request for Access to the IT System, the requesting user has the obligation to provide the Storage Company with what is stated in paragraph 4.3.1.1, a list of contacts of reference at the Shipper's offices, who will be the only parties enabled to access and use the application to exchange data and information.

The same enabled party will have the right to request, through Escomas, that other users delegated to operate in the name and on behalf of the Shipper be created.

The Shipper also undertakes to keep the list of contacts up to date and to process personal data of the Storage Company in full observance of Italian Law 675 of 31 December 1996 as amended.

The Shipper is also solely responsible for any errors in entering data into the IT System.

¹ All declarations to provide are to be considered "statements in substitution of an attested affidavit", therefore signed by the legal representative or a party in possession of an adequate power of attorney (the forms for the declaration of validity of the powers of representation are available on the IT System and on the Website of the Storage Company if the system is not available).

In the case of improper use of the IT System, therein expressly including the Shipper's attempt to access data of other Shippers or of the Storage Company (or, for example, of its employees, collaborators, agents or subcontractors), the Shipper shall be charged all costs, expense, any possible losses and charges incurred by the Storage Company as a consequence of said improper use. The Shipper should also immediately take steps to prevent said situations from recurring. In any case, early termination of the Storage Contract according to the provisions of paragraph 17.4 is applicable.

4.3.1.1. Access to the IT System

Access to the IT System is possible after the requesting user registers, sends in the Request for Access to the IT System and is accepted subject to verification that the documentation submitted is appropriate.

The Request for Access to the IT System, drawn up like the model published by Edison Stoccaggio on its IT system, must necessarily contain:

- a) The express and full acceptance of the provisions pursuant to this Storage Code, including those contained in the relevant annexes;
- b) The declaration by the requesting user party to have an IT system compatible with the IT systems of Edison Stoccaggio.

The Request for Access to the IT System must also be complete with:

- c) The affidavit pursuant to Italian Presidential Decree 445/2000 certifying that the signer of the Request for Access has powers of representation, as per the model on its IT system.

The Requesting User must send everything required in this section by the 5th working day before the last deadline for access to the service for which it plans to make use.

Each requesting user must inform the Storage Company of at least one user who will be enabled to access it to use the services offered for managing relations with the Storage Company and to view the information pertaining to the individual Shipper at the time of registration on the IT System. The Storage Company gives the Shippers a temporary user ID and password to access Escomas.

Enabling will allow the Shipper to access only the data pertaining to it.

The Shipper is responsible for proper use of its user ID and password, and it required to immediately inform the Storage Company of any changes in the data regarding the users of Escomas.

Should the storage Contract be terminated, the Storage Company disables the Shipper's access to Escomas and deletes the data regarding the parties no longer enabled to access the data available on the portal.

4.3.2 Obligations of the Storage Company

The Storage Company communicates with the Shippers and the other operators using the IT tools defined in sub-paragraph 4.2.1 et seq.

As regards the exchange and management of information with the Shippers of the service, the Storage Company undertakes to take the appropriate control and prevention measures to guarantee the security and protection of the data.

The Storage Company has the obligation of promptly notifying the Shipper of any cases of service interruption or identifying a solution to back up the data exchange procedures and to report it in good time to the shippers of the service.

The Storage Company undertakes to process data relating to the Shippers in full observance of Italian Law 675 of 31 December 1996 as amended.

Specifically, the Storage Company guarantees the confidentiality of the data by processing and archiving them in its private IT system, and guarantees their non-accessibility from the outside.

4.3.2.1. Available data

The data available within the IT System relate to the Thermal Year in progress and to the two prior Thermal Years in which it was used. For data relating to prior Thermal Years or those not present in the system, the Shippers should request the information they are looking for from the Storage Company.

4.4 TRAINING

The Storage Company places at the Shipper's disposal an online support manual for using Escomas, available on the Company Website, and will organise training sessions for the Shippers on the specificities of the system and on subsequent updates or supplements. The Storage Company does not request any fee for these training sessions, the attendance of which is limited to 3 Shipper users at the most.

The Storage Company makes available to the Users a phone service to supply information and assistance concerning Escomas. The number where this service can be reached is published on the Website of the Storage Company.

ANNEX 4A**TABLE OF TIMES AND METHODS OF INFORMATION
COORDINATION**

4A.1 INTRODUCTION.....	83
4A.2 ASSIGNMENT OF STORAGE CAPACITIES AT THE START OF THE THERMAL YEAR (REF. PAR. 5.8)	83
4A.3 ASSIGNMENT AFTER THE START OF THE THERMAL YEAR (REF. PARA. 5.9.1).....	87
<i>4A.3.1 Modulation Storage Services with assignment of capacities on an interim basis</i>	<i>87</i>
<i>4A.3.2 Timeline for the access and performance of the Modulation Storage Services with assignment of capacities on a monthly basis</i>	<i>88</i>
<i>4A.3.3 Timeline for the access and performance of the Storage Services with assignment of capacities on a weekly basis.....</i>	<i>90</i>
<i>4A.3.4 Timeline for the access and performance of the storage services with assignment of capacities on a daily basis</i>	<i>93</i>
<i>4A.3.5 Timeline for access and performance of Storage Service with assignment in “WE/WD Flex” period of secondary and “Flex” secondary capacity</i>	<i>95</i>
4A.4 INJECTION AND WITHDRAWAL RESERVATION AND COMMITMENTS (CHAPTER 6)	98
<i>4A.4.1 Annual scheduling (Period scheduling).....</i>	<i>98</i>
<i>4A.4.2 Monthly scheduling.....</i>	<i>99</i>
<i>4A.4.3 Weekly scheduling</i>	<i>101</i>
<i>4A.4.4 Daily scheduling</i>	<i>102</i>
4A.5 CAPACITY AND GAS TRANSACTIONS (CHAPTER 7).....	105
<i>4A.5.1 Capacity and gas sales and exchanges.....</i>	<i>105</i>
<i>4A.5.2 Storage capacity transfers.....</i>	<i>106</i>
4A.6 ALLOCATIONS AND ADJUSTMENTS (CHAPTER 8)	107
<i>4A.6.1 Daily allocations and storage position request.....</i>	<i>107</i>
4A.7 SPECIAL SERVICES (CHAPTER 3).....	108

4A.1 INTRODUCTION

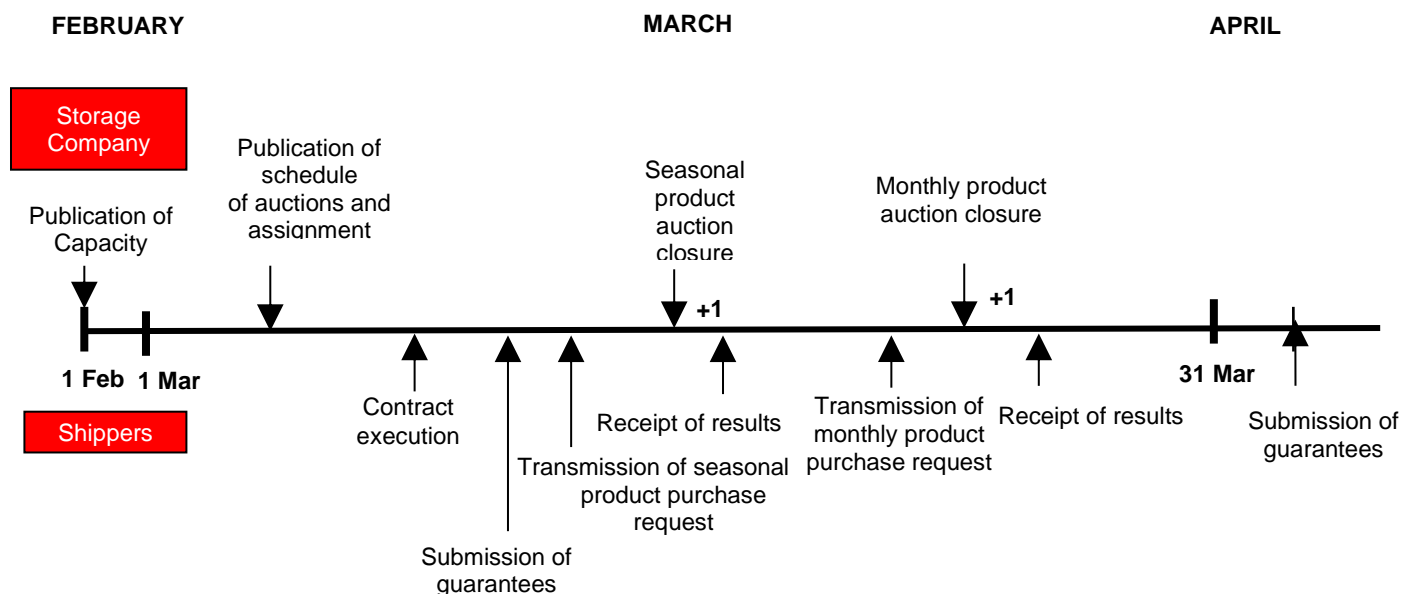
The chapter describes the procedures for the exchange of information between the Shipper and the Storage Company and the related timetable. Unless otherwise specified, if the time limit indicated herein falls on Saturday, Sunday or on a holiday, said time limit shall be understood to be extended to the first subsequent working day.

4A.2 ASSIGNMENT OF STORAGE CAPACITIES AT THE START OF THE THERMAL YEAR (REF. PAR. 5.8)

4A.2.1 Modulation Storage Services with assignment of capacities on an annual basis

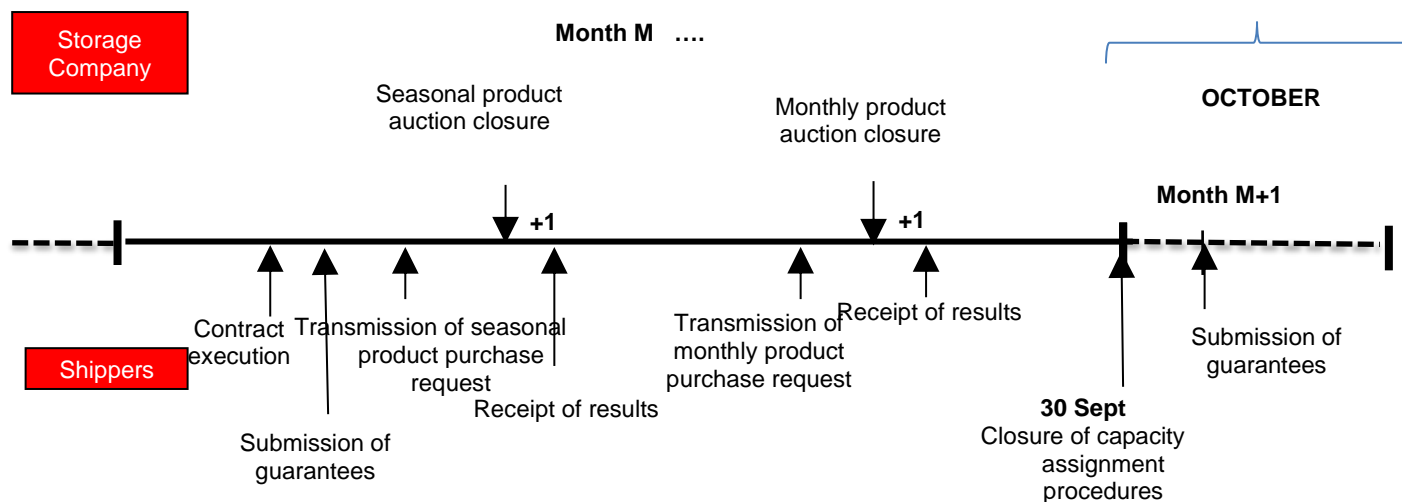
The paragraph describes the procedures for the exchange of information between the Shipper and the Storage Company and the related timetable for assigning capacities on an annual basis of the Modulation Storage Services.

Unless otherwise specified, the dates per the following timetable are shown in the schedule of the auctions and in the procedures for the assignment of the seasonal and monthly products of the Peak Modulation Storage Service and of the Constant Peaks of Modulation Service published on the website of the Storage Company before the start of the competitive procedures for the assignment of the storage capacity.



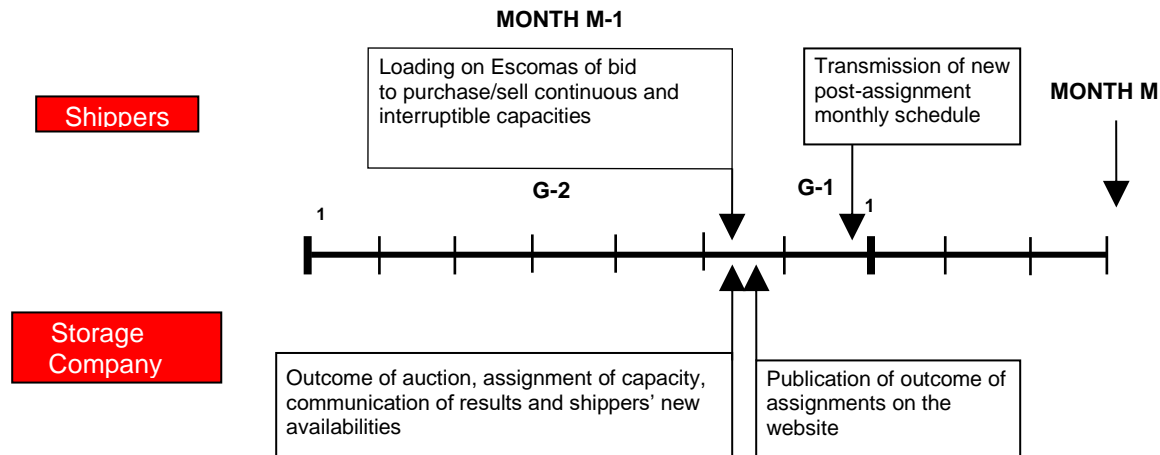
Requests for access to services and assignment of capacity					
Activity	By	When	How	Form	Relevant information and documents
Publication of the Storage Capacities Availabilities for Modulation services	• Storage Company	• 1 February or by another date if otherwise instructed by ARERA/Ministry of Economic Development	• Website of the Storage Company		
Publication of the Capacities Available for the Peak Modulation Service for Seasonal Product	• Storage Company	• In accordance with Auction Calendar	• Website of the Storage Company		
Execution of Storage Contract	• Shippers	• Before Purchase Request	• Advance transmission via Escomas, transmission of originals by certified mail	On Escomas	
Submission of assignment Guarantees	• Shippers	• Within times defined in the procedure	• Advance transmission via Escomas, transmission of originals by certified mail		
Transmission of the Purchase Request	• Requesting Shipper	• In accordance with Auction Calendar	• Filling out the request through Escomas and/or transmission of originals by certified mail	Annex to the Assignment Procedure	• Indicated in the Assignment Procedure
Closure of Auction and Notification of Outcome to Requesting Shippers	• Storage Company	• In accordance with Auction Calendar	• Via Escomas		
Assignment of Storage Capacity	• Storage Company	• No later than one day from the auction closure	• Via Escomas		

Requests for access to services and assignment of capacity					
Activity	By	When	How	Form	Relevant information and documents
Publication of any Capacities Available for the Peak Modulation Service for Monthly Product	• Storage Company	• In accordance with Auction Calendar	• Website of the Storage Company		
Same steps as prescribed for the Seasonal product	• ...	• ...	•
Submission of contract Guarantees	• Shippers	• Within times defined in the procedure	• Advance transmission via Escomas, transmission of originals by certified mail		
Constant Peaks of Modulation Service procedure (same phases of the Modulation Service seasonal product)	• ...	• ...	•

4A.3 ASSIGNMENT AFTER THE START OF THE THERMAL YEAR
(REF. PARA. 5.9.1)**4A.3.1 Modulation Storage Services *with assignment of capacities on an interim basis***

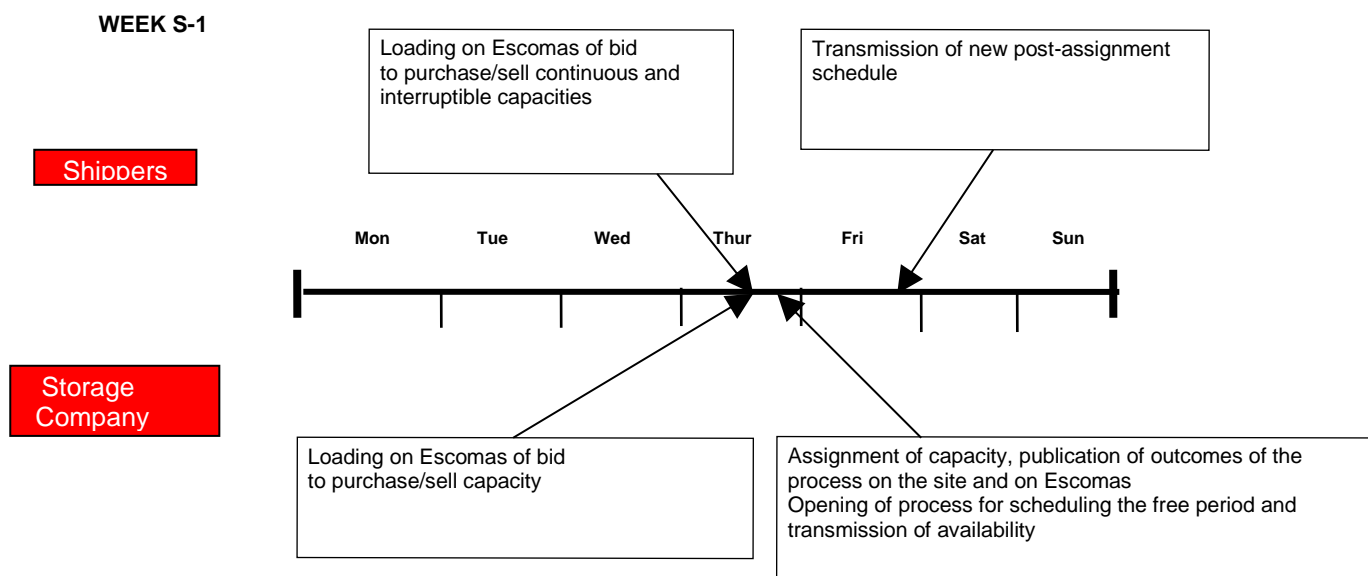
The same procedural requirements prescribed for assignment at the start of the thermal year apply.

4A.3.2 Timeline for the access and performance of the Modulation Storage Services with assignment of capacities on a monthly basis



Request for the access to the storage services with assignment on a monthly basis					
Activity	By	When	How	Form	Relevant information and documents
Execution of Storage Contract	<ul style="list-style-type: none"> Shippers 	<ul style="list-style-type: none"> Before Purchase Request 	<ul style="list-style-type: none"> Advance transmission via Escomas, transmission of originals by certified mail 	<ul style="list-style-type: none"> On Escomas 	Check of assignment guarantees capacity
Request for the access to the storage services with assignment on a monthly basis, first and second session	<ul style="list-style-type: none"> Authorised Shipper on Escomas 	<ul style="list-style-type: none"> By the deadline specified in the Short-Term Auction Calendar 	<ul style="list-style-type: none"> Transmission of Service Access Request through Escomas 	<ul style="list-style-type: none"> Downloadable after data are entered on Escomas (also available on the website) 	<p>The bids to purchase capacity (primary and secondary (space, injection capacity, withdrawal capacity)) must contain:</p> <ul style="list-style-type: none"> Adequate guarantee for the required purchase commitment Financial soundness Quantity to be purchased Purchase price for each type of capacity If the Requesting Shipper is not a registered Shipper, (s)he must register on Escomas and demonstrate that (s)he meets all requirements for access to the storage services according to the time limits set out in para. 4.3.1.1. <p>The bids to sell capacity (secondary (space, injection capacity, withdrawal capacity)) must contain:</p> <ul style="list-style-type: none"> Quantity to be sold Sale price for each type of capacity
Competitive procedure	<ul style="list-style-type: none"> Storage Company through Escomas 	<ul style="list-style-type: none"> As from the date specified in the Short-term Auction Calendar 	<ul style="list-style-type: none"> Assignment procedures specified in paragraph 5.9.2 of this Code 		Bids to sell primary capacity (quantity and price)
Capacity assignment, notification of results to shippers, communication of new post-assignment capacities	<ul style="list-style-type: none"> Storage Company 	<ul style="list-style-type: none"> By the deadline specified in the Short-Term Auction Calendar 	<ul style="list-style-type: none"> Publication of the aggregate assignments on the site and transmission of communication through Escomas with detailed results 		
Transmission of new post-assignment monthly schedule	<ul style="list-style-type: none"> Shipper who requested access to the service 	<ul style="list-style-type: none"> By the deadline specified in the Short-Term Auction Calendar 	<ul style="list-style-type: none"> Via Escomas 	<ul style="list-style-type: none"> Yes (available on the website of the Storage Company and Escomas) 	<ul style="list-style-type: none"> The Shipper sends its reservation containing the gas quantities, expressed in energy, that the Shipper expects to inject/withdraw for each day of the Month of the Service performance

4A.3.3 Timeline for the access and performance of the Storage Services with assignment of capacities on a weekly basis



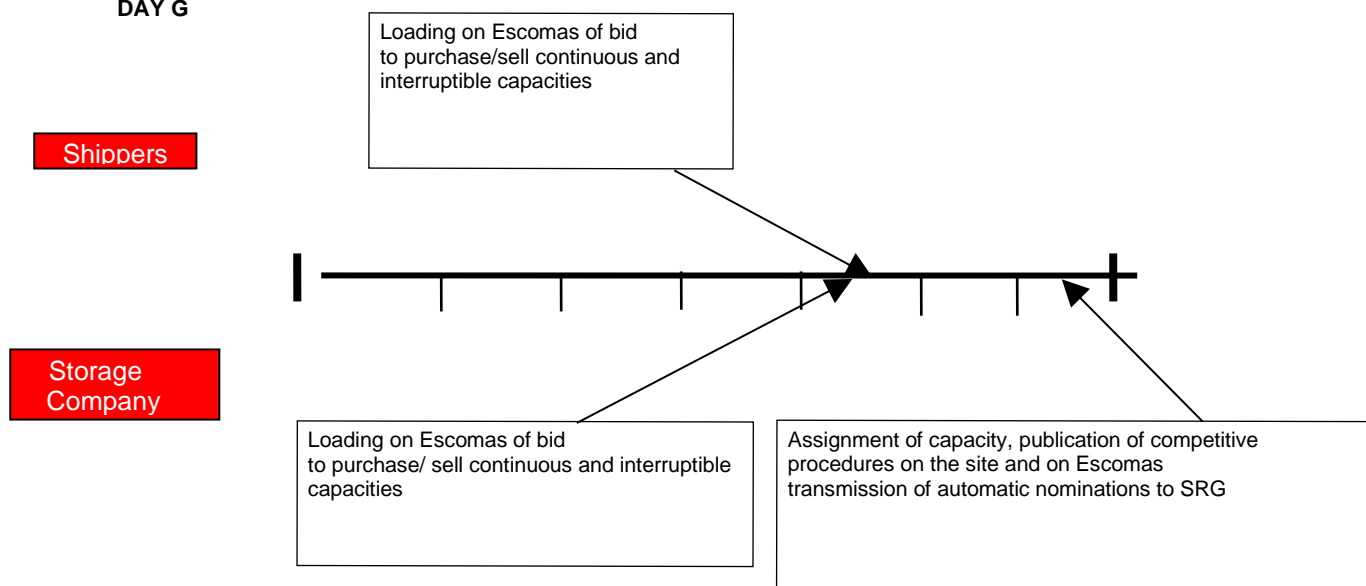
Request for the access to storage services with assignment on a weekly basis					
Activity	By	When	How	Form	Relevant information and documents
Execution of Storage Contract	<ul style="list-style-type: none"> Shippers 	<ul style="list-style-type: none"> Before Purchase Request 	<ul style="list-style-type: none"> Advance transmission via Escomas, transmission of originals by certified mail 	<ul style="list-style-type: none"> On Escomas 	Check of assignment guarantees capacity
Request for the access to storage services with assignment on a weekly basis, first and second session	<ul style="list-style-type: none"> Authorised Shipper on Escomas 	<ul style="list-style-type: none"> By the deadline specified in the Short-Term Auction Calendar 	<ul style="list-style-type: none"> Transmission of Service Access Request through Escomas 	<ul style="list-style-type: none"> Downloadable after data are entered on Escomas (also available on the website) 	<p>The bids to purchase capacity (primary and secondary (space, injection capacity, withdrawal capacity)) must contain:</p> <ul style="list-style-type: none"> Adequate guarantee for the required purchase commitment Financial soundness Quantity to be purchased Purchase price for each type of capacity <p>The bids to sell capacity (secondary (space, injection capacity, withdrawal capacity)) must contain:</p> <ul style="list-style-type: none"> Quantity to be sold Sale price for each type of capacity If the Requesting Shipper is not a registered Shipper, (s)he must register on Escomas and demonstrate that (s)he meets all requirements for access to the storage services
Competitive procedure	<ul style="list-style-type: none"> Storage Company 	<ul style="list-style-type: none"> As of the date specified in the Short-Term Auction Calendar 	<ul style="list-style-type: none"> Assignment procedures specified in paragraph 5.9.2 of this Code 		Bids to sell primary capacity (quantity and price)
Capacity assignment, notification of results to shippers, communication of new post-assignment capacities	<ul style="list-style-type: none"> Storage Company 	<ul style="list-style-type: none"> By the deadline specified in the Short-Term Auction Calendar 	<ul style="list-style-type: none"> Communication through Escomas with detailed results 		
Transmission of new weekly post-assignment schedule	<ul style="list-style-type: none"> Shipper who requested access to the service 	<ul style="list-style-type: none"> By the deadline specified in the Short-Term Auction Calendar 	<ul style="list-style-type: none"> Via Escomas 	<ul style="list-style-type: none"> Yes (available on the website of the Storage Company and Escomas) 	<ul style="list-style-type: none"> The Shipper sends its reservation containing the gas quantities, expressed in energy, that the Shipper expects to inject/withdraw for each day of the period of performance of the Service

Note that:

the term “week” means the period indicated in the Short-Term Auction Calendar published on the Storage Company’s website.

**4A.3.4 Timeline for the access and performance of the storage services
with assignment of capacities on a daily basis**

DAY G



Request for the access to the storage services with assignment on a daily basis					
Execution of Storage Contract	<ul style="list-style-type: none"> Shippers 	<ul style="list-style-type: none"> Before Purchase Request 	<ul style="list-style-type: none"> Advance transmission via Escomas, transmission of originals by certified mail 	<ul style="list-style-type: none"> On Escomas 	Check of assignment guarantees capacity
Request for access to storage services with assignment on a daily basis, first session (continuous capacity) and second session (interruptible capacity)	<ul style="list-style-type: none"> Authorised Shipper on Escomas 	<ul style="list-style-type: none"> By the deadline specified in the Short-Term Auction Calendar 	<ul style="list-style-type: none"> Transmission of Service Access Request through Escomas 	<ul style="list-style-type: none"> Yes downloadable after data are entered on Escomas (also available on the website) 	<p>The bids to purchase capacity (primary and secondary (injection capacity, withdrawal capacity)), "in advance" (withdrawal capacity) must contain:</p> <ul style="list-style-type: none"> Adequate guarantee for the required purchase commitment Financial soundness Quantity to be purchased Purchase price for each type of capacity <p>The bids to sell secondary capacity and "DA Flex" continuous secondary capacity (injection capacity, withdrawal capacity) for "reduction" (withdrawal capacity) must contain:</p> <ul style="list-style-type: none"> Quantity to be sold Sale price for each type of capacity.

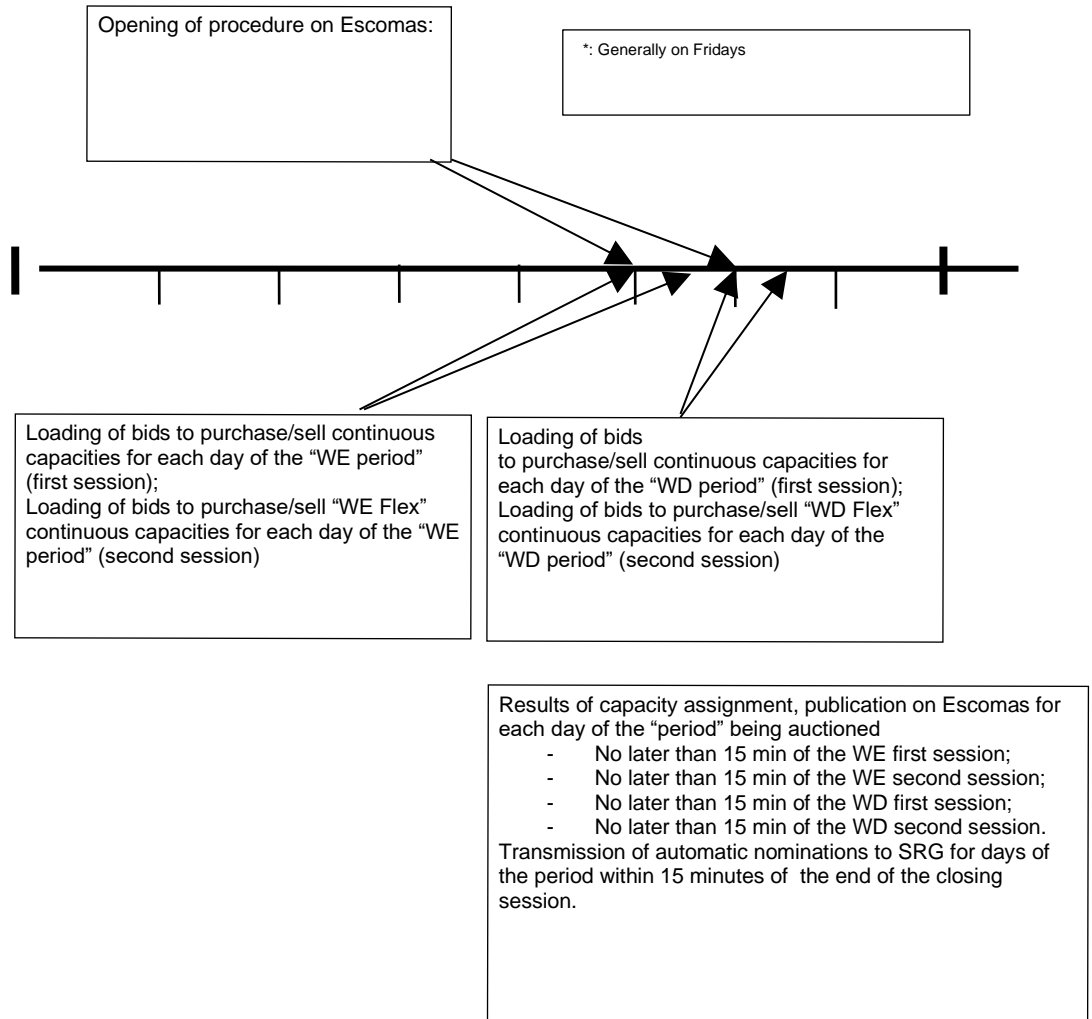
Request for the access to the storage services with assignment on a daily basis					
Competitive procedure	<ul style="list-style-type: none"> Storage Company and Shippers 	<ul style="list-style-type: none"> As from the date specified in the Short-Term Auction Calendar 	<ul style="list-style-type: none"> Assignment procedures specified in paragraph 5.9.2.1 of this Code 		
Capacity assignment, notification of results to shippers, automatic nomination on SRG	<ul style="list-style-type: none"> Storage Company 	<ul style="list-style-type: none"> By the deadline specified in the Short-Term Auction Calendar 	<ul style="list-style-type: none"> Communication through Escomas with detailed results 		

4A.3.5 Timeline for access and performance of Storage Service with assignment in “WE/WD Flex” period of secondary and “Flex” secondary capacity

Working day immediately preceding* the “period” auctioned

Storage Company

Shippers

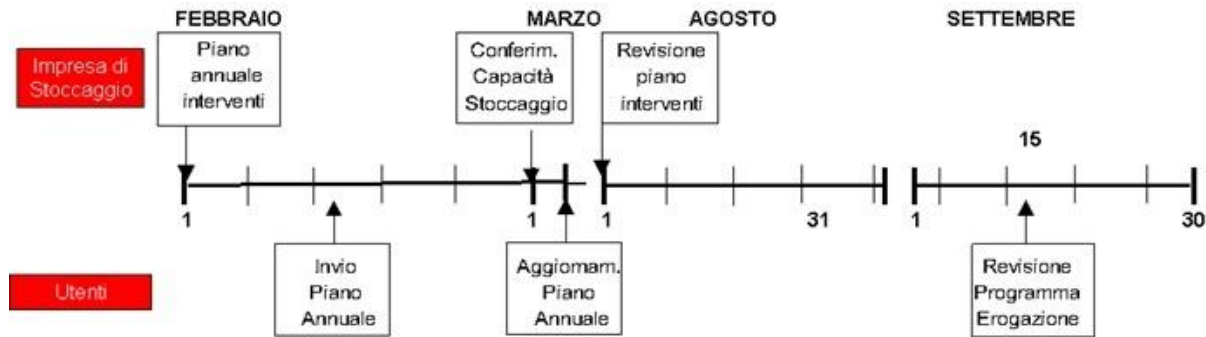


Request to access the Storage Service with assignment of “WE/WD Flex” secondary capacity					
Activity	By	When	How	Form	Relevant information and documents
Execution of Storage Contract	<ul style="list-style-type: none"> Shippers 	<ul style="list-style-type: none"> Before Purchase Request 	<ul style="list-style-type: none"> Advance transmission via Escomas, transmission of originals by certified mail 	<ul style="list-style-type: none"> On Escomas 	Check of assignment guarantees capacity
Request to access the Storage Service with assignment of “WE/WD period”	<ul style="list-style-type: none"> Authorised Shippers on Escomas 	<ul style="list-style-type: none"> By the deadline specified in the Short-Term Auction Calendar The “WE period” auctioned is: <ul style="list-style-type: none"> the weekend, consisting of Saturday, Sunday and national holidays. The “WD period” auctioned is: <ul style="list-style-type: none"> working days, considered as days other than those included in the point above 	<ul style="list-style-type: none"> Transmission of Service Access Request through Escomas 	<ul style="list-style-type: none"> Downloadable after data are entered on Escomas (also available on the website) 	<p>The bids to purchase continuous secondary capacity, up to 3 for each day of the period, must contain:</p> <ul style="list-style-type: none"> Adequate guarantee for the required purchase commitment Financial soundness Quantity to be purchased Purchase price <p>The bids to sell secondary capacity and “Flex” continuous secondary capacity must contain:</p> <ul style="list-style-type: none"> Quantity to be sold Purchase price.
“WE period” competitive procedure - first session (secondary capacity)	<ul style="list-style-type: none"> Storage Company and Shipper 	<ul style="list-style-type: none"> As from the date specified in the Short-Term Auction Calendar 	<ul style="list-style-type: none"> Assignment procedures specified in paragraph 5.9.2.2 of this Code 		
Capacity assignment, notification of results to shippers	<ul style="list-style-type: none"> Storage Company 	<ul style="list-style-type: none"> By the deadline specified in the Short-Term Auction Calendar 	<ul style="list-style-type: none"> Communication through Escomas with detailed results 		
“WE period” competitive procedure - second session (“WE Flex” capacity)	<ul style="list-style-type: none"> Storage Company and Shipper 	<ul style="list-style-type: none"> As from the date specified in the Short-Term Auction Calendar 	<ul style="list-style-type: none"> Assignment procedures specified in paragraph 5.9.2.2 of this Code 		
Capacity assignment, notification of results to shippers	<ul style="list-style-type: none"> Storage Company 	<ul style="list-style-type: none"> By the deadline specified in the Short-Term Auction Calendar 	<ul style="list-style-type: none"> Communication through Escomas with detailed results 		
“WD period” competitive procedure - first session (secondary capacity)	<ul style="list-style-type: none"> Storage Company and Shipper 	<ul style="list-style-type: none"> As from the date in the Short-Term Auction Calendar 	<ul style="list-style-type: none"> Assignment procedures specified in paragraph 5.9.2.2 of this Code 		
Capacity assignment, notification of results to shippers	<ul style="list-style-type: none"> Storage Company 	<ul style="list-style-type: none"> By the deadline specified in the Short-Term Auction Calendar 	<ul style="list-style-type: none"> Communication through Escomas with detailed results 		
“WD period” competitive procedure - second session (“WD Flex” capacity)	<ul style="list-style-type: none"> Storage Company and Shipper 	<ul style="list-style-type: none"> As from the date specified in the Short-Term Auction Calendar 	<ul style="list-style-type: none"> Assignment procedures specified in paragraph 5.9.2.2 of this Code 		

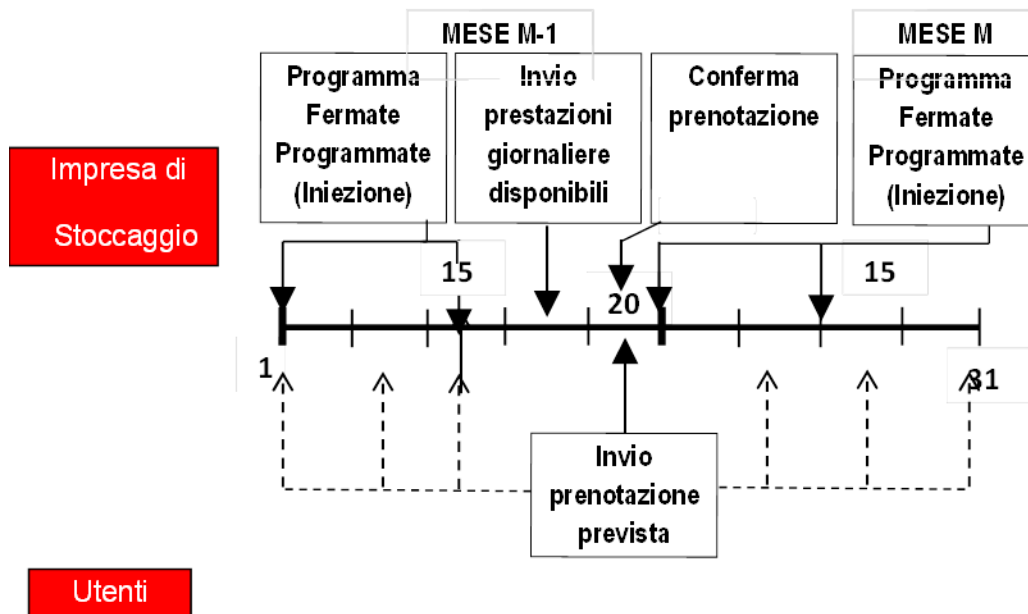
Request to access the Storage Service with assignment of “WE/WD Flex” secondary capacity					
Activity	By	When	How	Form	Relevant information and documents
Capacity assignment, notification of results to shippers	<ul style="list-style-type: none"> Storage Company 	<ul style="list-style-type: none"> By the deadline specified in the Short-Term Auction Calendar 	<ul style="list-style-type: none"> Communication through Escomas with detailed results 		
Automatic nomination and sending to SRG for the days of the WE and WD periods	<ul style="list-style-type: none"> Storage Company 	<ul style="list-style-type: none"> By the deadline specified in the Short-Term Auction Calendar 			

4A.4 INJECTION AND WITHDRAWAL RESERVATION AND COMMITMENTS (CHAPTER 6)

4A.4.1 Annual scheduling (Period scheduling)

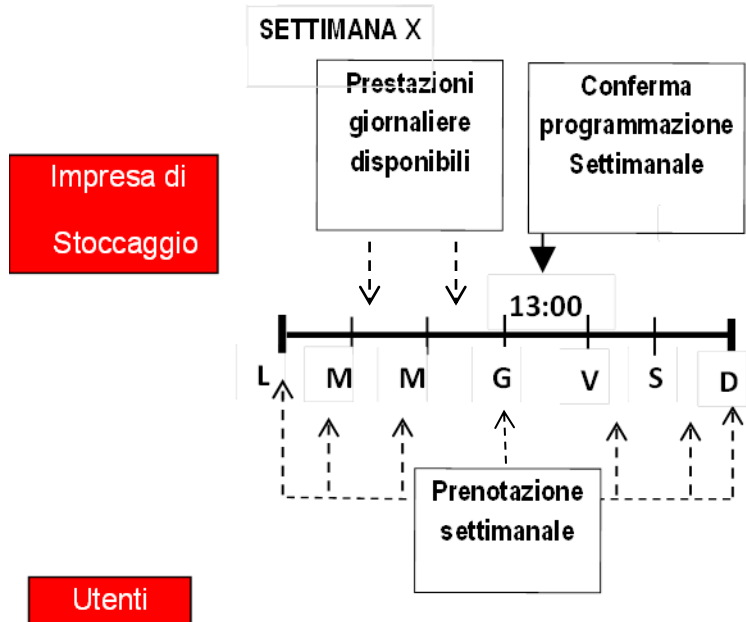


Annual scheduling (Period scheduling)					
Activity	By	When	How	Form	Relevant information and documents
Annual schedule of maintenance operations	<ul style="list-style-type: none"> Storage Company 	<ul style="list-style-type: none"> No later than 1 February 	<ul style="list-style-type: none"> Website, Escomas 		
Assignment of Storage Capacity	<ul style="list-style-type: none"> Storage Company 	<ul style="list-style-type: none"> No later than 1 March or other date defined by MSE/AEEG SI 	<ul style="list-style-type: none"> Via Escomas 		
Transmission of Annual Schedule	<ul style="list-style-type: none"> Shipper 	<ul style="list-style-type: none"> After the assignment and before the start of the thermal year 	<ul style="list-style-type: none"> Via Escomas 	<ul style="list-style-type: none"> Yes (available on the website of the Storage Company and Escomas) 	<ul style="list-style-type: none"> The Annual Schedule shall indicate: <ul style="list-style-type: none"> - The monthly Injection schedule; - The monthly Withdrawal schedule;
Half-yearly revision of Maintenance Operations schedule	<ul style="list-style-type: none"> Storage Company 	<ul style="list-style-type: none"> No later than 1 August 	<ul style="list-style-type: none"> Website, Escomas 		
Revision of the Schedule	<ul style="list-style-type: none"> Shipper 	<ul style="list-style-type: none"> Every day 	<ul style="list-style-type: none"> Via Escomas 	<ul style="list-style-type: none"> Yes (available on the website of the Storage Company and Escomas) 	<ul style="list-style-type: none"> The Shipper can modify the Period Schedule

4A.4.2 Monthly scheduling

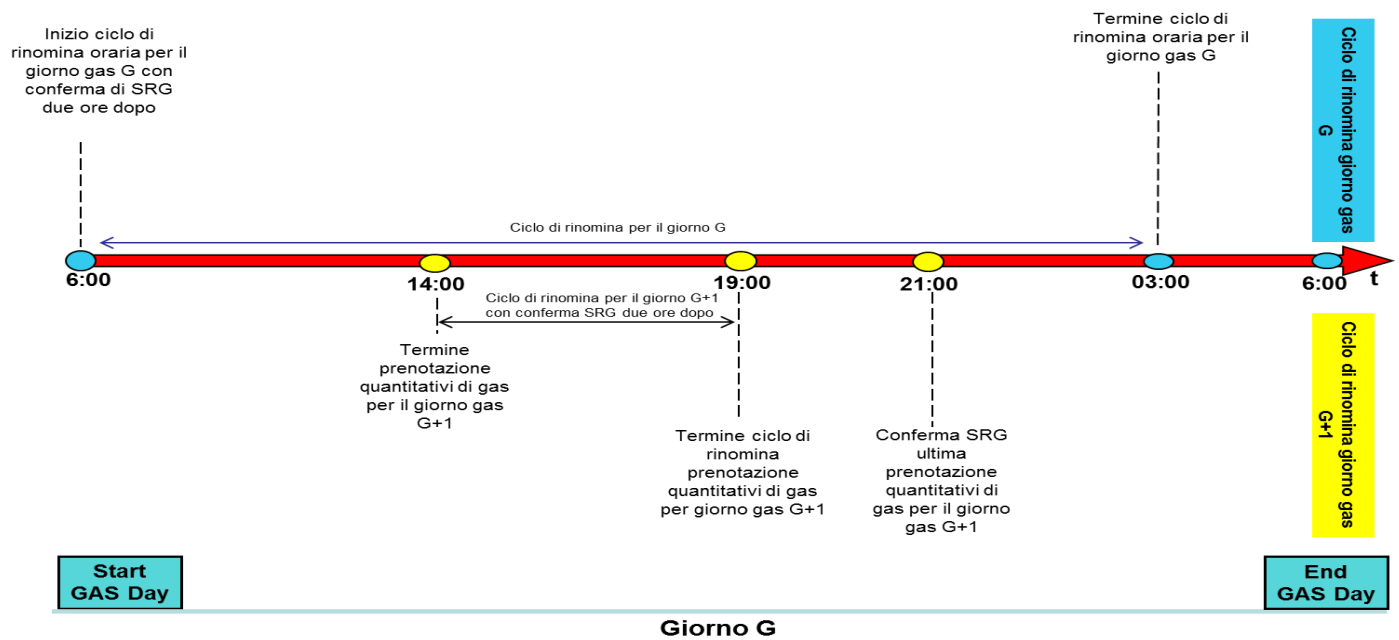
Monthly Scheduling					
Activity	By	When	How	Form	Relevant information and documents
Schedule Planned shut-downs	Storage Company	Once every two weeks	<ul style="list-style-type: none"> Website Escomas 		The Schedule of shut-downs of the two-week periods
Available daily performance for the following month	<ul style="list-style-type: none"> Storage Company 	<ul style="list-style-type: none"> Every day 	<ul style="list-style-type: none"> Via Escomas 		
Transmission of Monthly Schedule	<ul style="list-style-type: none"> Shipper 	<ul style="list-style-type: none"> Every day 	<ul style="list-style-type: none"> Via Escomas 	<ul style="list-style-type: none"> Yes (available on the website of the Storage Company and Escomas) 	<ul style="list-style-type: none"> The Shipper modifies the reservation containing the gas quantities, expressed in energy, that the Shipper expects to inject/withdraw for each day of the following month for each Contract. The Shipper also provides the Storage Company with its estimate about the quantities of energy expected to be

					injected or withdrawn in the two subsequent months.
Confirmation of monthly scheduling	<ul style="list-style-type: none"> Storage Company 	<ul style="list-style-type: none"> No later than 4:00 pm of the 20th day of the month preceding the performance 	<ul style="list-style-type: none"> Via Escomas 		<ul style="list-style-type: none"> Escomas sends an email with the monthly scheduling in the system to the configured shipper

4A.4.3 Weekly scheduling

Weekly Scheduling					
Activity	By	When	How	Form	Relevant information and documents
Available daily performance	<ul style="list-style-type: none"> Storage Company 	<ul style="list-style-type: none"> Every day 	<ul style="list-style-type: none"> Via Escomas 		<ul style="list-style-type: none"> Available daily performance (in kWh) for the following week
Weekly reservation	<ul style="list-style-type: none"> Shipper 	<ul style="list-style-type: none"> Every day 	<ul style="list-style-type: none"> Via Escomas 	<ul style="list-style-type: none"> Yes (available on the website of the Storage Company and Escomas) 	<ul style="list-style-type: none"> The Shipper modifies the reservation containing the gas quantities (in kWh), it expects to inject/withdraw for each day of the following week for each Contract. Reservations shall take into account any capacity reductions/interruptions planned in the weekly schedule of the storage company.
Confirmation of weekly scheduling	<ul style="list-style-type: none"> Storage Company 	<ul style="list-style-type: none"> No later than 1:00 pm on Thursday of the week preceding the performance 			Escomas sends an email with the weekly scheduling in the system to the configured shipper

4A.4.4 Daily scheduling

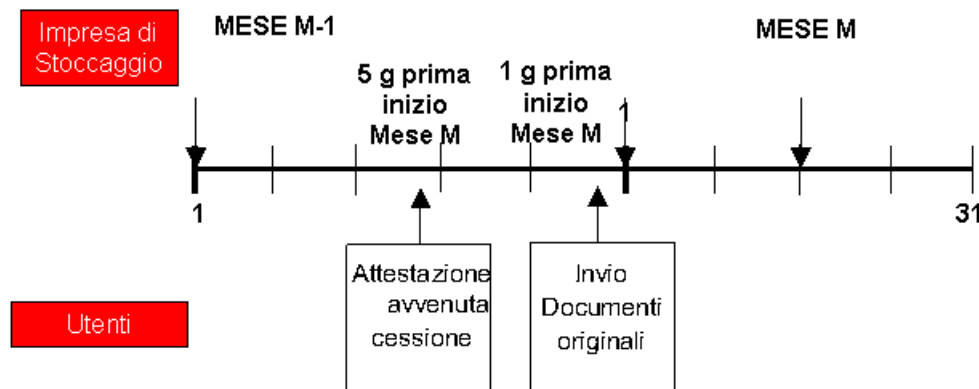


Daily Scheduling					
<i>Activity</i>	<i>By</i>	<i>When</i>	<i>How</i>	<i>Form</i>	<i>Relevant information and documents</i>
Available daily performance	• Storage Company	• No later than 12:00 pm every day	• Via Escomas		• Changes to available daily Performance (in kWh) for day G and G+1.
Daily reservations for day G+1	• Shipper	• No later than 2:00 pm of day G	• Via Escomas	Yes (available on the website of the Storage Company and Escomas)	<ul style="list-style-type: none"> • The Shipper (including the User of the Balancing Service for Transport Companies) sends the reservation (in kWh), for Day G+1, for each Contract. • The Shipper also ensures that the reservations match the transport schedule requested from the Major Transport Company.
Confirmation of daily reservation for day G+1	• Storage Company	• No later than 4:00 pm of day G	• Via Escomas		• The Storage Company confirms the quantities of the daily reservations for day G+1
Available daily performance for day G+1	• Storage Company	• No later than 7:00 pm of each day	• Via Escomas		The Storage Company sends the revision to the availability (in kWh), for Day G+1
Revision of daily reservations for day G+1	• Shipper	• From 2:00 pm to 7:00 pm of each day	• Via Escomas	Yes (available on the website of the Storage Company and Escomas)	The Shipper sends the revision to the reservation (in kWh), for day G+1
Capacity assignment, notification of results to shippers, communication of new post-assignment capacities	• Storage Company	• No later than 10:00 pm of each day	• Via Escomas and website		Results of continuous and interruptible capacity assignments
Confirmation of the daily reservation for day G+1	• Storage Company	• Confirmation no later than 10:00 pm of each day.	• Via Escomas		The Storage Company confirms the accepted quantities of the reservation (in kWh), for Day G+1 with automatic renomination on behalf of the assignee Shippers

Storage Code V23

Annex 4A – Table of Times and Methods of Coordination

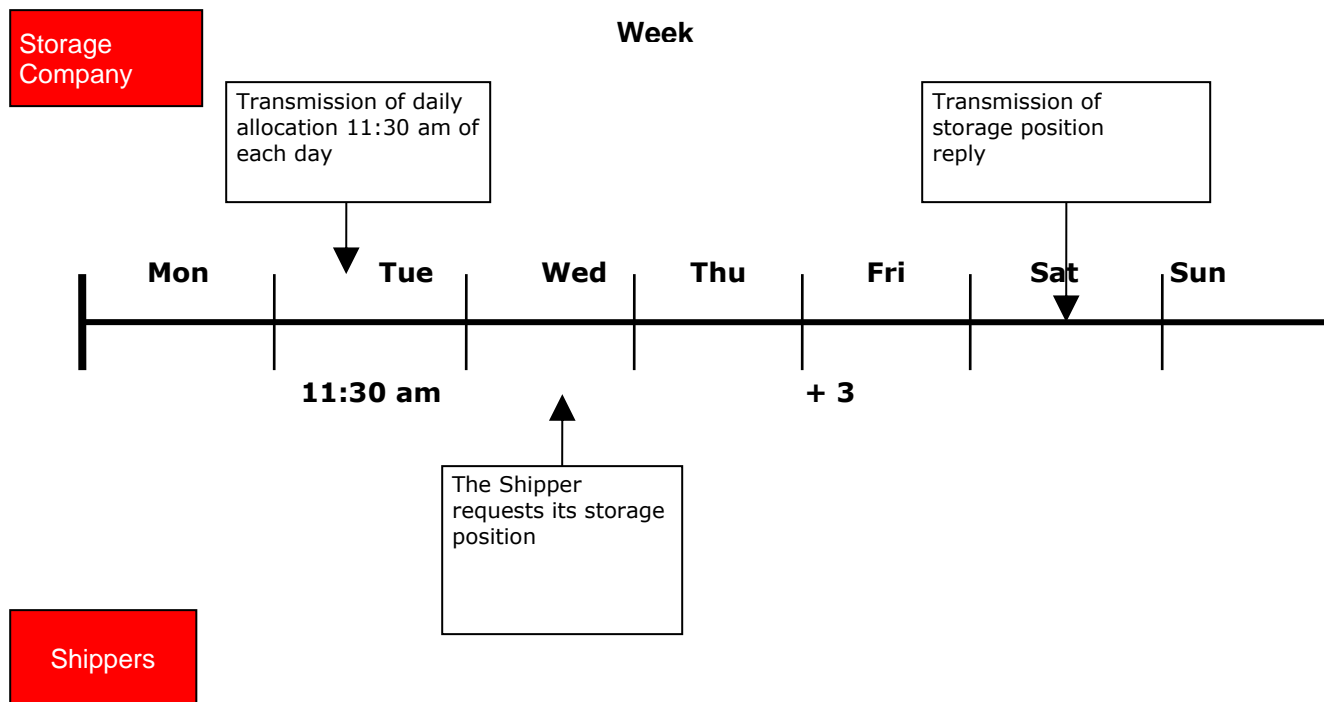
Revision of daily reservations for day G	<ul style="list-style-type: none"> • Shipper 	Every hour from 6:00 am to 3:00 am of each day	<ul style="list-style-type: none"> • Via Escomas 	Yes (available on the website of the Storage Company and Escomas)	The Shipper sends the revision to the reservation (in kWh), for day G
Confirmation of the reservation update for day G	<ul style="list-style-type: none"> • Storage Company 	<ul style="list-style-type: none"> • Confirmation within the following two hours from the end of the daily revision until 5:00 am of each day. 	<ul style="list-style-type: none"> • Via Escomas 		The Storage Company sends the accepted quantities of the reservation (in kWh), for Day G

4A.5 CAPACITY AND GAS TRANSACTIONS (CHAPTER 7)**4A.5.1 Capacity and gas sales and exchanges**

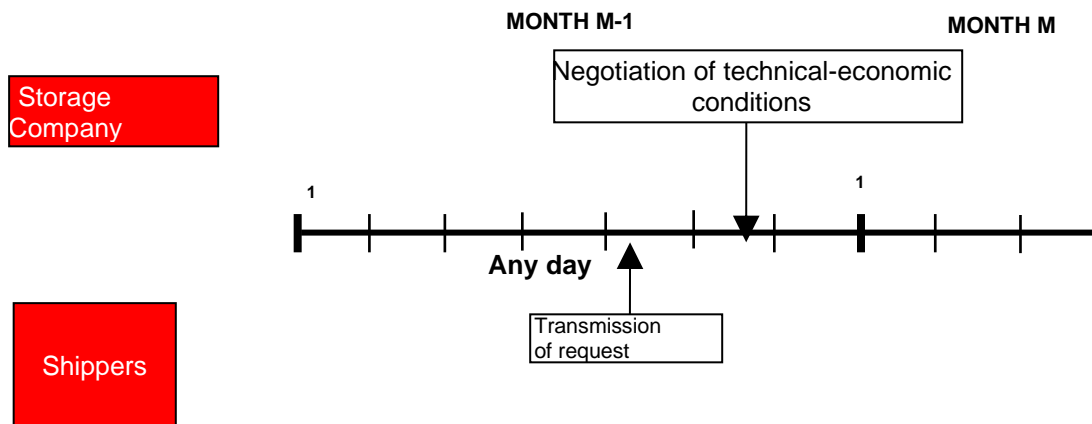
Request for capacity and gas sale and exchange					
Activity	By	When	How	Form	Relevant information and documents
Transmission of request for sale and/or exchange	<ul style="list-style-type: none"> Involved shippers 	<ul style="list-style-type: none"> No later than 5 days from the starting date of the month when the sale enters into force 	<ul style="list-style-type: none"> via Escomas 	<ul style="list-style-type: none"> Yes (available on the website and Escomas) 	<ul style="list-style-type: none"> The Storage Capacities and/or the Performance and/or the quantities of gas of the transaction The Relevant Parties The starting date and the duration of the transaction The Shipper to be invoiced for the transaction management costs, if from the selling Shipper
Transmission of the original documentation of the sale and/or exchange request	<ul style="list-style-type: none"> Shipper 	<ul style="list-style-type: none"> No later than 1 day from the starting date of the month when the sale enters into force 	<ul style="list-style-type: none"> Original by certified mail 		

4A.5.2 Storage capacity transfers

Storage capacity transfers					
Activity	By	When	How	Form	Relevant information and documents
Transmission of transfer request	<ul style="list-style-type: none"> Party taking over 	<ul style="list-style-type: none"> no later than 7 working days before the end of the month preceding the start of the transfer 	<ul style="list-style-type: none"> Advance transmission via Escomas, transmission of originals by certified mail 	<ul style="list-style-type: none"> Yes (available on the website and Escomas) 	<ul style="list-style-type: none"> The Transfer request shall contain the following information: <ul style="list-style-type: none"> the Storage Capacities intended for the obligations in accordance with the supply; the data needed to quantify the aforesaid capacity on the basis of the procedures in force; the declaration in lieu of affidavit attesting the take-over of the supply and the supply relationship between Requesting Shipper and the supplier that is taking over, if the supplier taking over for the end customer is not the Requesting Shipper; the starting date of the transfer; If the party taking over is not a Shipper, it must qualify on Escomas and demonstrate that it meets all requirements for access to the storage services according to the time limits set out in para. 4.3.1.1.
Transfer outcome reply	<ul style="list-style-type: none"> The Storage Company 	<ul style="list-style-type: none"> no later than 2 working days before the end of the month preceding the start of the transfer 	<ul style="list-style-type: none"> Via Escomas 		<ul style="list-style-type: none"> Results of the transfer. If the party taking over is not a Shipper, the Storage Company will simultaneously send the Storage Contract prepared according to the standard available on Escomas with the indication of the Assigned Capacities. The Contract is effective starting from the transfer's effective date

4A.6 ALLOCATIONS AND ADJUSTMENTS (CHAPTER 8)**4A.6.1 Daily allocations and storage position request**

Allocations					
Activity	By	When	How	Form	Relevant information and documents
Publication of daily allocations on Escomas	• Storage Company	• no later than 11:30 am of each day	• Via Escomas		
Storage position request	• Shipper	• Any day	• Via Escomas		
Request outcome reply	• The Storage Company	• no later than 3 working days from receipt of the request	• Via Escomas		

4A.7 SPECIAL SERVICES (CHAPTER 3)

Request for access to a negotiated service					
Activity	By	When	How	Form	Relevant information and documents
Transmission of the request	<ul style="list-style-type: none"> Shipper 	<ul style="list-style-type: none"> At any time during the thermal year 	<ul style="list-style-type: none"> Advance transmission via email and/or fax, transmission of originals by certified mail 	<ul style="list-style-type: none"> No 	<ul style="list-style-type: none"> The request shall contain the technical characteristics and the duration of the service If the Requesting Shipper is not a registered Shipper, (s)he must register on Escomas and demonstrate that (s)he meets all requirements for access to the storage services according to the time limits set out in para. 4.3.1.1.
Negotiation of the technical and economic conditions of the requested service	<ul style="list-style-type: none"> Storage Company and Shipper 				
Transmission to the Authority for approval of the tariff proposal	<ul style="list-style-type: none"> Storage Company 				

CHAPTER 5

ASSIGNMENT OF STORAGE CAPACITY

5.1 SHIPPER QUALIFICATION AND REGISTRATION	110
5.2 ACCESS REQUIREMENTS	110
<i>5.2.1 General requirements</i>	<i>110</i>
<i>5.2.2 Requirements for accessing the Modulation Storage Service and the Constant Peaks of Modulation Service</i>	<i>122</i>
<i>5.2.3 Requirements for accessing the competitive procedures for assigning capacity on a monthly, weekly, daily and “period” basis</i>	<i>123</i>
5.3 THE STORAGE CONTRACT	123
5.4 LOSS OF REQUIREMENTS	124
5.5 REQUEST FOR ACCESS TO THE MODULATION STORAGE SERVICE WITH ANNUAL AND INTERIM ASSIGNMENT AND TO THE CONSTANT PEAKS OF MODULATION SERVICE	125
5.6 INVALID REQUESTS FOR THE MODULATION SERVICE WITH ANNUAL AND INTERIM ASSIGNMENT AND FOR THE CONSTANT PEAKS OF MODULATION SERVICE	125
5.7 REQUEST FOR ASSIGNMENT OF CAPACITY ON A MONTHLY, WEEKLY, DAILY AND “PERIOD” BASIS THROUGH COMPETITIVE PROCEDURES	126
5.8 ASSIGNMENT OF STORAGE CAPACITIES AT THE START OF THE THERMAL YEAR	128
<i>5.8.1 Subject of the Assignment</i>	<i>128</i>
<i>5.8.2 Assignment Criteria</i>	<i>129</i>
<i>5.8.3 . Assignment of unconfirmed capacity</i>	<i>133</i>
5.9 ASSIGNMENT OF STORAGE CAPACITIES AFTER THE START OF THE THERMAL YEAR	133
<i>5.9.1 Modulation Storage Service with assignment of capacities on an interim basis</i>	<i>133</i>
<i>5.9.2 Short-term Modulation Storage Service</i>	<i>135</i>
<i>5.9.3 Assignment of the Reverse Flow Service</i>	<i>145</i>
<i>5.9.4 Assignment of the Deposit Service</i>	<i>146</i>
<i>5.9.5 Enforcement Procedures for Gas Provided as Guarantee to Third Parties</i>	<i>152</i>
5.10 AGREEMENT FOR IRREGULAR PLEDGE ON GAS IN STORAGE IN FAVOUR OF EDISON STOCCAGGIO	155

5.1 SHIPPER QUALIFICATION AND REGISTRATION

Access to the storage services offered by the Storage Company is allowed in an impartial and neutral manner and at equal conditions for all parties that fulfil the requirements described in this chapter.

5.2 ACCESS REQUIREMENTS

Since the storage capacities are assigned according to the priority criteria defined by the Authority, the access requirements and the methods for determining the maximum assignable capacities are differentiated by type of service.

The assignment priorities for services are as follows:

- the Modulation Storage Service, including the Constant Peaks of Modulation Service.

These services are assigned through annual and interim competitive procedures pursuant to the measures of the Ministry of Economic Development and the Authority.

- Assignment of storage capacity on a monthly, weekly, daily and “period” basis.

The assignment process calendar is published by Edison Stoccaggio on its website pursuant to the measures of the Ministry of Economic Development and the Authority.

Parties requesting access (hereafter, “Requesting Shippers”) to one or more of the storage services shall attest that they fulfil the requirements discussed below, by submitting a declaration in lieu of affidavit.

5.2.1 General requirements

The Requesting Shippers must attest, within the terms and with the procedures established below, that they fulfil the requirements prescribed herein.

The Storage Company will not stipulate contracts for the performance of the storage services with the Requesting Shippers that, at the date of submission of the Assignment Request, have not completed the payments due under the Storage Contracts relating to the current Thermal Year or relating to previous Thermal Years, for invoiced amounts already due and

exceeding the value of the guarantee issued to cover the obligations deriving from the aforesaid contracts.

The Storage Company shall promptly notify the Authority and the Ministry of Economic Development of this circumstances for the adoption of the pertinent measures.

The Storage Company shall not stipulate Storage Contracts for the performance of storage services with Requesting Shippers that have not also accepted the Network Code of the major transport company as at the date the service commences. Furthermore, access to the assignment of capacity on a weekly and daily basis is only for Shippers that already have storage capacity for the period for which access is requested.

Failure to meet even one of the requirements for access to the storage system constitutes grounds for early termination of the Storage Contract as provided in Chapter 17.

All Requesting Shippers are also required to submit the declarations and statements pursuant to Italian Legislative Decree 231 of 21 November 2007, using the forms published on the website of Edison Stoccaggio.

Every form of certification of the requirements (requests, commitments, declarations or acceptances), and all requests/communications or in any case expression of will the Shipper makes pursuant to this chapter, also using the specific functionality (ESCOMAS in particular) made available by Edison Stoccaggio, constitute a formal obligation and commitment for the Shipper, which assumes - including toward third parties - all liability arising from any defaults/errors or omissions.

Edison Stoccaggio does not assume any liability toward the Shipper and third parties regarding the truthfulness, correctness and completeness of the statements and declarations made by the Shippers for this purpose.

5.2.1.1. Guarantees

5.2.1.1.1 Guarantees covering the obligations arising from the Assignment Procedure (except for the Modulation Storage Service with assignments of capacity on a monthly, weekly, daily and “period” basis).

Upon submitting a Request for Access, the Requesting Shipper shall provide evidence of having a credit standing of proven reliability, or, alternatively, it must be able to provide adequate financial guarantees, in order to safeguard the other Shippers and the Storage Company in case of failure to deliver the

guarantees envisaged following the entry into force of the Storage Contract.

The assessment of the Requesting Shipper's financial soundness is carried out by the Storage Company according to the following criteria:

- a) Without need for the additional guarantees per the following points, it is deemed sufficient to have a minimum credit rating, assigned by leading international bodies, with reference to medium-long term debt, of at least:
 - Baa3 if assigned by Moody's Investor Services; or,
 - BBB if assigned by Standard & Poor's Corporation;
 - BBB if assigned by Fitch Ratings;
 - BBB low if assigned by DBRS.

The Requesting Shipper shall provide appropriate certification, issued by one of the aforementioned bodies, proving the assigned level of Rating.

The Shipper that proves it has obtained the minimum rating is required to notify Edison Stoccaggio of any changes in the minimum rating by and no later than the deadline of ten days after the aforesaid change. If this change leads to a rating level lower than the minimum rating, the Shipper is required to provide the guarantee described in letter b) below or, as an alternative, the one described in letter c) below, by and no later than the deadline of thirty days after the aforesaid change. If the same Shipper does not meet its payment obligations within the terms established by chapter 16 below, it is required to provide the guarantee described in letter b) below or, as an alternative, the one described in letter c) below, by and no later than the deadline of ten days after Edison Stoccaggio's notification that the above-mentioned payment obligations were not met.

- b) If the criterion per point a) is met by the company that controls the Requesting Shipper, or if the controlling party is a public agency, the Requesting Shipper may submit to the Storage Company a letter of guarantee (a Parent Company Guarantee) issued by the parent company in favour of the Storage Company that expresses the commitment - which can be activated "at first demand" by the Storage Company - to fulfil exactly and punctually the obligations deriving from the Assignment Procedure assumed by the Shipper to the Storage Company for an amount at least equal to what is specified in the

assignment procedure published on the website of the Storage Company. The parent company is required to notify Edison Stoccaggio of any changes that take place (in the minimum rating) by and no later than the deadline of ten days after the aforesaid change. If the rating held by the parent company of the Shipper is decreased below the minimum rating, the Shipper will be required to present the guarantee to Edison Stoccaggio described in letter c) below by and no later than the deadline of thirty days after the aforesaid change;

- c) If the criteria per points a) and b) above are not met, the Requesting Shipper is required, to cover the obligations deriving from the Assignment, to have one or more leading banks issue, in favour of the Storage Company, a bank guarantee and/or insurance policy, issued by parties having the same credit standing as those mentioned in paragraph 5.2.1.1.1, both abstract, autonomous and enforceable “at first demand” for an amount equal to at least what is specified in the assignment procedure published on the website of the Storage Company.
- d) In order allow the broadest participation in every assignment, Edison Stoccaggio agrees that, in place of what is described above, it is sufficient to provide appropriate documentation demonstrating that a bank transfer has been made for an amount equal at least to what is specified in the assignment procedure published on the website of the Storage Company.
- e) Without prejudice to the right of retention pursuant to paragraph 17.4.1 and any undertaking of the Deposit Service described in paragraph 3.3.1, the Shipper has the right to set up collateral on the gas it owns located in storage in the form of an irregular pledge by way of guarantee of the correct fulfilment of the obligations undertaken by the Shipper. Said right is allowed subject to the signing of a specific agreement, provided below in paragraph 5.10, which must be signed at the time the contract for the supply of one of the storage services is executed for setting up an irregular pledge in favour of Edison Stoccaggio. The agreement provides for the setting up of an irregular pledge on the gas (hereafter “Gas Provided as Guarantee”) and the assignment of a mandate to Edison Stoccaggio for the sale on behalf of the Shipper of all or part of the Gas Provided as Guarantee in case of the Shipper’s non-compliance, in accordance with chapters 16 and 17, and of insufficiency of the financial

guarantees already provided, in order to satisfy its credit with the revenues from the sale.

For the purposes of establishing the irregular pledge, the value of the Gas Provided as Guarantee under this paragraph shall be equal to a reference price amounting to 100% of the last value of the raw material element of the component per Article 6 of the TIVG approved with resolution ARG/GAS 64/09 as amended.

The portion of gas not enforced as collateral in accordance with the above paragraph may be returned to the full availability of the Shipper, along with the revenue of the sale exceeding the receivable not covered by the financial guarantees.

5.2.1.1.2 Guarantees covering the obligations arising from the entry into force of the Contract and from the supply of the Storage Services (except for the supply of the assignments of capacity on a monthly, weekly, daily and “period” basis).

To cover the obligations arising from the entry into force of the Contract for one or more Storage Services, the Shipper shall submit adequate guarantees in relation to compliance with all obligations assumed by the Shipper by virtue of the Storage Contract within the terms specified in the assignment procedure published on the Storage Company website.

The Shipper is required to present:

- a) Declaration in lieu of affidavit containing the confirmation that the rating per paragraph 5.2.1.1 a) has been obtained or certification, issued by one of the bodies per paragraph 5.2.1.1 a), proving the new rating per the same paragraph if any changes have occurred with respect to the date of transmission of the Request for Access;
- b) Declaration in lieu of affidavit containing confirmation that the rating per paragraph 5.2.1.1 b) has been obtained by the parent company and a new letter of guarantee issued by the parent company to cover the payment obligations assumed by the Shipper with respect to the Storage Company for an amount at least equal to what is described under letter c);

- c) If the criteria per points a) and b) above are not met, the Requesting Shipper is required, to cover the obligations deriving from the Assignment, to have one or more leading banks issue, in favour of the Storage Company, a bank guarantee and/or insurance policy, issued by parties having the same credit standing as those mentioned in paragraph 5.2.1.1, both abstract, autonomous and enforceable “at first demand” for an amount equal to:

$$Amount = \left(c_{a,i} \times S_{k,i} + EE \times \frac{S_{k,i}}{S_{Tot,i}} \right) \times (100 + VAT)\% \times 33\%$$

in which:

$c_{a,i}$ = Assignment price [c€/kWh/a] pursuant to paragraph 8.8 as result of the auction procedure for the i-th storage service;
 EE = total cost of the electricity incurred by the Storage Company in the previous calendar year and published on the Website

$S_{k,i}$: Space assigned to the k-th Shipper for the i-th service as a result of the auction procedure [kWh/a].

$S_{Tot,i}$: Total space assigned for the i-th service as a result of the auction procedure [kWh/a].

VAT = VAT rate when applicable.

- d) Without prejudice to the right of retention pursuant to paragraph 17.4.1 and any undertaking of the Deposit Service described in paragraph 3.3.1, the Shipper has the right to set up collateral on the gas it owns located in Storage in the form of an irregular pledge by way of guarantee of the correct fulfilment of the obligations undertaken by the Shipper. Said right is allowed subject to the signing of a specific agreement, provided below in paragraph 5.10, which must be signed at the time the contract for the supply of one of the storage services is executed for setting up an irregular pledge in favour of Edison Stoccaggio. The agreement provides for the setting up of an irregular pledge on the gas (hereafter “Gas Provided as Guarantee”) and the assignment of a mandate to Edison Stoccaggio for the sale on behalf of the Shipper of all or part of the Gas Provided as Guarantee in case of the Shipper’s non-compliance, in accordance with chapters 16 and 17, and of insufficiency of the financial guarantees already provided, in order to satisfy its credit with the revenues from the sale.

For the purposes of establishing the irregular pledge, the value of the Gas Provided as Guarantee under this paragraph shall be equal to a reference price amounting to 100% of the last value of the raw material element of the component per Article 6 of the TIVG approved with resolution ARG/GAS 64/09 as amended.

The portion of gas not enforced as collateral in accordance with the above paragraph may be returned to the full availability of the Shipper, along with the revenue of the sale exceeding the receivable not covered by the financial guarantees.

As a result of partial or total enforcement of the surety, the Shipper shall immediately restore it to the initially provided amount.

5.2.1.1.3 Guarantees covering the obligations arising from the assignment of capacity on a monthly, weekly, daily and “period” basis.

When presenting the documentation necessary to execute the Storage Contract necessary to access the competitive procedures for assigning capacity on a monthly, weekly, daily and “period” basis pursuant to paragraphs 5.9.2.1 and 5.9.2.2, the Requesting Shipper shall provide evidence that it has a credit standing of proven reliability, or, alternatively, it shall be able to provide adequate financial guarantees, in order to safeguard the other Shippers and the Storage Company in case of any contractual breaches.

The assessment of the Requesting Shipper’s financial soundness is carried out by the Storage Company according to the following criteria:

- a) Without need for the additional guarantees per the following points, it is deemed sufficient to have a credit rating, assigned by leading international bodies, with reference to medium-long term debt, of at least:
 - Baa3 if assigned by Moody’s Investor Services; or,
 - BBB if assigned by Standard & Poor’s Corporation;
 - BBB if assigned by Fitch Ratings;
 - BBB low if assigned by DBRS.

The Requesting Shipper shall provide appropriate certification, issued by one of the aforementioned bodies, proving the assigned rating level. The Shipper that proves it has obtained the minimum rating is required to notify Edison Stoccaggio of any changes in the minimum rating by and no later than the deadline of ten days after the aforesaid change. If this change leads to a rating level lower than the minimum rating, the Shipper is required to provide the guarantee described in letter b) below or, as an alternative, the one described in letter c) below, by and no later than the deadline of thirty days after the aforesaid change. If the same Shipper does not meet its payment obligations within the terms established by chapter 16 below, it is required to provide the guarantee described in letter b) below or, as an alternative, the one described in letter c) below, by and no later than the deadline of ten days after Edison Stoccaggio's notification that the above-mentioned payment obligations were not met.

If the Requesting Shipper has already submitted the aforesaid certification to the Storage Company for access to the annual assignment of the Modulation Service, and this level has not decreased compared to the minimum level required, then the Requesting Shipper shall not be obligated to submit the aforesaid certification in the Request for Access to the competitive procedures for assignment of capacity on a monthly, weekly, daily and "period" basis.

- b) If the criterion per point a) is met by the parent company of the Requesting Shipper, or if the controlling party is a public agency, the Requesting Shipper may submit to the Storage Company a letter of guarantee (a "Parent Company Guarantee") issued by the parent company in favour of the Storage Company - which can be activated "at first demand" by the Storage Company - to fulfil exactly and punctually the obligations deriving from the Assignment assumed by the Shipper to the Storage Company. The parent company is required to notify Edison Stoccaggio of any changes in the minimum rating by and no later than the deadline of ten days after the aforesaid change. If the rating held by the parent company of the Shipper is decreased below the minimum rating, the Shipper will be required to present the guarantee to Edison Stoccaggio described in letter c) below by and no later than the deadline of thirty days after the aforesaid change - for an amount at least equal to what is described by formula 1):

- c) Lastly, if the criteria per points a) and b) above are not met, the Requesting Shipper is required, to cover the obligations deriving from the execution of the Storage Contract, to have one or more leading banks issue, in favour of the Storage Company, a bank guarantee and/or insurance policy, issued by parties having the same credit standing as those mentioned in paragraph 5.2.1.1.1, both abstract, autonomous and enforceable “at first demand” for an amount equal to at least what is described by formula 1):

$$(1) \text{ Amount} = 0.5 \times ((P_{S,M,W,k} \times R_{S,M,W,k} + \max(P_{I,M,W,D,k} \times R_{CI,M,W,D,k,1^{\circ}\text{session}}; P_{I,M,W,D,k} \times R_{CI,M,W,D,k,2^{\circ}\text{session}}) + \max(P_{E,M,W,D,k} \times R_{CE,M,W,D,k,1^{\circ}\text{session}}; P_{E,M,W,D,k} \times R_{CE,M,W,D,k,2^{\circ}\text{session}})))$$

Where:

$P_{S,M,W,k}$ is the unit purchase price offered for the k-th request for Space in the competitive procedures for assignment on a monthly or weekly basis;

$R_{S,M,W,k}$ is the k-th request for Space in the competitive procedures for assignment on a monthly or weekly basis;

$P_{I,M,W,D,k}$ is the purchase price offered by the Requesting Shipper for the k-th request for Injection Capacity in the competitive procedures for assignment on a monthly, weekly, daily or “period” basis;

$R_{CI,M,W,D,k}$ is the k-th request for Injection Capacity in the competitive procedures for assignment on a monthly, weekly, daily or “period” basis;

$P_{E,M,W,D,k}$ is the purchase price offered by the Requesting Shipper for the k-th request for Withdrawal Capacity in the competitive procedures for assignment on a monthly, weekly, daily or “period” basis;

$R_{CE,M,W,D,k}$ is the k-th request for Injection Capacity in the competitive procedures for assignment on a monthly, weekly, daily or “period” basis;

- d) Without prejudice to the right of retention pursuant to paragraph 17.4.1 and any undertaking of the Deposit Service described in paragraph 3.3.1, the Shipper has the right to set up collateral on the gas it owns located in Storage in the form of an irregular pledge by way of guarantee of the correct fulfilment of the obligations undertaken by the Shipper. Said right is allowed subject to the signing of a specific agreement, provided below in paragraph 5.10, which must be signed at the time the contract for the supply of one of the storage services is executed for setting up an irregular pledge in favour of Edison Stoccaggio. The agreement provides for the setting up of an irregular pledge on the gas (hereafter “Gas

Provided as Guarantee”) and the assignment of a mandate to Edison Stoccaggio for the sale on behalf of the Shipper of all or part of the Gas Provided as Guarantee in case of the Shipper's non-compliance, in accordance with chapters 16 and 17, and of insufficiency of the financial guarantees already provided, in order to satisfy its credit with the revenues from the sale.

For the purposes of establishing the irregular pledge, the value of the Gas Provided as Guarantee under this paragraph shall be equal to a reference price amounting to 100% of the last value of the raw material element of the component per Article 6 of the TIVG approved with resolution ARG/GAS 64/09 as amended.

The portion of gas not enforced as collateral in accordance with the above paragraph may be returned to the full availability of the Shipper, along with the revenue of the sale exceeding the receivable not covered by the financial guarantees.

The guarantees described in this paragraph shall become valid starting from the date the Request for Access to the competitive procedures for assigning capacity on a monthly, weekly, daily and “period” basis by the Storage Company is submitted. If the amount of the guarantee to be given to take part in the procedures for assignment on any time basis is already covered by the guarantee given previously after assignment on any time basis, the Shipper is not required to give additional guarantees.

On the other hand, the Shipper is required to present an adjustment of the guarantee already previously presented at the same time as the Request for Access to the competitive procedures if the new request is not covered by the guarantee previously given. Said revision may pertain both to the amount and the duration of the guarantee.

The guarantees per the present paragraph shall, in any case, be delivered in original form to the Storage Company within the terms indicated above and according to the procedures indicated in the Assignment Procedure published on the Storage company's website.

5.2.1.1.4 Guarantees covering the obligations arising from the overnomination procedures

In order to take part in the overnomination procedures pursuant to paragraph 3.2.1.2, the Requesting Shipper that has not already provided evidence of having obtained a credit standing of proven reliability when the Storage Contract for one or more services took effect should be able to provide adequate financial guarantees, in order to safeguard the other Shippers and the Storage Company in case of any contractual breaches.

The assessment of the Requesting Shipper's financial soundness is carried out by the Storage Company according to the following criteria:

- a) If the criterion per paragraph 5.2.1.1 is met by the parent company of the Requesting Shipper, or if the controlling party is a public agency, the Requesting Shipper may submit to the Storage Company a letter of guarantee (a "Parent Company Guarantee") issued by the parent company in favour of the Storage Company - which can be activated "at first demand" by the Storage Company - to fulfil exactly and punctually the obligations deriving from the Assignment assumed by the Shipper to the Storage Company for an amount at least equal to Io as defined hereunder. The parent company is required to notify Edison Stoccaggio of any changes in the minimum rating by and no later than the deadline of ten days after the aforesaid change. If the rating held by the parent company of the Shipper is decreased below the minimum rating, the Shipper will be required to present the guarantee to Edison Stoccaggio described in letter b) below by and no later than the deadline of thirty days after the aforesaid change.
- b) If the criteria per the point above are not met, the Requesting Shipper is required, to cover the obligations deriving from the Assignment, to have one or more leading banks issue, in favour of the Storage Company, a bank guarantee and/or insurance policy, issued by parties having the same credit standing as those mentioned in paragraph 5.2.1.1.1, both abstract, autonomous and enforceable "at first demand" for an amount no less than Io :

$$Io = (p_{IO} \cdot C_{IO} + p_{EO} \cdot C_{EO}) \times 0.5$$

where:

- p_{IO} and p_{EO} are the prices offered by the shipper respectively for the overnominated injection peak and the overnominated withdrawal peak, $\geq 1/365 \cdot c_I$ and $\geq 1/365 \cdot c_E$, respectively, where c_I and c_E are the lesser of the tariff prices of the storage companies;
 - C_{IO} is the injection capacity assigned for day G with the overnomination mechanism;
 C_{EO} is the withdrawal capacity assigned for day G with the overnomination mechanism.
- c) Without prejudice to the right of retention pursuant to paragraph 17.4.1 and any undertaking of the Deposit Service described in paragraph 3.3.1, the Shipper has the right to set up collateral in favour of Edison Stoccaggio on the gas it owns located in storage in the form of an irregular pledge by way of guarantee of the correct fulfilment of the obligations undertaken by the Shipper. Said right is allowed subject to the signing of a specific agreement, provided below in paragraph 5.10, which must be signed at the time the contract for the supply of one of the storage services is executed for setting up an irregular pledge in favour of Edison Stoccaggio. The agreement provides for the setting up of an irregular pledge on the gas (hereafter "Gas Provided as Guarantee") and the assignment of a mandate to Edison Stoccaggio for the sale on behalf of the Shipper of all or part of the Gas Provided as Guarantee in case of the Shipper's non-compliance, in accordance with chapters 16 and 17, and of insufficiency of the financial guarantees already provided, in order to satisfy its credit with the revenues from the sale.

For the purposes of establishing the irregular pledge, the value of the Gas Provided as Guarantee under this paragraph shall be equal to a reference price amounting to 100% of the last value of the raw material element of the component per Article 6 of the TIVG approved with resolution ARG/GAS 64/09 as amended.

The portion of gas not enforced as collateral in accordance with the above paragraph may be returned to the full availability of the Shipper, along with the revenue of the sale exceeding the receivable not covered by the financial guarantees.

The guarantees specified in this paragraph shall be valid from the date of their submission and shall be used for the overnomination procedures until their return to the Requesting Shipper by the

Storage Company and at least until 30 September after the end of the Thermal Year to which the Request refers.

If the amount of the guarantee to be given to take part in the overnomination procedures is already covered by the guarantee given previously after participation in the same procedures, the Shipper is not required to give additional guarantees.

On the other hand, the Shipper is required to present an adjustment of the guarantee already previously presented at the same time as the Request for Access to the competitive procedures if the new request is not covered by the guarantee previously given. Said revision may pertain both to the amount and the duration of the guarantee.

The guarantees per the present paragraph shall, in any case, be delivered in original form to the Storage Company within the terms indicated above and according to the procedures indicated in the Assignment Procedure published on the Storage company's website.

It is understood that if the guarantees submitted to cover the obligations arising from the entry into force of the Storage Contract are of any amount higher than what is required by formula 1), said guarantee may be used to take part in the overnomination procedures until it is used up in terms of total committed amount.

5.2.2 Requirements for accessing the Modulation Storage Service and the Constant Peaks of Modulation Service

In order to access the Modulation Storage Service and the Constant Peaks of Modulation Service, the Requesting Shipper must fulfil the following additional requisites:

- completed delivery of the Storage Contract according to the methods notified prior to start-up of the competitive assignment procedures.

The Requesting Shipper should send the Storage Company the signed Storage Contract and the requested guarantees within the deadline and according to the methods specified in the Assignment Procedure published on its website.

5.2.3 Requirements for accessing the competitive procedures for assigning capacity on a monthly, weekly, daily and “period” basis

In order to use the storage services with assignment of capacity on a monthly, weekly, daily and “period” basis, it is necessary that the Shipper certify that it fulfils the requirements listed in paragraph 5.2.1.

Access to assignment of capacity on a monthly, weekly, daily and “period” basis is reserved for assignment of capacity on a monthly basis to the Shippers that have approved the Network Code of the Major Transport Company and, for assignment of capacity on a weekly and/or daily and/or “period” basis, to Shippers that already have storage capacity for the period for which access is requested.

The Requesting Shippers requesting access to the procedures in question should have signed a Storage Contract specific for the short-term assignments, fill in the relevant forms available on Escomas and at the Storage Company’s website in case of malfunction of the IT System and send it to the Storage Company in accordance with paragraph 5.9.2.1, attaching the required documentation, per annex 4A.3.

5.3 THE STORAGE CONTRACT

The Storage Contract is the document through which the contracting parties, i.e. the Storage Company and the Shippers, define the specific elements of the storage service requested including its specific elements and expressly and fully accept the Storage Code in force at the date of execution of the contract and every amendment and addition and the prices applied to the service.

The Storage Company shall not sign any Contracts if the request is not valid in accordance with paragraph 5.6.

The Storage Contract has a period of validity of no more than one Thermal Year.

The Storage Contract is made available to the Requesting Shipper through Escomas and should be signed and delivered before the start-up of each competitive procedure according to the methods and time table specified by the Storage Company.

In accordance with paragraph 17.4.1, if the Shipper does not provide the Storage Company with the financial guarantees according to the procedures prescribed in paragraph 5.2.1.1.2, the Storage Company shall be entitled to terminate the Storage Contract in advance.

Excepting the transfers/sales of storage capacity regulated by this Storage Code under chapter 7 “Capacity Transactions” and taking effect starting from 1 April of each Thermal Year, the Requesting Shipper who does not comply with the provisions of paragraph 5.2.1.1.2 shall be charged a penalty of 25% of the value of the allocated capacity commitments.

Following the competitive procedures for the assignment of capacity for the Modulation Service on a monthly, weekly, daily and “period” basis, the Storage Company provides Shippers with an Annex to the Storage Contract on Escomas, which is integral to said contract, containing the obligations deriving from the assignment of short-term capacity pursuant to paragraph 5.9.2. This Annex is sent to each Shipper both with reference to the capacities purchased by them, indicating the quantities assigned, assignment price and total cost, and with reference to the capacities sold, indicating the quantities sold, sale price and total revenue.

Shippers remain responsible for fulfilling the obligations set forth in chapter 17 of this Storage Code, as well as the constraints specified in paragraph 3.2.2.1.3.

5.4 LOSS OF REQUIREMENTS

The loss of one or more of the requirements for access to the system per paragraph 5.2 above constitutes grounds for early termination of the Storage Contract, in accordance with the terms and conditions specified in paragraph 17.4.1 of the chapter “Responsibilities of the Parties”.

5.5 REQUEST FOR ACCESS TO THE MODULATION STORAGE SERVICE WITH ANNUAL AND INTERIM ASSIGNMENT AND TO THE CONSTANT PEAKS OF MODULATION SERVICE

Each Requesting Shipper, after registering on the IT System as provided by paragraph 4.3.1.1 if not already a registered Shipper, shall make available on the system and send in original form to the Storage Company, according to the procedures and times published by the Storage Company on its website before the start of the competitive assignment procedures:

- Storage Contract
- Requested guarantees
- Any other documentation requested
- the Purchase Request for the Modulation Storage and/or Constant Peaks of Modulation Storage Service will be uploaded only into Escomas in compliance with what is specified in the above methods.

The Requesting Shipper must make available to Escomas the documentation relating to fulfilment of all requirements for access per paragraph 5.2 of this chapter.

The Storage Company publishes on its website and makes available on Escomas by the date specified by ARERA, together with the available capacities, the documentation the Requesting Shipper must submit for the Assignment Procedure, broken down by type of service, as well as the forms and a reminder of the deadlines of the assignment cycle.

The information contained in the submitted documentation and the results of the assignment cycle shall be sent by the Storage Company to the Authority.

5.6 INVALID REQUESTS FOR THE MODULATION SERVICE WITH ANNUAL AND INTERIM ASSIGNMENT AND FOR THE CONSTANT PEAKS OF MODULATION SERVICE

The requests shall not be deemed valid by the Storage Company if:

- a) The Requesting Shippers at the date of subscription, have not completed the payments due in relation to the existing Storage Contracts, for invoiced amounts already due, exceeding the value of the guarantee issued to cover the obligations deriving from the aforesaid existing Storage Contracts;
- b) They do not contain the documentation required per paragraph 5.2 of this chapter;
- c) They are submitted by a party who does not fulfil one of the requirements for access per paragraph 5.2 of this chapter at the date of submission of the request for access;
- d) They are not formulated in accordance with the provisions of the Assignment Procedure, described below;
- e) The Requesting Shipper does not provide the declaration certifying approval of the Network Code of the Major Transport Company.

5.7 ASSIGNMENT REQUEST OF CAPACITY ON A MONTHLY, WEEKLY, DAILY AND “PERIOD” BASIS THROUGH COMPETITIVE PROCEDURES

After accessing the Escomas system, each Requesting Shipper must stipulate and deliver in original form a Storage Contract specific for the short-term assignments and provide the original copy, with the procedures and timeframe indicated in the Short-Term Auction Calendar listed on the Storage company's website, of the necessary guarantees.

In addition to the procedures for assigning capacity on a continuous basis, the Shipper can request to participate in the assignment of interruptible Capacities in the second assignment session - per paragraph 5.9.2.1 below.

The Requesting Shipper shall provide the documentation pertaining to fulfilment of all requirements for access per paragraph 5.2.1 (general requirements) and 5.2.1.1.3 (adequate financial soundness and guarantees) of this chapter, and documentation proving payment of all amounts invoiced and past due at the date of the Request for Access to participate in the competitive procedures for assignment on a monthly, weekly, daily and “period” basis, greater than the value of the letter of guarantee or bank guarantee issued to cover the obligations deriving from contracts previously stipulated with the Storage Company.

If the Requesting Shipper requests access to the Storage Services for the first time, it shall also communicate to the Storage Company the names of its own users for their authorisation to access the portal, in accordance with paragraph 4.3 of this Code.

Once the Assignment Procedure is completed, the Storage Company makes available through Escomas to the relevant Shippers the communication attesting the assignment of capacities per paragraph 5.9.2.1 below, and the new availabilities for the period of the assignment.

In the Purchase Request for the storage services on a monthly, weekly and daily basis, the Requesting Shipper shall indicate the individual capacities on a continuous basis it intends to purchase in the first assignment session - per paragraph 5.9.2.1 below of this chapter - and the corresponding maximum purchase price. In addition, the Requesting Shipper can indicate whether it intends to participate in the assignment of the interruptible capacities in the second assignment session - per paragraph 5.9.2.1 below - for the portion of capacity not satisfied in the first session. For this purpose, it shall in any case indicate a corresponding maximum price for participation in the second session.

Participation in the second session is possible only in case of unmet demand in the first assignment session.

In the Purchase Request for the “period” storage services, the Requesting Shipper shall indicate the individual capacities on a continuous basis it intends to purchase in the assignment procedure - per paragraph 5.9.2.2 below of this chapter - and the corresponding maximum purchase price.

The Storage Contract with assignment on a monthly, weekly, daily and “period” basis shall be deemed effective with the aforesaid communication by the Storage Company.

5.8 ASSIGNMENT OF STORAGE CAPACITIES AT THE START OF THE THERMAL YEAR

5.8.1 Subject of the Assignment

The subject of the assignment at the start of the Thermal Year are the Storage Capacities for the Modulation Storage Service and for the Constant Peaks of Modulation Service, expressed in energy (kWh), in terms of Space (S), Injection Flow Rate (CI) and Withdrawal Flow Rate (CE), as defined in paragraph 2.4.4 of the chapter “Description of the Storage Facilities and of their Operation”.

Pursuant to the provisions of ARERA, the subjects of the assignment are:

- a product relating to the Modulation Storage Service with injection of quantities of gas equivalent to the capacity assigned from 1 April until the end of the injection phase (seasonal product of peak modulation);
- a product relating to the Modulation Storage Service with injection of quantities of gas equivalent to the capacity assigned for only the month of April (monthly product of peak modulation) relating to the undelivered quantities of storage capacity of the seasonal product;
- a product relating to the Constant Peaks of Modulation Service with injection and withdrawal of quantities of gas equivalent to the capacity assigned from 1 April until the end of the Thermal Year.

The Storage Company assigns the aforesaid Storage Capacities no later than the dates indicated in the procedures published on its website before the start of the competitive assignment procedures with effect from 1 April of the same year.

No later than 1 February of each year or no later than another date if otherwise prescribed by ARERA, the Storage Company publishes on its website the capacities available for assignment at the start of the Thermal Year, together with the forms per paragraph 5.5.

Shippers requesting any assignment of Storage Capacity must first register on the IT System of the Storage Company as prescribed by paragraph 4.3.1.1.

The assignment of the storage capacity also includes Shipper's rights to access the transport network at the interconnection point connected with the Storage System. For this purpose, the Storage Company requests from the Major Transport Company the transport capacity instrumental for the performance of the Storage Services.

5.8.2 Assignment Criteria

Taking into account the order of priorities described in paragraph 5.2, the Storage Company determines the assignable capacities and assigns the Storage Capacities to Requesting Shippers according to the criteria described in the following paragraphs of this chapter.

5.8.2.1. Modulation Storage Service

The assignment of capacities for the Modulation Storage Service, to Requesting Shippers meeting the requirements per paragraph 5.2, is carried out according to competitive assignment procedures pursuant to the ARERA measures for the relevant Thermal Year and with the procedure for the submission of requests to purchase capacity, published on the Storage Company's website before the aforesaid competitive assignment procedures are started.

Subject of the assignment are products relating to the Peak Modulation Service:

- a product with injection of quantities of gas equivalent to the capacity assigned from the month after that of assignment until the end of the injection phase (seasonal product);
- a product relating to the Modulation Service with injection of quantities of gas equivalent to the capacity

assigned for only the month after that of the assignment (monthly product).

The monthly product is available only if there are quantities of undelivered storage capacity of the seasonal product

The forms to be used for the purchase requests are published within the scope of the aforesaid procedure.

The capacity offered for the Modulation Service is fully included in the total reserved space, in accordance with the Ministerial Decree in force for the Thermal Year of the assignment, for the customer supply needs per Article 12, paragraph 7, letter a) of Italian Legislative Decree no. 164 of 2000, as replaced by Article 27, paragraph 2 of Italian Legislative Decree no. 93 of 2011.

Each purchase request may contain up to a maximum number of bids as indicated by the ARERA measures in force for the Thermal Year.

For purposes of assigning the storage capacity, in any case no later than the drawing up of the Storage Contract, the involved parties present the financial guarantees in the forms and in the amount prescribed by this code or, when otherwise specified, by the related assignment procedure. The price, which is used as the basis for calculating the amount of guarantees to be provided for participation in the competitive procedures, is equal to the price indicated in the bid. It is possible to present single guarantees for the assignment of capacity in the different procedures for the assignment of capacity for the Storage Service.

Auctions are carried out, in compliance with the conditions set by the Ministerial Decree in force for the Thermal Year of the assignment, by accepting the purchase bids whose bid price is not lower than the reserve price per the ARERA resolution valid for the Thermal Year in question, according to the operating procedures indicated by ARERA.

The last accepted purchase bid may be partially accepted if the as yet unassigned capacity is not sufficient to satisfy it entirely. If two or more bids characterised by the same price are in this situation, they will be partially accepted, allocating the as yet unassigned capacity *pro-rata* on the basis of the capacity involved in the same bids.

The offered price may be no lower than zero (0) unless otherwise prescribed by ARERA.

The Storage Company communicates to the Requesting Shippers the outcome of each competitive procedure, indicating the Space assigned to each individual shipper $S_{MOD,k}$, as the sum of the capacities acquired on the basis of the bids accepted in time for the submission of the requests for participation in the subsequent procedure.

The Storage Company communicates to the Authority the detailed results and publishes on its website the capacities assigned in each auction.

If the Storage Capacities assigned are lower than the offered Storage Capacities, the Storage Company will publish on its website, simultaneously with the assigned capacities, the residual capacities available for the subsequent competitive procedures to be carried out after the start of the Thermal Year.

The Storage Company assigns the Injection Flow Rate CI_{MOD} and the Withdrawal Flow Rate CE_{MOD} proportionately to the assigned space.

5.8.2.2. *Constant Peaks of Modulation Service*

The assignment of the capacities for the Constant Peaks of Modulation Service, to Requesting Shippers meeting the requirements per paragraph 5.2, is carried out according to competitive assignment procedures provided for by the Ministerial Decree in force for the Thermal Year and/or by the reference ARERA regulation and stated in the procedure for the submission of the requests to purchase capacity, published on the Storage Company's website before the aforesaid competitive assignment procedures are started.

The subject of the assignment is a product with injection and withdrawal of constant quantities of gas equivalent to the capacity assigned from 1 April until the end of the Thermal Year.

The forms to be used for the purchase requests are published within the scope of the aforesaid procedure.

The capacity offered for the Constant Peaks of Modulation Service is in addition to that of the Modulation Service and is defined in the Ministerial Decree in force for the Thermal Year the assignment concerns.

Every purchase request may contain a maximum number of offers specified in the procedure published on the website of the Storage Company.

Barring different methods set out in the reference ARERA regulation, the assignment price of each offer accepted in the competitive procedure is equal to the relevant price offered.

For purposes of assigning the storage capacity, in any case no later than the drawing up of the Storage Contract, the involved parties present the financial guarantees in the forms and in the amount prescribed by this code or, when otherwise specified, by the related assignment procedure. The price, which is used as the basis for calculating the amount of guarantees to be provided for participation in the competitive procedures, is equal to the price indicated in the bid. It is possible to present single guarantees for the assignment of capacity in the different procedures for the assignment of capacity for the Storage Service.

In observance of the conditions established in the procedure published on the Storage Company's website, the auctions are held accepting the purchase offers having an offered price not lower than the reserve price established by the Storage Company in the procedures published on its website, unless otherwise determined based on the criteria defined by the ARERA.

The last accepted purchase bid may be partially accepted if the as yet unassigned capacity is not sufficient to satisfy it entirely. If two or more bids characterised by the same price are in this situation, they will be partially accepted, allocating the as yet unassigned capacity *pro-rata* on the basis of the capacity involved in the same bids.

The offered price may be no lower than zero (0) unless otherwise prescribed by ARERA.

The Storage Company communicates to the Requesting Shippers the outcome of each competitive procedure, indicating the Space assigned to each individual shipper $S_{PC,k}$, as the sum of the capacities acquired on the basis of the bids accepted in time for the submission of the requests for participation in the subsequent procedure.

The Storage Company communicates to the Authority the detailed results and publishes on its website the capacities assigned in each auction.

If the Storage Capacities assigned are lower than the offered Storage Capacities, the Storage Company will publish on its website, simultaneously with the assigned capacities, the residual capacities available for the subsequent competitive procedures to be carried out after the start of the Thermal Year.

The Storage Company assigns the Injection Flow Rate $CI_{MOD,PC}$ and the Withdrawal Flow Rate $CE_{MOD,PC}$ according to what is specified in paragraph 3.2.3.

5.8.3 . Assignment of unconfirmed capacity

Each Requesting Shipper is required to submit in original form, according to the procedures and by the deadline specified in the Assignment Procedure, the guarantees required under paragraph 5.2.1.

A Shipper that does not submit the guarantees, or presents guarantees for amounts lower than requested, shall be assessed the penalty indicated in paragraph 5.3, without prejudice to claims for greater damages deriving from the failure to comply with the commitments made with the execution of the Storage Contract. The no longer contracted capacity will be assigned in the following competitive procedures, if possible.

5.9 ASSIGNMENT OF STORAGE CAPACITIES AFTER THE START OF THE THERMAL YEAR

In the course of the Thermal Year, the Storage Company shall make new capacity assignments if there is available capacity after the procedures carried out previously, publishing said capacities according to the procedures defined in the subsequent sub-paragraphs and the times indicated in the schedule of auctions published on its website.

5.9.1 Modulation Storage Service with assignment of capacities on an interim basis

The assignment of the capacities for the Modulation Service, to Requesting Shippers meeting the requirements per paragraph 5.2, is carried out according to competitive auction assignment procedures performed on a monthly basis in accordance with the ARERA resolution in force for the relevant Thermal Year and with the procedure for the submission of requests to purchase capacity, published on the Storage Company's website before the aforesaid competitive auctions are started.

In each month of the April-September period, a product relating to the Modulation Service with injection of quantities of gas equivalent to the capacity assigned from the month following the month of assignment is made available until the end of the

injection phase (seasonal product) and a product relating to the Modulation Service with injection of quantities of gas equivalent to the capacity assigned is made available only for the month following the month of assignment (monthly product).

The auctions are carried out according to the timelines indicated in the schedule published on the Storage Company's website before their start.

The procedures for carrying out the competitive auction procedures described in paragraphs 5.8.2.1 and 5.8.2.2 still apply with the exception of the mechanism for forming the assignment price of the assigned capacities.

In accordance with the provisions of the ARERA resolution in force for the Thermal Year in question, the assignment price of each accepted bid within the auctions subsequent to the first one for the seasonal product (carried out in March) is equal to the related bid price.

The last accepted purchase bid may be partially accepted if the as yet unassigned capacity is not sufficient to satisfy it entirely. If two or more bids characterised by the same price are in this situation, they will be partially accepted, allocating the as yet unassigned capacity *pro-rata* on the basis of the capacity involved in the same bids.

The offered price may be no lower than zero (0) unless otherwise prescribed by ARERA.

For the purposes of assigning the storage capacity, in any case no later than the submission of the related request, the involved parties present the financial guarantees in the forms and in the amount prescribed by this code. The price on the basis of which the amount of the guarantees to be provided for participation in the auctions is calculated is equal to the price indicated in the bid. It is possible to present single guarantees for the assignment of capacity in the different procedures for the assignment of capacity for the Storage Service.

The Storage Company communicates to Requesting Shippers the outcome of each auction, indicating the Space assigned to each individual Shipper $S_{MOD,k}$, as the sum of the capacities acquired on the basis of the bids accepted for the capacity, reserved and not reserved, in time for the submission of the requests for participation in the subsequent auction.

The Storage Company communicates to the Authority the detailed results and publishes on its website the capacities assigned in each auction.

5.9.2 Short-term Modulation Storage Service

5.9.2.1 Peak Modulation Storage Service and Constant Peaks of Modulation Service on a monthly, weekly, and daily basis

Through competitive procedures carried out in the Escomas portal, the Storage Company assigns space (on a monthly and weekly basis), withdrawal and injection capacities (on a monthly, weekly and daily basis) according to the methods described below and the time frame indicated in paragraphs 4A.3.2, 4A.3.3 and 4A.3.4.

Withdrawal or injection capacities can be primary, secondary and “Day Ahead Flex” (hereinafter “DA Flex”).

The procedures for selling and assigning the storage capacities above, and without prejudice to what is stated in paragraph 5.7, are carried out according to two distinct sessions (continuous capacities and interruptible capacities):

a) Continuous capacities on a monthly and weekly basis

In the competitive procedure - first session - for assigning continuous capacities on a monthly and weekly basis, the Storage Company enters any bid to sell primary capacity and the corresponding sale price according to the provisions of the ARERA regulation.

When the second session opens according to the time frame established in paragraphs 4A.3.2 and 4A.3.3, the Shippers enter, for each type of product (space, injection capacity, withdrawal capacity) and separately for each service, up to three bids to purchase capacity on a continuous basis, with the corresponding purchase price and an offer of secondary capacity on a continuous basis that they plan to sell (space, injection capacity, withdrawal capacity), separately for each service, with the corresponding sale price. The Storage Company puts the bids in order according to economic merit.

Capacity purchase bids in both flow directions may be entered.

In order to determine the result of the assignment procedures, the bids are combined by putting the bids of sale in order by non-decreasing price, starting from those with the lowest price, and the purchase bids by non-increasing price, starting from the one with the highest price, in order to maximise the net

value of the transactions concluded at the end of the procedure.

The assignment price of the session is equal to the price of the last accepted purchase bid.

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

b) Continuous capacities on a daily basis

In the competitive procedure for the assignment of continuous capacity on a daily basis, which is carried out according to the time frames indicated in paragraph 4A.3.4, the Storage Company enters, in addition to the primary capacity bid, the bids to sell submitted by Shippers relating to the secondary capacity, any bids accepted that are “lower” relating to the “in advance” capacity submitted by the Shippers, and the “DA Flex” capacity bids for sale as described in paragraph 3.2.2.1.3.

The bid price for the sale of primary capacity is equal to what is established in the ARERA regulation.

When the second session opens, the Shippers enter, with reference to Gas-Day G+1 for each product type (injection capacity, withdrawal capacity), and separately for each service (Peak Modulation, Constant Peak of Modulation),

- For purchases:
 - up to three bids on a continuous basis, with the corresponding purchase price;
 - Capacity purchase bids in both flow directions are not allowed to be entered;
- For sales:
 - a secondary capacity bid on a continuous basis, with the corresponding sales price;
 - capacity bids to reduce the withdrawal/injection capacity during the replenishment period following that of use of the “in advance” capacity, indicating the sale price and day or days of the aforesaid period to which the reduction refers. The capacity of the Shippers involved in the bids for the “in advance” capacity take into account

inter-temporal conversion coefficients shown in the table published on the Storage Company's website as described below;

- a bid to sell "DA Flex" capacity (the value of the expected compensation to restrict a capacity to a specific value that the system will make available as Flex capacity in the opposite direction);
- a bid to sell Withdrawal or Injection "Flex" capacity previously purchased as part of the Week End and Working Days "period" assignment procedures referred to in paragraph 5.9.2.2. This sale bid will result in the buyer accepting the constraints specified in paragraph 3.2.2.1.3.

The Storage Company verifies the adequacy of the quantities involved in the bids at the time they are submitted, based on the most recently updated information in the system.

Shippers remain responsible for fulfilling the obligations set forth in paragraph 17.1.1 and application of that which is specified in paragraph 17.3.2 of this Storage Code.

With reference to the "in advance" withdrawal capacity, the Storage Company:

- a) specifies the maximum withdrawal/injection performance that it can make available "in advance" for the next day and, if any, for the following days;
- b) specifies the period, restrictions and reduction percentages on the days of the withdrawal/injection performance reduction period necessary to bring forward the performance referred to in a) relating to:
 - inter-temporal conversion of the gas volumes withdrawn/injected in advance, whose matrix is published on the Storage Company's website, reduction days and breakdown percentage of the reduction on the reduction days;
- c) collects the bids to sell withdrawal/injection capacity from the Shippers in order to reduce performances;
- d) identifies the bids referred to in c) compatible with the performance restrictions stated in b), taking into account inter-temporal conversion coefficients provided in the matrix published on the Storage Company's website, and selects them based on the order of economic merit up to a quantity corresponding to the maximum value of the performance according to a), to which the published conversion coefficient is applied;

- e) each selected bid is re-proportioned according to the reduction percentages on the days of the reduction period specified by the Storage Company;
- f) for each bid selected pursuant to letter d) above, it formulates a corresponding bid for “in advance” capacity for the next day having a capacity equal to the sum of the capacities indicated in e) above divided by the inter-temporal conversion coefficient found in the matrix published on the Storage Company’s website¹ and price equal to the price indicated in the bids specified in c) multiplied by the inter-temporal conversion coefficient found in the matrix published on the Storage Company’s website;
- g) after the assignment session, it identifies and remunerates the bids described in c) accepted according to what is set out in this paragraph.

The Storage Company can introduce a cost function in addition to the prices of the lower bids of the Shippers pursuant to letter c) above such as to ensure coverage of the additional costs incurred by the Storage Company to carry out the competitive procedures, and such as to ensure that the value of the “in advance” capacity reflects the risk, also prospective, connected with its use, and therefore connected with the reduction of the performance afterwards. This cost function is constant or rising depending on the distance in time between when the in advance capacity is made available and the day to which the lower performance bid refers.

The cost function will be made available adequately in advance on the website, depending on the period of its application and subject to ARERA’s approval:

The selected bids to sell “in advance” capacity are remunerated at the assignment price, net of any cost function.

In the cases of selecting “in advance” capacity that have led to a performance higher than the maximum based on which the transport capacity from and to the storage system is assigned, the Storage Company regulates use of additional transport capacity with the Major Transport Company in the following month.

¹ Reduction periods that have different inter-temporal conversion coefficient values will temporarily not be indicated

In order to determine the result of the assignment procedures, the bids are combined by putting the bids of sale in order by non-decreasing price, starting from those with the lowest price, and the purchase bids by non-increasing price, starting from the one with the highest price, in order to maximise the net value of the transactions concluded at the end of the procedure.

The assignment price of the session is equal to the price of the last accepted purchase bid.

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

The assignment of “DA Flex” capacity follows the indications specified in paragraph 3.2.2.1.3.

In the event of acceptance of bids to sell both secondary capacity and “Flex” capacity, the Shippers who have had at least one purchase bid accepted are assigned quantities of secondary capacity and “Flex” capacity, determined on a *pro-rata* basis.

Bids submitted by Shippers that do not meet the access requirements described in paragraph 5.2.1.1.3 shall not be deemed valid for the purposes of the assignment procedure per this paragraph.

The net value of the transactions referred to in this paragraph is equal to the difference between the total value of the purchase bids and the total value of the sale bids, determined as product between the respective prices and the respective quantities.

After the session, the available capacities of the Shippers for the next Gas-Day are changed by the Storage Company on behalf of the assignee Shippers according to the time tables indicated in paragraph 4A.3.4, based on the capacities purchased and sold in the session, and are effective starting from the next Gas-Day.

Furthermore, after the session, the Prevalent Flow for the following day is established as specified in paragraph 6.6.6.

In any case, it is understood that both the selling Shippers and the purchasing Shippers remain responsible for compliance with the physical delivery of the services sold and/or purchased, as reported in paragraph 17.1.1, and compliance with that which is specified in paragraph 17.3.2 of this Storage Code.

c) Interruptible capacity on a monthly, weekly and daily basis

In the competitive procedure for assignment of interruptible capacity on a monthly, weekly and daily basis – second session – for the portion of capacity not met in the first session, indicated by the Storage Company, and within the limits of the total contractual capacity of the storage system, the Shippers enter the purchase bids relating to the interruptible withdrawal or injection capacity that they plan to purchase and the corresponding purchase price.

Participation in the second session is possible only in case of unmet continuous capacity in the first assignment session.

The price of bid to sell interruptible capacities by the Storage Company is 0.

The Storage Company shall receive the purchase bids of the Shippers whose capacity request remained unmet in the first session and who specified that they wish to participate in the second session.

The capacity requests for the second session shall be considered equal to the portion of capacity that was not met in the first session, indicated by the Storage Company.

The Storage Company shall assign the Interruptible Capacities on a monthly, weekly or daily basis, per paragraph 3.2.5.2, according to the following procedures: for each type of capacity, the Storage Company combines its bid with the purchase requests sorted in descending order according to the bid price.

The assignment price of the session ($Ca_{I,int}$ or $Ca_{E,int}$) is equal to the price of the last accepted purchase bid.

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

The Storage Company applies the assignment prices that emerge from the second session of the competitive procedures to the Shippers to which interruptible capacity was assigned, according to this formula:

$$IP_{II} = n_{GCI} * (Ca_{I,int}) * PII_I + n_{GCE} * (Ca_{E,int}) * PII_E$$

Where:

- PII_I is the interruptible injection peak performance assigned on days G;
- PII_E is the interruptible withdrawal peak performance assigned on days G;
- $Ca_{I,int}$ and $Ca_{E,int}$ are the assignment prices that emerge from the competitive procedures of the interruptible capacities (second session);
- n_{GCI} is the number of days of assignment of the interruptible injection peak;
- n_{GCE} is the number of days of assignment of the interruptible withdrawal peak.

d) Notification of the results of the competitive procedures

The Storage Company makes available to each Shipper through Escomas the outcome of the auction procedure, its results in terms of Storage Capacities offered and assigned and the relevant assignment prices within 30 minutes after each auction procedure closes.

The Storage Company communicates to the Authority the detailed results and publishes on its website the aggregate results of the competitive procedure by the day after its conclusion.

5.9.2.2 Peak Modulation Storage Service and Constant Peaks of Modulation Service with period assignment procedures “for Week End and Working Days” (period assignment broken down on a daily basis for secondary capacity and “WE Flex and WD Flex” capacity)

Through competitive procedures carried out on the Escomas portal, the Storage Company assigns on a daily basis secondary continuous and WE Flex and WD Flex injection and withdrawal capacities for each service according to the methods described below and the time frame indicated in paragraph 4A.3.5.

The procedures for assigning the storage capacities above, and without prejudice to what is stated in paragraph 5.7.1, are carried out in two distinct sessions: the first session is dedicated to secondary capacities and the second session to Flex capacities.

In order to determine the result of the assignment procedures, the bids are combined by putting the sale bids in order by non-decreasing price, starting from those with the lowest price, and the purchase bids by non-increasing price, starting from the one with the highest price, in order to maximise the net value of the transactions concluded at the end of the procedure.

The assignment price of the session is equal to the price of the last accepted purchase bid.

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

Bids submitted by Shippers that do not meet the access requirements described in paragraph 5.2.1.1.3 shall not be deemed valid for the purposes of the assignment procedure per this paragraph.

The Storage Company announces the outcome of the sessions of this competitive procedure according to the schedules indicated in paragraph 4A.3.5.

The available capacities of the Shippers for days involving the competitive procedures are changed by the Storage Company on behalf of the assignee Shippers according to the timetables indicated in paragraph 4A.3.5, depending on the outcome of the sessions of this competitive procedure.

5.9.2.2.1 Assignment of secondary capacity, “WE Flex” capacity and “WD Flex” capacity

The competitive procedure for the Week End assignment considers the period consisting of the day preceding the holiday and the immediately subsequent public holiday(s) (as published on the Storage Company's website).

The Week End procedure is broken down into two sessions.

The first session involves the assignment of secondary capacity.

The results of the assignment from the first session are made available by the Storage Company before the start of the second session.

The second session involves the assignment of "WE Flex" capacity.

Shippers who have requested to participate in these sessions submit bids for the sale and purchase of secondary continuous and Flex capacity relating to each service, for each session and each day of the period.

The competitive procedure for assignment of Working Days is broken down into two sessions.

The Working Days procedure considers the period between the first working day following the period covered by the Week End procedure and the last working day of the week in question.

The first session involves the assignment of secondary capacity.

The results of the assignment from the first session are made available by the Storage Company before the start of the second session.

The second session involves the assignment of "WD Flex" capacity.

Shippers who have requested to participate in these sessions submit bids for the sale and purchase of secondary continuous and Flex capacity relating to each service, for each session and each day of the period.

For each Gas-Day of the WE or WD period subject to the procedures for the bids for secondary capacity and “Flex” capacity referred to in paragraph 3.2.2.1.3, the Shipper defines its bid for sale or purchase observing the following provisions:

First session: Secondary capacity

- Purchases:

it is possible to indicate up to three bids for the purchase of both Injection and Withdrawal capacity with detail for each day;

- Sales:

it is possible to enter a bid for the sale of secondary continuous Injection and/or Withdrawal capacity equal to, at most, the difference between the available value, based on the most recently updated information in the system, and that nominated for the day relevant for the sale;

Second session: Flex capacity:

Bids to buy or sell Flex capacity are subject to the following restrictions:

- Purchases:

If the Shipper is constrained to inject, it can enter a bid to purchase Injection capacity but cannot enter a bid to purchase Withdrawal capacity. Similarly, if the Shipper is constrained to withdraw, it can enter a bid to purchase Withdrawal capacity but cannot enter a bid to purchase Injection capacity.

- Sales:

The Shipper may enter the value of the expected compensation to restrict a capacity to a specific value that the system will make available as Flex capacity in the opposite direction. On the same day, a Shipper cannot limit itself in either injection or withdrawal. When completing the Escomas screens, the Shipper must ensure consistency between the capacities to be purchased and the capacities blocked for sale (e.g., if it is constrained to inject, it can only buy injection capacity and vice versa).

In any case, it is understood that both the selling Shippers and the purchasing Shippers remain responsible for compliance with the physical delivery of the services sold and/or purchased, as reported in paragraph 17.1.1, and compliance with that which is specified in paragraph 17.3.2 of this Storage Code.

Except as provided in this chapter, any differences between the quantities assigned and the quantities purchased or sold attributable to the failure to comply with the obligations deriving from the assignment of the short-term capacities referred to in paragraph 17.1.1 or the constraints referred to in paragraph 3.2.2.1.3 are communicated by the Storage Company to the relevant Shippers at the beginning of the Gas-Day involved in the assignment.

At the end of the competitive procedures described in this paragraph, the available capacities of the Shippers for each service, for the days relevant to the competitive procedure, are changed by the Storage Company on behalf of the assignee Shippers according to the timetables indicated in paragraph 4A.3.5, depending on the capacities sold and purchased during the session.

The assignment of secondary “Flex” capacity follows the indications specified in paragraph 3.2.2.1.3.

The Shipper who has purchased secondary or Flex capacity must indicate to the Storage Company via Escomas the service to which the capacities should be assigned.

The Shipper can program injection or withdrawal values in its availability up to the sum of the capacity already available and the capacity purchased.

5.9.3 Assignment of the Reverse Flow Service

The Storage Company makes available a Withdrawal capacity during the Injection period as described in paragraph 5.9.2.1.

A Shipper who intends to make use of the Reverse Flow Service during the Withdrawal Period for a given month is not obligated to make an express assignment request, since injection capacity is assigned on an annual basis. If the Shipper needs an increase in the aforesaid performance, it must request the assignment of interruptible withdrawal peak according to the procedures as described in paragraph 5.9.2.1.

5.9.4 Assignment of the Deposit Service

The Storage Company is willing to offer Shippers the Deposit Service as part of the Special Services and during each Thermal Year according to the terms and conditions specified below.

Shippers have the right to set up in favour of a third party, without derogation, considered (i) a bank as defined in Article 1, paragraph 1, letter b) of Italian Legislative Decree 385/1993, (ii) another Storage or Transport Shipper, or (iii) the Responsible for Balancing, collateral on the gas owned by said Shippers that is in storage (hereinafter “Gas Provided as Guarantee to Third Parties”), in the form of irregular pledge subject to sending a formal request to Edison Stoccaggio with copy to the third party. After the request is assessed in the terms pursuant to these rules, a specific contract will be signed in three copies, which will be made available by Edison Stoccaggio, with a maximum term set at 31 March of the Thermal Year in which it is drawn up and duly signed by it together with the Shipper and the third-party creditor, in any case without prejudice to (i) exercising the right of retention pursuant to paragraph 17.4.1 and (ii) establishment by said Shipper of an irregular pledge in favour of Edison Stoccaggio S.p.A. by way of guarantee of the correct fulfilment of its obligations, in the form and manner pursuant to paragraph 5.10.

With activation of the Deposit Service, Edison Stoccaggio, in its role of depositary, shall keep the Shipper’s gas in storage in the form of irregular deposit pursuant to Article 1782 of the Italian Civil Code, on behalf of the third-party creditor of the Shipper, for the entire duration of the agreement the latter has signed with the Storage Company and, therefore, at the most for the duration of the Thermal Year in progress, it being understood that in any case the quantities of gas that the irregular pledge covers cannot be otherwise restricted by the Shipper.

The Deposit Service pursuant to forgoing chapter 3 is offered according to the methods and shall be subject to the conditions described hereunder.

For each Deposit Service request made by the Shipper, Edison Stoccaggio (i) will assess any situations of objective criticality jeopardising the proper operation of the Storage System arising from the restriction of the entirety of the quantity of gas that is the subject of the Deposit Service, (ii) on the basis of objective criteria (including, for example, any delay in payment beyond the expiration of the invoiced credit, start-up of actions and/or procedures against the Shipper for the recovery and payment of

receivables claimed by third parties), there may be a change in the content of the request in terms of quantity of gas requested to establish the irregular pledge.

In any case, Edison Stoccaggio reserves the possibility of notifying the Authority and the Ministry of Economic Development of critical situations for the purpose of managing the quantity of Gas Provided as Guarantee to Third Parties as defined in this paragraph. The Ministry of Economic Development or the Authority may give Edison Stoccaggio instructions regarding the movement of the gas under irregular pledge in favour of third parties. Edison Stoccaggio shall in no way be responsible to the pledgees and Shippers for the effects resulting from the instructions given by the Ministry of Economic Development or the Authority that might entail moving the gas under irregular pledge.

Edison Stoccaggio will report said circumstance to the Authority and to the Ministry of Economic Development and, based on the instructions received, may not accept requests relating to the Deposit Service and/or change the content, to be endorsed, during execution of the contract subject to notification to the Shipper.

In order to ensure the efficiency of the natural gas system, the collateral in favour of third parties on the gas stored at Edison Stoccaggio cannot regard quantities of gas higher than the maximum percentage of the Space granted to the Shipper itself, equal to the ratio between the quantity of Strategic Storage Space (S_{STR}), as defined by the Ministry of Economic Development, and the total Storage Space available at the beginning of the Thermal Year ($S_{TOT}+S_{STR}$). Edison Stoccaggio publishes this maximum percentage on its website before the beginning of each Thermal Year. The Shipper cannot request use of the Strategic Gas for the entire duration of the Deposit Service.

The Shippers that plan to request and use the Deposit Service described in chapter 3 should fulfil and maintain the requirements described below on the date of the request and for the entire duration of the deposit contract as signed:

- Own a contract for one or more of the Storage Services defined in the Storage Code valid and enforceable for a duration at least equal to that of the Deposit Service and for a quantity of Space at least equal to the quantity of gas on which the Shipper plans to establish an irregular pledge in favour of third parties;

- have available a quantity of Gas they own located in the Edison Stoccaggio Storage System at least equal to quantity of gas on which the Shipper plans to establish an irregular pledge in favour of third parties;
- have made the payment(s) due under the Storage contract(s) regarding the Thermal Year in progress or relating to the previous Thermal Years for the invoiced amount(s) by the set due date.

Failure to comply with even one of the above listed requisites, including non-payment of the amount due to Edison Stoccaggio by the Shipper on the due date, shall result in the immediate termination of the Deposit Service with the consequent immediate interruption of the Deposit Contract.

In this case, Edison Stoccaggio shall notify the Shipper and the third-party creditor of said circumstance and will allow the latter to notify Edison Stoccaggio of the quantities of gas necessary to satisfy any credit it may have and the method of enforcement chosen from those specified below in paragraph 5.9.5 within the following 15 working days.

The Shipper that plans to request the Deposit Service by availing itself of the right established in this paragraph, or that plans to change the quantities under the same service, is required to send Edison Stoccaggio a request through certified email (preferred method), registered mail or courier to the addresses published by Edison Stoccaggio on its website. The form made available by Edison Stoccaggio should be duly filled in and signed, together with Edison Stoccaggio, by the third-party creditor and by the Shipper (hereinafter “Contract for the Deposit Service”).

The request to activate the Deposit Service, to be sent to Edison Stoccaggio, should specify, without derogation, the duration for which the Deposit Service of the Contract for the Deposit Service is requested, which in any case cannot be later than 31 March of the Thermal Year in which the stipulated service is activated, and the quantity (kWh) subject of the Contract for the Deposit Service or the change in such quantity.

Upon receipt of the request, Edison Stoccaggio will check if it is consistent with the general requirements under forgoing paragraph 5.2.1 and, therefore, if the Shipper meets the previously specified parameters including actual stock of gas in storage ascribable to it.

Within 10 working days, Edison Stoccaggio will notify the Shipper and the third-party creditor (by sending through certified email) of the acceptance or the failure to accept the request, attaching a copy of the Contract for the Deposit Service regarding the establishment of irregular pledge on the Gas Provided as Guarantee to Third Parties that should be returned to Edison Stoccaggio duly signed in three copies by and no later than 10 working days from the sending.

On the effective date of the Contract for the Deposit Service, or of its possible change during execution, the custody obligation that Edison Stoccaggio has undertaken with the third-party creditor becomes effective, until the condition of non-fulfilment of the guaranteed credit takes place, in which case the contract is considered terminated and the ownership of the quantities of gas is assigned to the creditor dating from the establishment of the pledge, without prejudice to the obligation of the third-party creditor to return any surplus over and above the value of the guaranteed credits to the Shipper after enforcement of the guarantee. If the third-party creditor reports fulfilment of the guaranteed credits, the Shipper again has full availability of the quantities of gas given as guarantee.

Starting from the effective date of the Contract for the Deposit Service, or of its possible increasing change, the quantity of the pledged gas covered by the Contract will become the property of Edison Stoccaggio as depositary pursuant to Article 1782 of the Italian Civil Code in the interest of the third-party creditor; starting from the day after the acceptance of a request for possible reduction in the quantity covered by the Contract for the Deposit Service, the released quantity will return to the ownership of the Shipper. In the case the quantity covered by the Contract for the Deposit Service decreases, said quantity is considered deducted from the quantity of gas most recently pledged by the Shipper and by the same third-party creditor.

The quantity of gas subject of the Deposit Service is not available to the Shipper for movement until the 15th working day after the date the Contract for the Deposit Service is terminated. Once that term has passed, the Gas Provided as Guarantee to Third Parties not subject to the request by the third-party creditor shall return to the availability of the Shipper and Edison Stoccaggio will make the possibility to move said quantity of gas once again available.

The Contract for the Deposit Service has a maximum duration set at 31 March of the Thermal Year in which it is drawn up, and it is expressly understood and agreed by all contractual parties that, also considering the operational obligations of the storage activities, the Storage Company will be free to remove the gas under irregular pledge from its hub possibly by a sale to the virtual trading point, including when there are any disputes or debates between the parties.

If the Shipper, by 31 March, is assignee of a storage capacity with respect to the trial of competitive auctions arranged in the next Thermal Year for a Space capacity at least equal to the amount of gas covered by the existing Contract for the Deposit Service and about to expire, it will have the possibility to request extension until 31 March of the next Thermal Year, subject to formal request and existence of all the conditions necessary for signing a new Contract for the Deposit Service.

During the effectiveness of the Contract for the Deposit Service the Shipper and the third-party creditor have the right to terminate it by sending a formal notification in this sense by registered letter with advice of receipt or by certified email with at least 10 (ten) days of advance notice. Termination of the Deposit Service in the forms indicated above leads to the consequent conclusion of the irregular pledge contract. Likewise, any conclusion of the irregular pledge contract leads to termination of the Deposit Service.

For the entire duration of the Deposit Service:

- the quantity of gas subject of the Deposit Service is not available to the Shipper for movement;
- the Shipper cannot request use of the Strategic Gas.

The Contract for the Deposit Service is considered terminated in the case the Shipper fails to comply with one of the general requirements pursuant to forgoing paragraph 5.2 and pursuant to these rules; in this case, Edison Stoccaggio will inform the Shipper and the third-party creditor by certified email of said circumstance and will apply what has been established in the cases of termination of the Contract. The gas subject of the Deposit Service will be kept by Edison Stoccaggio on behalf of the third-party creditor until the tenth working day after the date of communication. Any enforcement will be levied according to what is set out below in paragraph 5.9.5.

If, by 30 April of the Thermal Year after the one in which the Deposit Service was requested, the Shipper has not freed the Space occupied by the aforesaid quantity of gas, including by sale in storage, and it still exceeds the Space assigned to the Shipper, Edison Stoccaggio will publish the quantity of gas owned by the Shipper that will be sold, not including the quantities pursuant to Article 16.4.4, and the methods for managing the competitive procedure for the sale on its website.

The sale price is set to 50 percent of the component “C_{MEM}” as indicated in Article 6 of the TIVG defined by the Authority for the same period.

Edison Stoccaggio transfers the proceeds from the sale to the Shipper, net of the fixed price of Euro 50,000.00 plus VAT due to Edison Stoccaggio by way of compensation for the administrative and other types of expenses incurred for the sale.

Edison Stoccaggio shall in no way be responsible: (i) for execution of the instructions given by the pledgee third-party creditor; (ii) for consequences arising from the change in price of the Gas Provided as Guarantee to Third Parties subject to the irregular pledge; and (iii) for the effects consequent to any instructions given by the Ministry of Economic Development and/or by the Authority that might entail moving the Gas Provided as Guarantee to Third Parties subject to the Deposit Service.

5.9.5 Enforcement Procedures for Gas Provided as Guarantee to Third Parties

The third-party creditor has the right to notify Edison Stoccaggio of the need to satisfy its credit at any time during the Deposit Service and, in any case, within the 15th working day after the date the Contract for the Deposit Service is terminated, by sending (by certified email) a written notification duly filled in by the third party and countersigned by the Shipper with explicit indication of the enforcement method it plans to request.

Following the request made by the third-party creditor, Edison Stoccaggio makes available the quantity of Gas Provided as Guarantee to Third Parties that the request concerns to the third-party creditor.

The following are envisaged, as an alternative and in binding form, as additional methods for enforcing the guarantee on the Gas Provided as Guarantee to Third Parties held in the Deposit Service:

- a) Following the request made by the third-party creditor, Edison Stoccaggio makes the relevant gas available to the third-party creditor. For this purpose, the third-party creditor, if already a Shipper, must have available Storage Capacity at least equal to the quantities of gas its request concerns. For the quantities of gas made available over and above its Space capacity, the third-party creditor acquires the necessary Space and the relevant Injection and Withdrawal Capacities, as well as the corresponding portion of transport capacity, through the debtor Shipper's sale on the basis of the provisions of the Storage Code, including the profile associated with the quantities for sale. The foregoing is without prejudice to return of any surplus of the value of the guaranteed credit to the Shipper.
- b) Once it has gained ownership of the gas, the third-party creditor has the right to sell the Gas Provided as Guarantee to Third Parties that the request to pay concerns to a Shipper of the storage service, or to sell the gas with delivery in the storage system.

Following the aforesaid transfer or sale, the third party is required to inform Edison Stoccaggio of the parties to whom the gas was sold, which must be in possession of a storage contract for a quantity of Space at least equal to the quantity of Gas Provided as Guarantee to Third Parties sold. The foregoing is without prejudice to return of any surplus of the value of the guaranteed credit to the Shipper.

- c) The Shipper gives the third-party creditor an irrevocable mandate to move the quantities of gas pledged for the subsequent sale, in the name of the Shipper and on behalf of the third-party creditor, using the storage and transport capacities held by the same Shipper. The surplus of the value of enforced gas compared to the value of the guaranteed credits must be returned to the Shipper.
- d) The third-party creditor, on its own, provides the mandate to sell said quantities of gas through competitive procedure to a party to be designated subject to the acceptance of Edison Stoccaggio. The designated party finalises the sale of the gas through transfers of stored gas. The surplus of the value of enforced gas compared to the value of the guaranteed credits must be returned to the Shipper.

If a quantity of gas subject to the request to pay the credit remains in the Storage System on the first day of the second month after said request or, if before, on 1 April of the Thermal Year after that in which the Deposit Service was requested, the third-party creditor is required to draw up a Contract for one of the Basic Storage Services, for a quantity of Space at least equal to the quantity of gas in the Storage System at 31 March and to pay the price for space increased by 30%, applied to the quantity of gas it owns and that is in storage.

If, by the end of the second month following the request to pay the credit and in any case no later than 30 April of the Thermal Year after the one in which the Deposit Service was requested, the third-party creditor has not freed the occupied Space, Edison Stoccaggio will publish the quantity of gas owned by the Shipper that will be sold, not including the quantities pursuant to Article 16.4.4, and the methods for managing the competitive procedure for the sale on its website. The sale price is set at 50 percent of

the “C_{MEM}” component pursuant to Article 6 of the TIVG defined by the Authority for the same period.

The Storage Company shall pay the Shipper the revenue for the sale, net of the fixed amount of Euro 50,000 by way of compensation for the administrative and other relative expenses incurred for the sale.

If there are invoices relating to the above amount that are past due and unpaid by the third-party creditor, Edison Stoccaggio can sell the Gas Provided as Guarantee to Third Parties subject of the request to pay by the third-party creditor through an auction procedure after 15 days have elapsed from notification of the default condition without payment having been made. The quantity of gas that will be auctioned will be calculated based on the past-due amounts and also considering default interest accrued as at the date of notification of default, applying a price and an auction sale base equal to 90 percent of the component “C_{MEM}” as indicated in Article 6 of the TIVG defined by the Authority for the same period. Edison Stoccaggio will invoice the third-party creditor the fixed price of EURO 50,000.00 plus VAT for managing the sale by way of compensation for the administrative and other types of expenses incurred for the sale; said price cannot offset the past due amounts.

Price for the Deposit Service

For those activities connected with supply of the Deposit Service, Edison Stoccaggio will be entitled to a price defined as a percentage of the value of the Gas Provided as Guarantee to Third Parties, determined pursuant to this chapter and equal to one thousandth (i.e. 0.1%) and in any case no lower than Euro 5,000, even if the Deposit Service of the gas provided as guarantee is not finalised.

This charge is also due in the case of renewal in the next Thermal Year, and is not due in the cases the quantity of gas held in the Deposit Service is changed.

5.10 AGREEMENT FOR IRREGULAR PLEDGE ON GAS IN STORAGE IN FAVOUR OF EDISON STOCCAGGIO

(on the Shipper's letterhead)

AGREEMENT FOR IRREGULAR PLEDGE ON GAS IN STORAGE

Edison Stoccaggio S.p.A.
Foro Buonaparte, 31
20121 Milan, Italy

SUBJECT: AGREEMENT FOR IRREGULAR PLEDGE

[COMPANY NAME], with its registered office in _____, share capital _____ fully paid in, Taxpayer ID Number and VAT Number _____, R.E.A. _____ represented by _____ in its capacity as _____ (hereafter, "Shipper");

WHEREAS:

- a) Edison Stoccaggio S.p.A. ("EDISON STOCCAGGIO") operates in the sector of natural gas storage and it has provided in its Storage Code the possibility of pledging as collateral the gas owned by the Shipper in storage, to guarantee the exact fulfilment of the obligations undertaken by the Shippers of the storage services;
- b) Edison Stoccaggio, following an assignment request and as a result of an appropriate process, has assigned natural gas storage capacity for the thermal year (1 April 20__/31 March 20__) to the Shipper and, on _____, the Shipper stipulated a specific storage contract ("CONTRACT");

Now, therefore, the Shipper, in accordance with the Storage Code and for the cases provided for therein

AGREES

to pledge, in favour of Edison Stoccaggio, the gas owned by the Shipper that is physically present in storage as collateral to guarantee the obligations undertaken with the CONTRACT ("Gas Provided as Guarantee") which, as a result, may be made unavailable for the period necessary for the Storage Company to safeguard its credit right.

Edison Stoccaggio will communicate to the Shipper the pledging of the Gas Provided as Guarantee according to the procedures and within the terms indicated in Chapter 16.4.4 of the Storage Code. For this purpose, the Shipper, aware that the gas of the Shipper, even when pledged as a guarantee in favour of third parties, may nonetheless be purchased as a priority from Edison Stoccaggio until the total payment of the credit deriving from the CONTRACT.

CONFERS

IRREVOCABLE POWER TO Edison Stoccaggio, so that the latter, if the reasons for the enforcement of the Gas Provided as Guarantee manifest themselves, as established by the Storage Code, may:

- (i) sell, on its own behalf, the enforced Gas Provided as Guarantee;
- (ii) draw directly from the revenues of the sale to satisfy its credit.

In case of partial enforcement, the residual Gas Provided as Guarantee will revert to be the property of the Shipper.

Date and location

SEAL AND SIGNATURE

CHAPTER 6**INJECTION AND WITHDRAWAL RESERVATIONS AND COMMITMENTS**

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

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 Stoccaggio 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 Stoccaggio 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_{G-1}**), 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:

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

- Until the hourly schedule $H_{PROG_{G-1}}$, the Shipper's daily schedule valid at the start of the Gas-Day G **PROG_{G-1}**, 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_{G-1}** schedule will be carried out, allocating to the Shipper gas volumes equal to P_h for each hour of execution of the **PROG_{G-1}** schedule.
- If **PROG_{G-1} = P**, the execution of the **PROG_{G-1}** 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 ($PROG_{RIN\ n-1}$),

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

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

with:

$H_{RIN\ n}$ = ending time of renomination cycle n of the schedule previously in force ($PROG_{RIN\ n-1}$ 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 $V_{DIFF\ n}$

$$\begin{aligned}
 H_{DIFF\ n} &= (24h - \frac{V_{DIFF\ n}}{P_h}) + 6h && \text{if } \frac{V_{DIFF\ n}}{P_h} \geq 6 \\
 H_{DIFF\ n} &= (6h - \frac{V_{DIFF\ n}}{P_h}) && \text{if } 0 < \frac{V_{DIFF\ n}}{P_h} < 6
 \end{aligned}$$

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:

$$V_{ALL} = \sum_{n=1}^n V_{ALL\ RIN\ n} + V_{DIFF_n}$$

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_r) 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 Stoccaggio 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 Stoccaggio, 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_h**) 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_{G-1}**), 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_{G-1}**, 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_{G-1}** schedule will be carried out, allocating to the Shipper gas volumes equal to **P_h** for each hour of execution of the **PROG_{G-1}** schedule.
- If **PROG_{G-1} = P**, the execution of the **PROG_{G-1}** 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:

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

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

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

with:

H_{RINn} = 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 $H_{RINn} + 2$;

$H_{PROG\ (n-1)}$ = 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_{RIN1})

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

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

H_{RESn} = 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:

$$V_{ALL} = \sum_{n=1}^n V_{ALL\ RIN\ n} + V_{DIFF_n}$$

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 quantitatives 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.

CHAPTER 7

CAPACITY AND GAS TRANSACTIONS

7.1 AUTHORISED PARTIES	181
7.2 CAPACITY AND GAS SALES AND PURCHASES	181
7.3 PROCEDURE TO REQUEST SALE AND PURCHASE.....	181
<i>7.3.1 Request for sale and/or purchase of Capacity.....</i>	<i>181</i>
<i>7.3.2 Request for sale and/or purchase of Performance.....</i>	<i>183</i>
<i>7.3.3 Request for sale and/or purchase of Gas.....</i>	<i>184</i>
<i>7.3.4 Terms and effectiveness of the transaction request</i>	<i>185</i>
<i>7.3.5 Unilateral stored gas transactions between two storage companies assigned to the same shipper.....</i>	<i>185</i>

7.1 AUTHORISED PARTIES

Capacity and/or Gas transactions (sales or purchases) may take place between Shippers of the Storage Service. Although there is nothing that prevents Shippers who have committed capacity from signing agreements with requesting users that are not authorised, these parties must obtain the qualification of Shipper of the Storage Service as a prerequisite for accessing the service.

In any case, the Shipper selling Capacity remains responsible in relation to the Storage Company for fulfilment of the payment obligations assumed following the transfer of the capacity sold.

7.2 CAPACITY AND GAS SALES AND PURCHASES

The sale and/or purchase of Capacity assigned to Shippers as well as the sale and/or purchase of Gas placed in storage are carried out based on procedures defined by the Storage Company, until such time as ARERA approves any specific measures.

The sale and/or purchase may involve the following products:

1. Space Capacity (S) and corresponding portion of Injection Capacity (CI) as well as Withdrawal Capacity (CE);
2. Injection Performance (PI);
3. Withdrawal Performance (PE);
4. Gas.

These transactions may take place only in favour of Shippers and/or Requesting Users that fulfil the requirements for access to the type of performance that is being sold. For example, capacity for the Peak Modulation Service can only be sold between parties that satisfy the requirements set forth in paragraph 5.2 of chapter 5, "Assignment of Storage Capacity".

7.3 PROCEDURE TO REQUEST SALE AND PURCHASE

7.3.1 Request for sale and/or purchase of Capacity

Requests for the sale and/or purchase of Capacity (Space (S) and the corresponding Injection Capacity (CI) and Withdrawal Capacity (CE)) must be communicated by Shippers to the Storage Company according to the

procedures envisaged in paragraph 7.3.4 below and using the forms published on the Storage Company's website.

These requests shall contain the following information:

1. the Space Capacity subject to sale and/or purchase (kWh)¹;
2. the start date of the sale and/or purchase, which must coincide with the first day of the month that the sale or purchase is effective.

The transaction is completed following confirmation via e-mail, no later than the second working day prior to the start date of the transfer, from the Storage Company that it received the form published on the Storage Company's website, signed by the seller and buyer.

The form referred to in the previous paragraph is sent to the Storage Company with signatures from both the seller and the buyer no later than the fifth working day preceding the start date of the transfer.

The sale of Space Capacity (S), together with the corresponding Injection Capacity (CI) and Withdrawal Capacity (CE), is valid from the date indicated in the request until the end of the relative Thermal Year.

Sales of Space Capacity and related Injection Capacity and Withdrawal Capacity are permitted only if the selling Shipper has stock that is lower than the Space assigned less the quantity to be sold, otherwise the sale of Space must be combined with a sale of Gas.

The Storage Company will perform a single verification regarding the consistency of the quantities sold on the effective day of the transfer of capacity. If the capacities sold are not consistent with what is actually available on said date, the Storage Company will only transfer the quantities actually available (e.g., if a Shipper commits to sell 100 kWh of Space - and related Injection Capacity and Withdrawal Capacity - of 1,000 kWh available with a stock of 920 kWh, it will only be possible to transfer 80 kWh of Space).

By 6:00 pm on the Gas-Day prior to (Gas-Day G-1) the effective Gas-Day of the sale (Gas-Day G), the Storage Company informs the parties involved of any difference with respect to the capacity sold.

This communication is carried out based on the best data available in the system (e.g., scheduling, other sales of capacity or gas).

¹ It is sufficient to specify only the Space Capacity (kWh). Upon transfer of the product from the selling Shipper to the purchasing Shipper, the Storage Company will also transfer the corresponding Injection Capacity (CI) and Withdrawal Capacity (CE).

During the Gas-Day from which the sale is valid, the Storage Company makes the quantities sold available to the parties involved on the Escomas IT portal.

The transactions referred to in this chapter have no effect on the invoicing by the Storage Company of the prices for the Storage Services referred to in paragraph 8.8 to the capacities transferred through the procedures referred to in paragraphs 5.8 and 5.9, as envisaged in chapter 16 of this Code, that is, the selling Shipper will be invoiced for all capacities originally assigned to it.

7.3.2 Request for sale and/or purchase of Performance

The request for sale and/or purchase of Performance as described in points 2) through 3) of paragraph 7.2 of this chapter must be entered in the Escomas IT portal in accordance with the procedures defined in paragraph 7.3.4 below and must contain the following information:

1. the Performance subject to sale and/or purchase with daily details (kWh/day);
2. starting date of the sale and/or purchase;
 - this date must at least correspond to Gas-Day G if the request is entered by 6:00 pm of Gas-Day G-1
 - this date must at least correspond to Gas-Day G+1 if the request is entered after 6:00 pm of Gas-Day G-1;
3. the ending date of the sale and/or purchase.

It is not permitted to sell Performance that exceeds the available value, therefore, if the selling Shipper has consumed the Gas held in storage or has filled up the space that it was assigned, that Shipper cannot sell, respectively, Withdrawal Performance or Injection Performance.

The Storage Company will perform a single verification regarding the consistency of the quantities sold on the effective day of the transfer of Performance.

By 6:00 pm of each Gas-Day prior to (Gas-Day G-1) the effective Gas-Day of the sale, the Storage Company informs the parties of any difference between the amount available and the Performance sold. If the period consists of several days, the consistency verification will be carried out each day for the following day.

This communication is carried out based on the best data available in the system (e.g., scheduling, other sales, other).

If at 6:00 am on Gas-Day G the selling Shipper is in default and does not have all or part of the Performance indicated, the Performance actually available will be transferred to the purchasing Shipper.

On the days in which the transactions between Shippers is in place, the purchasing Shipper will have a daily Performance as determined by applying the adjustment coefficients, increased for the amount sold by the seller, and conversely, the selling Shipper will have its Performance decreased by the portion sold.

The transactions referred to in this chapter have no effect on the invoicing by the Storage Company of the prices for the Storage Services referred to in paragraph 8.8 to the capacities transferred through the procedures referred to in paragraphs 5.8 and 5.9, as envisaged in chapter 16 of this Code, that is, the selling Shipper will be invoiced for all capacities originally assigned to it.

7.3.3 Request for sale and/or purchase of Gas

The request for sale and/or purchase of Gas, referred to in point 4) of paragraph 7.2 of this chapter, is entered in the Escomas IT portal in accordance with the procedures defined in paragraph 7.3.4 below and must contain the following information:

1. the quantity of Gas subject to sale and/or purchase, with daily details;
2. the effective date of the sale and/or purchase, corresponding at least to Gas-Day G if the request is entered by 6:00 pm of Gas-Day G-1 and at least Gas-Day G+1 for requests entered after 6:00 pm of Gas-Day G-1.

A Shipper cannot sell Gas if the selling Shipper's stock would be less than zero following the transaction.

Furthermore, the execution of the sale will be restricted in the event in which the purchasing Shipper, as a result of the sale, exceeds its available Space based on the data contained in paragraph 8.2 of this Code.

The Storage Company will perform a single verification regarding the consistency of the quantity sold until the physical transfer of said quantities by the selling Shipper to the purchasing Shipper at 6:00 pm and at 4.00 am of Gas-Day G-1.

By 6:00 pm on the Gas-Day prior to (Gas-Day G-1) the Gas-Day on which the sale should be effective (Gas-Day G), the Storage Company informs the parties involved in the Gas sale of the quantity of Gas for which the stock of the selling Shipper, reduced for any quantity of Gas provided as guarantee in favour of the Responsible for Balancing as described in paragraph 8.2.1.2, of any quantity as described in paragraph 16.4.4 and any quantity described in paragraph 5.9.4 subject to the Deposit Service referred to in paragraph 3.3.1, is less than the Gas being sold, based on data contained in chapter 6 and chapter 8 of this Code relative to Gas-Day G and referred to in this paragraph for a possible purchase of Gas on the same effective date.

Similarly, the Storage Company informs the parties involved in the Gas sale of the quantity of Gas for which, due to the Gas purchase, the stock of the purchasing Shipper for Gas-Day G exceeds the assigned Space, based on data contained in chapter 6 and chapter 8 of this Code and referred to in this paragraph for an additional purchase of Gas on the same effective date.

If at 6:00 am on Gas-Day G the selling Shipper is in default and does not have all or part of the Gas to be transferred and/or the purchasing Shipper does not have sufficient residual Space for the amount to be transferred, only the quantity of Gas that satisfies both conditions will be transferred.

The quantities sold are shown in the daily allocation in the Shipper's balancing equation referred to in paragraph 8.2.1.1 of this Code (term ST_k).

7.3.4 Terms and effectiveness of the transaction request

Requests for the sale and/or purchase of Space and Capacity referred to in this chapter must be communicated to the Storage Company using the forms published on the Storage Company's website.

The effective period for the sale and/or purchase of Space and Capacity shown in the request begins on the first Gas-Day of the month indicated in the forms and until the end of the relevant Thermal Year.

The Selling Shipper transmits the form underwritten by both parties to the Storage company, by and not beyond 5.00 pm of the fifth working day, prior to the date of the start of the sale, specifying the quantity (kWh), the purchasing shipper and the initial effective date for the transfer.

Requests for the sale and/or purchase of Performance or Gas referred to in this chapter must be entered by Shippers in the appropriate section of the Escomas IT portal, according to the procedures envisaged in this paragraph.

The effective date of the sale and/or purchase of Performance or Gas described in the request corresponds at least to Gas-Day G if the request is entered by 6:00 pm of Gas-Day G-1 and at least Gas-Day G+1 for requests entered after 6:00 pm of Gas-Day G-1.

For Performance transactions, the request must include the initial and end date of the transfer's period of validity.

The exchange price and the other elements of the agreement are confidential and are not known to the storage company.

Via the Escomas portal the storage company, by 6.00 pm and 4.00 am of Gas_Day G-1, shall carry out congruity and consistency verifications of the data for Gas-Day G found on the system following the Capacity Transactions, the Bilateral Transactions (Performance and/or Gas Transactions) as detailed in this chapter and the Unilateral stored gas transactions detailed in the subsequent par. 7.3.5, carrying out any partial or total cuts on said operations in the event of defaults by the Shippers, until the performable quantities of these latter transactions are reached, in accordance with the provisions of part. 6.6.8.

7.3.5 Unilateral stored gas transactions between two storage companies assigned to the same shipper

The shipper that is assigned capacity for both the storage Services (Peak Modulation and Constant Peak Modulation) has the right to transfer, via the Escomas portal, gas stocked with one service to that of another one, reducing the stock of its own gas at the start of Gas-Day G-1 in one of the two storage services and increasing by the same amount the gas stocked in the other storage service.

The change to the stocks takes effect:

- from Gas-Day G for transfers inputted by 6.00 pm of Gas-Day G-1;
- from Gas-Day G+1 for transfers inputted after 6.00 pm of Gas-Day G-1.

CHAPTER 8**BALANCING AND REPLENISHMENT OF STORAGE SITES**

8.1 INTRODUCTION.....	188
8.2 ALLOCATIONS	189
<i>8.2.1 Accounting for the gas moved from/to the Storage System by the Shipper</i>	<i>190</i>
8.3 PROCEDURE FOR ATTRIBUTING INTERNAL CONSUMPTION IN THE INJECTION AND WITHDRAWAL PHASE	194
<i>8.3.1 Introduction.....</i>	<i>194</i>
<i>8.3.2 Apportionment of Internal Consumption.....</i>	<i>194</i>
<i>8.3.3 Daily allocations.....</i>	<i>197</i>
8.4 BALANCING COSTS	198
<i>8.4.1 Minimum injection stock of the Peak Modulation Service</i>	<i>198</i>
<i>8.4.2 Maximum injection stock of the Peak Modulation Service.....</i>	<i>199</i>
<i>8.4.3 Use of gas for Strategic Storage purposes with authorisation from the MSE</i>	<i>202</i>
8.5 WITHDRAWAL LOWER THAN STOCK.....	204
8.6 PROCEDURE FOR PARTICIPATING IN THE BALANCING MARKET	205
<i>8.6.1 Regulated Market for the trading of gas stored (MGS).....</i>	<i>206</i>
8.7 ESTIMATE OF THE CHARGES TO COVER THE ELECTRICITY CONSUMPTION NECESSARY FOR THE OPERATION OF THE COMPRESSION AND TREATMENT PLANTS	209
8.8 PRICES FOR THE STORAGE SERVICES	209

8.1 INTRODUCTION

The chapter describes the procedures whereby the Storage Company determines the positions of each Storage Shipper in line with the balancing system prescribed by the resolutions and by agreements with the other operators.

In particular, under the balancing system in force, the Shippers of the Transport Network: i) are allocated the sum of scheduled gas quantities (injected or withdrawn over the totality of the Storage Hubs of the Italian system) on the storage systems, taking into account internal consumption; and ii) are assigned the quantities of gas sold or bought on the Regulated Market for the trading of gas stored (MGS), managed by the GME.

For the purposes of the correct management of the system, the Storage Company shall exercise its system maintaining the safety of the system and with a coordinated, integrated operation of all its facilities. For this purpose, through its own dispatching, the Storage Company continuously monitors the parameters of the System and ensures the correct planning, safety and efficiency of the System.

The Shipper instead shall comply with the operating schedules per chapter 6 and with the balancing of the quantities injected and withdrawn from the System, taking into account any attributed consumption.

If a Shipper withdraws gas in excess relative to the gas held in storage, the Storage Company shall consider it as gas withdrawn from the strategic reserve. The gas allocation procedures described below entail that withdrawal beyond the gas held in storage may take place only in the case of the modulation service.

The chapter therefore describes the procedures for allocating the quantities of gas moved daily at the Hub of the Storage Company, the methods for calculating the stocks at the end of each day, the allowed operations for compensating the positions and any balancing costs applied by the Storage Company and prescribed by the Resolution in order to incentivize the correct use of the purchased service on the part of the Shipper.

8.2 ALLOCATIONS

The Storage Company defines the Allocations (kWh), on the basis of the measurements of the total flows into and out of the Storage System, apportioning them according to the criteria indicated below.

For each Gas-Day G, the equation pertaining to the Storage System is as follows:

$M = |\Delta G| + AC$ if the flow is in injection phase

$M = |\Delta G| - AC$ if the flow is in withdrawal phase

a) Daily measurement of the gas flows from/to storage

The term M represents the energy (kWh) associated with the gas flows to (or from) the Storage System obtained as the sum of the quantities injected (or withdrawn) by the Shippers into (or out of) the Storage System, at the virtual interconnection point corresponding to the storage hub.

b) Daily change in stored gas

The term $|\Delta G|$ represents the absolute value of the change of the energy (kWh) associated with the stored gas, given by the difference between the total availability of the gas present in the system, in reference to two successive days.

c) Internal consumption

The term AC represents the energy (kWh) associated with the gas necessary for the operation of the treatment plants and for internal use within the plant (internal consumption) and it is calculated as the sum of the values, in energy, of the internal consumption measured at each storage site, in accordance with Ch. 9; each value is obtained by multiplying the volume of gas attributed to internal consumption times the corresponding average daily PCS.

Edison Stoccaggio S.p.A. calculates, for each site and at the aggregate level, the energy moved from/to the Storage System and transmits, for

each Gas-Day G, to Snam Rete Gas the total measurement in kWh (term M) in order to enable Snam Rete Gas to close out the balance of the RNT and to determine the difference between the aforesaid term M and the total Reformulations communicated to Edison Stoccaggio S.p.A. and as confirmed by the latter in accordance with paragraphs 6.6.4 and 6.6.5.

8.2.1 Accounting for the gas moved from/to the Storage System by the Shipper

Edison Stoccaggio S.p.A., determines on a daily basis, for each Shipper, the term S_k (Allocation of the k-th Shipper on Gas-Day G for the nth Storage Service at the virtual interconnection point corresponding to the Storage Hub).

S_k represents the quantity scheduled by the kth Shipper for the nth Storage Service and confirmed by Edison Stoccaggio S.p.A. in accordance with paragraphs 6.6.4 and 6.6.5 for Gas-Day G.

The scheduled quantity resulting from the assignment of secondary “Flex” capacity as described in paragraphs 3.2.2.1.3 and according to the competitive procedures per paragraphs 5.9.2.1 and 5.9.2.2 is allocated to both selling Shippers and purchasing Shippers at the beginning of Gas-Day G.

8.2.1.1 Gas Accounting for the Shipper to whom Storage Capacity for Modulation and Constant Peaks of Modulation were assigned

For each Gas-Day G, Edison Stoccaggio S.p.A. calculates, with reference to each nth Service, the quantity of gas held by each Shipper in the Storage System ($G_{k,n}$), starting from the quantity recorded for the previous Gas-Day ($G_{k,n-1}$), according to the following equations as a function of the Prevalent Flow (FP_i) of the system as defined in paragraph 6.6.6:

$$S_{k,n} - AC_{k,n} + ST_{k,n} + SM_k = G_{k,n} - G_{k,n-1} \quad (1)$$

if FP_i coincides with the direction of the Injection phase

$$S_{k,n} - AC_{k,n} + ST_{k,n} + SM_k = G_{k,n} - G_{k,n-1} \quad (2)$$

if FP_i coincides with the direction of the Withdrawal phase

where:

$AC_{k,n}$ represents the quantity of internal consumption charged to the k-th Shipper for each nth service and calculated in accordance with paragraph 8.3,

ST_k represents the total gas exchanged effective on Gas-Day G by the k-th Shipper (the term is positive if the k-th Shipper buys, negative if it sells) for each nth service in accordance with chap. 7,

SM_k represents the total gas exchanged effective on Gas-Day G by the k-th Shipper (the term is positive if the k-th Shipper buys, negative if it sells), for each nth service on the MGS platform managed by GME, as communicated by GME to Edison Stoccaggio S.p.A.

8.2.1.2 Guarantee storage gas in favour of the Responsible for Balancing

The Authorised Shipper who has asked the Responsible for Balancing to exercise the right per Article 11.6, Resolution ARG/Gas/45/11 or access to the functionalities to increase or decrease the Gas Provided as Guarantee as prescribed by the Network Code of the Major Transport Company and has requested the establishment of a quantity of Gas Provided as Guarantee consisting of a portion of its own gas situated in the Storage System or an increase or decrease of said quantity shall submit to Edison Stoccaggio S.p.A., sending it in advance via fax, communication of the request or of the change in compliance with the timelines provided for this purpose by the Network Code of the Major Transport Company for the evaluation of acceptability of the Storage Company.

Edison Stoccaggio S.p.A. will assess each request pertaining to the Gas Provided as Guarantee, verifying that there are no objectively critical situations prejudicing:

- the correct functionality of the Storage System, deriving from the constraint of the quantity of Gas Provided as Guarantee of the request
- the consistency between the amounts invoiced for the storage services assigned to the Shipper and not collected at the date of the request (invoices issued, received, any credit notes, including VAT) and the value of the guarantee issued to cover the obligations deriving from the contracts of the assigned storage services.

If one of the above conditions is met, Edison Stoccaggio S.p.A. shall notify, within one working day, the Responsible for Balancing and the Shipper that the request is unacceptable, indicating any value of Gas Provided as Guarantee that may be deemed acceptable following a new request.

In this regard, in case of critical issues deriving from the inconsistency between invoiced amounts and guarantees issued to cover contractual obligations, Edison Stoccaggio S.p.A. shall consider unavailable for every request of every Shipper any portion of gas in storage, valued at a reference price equal to 100% of the last value of the component per Article 6 of the TIVG approved with Resolution ARG/GAS 64/09 as amended, necessary to reduce to zero the differential between the guarantees issued and the amounts invoiced and not collected as established by Article 16.4.4.

Instead, in the case of critical issues resulting from the correct functionality of the Storage System, Edison Stoccaggio shall deem unavailable, for every request of every Shipper, the share of gas obtained by applying to the total value deemed unavailable a *pro-rata* criterion with respect to all requests received.

The quantity of Gas Provided as Guarantee accepted by the Storage Company is declared pledged and unavailable by the Shipper and may not be used by the Shipper as from the date of acceptance of the proposed agreement as prescribed by the Network Code of the Major Transport Company and throughout the validity of the agreement. The quantity of Gas Provided as Guarantee, moreover, starting from the working day after the execution of the aforesaid agreement, shall be deducted from the calculation of the maximum quantities for the sale bids per paragraph 8.8 below and shall be considered within the scope of the daily scheduling and reformulation processes per paragraph 6.6 above, after verification that the requested quantity is available to the Authorised Shipper.

In any case, Edison Stoccaggio S.p.A. shall report to the Responsible for Balancing the Shippers subject to the communication per Article 16.4.4 and the related quantities of gas that have become unavailable and unusable as Gas Provided as Guarantee. In addition, Edison Stoccaggio S.p.A. shall report to the Responsible for Balancing the Shippers who have not renewed the Storage Contract for at least one service and to each Shipper the quantity of Gas Provided as Guarantee that may not be utilised after the deadlines prescribed by Article 8.5 of this Code.

Similarly, the Shipper undertakes not to stipulate any agreement and/or to terminate existing agreements with third parties relating to the Gas Provided as Guarantee with longer terms than the validity of the existing contracts with the Storage Company.

Edison Stoccaggio S.p.A. shall include all gas quantities pledged as collateral in favour of the Responsible for Balancing or of the Storage Company itself in calculating the Shipper's gas availability for:

- i) verifying compliance with the Injection and Withdrawal profiles and the consequent application of the balancing costs;
- ii) calculating the available Injection and Withdrawal Capacities;
- iii) applying the provisions of Article 15.14 of Resolution no. 119/05 and of paragraph 5.4 of this Storage Code.

In the communications per this paragraph, the Authorised Shipper is also obligated to indicate the quantities of Gas Provided as Guarantee, broken down by type of Storage Service.

8.3 PROCEDURE FOR ATTRIBUTING INTERNAL CONSUMPTION IN THE INJECTION AND WITHDRAWAL PHASE

8.3.1 Introduction

Gas consumption relating to the treatment plants and for internal use within the plant for each Gas-Day G (internal consumption) shall be apportioned among all the Shippers of the Storage Services in accordance with the provisions of this procedure.

8.3.2 Apportionment of Internal Consumption

The following is defined:

$$AC_{\%} = \frac{\sum_i AC_i}{\left| \sum_k S_k \right|}$$

Where:

AC_i = value in kWh of the gas necessary for the operation of the treatment plants and for internal use within the plant (internal consumption) reported for Gas-Day G measured at the i-th storage site; each value is obtained by multiplying the volume of gas by the self-consumption determined in accordance with Ch. 9, times the corresponding average daily PCS.

S_k = value of the Allocation of the k-th Shipper of the Modulation Storage and Constant Peaks of Modulation Storage Services and of short-term assignments on Gas-Day G at the virtual interconnection point corresponding to the Storage Hub. The values of S_k , are understood to be positive if they concur with FP_i and negative if they do not concur.

The Storage Company allocates internal consumption of gas to cover the technical consumption for the operation of the treatment plants and for internal plant use in proportion to the total volume allocated to the Shipper according to the following criteria;

- a) The Shipper who moved gas at the storage site in the same direction as FP_i shall be attributed an internal consumption AC_k equal to the percentage of $AC_{\%}$ relating to the direction of FP_i applied to the quantity of gas moved;
- b) The Shipper who moved gas at the storage site in the opposite direction to FP_i shall be attributed a quantity AC_k of stored gas equal to the percentage of $AC_{\%}$ relating to the direction of FP_i applied to the quantity of gas moved.

The internal consumption of gas AC_k allocated to the k-th Shipper on day G shall be:

$$AC_k = S_k \times AC_{\%}$$

The volumes of gas for self-consumption can be divided, as described in paragraph 9.3, into:

- gas consumed on a continuous basis;
- gas consumed for specific operations.

Gas consumed on a continuous basis is allocated daily only to Users who have operated on the gas day on which the gas is consumed according to the prevailing flow rule.

The gas consumed for specific operations is allocated to Users by different methods depending on whether these operations take place during plant shutdown/under maintenance or during operations:

- gas consumed by a plant in shutdown/under maintenance is allocated, on the first available day after conclusion of the specific operation, to all Users according to a pro-rata criterion on the space allocated;
- gas consumed by a plant in operation is allocated, on the first available day after the conclusion of a specific operation, only to users that have operated on the days of execution of this specific operation according to the prevailing flow rule.

At the end of the calendar year, any gas volumes for self-consumption not previously determined, or subject to recalculation and therefore not already allocated during the calendar year, are subject to integration and/or adjustment for each User in accordance with the criteria indicated in points a) and b) above.

The adjustment referred to in the previous paragraph is performed only in physical terms.

Edison Stoccaggio performs this adjustment as soon as the new data required for recalculation of the new amounts is known and if the gas stocks or space available to the Users allows the physical allocation of the adjustment. If it is temporarily impossible to allocate the adjustment in physical terms, the parties agree on a date no later than 31 December each calendar year for completion of the physical adjustment allocation process for the thermal year of reference.

As an exception to the procedure specified above, only if the adjustment involves Users which, at the date of its notification, are not in possession of a valid Storage Contract in force with Edison Stoccaggio, the adjustment will be performed in economic terms through the issue of suitable documentation stating the total economic value of the adjustment quantity of gas.

The total economic value of the adjustment quantity of gas is calculated as the sum of volumes produced per the gas market price (SAP) referring to each gas day on which a difference has been ascertained between the gas for self-consumption already allocated and the final figure determined at the end of the calendar year.

8.3.3 Daily allocations

The Storage Company makes available each day to the Shippers of the service, in accordance with the procedures prescribed in paragraph 4A.6 of the Annex “Times and Methods of Information Coordination”, the total quantities of gas for each service, expressed in kWh, taking into account the pertinent internal consumption, moved on the system on the previous day.

Based on each Shipper’s reservations and the data available up to that time, the Storage Company determines the Shipper’s position in storage.

Moreover, the Storage Company makes available each day, for each service, the change in the storage position for any outcomes of the daily session of the MGS market, based on the communications made available by GME to the Storage Company.

The Storage Company keeps a record of the gas moved daily for each Shipper, which it makes available to the Shipper, no later than 3 working days from the date of receipt of the request, containing the following information expressed in kWh:

- a) Stock at the start of the Thermal Year;
- b) Stock at the end of the injection cycle;
- c) Stock at the end of the month preceding that of the request;
- d) Daily amount withdrawn allocated in definitive form;
- e) Daily amount injected allocated in definitive form;
- f) Daily amount moved until the day prior to the day of receipt of the request;
- g) Any other information necessary for the reconstruction of the stock such as exchanges/sales/transfers, including those that occurred on the MGS market session;
- h) Internal consumption.

The request shall be delivered to the Storage Company according to the procedures defined in Paragraph 4A.6 of the Annex “Time and Methods of Information Coordination”.

8.4 BALANCING COSTS

To assure the balancing and replenishment of the system in case of use of capacities exceeding those committed, the Storage Company applies, as prescribed in the Resolution, the balancing costs listed below.

8.4.1 Minimum injection stock of the Peak Modulation Service

If, according to the Allocations, at the end of each month M of the injection phase, the Shipper k's $G_{k,m}$ stock for the Peak Modulation Service, calculated in accordance with paragraph 8.2 of this chapter, is lower than the minimum stock defined by the utilisation profiles per the chapter 2 “Description of the Storage Facilities and their Operation”, then a fee equal to 0.4 times the unit space price f_s (defined by ARERA in accordance with Resolution 67/2019/R/Gas and its Annex A (RAST)) is applied to the difference, if positive, between the aforementioned minimum stock and the Shipper's $G_{k,m}$ stock for the Peak Modulation Service, corrected to take into account any sales referred to in Ch. 7, according to the following formula:

$$[S_k * G_{mins,m\%} - (G_{k,m} + CG_k)] * 0,4 * f_s$$

where:

CG_k represents the quantity of Gas involved in the sale carried out by the Shipper k; CG_k is positive if users increase their stock and negative if users decrease their stock;

$G_{k,m}$ represents the stock allocated at the end of month M to the Shipper k for the Peak Modulation Service;

S_k is the space allocated to User k for the Peak Modulation Service;

$S_k * G_{mins,m\%}$ is the minimum stock of User k for each month M deriving from the application of the capacity utilisation profile for products with seasonal injection of the Peak Modulation Service conferred at the start of the Thermal Year.

The values for each month M of the above-mentioned $G_{mins,m\%}$ Injection usage profile are published on the storage company's website sufficiently in advance of the allocation procedures.

The same values may be updated, if necessary, in accordance with the scheduling deadlines and/or if unforeseeable operational needs or technical reasons emerge that modify all or part of the Injection (e.g. when the actual movements of Users have differed from the previously transmitted capacity usage schedules or as a result of the events referred to in Paragraph 17.6.2).

With regard, instead, to products of the Peak Modulation Service with seasonal injection allocated after the start of the Thermal Year, which begin in month M, instead of the $G_{min\%}$ terms the values published on the Storage Company's website are applied and determined based on the following equation:

$$G_{mins,m\% \text{ infr}} = \frac{G_{mins,m\%} - G_{mins,m-1\%}}{G_{maxs,ottobre\%} - G_{mins,m-1\%}}$$

For the capacities related to monthly products of the Peak Modulation Service that begin in month M, the term $G_{mins,m\%}$ is set equal to 1 from month M until the last month of the injection phase.

For Shippers to whom Peak Modulation Storage Capacity was allocated for multiple seasonal or monthly products, the stocks considered are those determined as the sum of the stocks calculated on the basis of the terms $G_{mins,m\%}$, $G_{maxs,m\%}$, $G_{mins,m\% \text{ infr}}$, $G_{maxs,m\% \text{ infr}}$, as published on the Storage Company's website.

8.4.2 Maximum injection stock of the Peak Modulation Service

If, according to the Allocations, at the end of each month M of the injection phase, the Shipper k's $G_{k,m}$ stock for the Peak Modulation Service, calculated in accordance with paragraph 8.2 of this chapter, is higher than the maximum stock defined by the utilisation profiles per the chapter 2 "Description of the Storage Facilities and their Operation" and the total stock of stored gas is greater than the one identified with reference to all Shippers' utilisation profiles, then a fee equal to 0.2 times the unit space price f_s (defined by ARERA in accordance with Resolution

67/2019/R/Gas and its Annex A (RAST)) is applied to the difference, if positive, between the Shipper's $G_{k,m}$ stock of the Peak Modulation Service, corrected to take into account any sales (CG_k) referred to in Ch. 7, and the above-mentioned maximum stock, according to the following formula:

$$[(G_{k,m} + CG_k) - S_k * G_{maxs,m\%}] * 0,2 * f_s$$

where:

CG_k represents the quantity of Gas involved in the sale carried out by the Shipper k ; CG_k is positive if users increase their stock and negative if users decrease their stock;

$G_{k,m}$ represents the stock allocated at the end of month M to the Shipper k for the Peak Modulation Service;

S_k is the space allocated to User k for the Peak Modulation Service;

$S_k * G_{maxs,m\%}$ is the maximum stock of User k for each month M deriving from the application of the utilisation profile of the capacities related to products with seasonal injection for the Peak Modulation Service assigned at the start of the Thermal Year.

The values for each month M of the above-mentioned injection usage profile $G_{maxs,m\%}$ are published on the storage company's website sufficiently in advance of the procedures.

The same values may be updated, if necessary, in accordance with the scheduling deadlines and/or if unforeseeable operational needs or technical reasons emerge that modify all or part of the Injection process (e.g. when the actual movements of Users have differed from the previously transmitted capacity usage schedules or as a result of the events referred to in Paragraph 17.6.2).

With regard, instead, to products of the Peak Modulation Service with seasonal injection allocated after the start of the Thermal Year, which begin in month M , instead of the term $G_{maxs,m\%}$ the values published on the Storage Company's website are applied and determined based on the following equation:

$$G_{maxs,m\% \text{ infr}} = \frac{G_{maxs,m\%} - G_{mins,m-1\%}}{G_{maxs,ottobre\%} - G_{mins,m-1\%}}$$

For the capacities related to monthly products that begin on month M , the term $G_{maxs,m\%}$ is set equal to 1 from month M until the last month of the injection phase.

For Shippers who have been granted Peak Modulation Storage Capacity for more seasonal or monthly products, the stocks determined as the sum of inventories calculated on the basis of the terms $G_{mins,m\%}$, $G_{maxs,m\%}$, $G_{mins,m\% \text{ infr}}$, $G_{maxs,m\% \text{ infr}}$, as published on the Storage Company's website.

8.4.3 Use of gas for Strategic Storage purposes with authorisation from the MSE

In cases of authorisation to use of strategic gas in accordance with current regulations, Edison Stoccaggio S.p.A. makes available the Strategic Gas owned to the Shipper who requests it, after the Shipper submits the documentation pertaining to the authorisation to use additional storage capacity received from the MSE, and presents an adequate “autonomous, irrevocable and first-demand” bank guarantee issued by leading banks with a rating of at least BBB+ Standard & Poor’s or Baa1 Moody’s Investor Service, to cover the amount due for the acquisition of the strategic gas and valued according to a price established by the Authority for the period of the authorisation. As an alternative to the presentation of the bank guarantee, the previously authorised Shipper may decide to pay in advance the Strategic Gas made available by Edison Stoccaggio S.p.A.

For this purpose, Edison Stoccaggio S.p.A. makes available on its website the forms for the submission of the request and of the autonomous, irrevocable, first demand bank guarantee issued by leading banks with a rating of at least BBB+ Standard & Poor’s or Baa1 Moody’s Investor Service, as well as the procedures and terms for paying the amount described above. Requests that are incomplete or do not conform to the indications of Edison Stoccaggio S.p.A. shall not be considered acceptable.

The Strategic Gas shall be made available by Edison Stoccaggio S.p.A. to the Shipper (and accounted for among the latter’s availability) starting from the day following receipt of the documentation described above if said documentation reaches the Shipper no later than 4:00 pm, or starting from a subsequent date if indicated by the Shipper.

Subject to the provisions of Article 15, paragraph 10 of Resolution no. 119/2005, Edison Stoccaggio S.p.A. shall reacquire and replenish the Strategic Gas previously used by the authorised Shipper only after receipt of the related payment or enforcement of the bank guarantee if the Shipper is in breach.

8.4.3.1 Storage capacity of Shippers for Strategic Storage purposes with authorisation by the MSE

In cases of authorisation in accordance with current regulations, Edison Stoccaggio S.p.A. makes Storage Capacity available to the Shipper who requests it, upon presentation by the Shipper of the documentation pertaining to the authorisation to use additional storage capacity received from the MSE, in accordance with procedures and terms made available by Edison Stoccaggio S.p.A. for this purpose on its website.

Requests that are incomplete or do not conform to the indications of Edison Stoccaggio S.p.A. shall not be considered acceptable.

The Storage Capacity shall be made available to the Shipper (and accounted for among the latter's availability) starting from the day following receipt of the documentation described above if said documentation reaches Edison Stoccaggio S.p.A. no later than 4:00 pm, or starting from a subsequent date indicated by the Shipper.

8.4.3.2 Exceeding the Withdrawal Capacity in the period to which the authorisation refers

The Shipper authorised to withdraw Strategic Storage may use, within the limits of the previously authorised quantities and capacities, the volumes of stored gas available to it even above the limits prescribed by paragraph 14.4 of Resolution AEEG 119/05.

8.4.3.3 Exceeding the Withdrawal Capacity in the period after the one to which the authorisation refers

For the remaining period of the Withdrawal Phase after the period to which the authorised use of Gas and of Withdrawal Capacity per the previous paragraph refers, Edison Stoccaggio S.p.A. shall calculate a Withdrawal Capacity (hereafter, calculated Withdrawal Capacity) on the basis of the provisions for the determination and publication of the profiles for the reduction of the Withdrawal Capacity, considering the peak withdrawal capacity that would have been available to the Shipper on the basis of a stock corresponding to the limits prescribed in Paragraph 14.4 of Resolution AEEG 119/05, or, if lesser, to the Shipper's stock increased by the authorised quantities.

8.5 WITHDRAWAL LOWER THAN STOCK

If at the end of the Withdrawal Period, the Shipper has not withdrawn 100% of the gas it owns and does not renew a contract with the Storage Company for the next Thermal Year, it shall pay, for quantities of gas in stock as at 31 March, the price defined by ARERA in Annex A of Resolution 67/2019/R/Gas (RAST).

If the Shipper does not free the occupied Space by 30 April, the Storage Company shall publish on its website the gas quantities owned by the Shipper and the methods for managing the competitive procedure for the

sale of the aforesaid Gas excluding the quantities per Article 16.4.4 and including any Gas Provided as Guarantee. The sale price is set at 50 percent of the “C_{MEM}” component pursuant to Article 6 of the TIVG defined by the Authority for the same period.

The Storage Company shall pay the Shipper the revenue for the sale, net of the fixed amount of Euro 50,000.

8.6 PROCEDURE FOR PARTICIPATING IN THE BALANCING MARKET

The procedure for determining the gas quantities subject to the bids by Shippers accepted on the balancing market - G-1 Session - is published on the Storage Company's website.

It defines the timing and the methods for managing the information flows between the parties, functional to the allocation of these quantities on the storage systems in which Shippers have availability for purposes of defining the schedules on Gas-Day G-1 for Gas-Day G.

With reference to the balancing market, the M-GAS exchange platform, managed by the Energy Markets Manager (GME), the Shippers have the right to submit bids both during the daily session of the Regulated Market for the trading of gas stored (MGS), pursuant to Article 7 of the Integrated Balancing Regulation (TIB) as well as, during the market sessions for Locational products (MPL), possibly at the request of the Responsible for Balancing, as per Article 6 of the TIB.

Unless otherwise specified, the provisions contained in the Rules for the Natural Gas Market (hereinafter, “Rules”) are valid for this section, as prepared by the Energy Markets Manager (GME).

In implementation of Article 7 of the Integrated Regulation relative to provisions regarding regulatory conditions for performing management activities for physical gas markets (TICORG), approved with Resolution 66/2017/R/Gas, the Storage Company and the GME signed an agreement that governs:

- a) information flows relative to maximum quantities in storage that can be traded by each Shipper, in compliance with limits set in paragraph 8.6.2.1;

- b) methods that definitively ensure the consistency of the transactions carried out through MGS prior to communication of the outcomes.

8.6.1 Regulated Market for the trading of gas stored (MGS)

To participate in the session of the Regulated Market for the trading of gas stored (MGS) on the Storage Company's Storage System, please refer to the instructions provided in the Rules of the GME for that which is not addressed in this paragraph.

The MGS session is opened daily on the M-GAS exchange platform managed by GME.

On MGS, authorised Shippers can submit bid to purchase or sell gas.

The Storage Company transmits to the Responsible for Balancing, on a daily basis no later than 9:00 am of day G+1, the daily quantities injected or withdrawn (daily flow) from its Storage System relating to day G.

The MGS session on trading day G is open from 9:00 am of G-4 and closes at 10:00 am on G+1.

Typically, the outcomes from the MGS session are made available to Shippers by the GME no later than 11:15 am on day G+1, and in any case, subsequent to the confirmation from the Storage Company of the consistency of the transactions carried out on MGS.

The GME, at the end of the session, performs controls of the consistency between the bids submitted by Shippers and deemed valid, pursuant to the Rules.

If the condition for the publication of the outcomes by GME is not satisfied, please refer to Articles 8.4 and 8.5 of the GME-Edison Stoccaggio Agreement, approved by the Authority with Resolution 630/2017/R/Gas of 14 September 2017, as subsequently amended.

The Storage Company, based on the outcomes of the daily MGS session, updates for each service, the stock in storage for each Shipper that holds a contract, effective from the end of the Gas-Day in which the MGS market session took place.

8.6.1.1 Maximum limits for MGS trading

The bids to buy and sell gas in storage from each Authorised MGS Shipper must comply with the Maximum Limits as developed and made available/communicated by the Storage Company to GME.

The Storage Company makes available on Escomas, typically between 6:00 am and 8:00 am of Gas-Day G+1, the maximum limits for the purchase and sale bids on MGS for each Shipper, determined as described below:

- 1) For purchase availability
 - a. The maximum quantities are equal to the Space available for the Shipper on Gas-Day G, taking into account:
 - i) the quantities subject to Reformulation of the daily schedules per paragraph 6.6.3 above on the same Gas-Day G, as confirmed by the Storage Company, increased or decreased based on the portion of Internal Consumption pertaining to the Shipper;
 - ii) the maximum quantities that can be scheduled by the Shipper in injection on Gas-Day G+1. These quantities available for scheduling are calculated as equal to the sum of the continuous injection capacity and any interruptible capacity assigned to the Shipper for day G+1.
- 2) For sale availability
 - a. The maximum quantities are equal to the Shipper's residual stock on Gas-Day G, taking into account:
 - i) the quantities as per paragraph 6.6.3 above on the same Gas-Day G, as confirmed by the Storage Company, increased or decreased based on the portion of Internal Consumption pertaining to the Shipper;
 - ii) the maximum quantities that can be scheduled by the Shipper in withdrawal on Gas-Day G+1. These quantities

available for scheduling are calculated as equal to the sum of the continuous withdrawal capacity and any interruptible capacity assigned to the Shipper for day G+1.

For amounts available for sale, the maximum quantities are further decreased for gas quantities pledged as collateral in favour of the Responsible for Balancing or the Storage Company itself per paragraph 8.2.1.4 above and of the quantity per paragraph 16.4.4 below.

Edison Stoccaggio S.p.A. specifies that the Major Transport Company does not have a storage contract with Edison Stoccaggio S.p.A. and, therefore, does not participate in the MGS session.

For Shippers who have subscribed to one or more Storage Services per this Code, the maximum limits shall be determined considering the stock and the capacities available for each type of service.

In the event the Storage Company is unable to make the maximum limits available to the GME by 10:00 am of Gas-Day G+1, the GME conducts its activities considering, for purposes of consistency checks, the maximum limits equal to zero only following express confirmation sent by the Storage Company.

If the GME or Storage Company finds that it has committed serious errors in carrying out the activities of definition, compilation, loading and management of the data relative to the maximum limits that the GME downloaded from Escomas, prior to publishing the outcomes of the MGS session, the Storage Company, or the GME, communicates as such to the GME or the Storage Company.

The GME informs the Shippers and the Responsible for Balancing of the need to cancel and execute the session again and agrees with the Storage Company the timing for:

- the re-execution of the session;
- if in error, the loading of the new file with the Shippers' maximum limits in the dedicated section of the Escomas portal.

8.7 CHARGES TO COVER THE ELECTRICITY CONSUMPTION NECESSARY FOR THE OPERATION OF THE COMPRESSION AND TREATMENT PLANTS

On annual basis, the Storage Company, no later than March 1, shall publish on its own website, the monthly details relative to the previous solar year correlating the gas moved (in kWh) and the electricity consumption (in MWh) and the charges to cover the costs of said consumption required for the operation of the compression and treatment plants, relating only to the movements in the direction of the prevalent flow of the system (FPI)

The procedures for apportioning the electricity charges to Shippers during the course of the thermal year are set out in Chapter 16 A.

8.8 PRICES FOR THE STORAGE SERVICES

The Shipper must pay Edison Stoccaggio S.p.A., for the performance of the services, the amounts deriving from the application of the prices published by Edison Stoccaggio S.p.A. on its website, structured as follows:

C_A (c€/kWh/year)
C_S (c€/kWh/year)
C_I (c€/kWh/year)
C_I (c€/kWh/day/year)
C_{COMP} (c€/kWh/year)

The assignment price C_A determined in the auction procedures shall apply to the Space assigned to the Shipper for the Modulation Service and the Space assigned for the Constant Peaks of Modulation Service by auction procedures per chapter 5 at the start of the Thermal Year, possibly updated during the Thermal Year, revised to take into account sales of capacity.

The price C_{COMP} is the price to cover charges related to the compensatory contribution for the failure to make alternative use of the area¹, as per Article 2, paragraph 558 of Law no. 244 of 24 December 2007, as amended by Article 1, paragraph 96 of Law no. 124 of 4 August 2017, is equivalent to 0.001 c€/kWh, and applies, on an annual basis, to the space assigned to the Shipper in accordance with the previous paragraphs 5.8.2.1, 5.8.2.2, 5.8.2.3, 5.8.3, 5.9.1, updated to reflect sales of capacity as per Chapter 7.

The prices applied to capacities assigned on a monthly, weekly and daily basis, both continual and interruptible, through the procedures described in paragraph 5.9.2 are reported in that paragraph.

The prices applied to capacities assigned on a daily basis through the “overnomination” procedures described in paragraph 3.2.1.2 are reported in that paragraph.

With reference to the capacities assigned to Shippers on a monthly and weekly basis, in the event in which the Shipper does not have a storage capacity for the immediately subsequent month or week, respectively, and has not withdrawn all the gas it owns in the storage system at the end of the month or week, respectively, that is subject of the assignment, Edison Stoccaggio will apply to any quantities of gas present in storage the lower of the space tariff prices C_s of the Storage Company plus 30%, proportional to the period in which the gas remains in the storage system. Furthermore, Edison Stoccaggio will sell the gas remaining in the storage system through competitive procedures, using as the auction base 50% of the last available value of the component to cover natural gas procurement costs on wholesale markets as described in Article 6 of Annex A of the Resolution ARG/GAS 64/09 (TIVG), as subsequently modified. The proceeds from this sale will be reimbursed to the Shippers, after deducting the amount described in paragraph 8.5.

The Storage Company shall recognise in favour of the Shipper the amounts that may arise from the application of the above provisions in accordance with the provisions of paragraph 16.4.1.

¹ Applied to Shippers pursuant to Resolution 855/2017/R/Gas.

CHAPTER 9

GAS MEASUREMENT

9.1 INTRODUCTION.....	212
9.2 GENERAL PRINCIPLES FOR GAS MEASUREMENT	212
9.3 MEASUREMENT CALCULATION INSTRUMENTS	213
9.4 MEASUREMENT DATA VALIDATION.....	214
9.5 CALCULATION OF AMOUNTS IN THE EVENT OF MEASUREMENT SYSTEM ANOMALIES	215
9.6 MANAGEMENT AND MAINTENANCE OF MEASUREMENT SYSTEMS.....	215
9.7 PRODUCTION REGISTRY	215
9.8 AUDITS AND CONTROLS	216

9.1 INTRODUCTION

For purposes of calculating the volume of natural gas injected and withdrawn, the Storage Company installs measurement systems designed to detect volumes and their energy equivalent expressed in multiples of joule (J) units; the Storage Company performs the measurement based on the provisions of Article 23, paragraph 1 of the Ministerial Decree of 26 August 2005 and in accordance with Article 7, paragraph 4 of Annex A to the Resolution AEEG 185/05.

This chapter briefly describes the principles and various procedures that can be used for measurement, with a brief comment describing the facilities and obligations in relation to management. The reference regulatory provisions and procedures for detecting and monitoring quality provisions are contained in Chapter 10.

9.2 GENERAL PRINCIPLES FOR GAS MEASUREMENT

Some general principles, necessary for the Storage Company to accurately conduct measurements, can be summarised as follows:

- a) The gas measurement is expressed in volume and/or energy;
- b) The unit of measure used for the volume is the cubic metre at the benchmark temperature and pressure conditions of 15° C and 1.01325 bars (standard conditions), respectively;
- c) The unit of measurement used for energy is the Giga Joule (GJ) as per the Directorial Decree of 22 March 2011;
- d) The quantity of energy in GJ is obtained by multiplying gas volumes by the Higher Heating Value (HHV) of the gas. The gas composition and the related chemical-physical parameters are determined by the Storage Company based on the instructions in Chapter 10 “Gas Quality”;
- e) The amount of energy in GJ is converted into kWh as per Regulation (EU) No. 312/2014 of 26 March 2014;
- f) The Storage Code is in reference to the most recent Italian legislative, technical, and metrological rules. The timing for adopting new rules will be that which may be envisaged within said rules;
- g) The technique used to measure the flow rate and volumes of Gas in the Storage Company’s current measurements stations is the ultrasonic for natural gas;
- h) The measurement stations in the storage sites are designed, built, and managed by the Storage Company in compliance with the provisions of governing regulations on legal metrology;
- i) The Storage Company sends the relative documentation for the measurement system to the competent National Mining Office for

Hydrocarbons and Georesources (UNMIG), which verifies that it was correctly carried out, requiring, if necessary, that the company performs certain obligations and informing the Ministry of Economic Development.

9.3 MEASUREMENT CALCULATION INSTRUMENTS

The metering equipment installed in the storage plants is automated for gas measurement for tax purposes and is built and operated in accordance with the relevant national and international regulations. Each storage site has metering equipment suitable for determining volume and energy quantities and monitoring gas quality specifications.

The main measurement systems are automated with electronic processing devices. The m³/h and m³/g data collected for metrological purposes are stored and transferred by remote reading to the Transport Company and made available to the supervisory body (UNMIG). In addition, the measurement systems also have backup and control instruments to perform automated and non-automated determination of gas quantities.

In the plants, the measuring devices are ultrasonic gas flow meters which allow measurement for tax purposes of natural gas. Volume calculations are performed by electronic volume conversion devices associated with the meters and pressure and temperature transmitters.

The metering equipment installed at each storage site comprises metering lines, differentiated by injection and withdrawal activities, and an automated system for continuous determination of the volume and energy quantities in transit.

During Injection, the Gas delivered by the Transport Company to the Storage Company is measured:

- for the San Potito and Cotignola system downstream of the gas outlet used for consumption measurement;
- for the Cellino and Collalto system upstream of the gas outlet used for consumption measurement.

During Withdrawal, the Gas returned to the Transport Company by the Storage Company and issued into the NGPN is measured:

- for the San Potito and Cotignola system upstream of the gas outlet used for consumption;

- for the Cellino and Collalto system downstream of the gas outlet used for consumption.

The volumes of gas consumed for purposes of physical movement of the gas in the system attributed to Shippers according to the procedure indicated in paragraph 8.2 of the chapter “Balancing and Replenishment of Storage Sites” can be classified into two categories: Gas consumed continuously (for example, by thermal power plants, dehydration plants, and other); gas consumed only during operations on the systems (e.g., purging the wells and washing the compressors). While the former are measured with a dedicated system, the latter are calculated or estimated only as necessary.

Below is a brief summary of the types of gas consumed by Edison Stoccaggio's system and the methods used to determine volumes.

Gas consumed on a continuous basis	Volume determination
Fuel gas for activities	Measure
Test fuel gas	Measure
Gas preheating	Measure
Processing consumption	Measure

Gas consumed for specific operations	Volume determination
Gas Compressor and Plant Cleaning	Calculation
Gas Compressor and Plant Venting	Calculation
Well cleaning	Estimate
Pressure leaks	Estimate
Gas leaks	Estimate

9.4 MEASUREMENT DATA VALIDATION

Measurement data is validated by verifying the completeness, accuracy and veracity of the data processed by the measurement system and the absence of any anomalies that could compromise its validity.

The validation procedure, carried out at the end of each Gas-Day, includes two stages:

- Validation of measurement data at each operating site, where the measurement systems are installed, verifying the correct functioning of the installed measurement systems and the consistency of the data generated. If a malfunction is found in the measurement systems, the daily data used

for commercial purposes will be those of the back-up system, as defined below in the paragraph 9.5 of this chapter.

After the control activities, the manager of each operating site certifies the daily data on volumes, HHV, and energy.

- b. Validation of measurement data at the operating site, where the consistency and completeness of the values at the level of the Storage System is verified, for which data is collected from all of the Storage Company's measurement systems and entered into the IT system. Once this stage has been completed, the data is deemed usable by the Storage Company for carrying out the accounting activities for the injected/withdrawn gas on a daily basis within the times defined with the Major Transport Company.

9.5 CALCULATION OF AMOUNTS IN THE EVENT OF MEASUREMENT SYSTEM ANOMALIES

In the event of failure or malfunction of one or more of the instruments that comprise the primary measurement system, the amounts are calculated by the back-up system that operates in parallel as a guarantee. The equipment for this system, installed on each measurement line, is regularly checked to verify correct calibration and normal operation.

The timing defined with the Major Transport Company for sending the measurement data necessary for the daily balancing are maintained and observed even when the back-up system is used. In case of failure or malfunction of both systems (primary and back-up) a measurement figure is estimated in agreement with the transport companies.

9.6 MANAGEMENT AND MAINTENANCE OF MEASUREMENT SYSTEMS

The measurement system is installed in the Station and is owned by the Storage Company, which is responsible for its management. The verification of the efficiency and maintenance of the systems is entrusted to specialised companies and carried out every six months, in accordance with the provisions of the competent UNMIG.

9.7 PRODUCTION REGISTRY

The analogue or digital registry of daily measurements are available to the competent UNMIG, by the Storage Company, for a period of five years starting from the end of the end of each storage cycle.

9.8 AUDITS AND CONTROLS

Periodically, upon request and in the presence of officials from the competent UNMIG, audits are carried out to verify the correct accounting of the volumes handled in storage.

Upon written request to the Storage Company and according to procedures agreed with the Storage Company, the Shipper has the right to be present at the operations carried out at the sites that have an impact on the data measured.

CHAPTER 10

GAS QUALITY

10.1 INTRODUCTION.....	218
10.2 GAS QUALITY PARAMETERS.....	218
10.3 QUALITY SPECIFICATION.....	218
10.4 CALCULATION OF PARAMETERS FOR QUALITY CERTIFICATION	218
10.4.1 Parameters for calculating energy (HHV components).....	219
10.4.2 Quality control parameters.....	219
10.4.3 Management of out-of-spec gas.....	219
10.4.4 Methodology for calculating parameters.....	220
10.5 QUALITY DATA VALIDATION	220
10.6 OPERATIONAL AND FISCAL VALUES	221
10.7 VERIFICATION REQUEST FROM SHIPPER	221

10.1 INTRODUCTION

This chapter describes the requirements for gas quality with regard to storage injection and withdrawal, to allow the interoperability of storage facilities and the connected transport system.

The chapter also describes the procedures adopted to ascertain the gas quality and validate measurements.

Lastly, the chapter specifies the methods for determining the Higher Heating Value (HHV) at the points of injections and withdrawal.

To ensure the integrity of the system security and the interoperability with the National Gas Pipeline Network (NGPN), the Storage Company complies in matters concerning gas quality as specified in Resolution 185/05 of the authorities and subsequent amendments and the provisions of the Bill; in addition, for the assessment of gas quality and for validation of the injection and withdrawal measurements from the storage sites of Collalto, Cellino, San Potito and Cotignola, the Storage Company uses its own directly managed systems.

10.2 GAS QUALITY PARAMETERS

The parameters that characterise gas quality can be broken down into the chemical-physical parameters necessary for calculating energy (HHV) and for controlling the specifications of gas quality.

10.3 QUALITY SPECIFICATION

The chemical-physical characteristics of the gas injected and withdrawn from the system must comply with the values defined in Annex 10A.

10.4 CALCULATION OF PARAMETERS FOR QUALITY CERTIFICATION

The calculation of the control parameters for the quality specification is conducted at the Delivery and Redelivery Points as it enters and exits the Storage Company's plants equipped with the necessary instrumentation to establish quality parameters..

10.4.1 Parameters for calculating energy (HHV components)

The fundamental chemical-physical parameter for calculating energy is the Higher Heating Value (HHV), determined in accordance the prescriptions of the ISO 6976 standard based on the chemical composition of the gas, taking into consideration, at a minimum, the following elements:

1. Methane – C_1
2. Ethane – C_2
3. Propane – C_3
4. Isobutane – iC_4
5. Normal butane – nC_4
6. Isopentane – iC_5
7. Normal pentane – nC_5
8. Hexanes and higher – C_6^+
9. Nitrogen – N_2
10. Carbon dioxide – CO_2

10.4.2 Quality control parameters

The quality control parameters for gas, to ensure the interchangeability and security of the storage facilities and the transport systems, are as follows:

1. Higher Heating Value
2. Relative density
3. Wobbe Index
4. Carbon dioxide – CO_2
5. Oxygen – O_2
6. Hydrogen sulphide – H_2S
7. Mercaptan sulphur – S_{RSH}
8. Total sulphur - S_{tot}
9. Water dew point
10. Hydrocarbon dew point

10.4.3 Management of out-of-spec gas

It is forbidden to deliver gas to the system or return gas to the transport network that does not comply with the specifications listed in Annex 10A, or even if it meets these specifications, gas that contains elements not normally present in natural gas in quantities that could cause damage to the Shippers.

Therefore, the gas quality that the Shipper delivers or arranges for delivery to the Storage Company at the Delivery Point and what the Storage Company returns at the Redelivery Point, must comply with the specifications defined in Annex 10A.

Without prejudice to the provisions of Resolution no. 185/05 from the authorities, in cases of non-compliance with the Gas Injection Quality Specification which, although not out-of-spec, contains elements, normally not present in gas, in quantities that could cause damage to the Shippers, will be applied the provisions set forth in paragraph 17.2 of the chapter “Responsibilities of the Parties”.

10.4.4 Methodology for calculating parameters

The “energy” and quality parameters are calculated by the Storage Company in compliance with the requirements pursuant to Resolution 185/05 and its subsequent amendments and supplements.

The definition of the Gas' chemical composition is carried out continuously with a process by gaschromatograph just as the dew point of water is established continuously using an appropriate humidity analyser.

The calculation of the hydrocarbon dew point is carried out continuously with appropriate analysers at the Collalto, San Potito and Cotignola plants, while for the Cellino plant the value is calculated on a monthly basis by instant sampling on a spot day.

The content of oxygen, hydrogen sulphide, mercaptan sulphur and total sulphur is determined, on a monthly basis, through laboratory analysis of an instantaneous sample.

The instantaneous gas sample follows the UNI EN ISO 10715 standard "Natural gas - Sampling guidelines" regarding the sampling line, control of the filling process, and traceability of the cylinder.

All the instrumentation required to detect the quality parameters of natural gas is subject to regular calibrations and accuracy verifications, in compliance with current technical regulations on the matter, or, if these are incomplete, based on the manufacturer's technical file and agreed with the transport companies.

10.5 QUALITY DATA VALIDATION

The gas composition and quality data originating from gas chromatographs and from spot checks carried out on batch samples by a gaschromatographic analysis of a sample collected in the field (instantaneous sampling) carried out by ACCREDIA certified labs are considered valid for the purpose of calculating the HHV based on the provisions of

Resolution no. 185/05 and its subsequent amendments and supplements as well as based on the following criteria:

- a) Acquisition and review of data from each gas chromatograph and from the chemical analysis performed in the laboratory on the gas sample taken;
- b) Comparison with the data from the previous gas chromatograph analyses and with the results of the chemical analyses on gas samples previously collected;
- c) Consistency of analysis data;
- d) Concentration limit values taken from the field of historical values;
- e)

The gas chromatographs are subjected to periodic calibrations to verify their accuracy, in compliance with relevant legislation and reference technical standards in force or, if these are incomplete, with the technical file prepared by the manufacturer.

10.6 OPERATIONAL AND FISCAL VALUES

For the purposes of the Allocation and the subsequent invoicing, the HHV value used is that acquired, calculated and validated by the Storage Company.

The gas chromatograph calculates the concentration of the single components and the chemical and physical properties of the Gas according to the prescriptions of the ISO 6976 standard and on an hourly basis it calculates the arithmetical average of each component, of the HHV, the density and the Wobbe index, used to calculate the quantity in terms of energy moved into and out of storage.

For invoicing purposes, the relevant figure is that acquired, calculated and validated by the Storage Company.

10.7 VERIFICATION REQUEST FROM SHIPPER

The Shipper may request that the Storage Company verify the aforementioned data, indicating:

- a) The relevant storage site;
- b) The figure to be verified and the reference period;
- c) Other technical elements supporting the request.

Based on the elements indicated above and/or other elements that may be required, the Storage Company performs the relevant verifications and assessments within the technical times strictly necessary to carry out the activities, if this falls within the responsibilities referred to in this chapter.

The results of the controls in question are communicated to the Requesting User as soon as they are available.

If the controls demonstrate the accuracy of the recorded data, the Storage Company will charge back the costs incurred for the verification in question to the requesting user.

ANNEX 10A**TECHNICAL SPECIFICATION ON THE CHEMICAL-PHYSICAL
CHARACTERISTICS OF NATURAL GAS**

10A.1 QUALITY PARAMETERS.....	225
10A.2 OTHER PROPERTIES.....	225
10A.3 PERTINENT LAWS.....	225
10A.4 REFERENCE CONDITIONS.....	226

10A.1 QUALITY PARAMETERSHHV components

The components of natural gas used for purposes of measuring HHV are listed below.

Component	Acceptability values	Unit of measure
Methane	(*)	
Ethane	(*)	
Propane	(*)	
Isobutane	(*)	
Normal butane	(*)	
Isopentane	(*)	
Normal pentane	(*)	
Hexanes and higher	(*)	
Oxygen	≤0.6	% mol
Carbon dioxide	≤ 2.5	% mol

(*) for these components the acceptability values are intrinsically limited by the Wobbe Index acceptability field.

Trace compounds

Parameters	Acceptability values	Unit of measure
Hydrogen sulphide	≤5	mg/Sm ³
Mercaptan sulphur (*)	≤6	mg/Sm ³
Total sulphur (*)	≤20	mg/Sm ³

(*) Excluding odorant sulphur

Physical properties

Parameters	Acceptability values	Unit of measure
Higher Heating Value	34.95÷45.28	MJ/Sm ³
Wobbe Index	47.31÷52.33	MJ/Sm³
Relative density	0.55÷0.7	
Oxygen	< 0.6	% mol
Water dew point (a)	≤-5	°C

Hydrocarbon dew point (b)	≤0	°C
Max temperature	≤50	°C

(a) at pressure of 7.000 relative kPa

(b) in the pressure field of 100÷7000 relative kPa

10A.2 OTHER PROPERTIES

Pursuant to the provisions of the "Technical rule on chemical and physical properties and the presence of other components in fuel gas" contained in Attachment A of the Decree issued by Ministry of Economic Development on 19 May 2018, the gas under operating conditions, must not contain traces of the following components or in any case the same can be only be present in traces that cannot be detected by measuring instruments calibrated according to national and international process standards:

- a) Water and hydrocarbons in liquid form;
- b) Solid particulate matter in quantities that could cause damage to the materials used in gas transport;
- c) Other elements that could affect the safety or integrity of the transport system.

10A.3 PERTINENT LAWS

- a) UNI CEI EN ISO 80000-1 "Quantities and units" Part 1; General;
- b) Decree issued by Ministry of Economic Development 17 April 2008 "Technical Rules on the design, construction, testing, operation and supervision of works and plants for the transportation of natural gas with density exceeding 0.8"; Decree issued by Ministry of Economic Development 17 April 2008 "Technical Rules on the design, construction, testing, operation and supervision of works and plants for the transportation of natural gas with density exceeding 0.8";
- c) UNI EN 437 "Test gas – Test pressure – Equipment categories";
- d) ISO 13443 "Natural gas – Standard reference conditions";
- e) UNI EN 14532 "Natural Gas – Vocabulary";
- f) UNI EN ISO 6976 "Natural gas – Calculation of the heating value, relative density and Wobbe index, starting from its composition";
- g) Decree of 22 December 2000 "Identification of the National gas pipeline pursuant to article 9 of Italian Legislative Decree no. 164 of 23 May 2000;
- h) Resolution no. 185/05 "General dispositions by the Electricity and Gas Authority on the issue of natural gas quality";

- i) Ministerial Decree of 18 May 2018 “Update of the technical rule on the chemical-physical characteristics and the presence of other components in combustible gas to be conveyed”.

10A.4 REFERENCE CONDITIONS

The reference conditions of the units of volume adopted herein are the standards, that is, according to UNI EN ISO standard 13443:

<i>Pressure</i>	<i>101.325 kPa</i>
<i>Temperature</i>	<i>288.15 K (= 15°C)</i>

For calculating Higher Heating Value (HHV) and the Wobbe Index, the following enthalpy reference is assumed:

288.15 K (= 15 °C) ; 101.325 kPa

CHAPTER 11

INJECTION AND WITHDRAWAL PRESSURE

11.1 INTRODUCTION.....	228
11.2 PRESSURE AT DELIVERY POINTS	228
11.3 PRESSURE AT REDELIVERY POINTS	229

11.1 INTRODUCTION

Pressure is a fundamental parameter for service performance and for the interoperability of storage facilities with the connected transport system. Therefore, it is essential for the Storage Company to be able to refer to appropriate pressure values at the system's injection points.

11.2 PRESSURE AT DELIVERY POINTS

Shippers are required to deliver the gas or arrange for the gas to be delivered to the Delivery Point at the Minimum Contractual Pressure value, which the Storage Company has the right to request at any time. The Minimum Contractual Pressure identifies the value of pressure below which the daily performance could be interrupted altogether.

In order to achieve efficient storage management, the Storage Company determines the injection performance made available to Shippers in reference to a Average Contractual Pressure value, which may be higher than the Minimum Contractual Pressure. The Average Contractual Pressure identifies the value of pressure below which the daily performance of the system may be deteriorated. Any reductions in performance resulting from a gas delivery at a pressure level between the Minimum Contractual Pressure and the Average Contractual Pressure are subject to the balancing service and therefore do not entail any change in the Shipper's performance.

The value of the Average Contractual Pressure is assessed together with the transport company that owns the connected pipeline and is estimated based on the expected average pressure values delivered during the injection cycle under normal operating conditions of the connected pipeline. The Contractual Average Pressure is defined through statistical analyses of historical data and considering constraints and changes in structure that may occur in the Thermal Year for the relevant Contractual Average Pressure value.

According to operating practices, the Storage Company will be able to accept the gas at a pressure lower than the Average Contractual Pressure without this being subject to any specific communication nor does it exclude the possibility of the Storage Company requesting that said value is restored.

The Minimum Contractual Pressure and the Average Contractual Pressure are the subject of an agreement with the Transport Company that owns the NGPN connected to the system.

Each year, the Storage Company will publish the Average Contractual Pressure and the Minimum Contractual Pressure on its website, in conjunction with the publication of information and timing on the assignment cycle.

With regard to the Shipper's failure to comply with the pressure constraint, please refer to paragraph 17.2 of the chapter "Responsibilities of the Parties".

11.3 PRESSURE AT REDELIVERY POINTS

The Storage Company commits to redeliver the gas at the value of the Minimum Contractual Pressure at Redelivery Point, which the Shipper has the right to request at any time. This value must never exceed the maximum operating pressure value for the pipeline connected to the system.

According to operating practices, the Storage Company normally redelivers gas at the operating pressure for the pipeline connected to the system, without prejudice to the right of the Shipper to request the Minimum Contractual Pressure from the Transport Company.

The Minimum Contractual Pressure is the subject of an agreement with the Transport Company that owns the NGPN connected to the system.

Each year, the Storage Company will publish the Minimum Contractual Pressure at Redelivery Point on its website, in conjunction with the publication of information and timing on the assignment cycle.

CHAPTER 12

SERVICE QUALITY

12.1 INTRODUCTION.....	231
12.2 KEY PRINCIPLES	231
<i>12.2.1 Flexibility</i>	<i>231</i>
<i>12.2.2 Impartiality in treatment.....</i>	<i>231</i>
<i>12.2.3 Service efficiency.....</i>	<i>231</i>
<i>12.2.4 Continuity</i>	<i>232</i>
<i>12.2.5 Health, safety and the environment.....</i>	<i>232</i>
<i>12.2.6 Participation</i>	<i>232</i>
<i>12.2.7 Information</i>	<i>232</i>
12.3 SERVICE QUALITY STANDARDS.....	233
<i>12.3.1 SERVICE SAFETY STANDARDS</i>	<i>233</i>
<i>12.3.2 SERVICE CONTINUITY STANDARDS</i>	<i>234</i>
<i>12.3.3 COMMERCIAL QUALITY STANDARDS.....</i>	<i>237</i>

12.1 INTRODUCTION

The Storage Company seeks to provide a high quality standard in performing the Storage Service, guaranteeing Shippers an appropriate level of safety and respect for the environment, technical reliability and service continuity, as well as commercial quality, by using the best available techniques.

12.2 KEY PRINCIPLES

The Storage Company, in performing its core business activities, is guided by the following key principles:

12.2.1 Flexibility

The Storage Company seeks to guide its activities in relation to Shippers based on the principle of the utmost available flexibility, in compliance with the provisions of the law, the principles expressed in this Code, and, in particular, for the fair and non-discriminatory treatment of all Shippers.

A concrete example of flexibility is the possibility for the Advisory Committee to submit proposals for updating the Code in any period of the Thermal Year, as described in paragraph 20.4 of the chapter “Updating the Storage Code”.

12.2.2 Impartiality in treatment

The Storage Company ensures equal treatment without discrimination in its actions with Shippers. This Code is one of the main tools to ensure these objectives.

12.2.3 Service efficiency

The Storage Company identifies the technological, organisational and functional solutions that ensure that the service provided is appropriate for the needs of the market to the extent possible.

12.2.4 Continuity

The Storage Company's commitment in relation to the Shipper is to provide a continuous and regular service and thus it seeks to minimise service interruptions, promptly notifying the relevant Shippers and striving for the quickest possible recovery of normal operating conditions.

12.2.5 Health, safety and the environment

The Storage Company is constantly committed to improving both the safety of its facilities and with respect to individuals, as well as respect protection of the environment.

Ever since 2001 Edison Stoccaggio has adopted an integrated environment and safety management for its plants in accordance with UNI EN ISO 14001:15 and UNI ES ISO 54001:18 standards.

In 2010 following the expansion of the field of application of the Seveso directive (currently Italian Legislative Decree no. 105 of 2015) to storage fields, this system was further integrated based on the provisions of the aforementioned Legislative Decree for plants subject to relevant accident risk.

12.2.6 Participation

Shippers, Transport Companies, and the primary trade unions were invited to participate in the Advisory Committee to contribute in drafting the Code and propose the most appropriate updates, as established in chapter 20 "Updating of the Storage Code".

12.2.7 Information

The Storage Company is constantly committed to providing the Shipper with the best possible support in understanding the activities governed by the Storage Contract and therefore by the Code; as such, it prepares communications to the Shipper in order to most suitably clarify assumptions, objectives, and results.

Furthermore, the Shipper, as counterparty, has the right to request information relating to its Storage Contract (e.g., its administrative-accounting situation, methods of calculating the Allocations, exchange of pertinent information with the Major Transport Company and the other operators, etc.).

12.3 SERVICE QUALITY STANDARDS

The Storage Company has defined indicators of the commercial and technical quality for the service and associated them with specific and general quality standards, in order to ensure a safe and reliable service for the Shippers, guided by the principles described.

12.3.1 SERVICE SAFETY STANDARDS

In defining guaranteed service safety standards, reference is made to the following indicators, whose calculation criteria are shown under par. 12A.1:

- Half-yearly percentage of the connecting flow line subject to monitoring;
- annual percentage of the connecting flow line subject to non-invasive inspection;
- annual percentage of the connecting flow line subject to invasive inspection using pig and percentage of connecting flow line subject to invasive inspection using pig for the last eight years.

The Storage Company complies with the service obligations in relation to safety pursuant to A the RQSG.

12.3.1.1 Technical safety standards

The Storage Company applies the technical standards, technical specifications, technical reports and UNI and CEI guidelines, particularly in regard to compiling the reports required for each maintenance operation performed.

In the event that technical standards, technical specifications or applicable technical reports are missing, guidelines defined by CIG and APCE, the competent technical bodies, are adopted.

The Storage Company compiles, for each reservoir, an “Annual report of the electrical status of the cathode protection systems for the connecting flow lines of the natural gas reservoirs/storage sites” based with governing regulations, where applicable, in compliance with the methodology defined by APCE.

12.3.1.2 *Registration and communication obligations for safety information and data*

The Storage Company records safety information and data indicated in the RQSG and transmits them by 31 May each year to the Regulatory Authority.

The Authority can use the above information and data for their publications, even for comparison purposes.

The Regulatory Authority may request the aforesaid information, including comparison data, from the Storage Company in order to publish it.

12.3.2 SERVICE CONTINUITY STANDARDS

12.3.2.1. Service continuity definitions

The storage company adopts all technical and organisational precautions to avoid interruptions of service.

By interruptions of storage service, we here refer to an interruption and/or reduction of the actual availability of storage performance (such as: space capacity, injection performance and withdrawal performance) provided to users, as a result of unscheduled maintenance operations.

The following are classified as unscheduled maintenance operations:

- a) maintenance operations that the Storage Company does not communicate to the relevant Shippers, within the terms of para. 13.3.3;
- b) maintenance other than that referred to in the previous letter that the Storage Company communicates to the relevant Shippers with notice of less than 3 (three) working days and that have an impact on the overall capacity assigned.

The duration of the interruption is the time, measured in minutes and rounded up to the higher minute, considered from the start of the interruption to the end of the interruption, wherefore:

The start of the interruption coincides with the instant in which the event that caused the interruption or the reduction of storage performance occurred, or with the instant of the first call made by a Shipper affected by the interruption or the reduction of service.

The end of the interruption coincides with the instant in which the storage service is reactivated for the Shippers involved.

The Storage Company records the causes of the interruptions with reference to:

- a) *force majeure*, intended as acts by public authorities, exceptional natural events for which a state of disaster has been declared by the competent authority, strikes, and failure to obtain authorisations;
- b) external causes, intended as damages caused by third parties for events that are outside the control of the Storage Company;

c) causes attributable to the Storage Company, intended as all other causes not indicated in letters a) and b) above, including unverified causes.

For interruptions whose causes are included in the categories referred to in the previous letters a) and b), the Storage Company documents the cause of the interruption.

12.3.2.2 Service interruption indicator

The Storage Company applies the following indicator with reference to the calendar year and its own storage system, taking into account only reservoirs that are not in the start-up phase:

- number of annual days of interruption/reduction of the performances associated with each storage service made available to shippers (days equivalent to full capacity) following unscheduled maintenance operations, excluding days indicated in contractual conditions for interruptions and those resulting from service emergencies that are not the responsibility of the Storage Company, without distinction between the injection phase and the withdrawal phase.

The time periods for the interruption/reduction of the assigned capacity that contribute to the calculation of the days equivalent to full capacity are multiplied by the following coefficients:

- a) 1.25 if the time period is between 1 October and 31 March;
- b) 0.75 if the time period is between 1 April and 30 September.

12.3.2.3 Service obligations in relation to continuity

Each week, the Storage Company publishes on its website the effective trend in the stock of the storage system, together with the trend forecast for both draw-off period as well as the adjustment factors (paras. 2.3.3, 2.4.5.2, 4.2.2).

12.3.2.4 Automatic compensation and penalties for failure to comply with contractual obligations regarding continuity of service

12.3.2.4.1 Automatic compensation

The Storage Company, in the event that the specific continuity level is not respected as described in para. 12A.2, will pay the Shipper compensation of I_c , equivalent to:

$$I_c = 0.1 * P_{\text{non_disp}} * \Delta GS$$

where:

a) C_{non_disp} is the performance that was not made available, expressed in MWh/day, referring to the equivalent days at full capacity of actual interruption, excluding the days relative to the specific level and equal, at most, to three times the specific level detailed in para. 12A.2 calculated with reference to the adjustment factors in effect at the time of the interruption/reduction of the assigned capacity; for the purpose of calculating the storage performance that was not made available one also subtracts the days envisaged by contractual conditions of interruptibility and those resulting from service emergencies that are not the responsibility of the Storage Company.

b) ΔG_S is, with reference to the months of the reference calendar year affected by interruptions/reductions in storage performance made available to the user, the mean expressed in €/MWh of the absolute value of the difference between SAP and the market price of stored gas (MGS) as reported by GME on the MGAS gas market organised and managed by.

The Storage Company is required to pay the automatic compensation referred to in this paragraph to the entitled Shipper within 30 days of the storage performance interruption and/or reduction exceeding the specific level detailed under par. 12A.2.

12.3.2.4.2 Penalties for the failure to comply with the contractual obligations regarding continuity of service

If, during the withdrawal or injection phases the daily injection and withdrawal performances provided to shippers overall are below those associated to the assigned capacities, the storage company shall pay out into the "Storage fee Account" set up at the Cassa per i Servizi Energetici e Ambientali (Fund for Energy and Environmental Services – CSEA), for each Gas-Day when this condition takes place, a penalty P_{CP} amounting to:

$$P_{CP} = C_S * S + C_I * \Delta I + C_E * \Delta E$$

where:

- a) S is the space capacity, expressed in MWh, that it has not been able to fill owing to the reduction of injection performance or emptied as a result
- b) of the reduction of the withdrawal performance;
- c) ΔI is the maximum difference, expressed in MWh/day, between the injection performance associated with the assigned capacities and that made available to shippers;
- d) ΔE is the maximum difference, expressed in MWh/day, between the withdrawal performance associated with the assigned capacities and that made available to shippers;
- e) C_S , C_I and C_E are the capacity amounts, as detailed in the RAST, defined for each thermal storage year and increased by 20%.

The storage company is required to pay the P_{CP} penalty within 30 days of the Gas-Day when the capacity is no longer available.

In order to calculate the P_{CP} penalty, one takes into account and drops in performance resulting from interruptions foreseen in the contractual conditions, as well as service emergencies for which the storage company cannot be considered responsible, as well as reasons of *force majeure*.

12.3.2.5 Registration and communication obligations for continuity data

The Storage company records the continuity data and information for the service pursuant to the RQSG and transmits them, by the 31st of May of each year, to the Regulatory Authority.

The Authority can use the above information and data for their publications, even for comparison purposes.

12.3.3 COMMERCIAL QUALITY STANDARDS

12.3.3.1 Commercial quality indicators

In order to define the service obligations and the specific standards relating to the commercial quality of the storage service, reference is made to the following indicators:

- minimum communication time to the Shipper of acceptance of capacity transfer requests;
- notification period to Shippers for the execution of previously unscheduled maintenance operations (does not apply if no impacts are foreseen on the overall assigned capacity with reference to the storage system);
- reasoned response time to written requests relating to actual stock in storage or invoicing documents;
- reasoned response time to written complaints or written requests for information;
- reactivation time for an IT application following a malfunction.

For these service obligations, the RQSG established the specific quality levels presented in the table in para. 12A.3.

The Storage Company has the right to define its own specific commercial quality standards, which must result in quality levels that are not inferior to those defined by the RQSG, or involve performance not envisaged by the RQSG.

In the event of non-compliance of these standards, automatic compensation will be paid that is not less than the amount defined by the RQSG.

The Storage Company publishes any commercial quality standards on its website, after timely notice is given to the Regulatory Authority.

The Storage Company is required to comply with the obligations pursuant to the RQSG concerning the verifiability of commercial quality information and data recorded.

The communications of note for the purpose of applying the dispositions concerning the commercial quality of the storage service must be transmitted by certified e-mail, unless the exchange of information does not already take place by means of IT applications.

12.3.3.1.1 Minimum communication time to the Shipper of acceptance of capacity transfer requests

The minimum communication time to the Shipper of the acceptance of requests for capacity transfer is the time, measured in working days, between the date of notification to the Shipper of acceptance of the request to transfer capacity (in relation to Space, Injection Capacity, and additional Withdrawal Capacity) and the date the requested transfer begins.

These communications detail the new quantities of Space, minimum Withdrawal Capacity, Injection Capacity and additional Withdrawal Capacity resulting from the acceptance of the request.

In the event that conditions do not permit the capacity transfer request to be fulfilled, the Storage Company is required to promptly notify the Shipper and, in any case, no later than the above time period, providing reasons for the denial of the request.

To this indicator is applied the specific level presented in para. 12A.3.

12.3.3.1.2 Notification period to Shippers for the execution of previously unscheduled maintenance operations

The notification period to Shippers for the execution of previously unscheduled maintenance operations is the time, measured in working days, between the date of communication to Shippers of the plan for unscheduled maintenance operations and the date the maintenance begins.

The notification period to Shippers for the execution of previously unscheduled maintenance is not measured if there are no impacts on the overall assigned capacity for the storage system.

The Storage Company communicates to the Shipper the start date of any previously unscheduled maintenance operations by certified e-mail, also sending all information useful for their assessments.

To this indicator is applied the specific level presented in para. 12A.3.

12.3.3.1.3 Reasoned response time to written requests relating to actual stock in storage or to invoicing documents

The reasoned response time to written requests relating to actual stock in storage and the invoicing documents is the time, measured in working days, between the date the Storage Company received the Shipper's request and the date the reasoned response is communicated to the Shipper.

The Storage Company formulates a reasoned response in writing to any written request for actual stock in storage or invoicing documents that contains at least the following minimum data:

- a) reference to invoicing documents for which information is requested or which the requester intends to challenge;
- b) the grounds for requesting the verification;
- c) in the event of a request to adjust certain payments, reference to said payments.

The written reasoned response formulated by the Storage Company in relation to written requests for invoicing documents, as described above, must contain at least the following data:

- a) the date the request was received;
- b) the company name of the Requesting User;
- c) the name and contact information of the person delegated by the Storage Company to provide, where necessary, any clarifications;
- d) for written requests relative to invoicing documents:
 - (i) the description of the verifications carried out by the Storage Company in order to assess the claims advanced by the Shipper
 - (ii) if the request is accepted, the date by which the invoice adjustment will be issued;
 - (iii) if the request is not accepted, the grounds for this decisions, supported by appropriate documentation;
- e) for written requests regarding actual stock in storage, the response to what has been requested by the Shipper using the service.

To this indicator is applied the specific level detailed in para. 12A.3.

12.3.3.1.4 Reasoned response time to written complaints or written requests for information

The time for a reasoned response to written complaints or written requests for information, other than those indicated above in para. 12.3.3.1.3, is the time, measured in working days, between the receipt date of the written complaint or written information request relative to the storage service and the date the reasoned response is communicated to the Shipper.

The written reasoned response formulated by the Storage Company in relation to written complaints or written information requests, as described above, must contain at least the following data:

- a) the date the request was received;
- b) the company name of the Requesting User;
- c) the name and contact information of the person delegated by the Storage Company to provide, where necessary, any clarifications;
- d) the subject matter to which the Shipper's request refers;
- e) in the event of a written complaint:
 - (i) the documented assessment of the Storage Company regarding whether the submitted complaint is valid, supplemented by regulatory or contractual references applied;
 - (ii) description and timing of corrective measures put in place by the Storage Company;
- f) in the event of a written request for information, the response to that which was requested by the Shipper.

To this indicator is applied the specific level presented in para. 12A.3.

12.3.3.1.5 Reactivation time for an IT application following a malfunction

The reactivation time for an IT application to become available to the Shipper, following a malfunction, is the time, measured in hours, between the start time of the IT application malfunction, due to which its functionalities are not available, and the end time of the malfunction.

The Storage Company guarantees the Shipper alternative methods of carrying out the scheduled activities as well as promptly communicates that the service has been reactivated.

If the moment in which the malfunction occurred cannot be determined with certainty, the time of the first report received is considered the start time of the malfunction.

Based on the time taken to reactivate an IT application, the malfunctions are broken down into:

- a) brief malfunctions, if the reactivation time is less than or equal to 6 hours;
- a) long malfunctions, if the reactivation time is greater than 6 hours but less than or equal to 24 hours;
- c) extra-long malfunctions, if the duration is greater than 24 hours.

In order to measure the reactivation time for an IT application, the hours between 10 pm of any calendar day and 6 am of the following day are excluded.

The Storage Company provides Shippers, at a minimum through its website, with IT applications having useful functionality for managing the following activities:

- a) reservations;
- b) allocations;
- c) stocks;
- d) capacity transactions;
- e) capacity transfers;
- f) capacity assignments;
- g) gas and capacity transfers.

In the event of stock in storage during a start-up period, the Storage Company, if it intends to make IT applications available to Shippers to carry out the daily operating activities, must publish on its website the type of solution made available and instructions for its use, at least 30 (thirty) calendar days prior to the system start date.

These IT applications are made available in an impartial, non-discriminatory manner and provide, as a priority, the functionalities listed above.

To this indicator is applied the specific level presented in para. 12A.3.

12.3.3.2 Causes of non-compliance with specific levels and automatic compensation

The Storage Company records the causes of non-compliance with specific levels described in para. 12A.3 with reference to:

- a) *force majeure*, intended as acts by public authorities, exceptional natural events for which a state of disaster has been declared by the competent authority, strikes, and failure to obtain authorisations;
- b) external causes, intended as damages or hindrances caused by third parties for events that are outside of the control of the Storage Company;

c) causes attributable to the Storage Company, intended as all other causes not indicated in letters a) and b) above, including unverified causes.

For performance that is affected by the causes of non-compliance with specific levels described in para. 12A.3 fall under the categories in letters a) and b) above, the Storage Company documents the cause for the non-compliance.

In the event of non-compliance with specific levels described in para. 12A.3 related to the causes indicated in letter c) above, the Storage Company pays a base automatic compensation of Euro 2,500 to the Shipper of the storage service via the first possible invoice.

The base automatic compensation increases in relation to the delay in executing the performance as indicated below:

- a) if the execution of the performance exceeds the standard, but is not more than double the standard time for the performance, the base automatic compensation is paid;
- b) if the execution of the performance is more than double the standard time, but is not more than triple, the compensation paid is double that of the base automatic compensation;
- c) if the execution of the performance is more than triple the standard time, the compensation paid is triple that of the base automatic compensation.

The Storage Company pays the automatic compensation to the entitled Shipper of the storage service within 7 months from the date on which the requested performance was carried out.

12.3.3.3 Commercial quality service obligations

12.3.3.3.1 Communication obligations to Shippers regarding the maintenance plan

With the exception of that indicated in chapter 13, the Storage Company provides Shippers with the maintenance plan at least annually, half-yearly and monthly; this plan must contain at least the following information:

- a) the reservoir on which the maintenance will be performed;
- b) the summary description of scheduled activities;
- c) the month of the relevant thermal year in which the maintenance will be performed;
- d) the start date and end date;
- e) the number of unavailable days;

- f) the capacity (expressed as a percentage of available capacity at the beginning of the thermal year and the assigned capacity) that will not be available due to maintenance.

The Storage Company communicates the final monthly plan of scheduled maintenance operations to Shippers no later than the tenth day (or first subsequent working day if the tenth day is a Saturday, Sunday, holiday, or non-working day) of the month preceding the one referenced in the monthly plan.

12.3.3.3.2 Information obligations to Shippers regarding IT applications

Before the implementation of new functionality in the IT applications made available to the Shipper, the Storage Company provides the Shipper, through its website, a detailed description of the change it intends to make, including the expected effects on the Shipper's operations and the implementation timing.

The Shipper has the right to express its opinion within 10 (ten) working days following the date of the aforementioned communication; this opinion is not binding for the Storage Company.

The Storage Company publishes on its website all information relating to the unavailability of IT applications provided to the Shipper, with reference to the provisions of para. 12.3.3.1.5, for the entire calendar year to which the malfunctions refer and for the following year, as well as the list of names of Shippers affected by any malfunction.

12.3.3.3.3 Other communication and publication obligations relating to commercial quality

The Storage Company includes on its website a certified e-mail address to which the Shipper can send communications.

Without prejudice to the possibility of sending or making the communication available to the Shipper in another format, the Storage Company sends an advance copy of the reasoned response to written requests by certified e-mail, unless the information is exchanged through IT applications.

The Storage Company also publishes on its website, with reference to Gas-Day:

- a) injection and withdrawal volumes for the storage system;
- b) the sum of the nominations communicated by Shippers of the storage service.

With reference to the Gas-Day, including in compliance with the timings indicated in paras. 2.4.5.2 and 4.2.2 and governing rules, the Storage Company makes available to the Shipper:

- a) daily quantities of natural gas, subject to reservation, which are confirmed;
- b) updated stock compared to the previous Gas-Day.

12.3.3.4 Registration and communication obligations for commercial quality data

With reference to the maintenance plan, the Storage Company records, for each month of the reference year:

- a) the date of communication to Shippers of the final monthly plan of maintenance operations;
- b) the cause for any non-compliance with the scheduled timing, distinguishing between the causes indicated in para. 12.3.3.2.

For all requests to transfer capacity as described in para. 12.3.3.1.1, the Storage Company records:

- a) the date the request was received;
- b) the company name of the buying Shipper;
- c) the company name of the selling Shipper;
- d) the start date of the sale;
- e) the date on which the Shipper was informed whether the request was accepted;
- f) the cause, among those indicated above in para. 12.3.3.2, for any non-compliance with the minimum planned timing.

With reference to the indicator for the notification period to Shippers for the execution of previously unscheduled maintenance operations, as described in para. 12.3.3.1.2, the Storage Company records:

- a) the date of communication to Shippers of the maintenance plan;
- b) the start date for the maintenance;
- c) the cause, among those indicated above in para. 12.3.3.2, for any non-compliance with the specific level of quality envisaged.

For each written request relating to actual stock in storage or invoicing documents as described in para. 12.3.3.1.3, and for any written complaint or written request for information as described in para. 12.3.3.1.4, the Storage Company records:

- a) the date the request was received;
- b) the company name of the Shipper;
- c) the date the written reasoned response was sent;
- d) the cause, among those indicated above in para. 12.3.3.2, for any non-compliance with the specific levels of quality envisaged.

For all malfunctions as described in para. 12.3.3.1.5, the Storage Company records:

- a) the date and time the malfunction began;

- b) the time at which the malfunction was first reported, broken down in terms of reports from third parties and reports from Storage Company employees or businesses that work on its behalf;
- c) the date and time normal functionality was restored;
- d) the name(s) of relevant Shipper(s);
- e) the classification of the malfunction (short, long, extra-long);
- f) the cause, among those indicated above in para. 12.3.3.2, for any non-compliance with the specific levels of quality envisaged;
- g) alternative procedures activated, specifying the time period, expressed in hours, in which they were made available to the Shipper.

For each performance subject to a specific level of quality, for which this specific level has not been respected due to one of the cause listed in para. 12.3.3.2, letter c), the Storage Company records the name of the Shipper of the compensated service, the date on which the automatic compensation is paid, and its amount.

By the 31st of May of each year, the Storage Company is required to send the Regulatory Authority a detailed report containing the information and the data described under this paragraph 12.3.3.4, relative to the year prior to the one when the communication takes place.

The Regulatory Authority may use the above information and data, including comparison data, for its publication.

ANNEX 12A

SERVICE QUALITY STANDARDS

12A.1 SERVICE SAFETY STANDARDS.....	247
12A.2 SERVICE CONTINUITY STANDARDS.....	248
12A.3 COMMERCIAL QUALITY STANDARDS	249

12A.1 SERVICE SAFETY STANDARDS

Guaranteed safety standards of the service:

INDICATOR	SPECIFIC LEVEL
Half-yearly percentage of the connecting flow line subject to monitoring	<p>The percentage of the connecting flow line subject to monitoring is calculated using the following formula, with rounding to the first decimal place: where:</p> $\%RSS = (LS/L) * 100$ <p>where:</p> <ul style="list-style-type: none"> - LS is the sum of the lengths, measured in metres of the connecting flow lines relative to a stock subject to monitoring in the reference half-year; - L is the length, measured in metres of the connecting flow lines for a stock, in operation as at 31 December of the year prior to the reference year.
Annual percentage of the connecting flow line subject to non-invasive inspection	<p>The annual percentage of the connecting flow line subject to non-invasive inspection is calculated, rounded up to the first decimal, using the formula:</p> $\%RSINI = (LINI/L) * 100$ <p>Where:</p> <ul style="list-style-type: none"> - LINI is the sum of the lengths, measured in metres of the connecting flow lines relative to field/site subject to non-invasive inspection during the year in question; - L is the length, measured in metres of the connecting flow lines for a field/site in operation on 31

	December of the previous year to the one in question.
Annual percentage of the connecting flow line subject to invasive inspection using a pig	<p>The annual percentage of the connecting flow line subject to invasive inspection using a pig is calculated, rounded up to the first decimal, using the formula:</p> $\%RSIIP = (LIIP/LP) * 100$ <p>Where:</p> <ul style="list-style-type: none"> - LIIP is the sum of the lengths, measured in metres of the connecting flow lines relative to field/site subject to invasive inspection using a pig during the year in question; - LP is the length, measured in metres of the connecting flow lines, technically inspectable with a pig for a field/site in operation on 31 December of the previous year to the one in question. <p>The annual percentage of the connecting flow lines subject to invasive inspection using a pig (%RSIIP) is also provided by considering the stretches of connecting flow line subject to inspection at least once in the last 8 years.</p>

12A.2 SERVICE CONTINUITY STANDARDS

Guaranteed standards of service continuity:

INDICATOR	SPECIFIC LEVEL
number of annual days of interruption/reduction of the performances assigned to each storage service (days of full	2 equivalent days at full capacity

capacity) following unscheduled maintenance operations excluding the days envisaged in contractual conditions for interruptions and those resulting from service emergencies that are not the responsibility of the Storage Company.	
--	--

12A.3 COMMERCIAL QUALITY STANDARDS

Guaranteed standards of commercial quality:

INDICATOR	SPECIFIC LEVEL
Minimum communication time to the Shipper of acceptance of capacity transfer requests	2 working days
Notification period to Shippers for the execution of previously unscheduled maintenance operations	3 working days
Reasoned response time to written requests relating to actual stock in storage or to invoicing documents	5 working days
Reasoned response time to written complaints or written requests for information	10 working days
Reactivation time for an IT application following a malfunction	6 hours

CHAPTER 13

MAINTENANCE SCHEDULING AND MANAGEMENT

13.1 INTRODUCTION.....	251
13.2 TYPES OF MAINTENANCE OPERATIONS	251
<i>13.2.1 Legal obligations.....</i>	<i>252</i>
<i>13.2.2 Functional controls on facilities.....</i>	<i>252</i>
<i>13.2.3 Maintenance for optimisation, upgrading, and development</i>	<i>252</i>
<i>13.2.4 Maintenance for subsequent reactivations and service emergencies</i>	<i>252</i>
<i>13.2.5 Interference with third-party projects</i>	<i>253</i>
<i>13.2.6 Other maintenance operations.....</i>	<i>253</i>
13.3 MAINTENANCE SCHEDULING	253
<i>13.3.1 Annual schedule of maintenance operations.....</i>	<i>253</i>
<i>13.3.2 Half-yearly revision of the Maintenance Plan.....</i>	<i>254</i>
<i>13.3.3 Monthly Maintenance Plan</i>	<i>254</i>
<i>13.3.4 Unscheduled Maintenance Plan.....</i>	<i>254</i>

13.1 INTRODUCTION

This chapter describes the procedures by which the Storage Company plans and communicates operations for maintenance, optimisation, upgrading, and development of storage facilities in order to ensure that activities are managed efficiently and safely.

In planning maintenance operations of any kind, the Storage Company seeks, as a general criterion, to minimise the impact of the performance available to Shippers. In this sense, in fact, it strives to make periodic reservoir controls coincide with those of surface systems, and concentrates these operations during the periods in which the necessary performance is minimal.

In particular, the Storage Company assumes to perform the periodic controls on systems and the stock at the end of the Injection Period and the Withdrawal Period; while the Major Maintenance Plan, as defined below in paragraph 13.2 and the relative impacts are included in the input data for defining the available storage capacities, as indicated in chapter 2.

In the subsequent paragraphs, only maintenance operations that entail more or less significant changes in performance of storage facilities will be considered.

13.2 TYPES OF MAINTENANCE OPERATIONS

The maintenance operations noted above are classified into the following categories:

1. Legal obligations;
2. Functional controls on facilities;
3. Maintenance for optimisation, upgrading, and development;
4. Maintenance for subsequent reactivations and service emergencies;
5. Interference with third-party projects;
6. Other maintenance operations.

Maintenance of types 3, 4, 5, and 6 above are in turn classified as Major or Minor Maintenance, defined as follows:

- a) **Major Maintenance**, an intervention of type 3, 4, 5, or 6 that is carried out on a storage site whose performance represents at least 40% of the total system performance of the Storage Company.
- b) **Minor Maintenance**, an intervention of type 3, 4, 5, or 6 that is carried out on a storage site whose performance represents less than 40% of the total system performance of the Storage Company.

13.2.1 Legal obligations

This category includes all operations that must be carried out at specific times in order to comply with regulations. For example, periodic inspections of reservoirs belong in this category: at the end of each Injection and Withdrawal phase, the Storage Company is required to check the static pressure of the bottom of the well and the possible presence of a layer of water, to verify the behaviour of the reservoir and any mining problems. These controls involve the stoppage of the site and are therefore scheduled with the objective of minimising the impact on the storage service.

13.2.2 Functional controls on facilities

The Storage Company schedules operations to control the status of facilities as well as maintenance activities that it carries out periodically. Where possible, these are scheduled in conjunction with the periodic controls of reservoirs. For example, maintenance on electrical sub-stations, which impacts the site's capacity, is performed during scheduled shutdowns of wells.

In other cases, the Storage Company seeks to minimise the impact of maintenance on operations by performing compressor maintenance, for example, during spontaneous withdrawal from wells, while for treatment plants, it is carried out during the injection semesters.

13.2.3 Maintenance for optimisation, upgrading, and development

Projects to optimise, upgrade, and develop a storage site have the objective of increasing the storage capacity in a current concession.

Purely for illustrative purposes, and not limiting, the following projects consist of:

- a) Workover projects;
- b) Deepening and/or recompletion of existing wells for storage operations on another level;
- c) Drilling activities on new wells;
- d) Construction and start-up of new surface facilities and/or their strengthening;
- e) Construction and start-up of new treatment stations;
- f) Construction and start-up of new compression stations and/or their strengthening;
- g) Start-up of new flow lines;
- h) Other upgrading projects to expand storage at other levels without modifying the concession zone;
- i) Other upgrading projects to increase the maximum storage pressure;

13.2.4 Maintenance for subsequent reactivations and service emergencies

These are maintenance operations to restore the pre-existing performance in the affected reservoirs from service emergencies but that left the reservoirs affected by

the emergency with reduced performance. Reactivation maintenance following breakdowns or operational anomalies for surface facilities are included in this category.

13.2.5 Interference with third-party projects

These are maintenance operations deriving from scheduled projects that were carried out by third parties (e.g., construction/expansion of road infrastructure, motorways, railways, etc-) which are not part of the gas system, but which generate impacts on the system.

13.2.6 Other maintenance operations

This includes all maintenance that is not part-of the previous categories: for example, this category includes tests on wells and any tests on the reservoirs during the withdrawal/injection cycles to verify the behaviour of the reservoirs as well as the tests and/or the stoppages requested by supervisory bodies.

13.3 MAINTENANCE SCHEDULING

The Storage Company provides Shippers with the annual schedule of maintenance operations at least annually, half-yearly and monthly, publishing the plan on its website.

This plan must contain at least the following information:

- a) the reservoir on which the maintenance will be performed;
- b) the summary description of scheduled activities;
- c) the month of the relevant thermal year for the maintenance;
- d) the start date and end date;
- e) the number of unavailable days;
- f) the capacity (expressed as a percentage of available capacity at the beginning of the thermal year and the assigned capacity) that will not be available due to maintenance.

13.3.1 Annual schedule of maintenance operations

No later than 28 February of each year (or, if it is a holiday, the last preceding working day), the Storage Company communicates to Shippers through its website the maintenance operations schedule for storage facilities scheduled for the following Thermal Year, which will cause unavailability or reduction of performance. This communication is solely indicative and not binding.

Where possible, the Storage Company coordinates its annual schedule of maintenance operations with the maintenance plans of the Transport Companies, in order to minimise disruptions.

13.3.2 Half-yearly revision of the Maintenance Plan

The Storage Company reserves the right to revise, every six months, the Annual schedule of maintenance operations, notifying the Shippers through its Website no later than 1 August, noting that the plan is indicative and not binding.

13.3.3 Monthly Maintenance Plan

The Storage Company indicates, on its website, the monthly plan of maintenance operations that affect daily performance (expressed in energy) available for the subsequent month no later than the tenth day (or first subsequent working day if the tenth day is a Saturday, Sunday, holiday, or non-working day) of the month preceding the one referenced in the monthly plan.

13.3.4 Unscheduled Maintenance Plan

With the exception of the cases contained in paragraph 13.2.4, the Storage Company communicates, at least 3 working days prior to the beginning of the project, any unscheduled maintenance operations described in para. 12.3.2.1 or changes to activities previously scheduled.

In the case of unscheduled maintenance operations, made necessary by emergency situations described in paragraph 18.2 of the chapter “Management of Service Emergencies”, the Storage Company will promptly notify Shippers and will work to keep at a minimum the duration of any reductions in capacity and time necessary to restore the original situation.

CHAPTER 14

OPERATIONAL COORDINATION

14.1 INTRODUCTION.....	256
14.2 COORDINATION WITH MAJOR TRANSPORT COMPANY – RESPONSIBLE FOR BALANCING.....	256
<i>14.2.1 Schedules for maintenance operations</i>	<i>256</i>
<i>14.2.2 General emergency situations</i>	<i>256</i>
<i>14.2.3 Management of Gas provided as a guarantee pursuant to Resolution ARG/Gas 45/11</i>	<i>256</i>
14.3 COORDINATION WITH MAJOR STORAGE COMPANY	257
<i>14.3.1 Coordination of the offer of storage services, the assignment of storage capacity, and capacity transactions.....</i>	<i>257</i>
14.4 COORDINATION WITH THE ENERGY MARKETS MANAGER (GME)	257

14.1 INTRODUCTION

The chapter describes the coordination procedures that the Storage Company has adopted with the Major Transport Company, the Major Storage Company and with the Transport Company, in order to ensure safe and efficient operation, coordinated development, and interoperability of connected systems.

14.2 COORDINATION WITH MAJOR TRANSPORT COMPANY – RESPONSIBLE FOR BALANCING

The information flow between the Storage Company and the Major Transport Company mainly affects the following activities:

- a) Schedules for maintenance operations;
- b) General emergency situations;
- c) Verification of peak coverage for the rigid seasonal period with a twenty-year frequency;
- d) Management of Gas provided as a guarantee pursuant to Resolution ARG/Gas 45/11

14.2.1 Schedules for maintenance operations

The Storage Company and the Major Transport Company, with the objective of minimising disruptions and coordinating, where possible, any maintenance operations, exchange information relating to maintenance schedules on the Major Transport Company's network and on the Storage System.

14.2.2 General emergency situations

The Major Transport Company monitors pre-alarm situations and executes all activities indicated in the various emergency phases, as described in chapter 19 "Procedure for Passing from Normal Operating Conditions to General Emergency Conditions". The Storage Company complies with the requirements of the Major Transport Company as part of the Weather Emergency Procedure.

14.2.3 Management of Gas provided as a guarantee pursuant to Resolution ARG/Gas 45/11

The Storage Company and the Responsible for Balancing coordinate for the verification and acceptability of the gas quantities present in the Edison Stoccaggio

S.p.A. storage hub that the Shipper intends to offer as a guarantee as established in chapter 8.

In addition, the Shipper expressly authorises the exchange of sensitive information for purposes of the aforementioned verification.

14.3 COORDINATION WITH MAJOR STORAGE COMPANY

The information flow between the Storage Company and the Major Storage Company mainly affects the following activities:

- coordination of the offer of Storage Services, the Assignment of Storage Capacity, and capacity transactions.

14.3.1 Coordination of the offer of storage services, the assignment of storage capacity, and capacity transactions

For purposes of the proper attribution of the priority rights indicated in paragraph 5.2 of the chapter “Assignment of Storage Capacity”, both in the assignment phase at the beginning of the thermal year and subsequently in the case of new assignments and/or transactions, the verification that the Shippers have made use of them only once, the definition of the apportionment of volumes for the strategic service, the coverage of mining service needs, and the method of applying the procedures for the capacity transfer, the Storage Company must coordinate with Major Storage Company.

For purposes of coordination, the Storage Companies exchange information on Shippers.

14.4 COORDINATION WITH THE ENERGY MARKETS MANAGER (GME)

In implementation of Article 7 of the Amended Act relative to provisions regarding regulatory conditions for performing management activities for physical gas markets (TICORG), approved with Resolution 66/2017/R/Gas, the coordination between the Storage Company and the GME with reference to information flows for Shippers’ participation in the Regulated Market for the trading of gas stored (MGS), is ensured by a specific agreement concerning:

- a) information flows relative to maximum quantities in storage that can be traded by each Shipper, in compliance with limits set in para. 8.6.2.1;
- b) methods that definitively ensure the consistency of the transactions carried out through MGS prior to communication of the outcomes.

CHAPTER 15

TAX AND CUSTOMS REGULATIONS

15.1 INTRODUCTION.....	259
15.2 EXCISE TAXES	259
15.3 TAX DOCUMENTATION	259
15.4 OTHER USEFUL TAX DOCUMENTATION FOR SHIPPERS.....	260
15.5 REGIONAL SURCHARGE	260
15.6 OBLIGATIONS OF THE SHIPPERS.....	261

15.1 INTRODUCTION

This chapter summarises the responsibilities and obligations of governing regulations that the Storage Company and Shippers assume.

15.2 EXCISE TAXES

The Gas owned by the Shipper that is moved in the reservoirs is not subject to the excise tax system, as the moment that generates the tax obligation is represented by the supply to end-users, instead the “depository” - that is the Storage Company - is responsible for acquiring the incoming and outgoing measurement data from the System.

Holders of storage concessions are required to pay excise taxes for their internal consumption, or for the Gas necessary for activities related to the operation of facilities for providing storage services to Shippers.

These excise taxes are charged to each Shipper, within the terms and according to the procedures set out in chapter 16 “Invoicing and Payment”, based on the consumption attributable to each Shipper, as determined in paragraph 16.A.2 of Annex 16.A “Procedure for allocating electricity consumption, excise taxes, and regional surcharges”.

15.3 TAX DOCUMENTATION

The Storage Company produces, maintains, and makes available to financial authorities the following documentation for the necessary controls:

1. Measurement reports that show the quantity of Gas that passed through the delivery and redelivery points of the Storage System in a specific period of time (month) or;
2. The consumption declaration, through which, using a model prepared directly by the Customs Agency, the Storage Company declares the annual quantities of gas used for its internal consumption on which both the tax (excise) and regional surcharge is calculated, based on the rate in effect at the time of consumption; the Storage Company also declares the quantities of methane gas that entered and exited its system without applying either the excise tax or the regional surcharge to these quantities, as other parties are responsible for these tax burdens. The declaration is prepared annually and submitted to the competent UTF by the end of March of the following year. By the same deadline, the competent party pays any

- adjustments for taxes and the regional surcharge, with respect to the amount paid at the time of the advance;
3. The first facility report requesting that the competent UTF assign the “company code” for the storage concession and related facilities.

15.4 OTHER USEFUL TAX DOCUMENTATION FOR SHIPPERS

Furthermore, the Storage Company prepares the following documentation for Shippers:

1. allocation reports, which show the quantity of Gas injected or withdrawn, in a defined period of time (month), on behalf of each Shipper;
2. delivery invoices, that is withdrawal/delivery documents that record the amount of gas owned by the Shipper that was injected into or withdrawn from the Storage System, transactions, and the relative stock for the Shipper, in order to refute the presumption that the Storage Company purchased the deposited natural gas. These invoices are made available in preview through the IT System and subsequently sent to the Shipper for signature of acceptance.

15.5 REGIONAL SURCHARGE

For purposes of taxing the gas released for consumption, pursuant to Law no. 68 of 19 March 1993, regions with ordinary statutes have the possibility of applying their own taxation system, known as the “Regional Surcharge on Methane Gas”.

Parties that are required to pay the surcharge are the same as those described in point 15.2 above.

In particular, the Storage Company is required to pay this tax for their internal Gas consumption, or for the Gas necessary for activities related to the operation of facilities for providing storage services to Shippers.

The regional surcharge is charged to each Shipper, within the terms and according to the procedures set out in chapter 16 “Invoicing and Payment”, based on the consumption attributable to each Shipper, as determined in paragraph 16.A.3 of Annex 16.A “Procedure for allocating electricity consumption, excise taxes, and regional surcharges”.

15.6 OBLIGATIONS OF THE SHIPPERS

Shippers shall be responsible for the tax and/or administrative reports, declarations, and/or formalities required by official current and future provisions of the competent authorities, with the exception of those for which the law expressly establishes otherwise.

The rights, taxes, other possible charges, not only taxes, and related current and future surcharges applicable by law or by the provisions of competent authorities are to be borne by the Shipper, who exempts the Storage Company from any liability deriving from the false reports issued by the Shipper, from non-payment of the aforementioned charges and/or taxes, or from any violation of the relevant governing laws, except those borne by the Storage Company as envisaged by law.

CHAPTER 16

INVOICING AND PAYMENT

16.1 INTRODUCTION.....	263
16.2 TYPES OF INVOICES.....	263
16.3 CONTENT OF INVOICE DOCUMENTS.....	265
<i>16.3.1 Invoices for storage services.....</i>	<i>265</i>
<i>16.3.2 Other types of invoices.....</i>	<i>265</i>
<i>16.3.3 Annexes to invoices</i>	<i>266</i>
16.4 TERMS FOR ISSUING AND PAYING INVOICES.....	266
<i>16.4.1 Terms for issuing invoices.....</i>	<i>266</i>
<i>16.4.2 Terms for paying invoices.....</i>	<i>267</i>
<i>16.4.3 Interest in the event of late payments</i>	<i>267</i>
<i>16.4.4 Non-payment and payment priority in the event the Shipper is insolvent and the financial guarantee is enforced</i>	<i>267</i>
<i>16.4.5 Procedures for advance payments and sending of invoices.....</i>	<i>269</i>
16.5 DISPUTES	269

16.1 INTRODUCTION

At the end of each month, the Storage Company issues invoices for storage services. In addition, an integral part of these activities is the issuing of other invoices, such as those for any adjustments and interest applied to late payments.

16.2 TYPES OF INVOICES

The invoicing activity allows the Storage Company to value the services provided according to the provisions of the Resolution.

The Storage Company publishes on its website the unit price values defined in chap. 8 for the use of storage services as described in para. 3.2.

Special Services, as described in para. 3.3 of the chapter “Description of services”, are valued according to the characteristics of the requested service.

In general, the list of invoices issued by the Storage Company pursuant to this document can be divided into the invoices relating to the actual storage service and those that can be classified as “other types of invoices”.

The former includes the following items (1-6 of para. 8.8):

1. Tariff for space capacity, where applicable;
2. Tariff for peak withdrawal capacity, where applicable;
3. Tariff for peak injection capacity, where applicable;
4. Capacity assignment fees as a result of competitive procedures carried out for the Modulation Storage Service and for the Constant Peaks of Modulation Service: at the beginning of the Thermal Year as described in para. 5.8; after the Thermal Year has begun as indicated in para. 5.9.1; on a monthly, weekly, daily and “period” basis as per para. 5.9.2; on a daily basis with the “overnomination” mechanism as described in para. 3.2.1.2;
5. The fee to cover charges relating to the compensatory contribution for the failure to make alternative use of the area pursuant to Law no. 244 of 24 December 2007 and subsequent amendments;
6. Balancing prices as described in para. 8.4 and for withdrawal lower than stock pursuant to para. 8.5;
7. Fees to recharge costs for the electricity consumption of the Storage Company’s compression and treatment stations necessary to ensure Injection and Withdrawal, as described in para. 8.7;

8. Fees for excise taxes and regional surcharges for the consumption of the Storage Company's compression and treatment stations.

The "other types of invoice" include:

9. Invoices associated with adjustments and/or corrections of errors related to invoices that were previously issued, in the form of debit or credit notes, such as, for example, printing and/or calculation errors;
10. Invoices for interest for late payment;
11. Invoices for fees to manage transactions and the assignment of monthly and/or weekly and/or daily capacity;
12. Invoices for other items.

In relation to the economic entries resulting from the assignment procedures for the Modulation Service and the Constant Peaks of Modulation Service on a monthly, weekly, daily and "period" basis as described in para. 5.9.2, the Storage Company issues invoices to the purchasing Shippers pursuant to point 4 of this paragraph, in relation to the capacities purchased and issues credit notes to selling Shippers for the capacities sold.

It is understood that, in relation to the outcome of a short-term assignment pursuant to para. 5.9.2, if the capacities assigned following the auction are not available due to the Shippers' non-compliance with the provisions of 17.1.1, the following will be implemented:

- if the non-compliance is attributed to a selling Shipper, the Storage Company transmits data to said selling Shipper to issue an accounting document with the amount proportional to the performance effectively made available; similarly, the Storage Company invoices purchasing Shippers for the same amount;

otherwise

- if the non-compliance is in relation to a purchasing Shipper, the Storage Company invoices this purchasing Shipper the entire amount resulting from the auction; similarly, the Storage Company will provide the same data to the selling Shipper to issue an accounting document on its behalf for the entire amount.

The fees referred to in points 6 and 7 of this paragraph are determined according to the procedure set out in Annex 16A "Procedure for allocating electricity consumption, excise taxes, and regional surcharges".

Moreover, Edison Stoccaggio will issue credit notes for automatic compensation in the event of non-compliance with specific levels of quality as described in chapter 12.

16.3 CONTENT OF INVOICE DOCUMENTS

16.3.1 Invoices for storage services

Each document associated with this type of invoice contains:

- identifying information for the Storage Company and the Shipper;
- invoice number;
- invoice type;
- month to which the invoice refers;
- description of each individual item on the invoice;
- monthly amount, expressed in Euro, of each individual item on the invoice;
- total amount invoiced, expressed in Euro;
- rate and amount of the Value Added Tax associated with the amount of fees invoiced, according to governing regulations;
- any stamp duty.

16.3.2 Other types of invoices

For the documents indicated in points 9-12 of paragraph 16.2 in this chapter, the document issued by the Storage Company contains:

- identifying information for the Storage Company and the Shipper;
- invoice number;
- invoice type;
- period to which the invoice refers;
- references to the adjusted/corrected invoices;
- items subject to adjustment/correction;
- debit or credit amount for the Shipper, expressed in Euro;
- rate and amount of the Value Added Tax associated with the amount of fees invoiced, according to governing regulations;
- any stamp duty.

16.3.3 Annexes to invoices

To support the information in the main section of the invoice and reported in subparagraphs 16.3.1 and 16.3.2 above, the Storage Company also provides an annex showing complete and meticulous details of the invoicing calculations performed, indicating all the base quantities used to calculate the amounts; these quantities include, but are not limited to:

1. unit prices for storage;
2. daily energy allocations;
3. the interest applied.

16.4 TERMS FOR ISSUING AND PAYING INVOICES

16.4.1 Terms for issuing invoices

The Storage Company issues, by the fifth working day of the month following the performance, the invoice for the fees referred to in points 1, 2, 3, and 4 of paragraph 16.2 above, including the items relating to the assignment of capacity on a monthly and/or weekly and/or daily basis.

The Storage Company issues, by the twentieth day of the month M+2 from the performance of Modulation Services with the assignment of capacity on a monthly, weekly, daily and “period” basis, the credit note for amounts deriving from the assignment of capacity made available for sale in accordance with paragraph 5.9.2.

The Storage Company issues, by the fifteenth working day of the month following the performance, the invoices for the fees referred to in points 5-12 of paragraph 16.2 above.

At the same time, in the event it is necessary to pay amounts deriving from the application of that which is described in para. 5.9.2, in para. 8.8, and Annex 16A, Edison Stoccaggio S.p.A. will provide Shippers with the data necessary so that they can issue the appropriate accounting documents to collect the amounts due to them from the Storage Company. These amounts shall be paid by the Storage Company within 30 days of the issue date.

It is understood that the payment by Edison Stoccaggio S.p.A. for the accounting documents referred to above is subject to verification that the Shippers do not have amounts invoiced that are past due, greater than the guarantees issued to cover obligations deriving from contracts stipulated in accordance with this Code for the current Thermal Year or for previous Thermal Years.

It is also understood that these accounting documents (as a credit for Edison Stoccaggio) will be recognised as a deduction from the value of the financial exposure that the Shipper has with the Storage Company.

16.4.2 Terms for paying invoices

The Shipper is required to pay invoices no later than 30 days from the date of issue, with a pre-authorised debit to the account (direct debit procedure), with a credit agency indicated by the Storage Company. Alternatively, upon agreement between the Parties, the Shipper may make the payment through an electronic bank receipt (bank order) or bank transfer with a fixed value date corresponding to the due date through leading credit institutions indicated by the Storage Company.

In the event that the due date for the invoice falls on a Saturday, Sunday or holiday, the Shipper must pay the invoice no later than the first following working day.

Shippers are required to pay invoices according to the terms set forth in this document: any delays will be penalised according to the procedure indicated below and constitute one of the causes of contractual termination set forth in paragraph 17.4 of the chapter “Responsibilities of the Parties”.

Any printing and/or calculation errors in the invoiced amounts are generally corrected prior to the payment due date, resulting in the cancellation of the document and the issuing of a new invoice.

16.4.3 Interest in the event of late payments

In the event of late payment of an invoice, the Shipper will owe, for the amounts invoiced and not paid, interest for each day in arrears, equal to the interest rate for the period published in the Official Gazette of the Italian Republic, drafted by the Ministry of the Economy and Finance in accordance with the provisions of Article 5 of Legislative Decree no. 231/2002.

16.4.4 Non-payment and payment priority in the event the Shipper is insolvent and the financial guarantee is enforced

In the presence of invoices issued and not paid by the Shipper (invoices issued, received, any credit notes, including VAT) for amounts greater than the value of guarantees given, Edison Stoccaggio S.p.A., communicates to the Shipper the quantity of gas in storage which, from the date of said communication, may not be used by the Shipper, including for purposes of exercising the right of retention as

described in paragraph 17.4.1 or enforcing the Gas Provided as Guarantee, pursuant to paragraphs 5.2.1.1.1, 5.2.1.1.2., 5.2.1.1.3 and 5.2.1.1.4.

This quantity will be determined based on the amounts invoiced and not paid (invoices issued, received, any credit notes, including VAT and also taking into account the default interest accrued at the date of the communication on past-due amounts) that is greater than the value of the guarantees by applying the last value of the component referred to in Article 6 of the TIVG approved with Resolution ARG/GAS 64/09 and subsequent amendments.

If after 15 days from the aforementioned communication the amount not covered by the existing guarantees has not been paid or the guarantees have not been re-established, Edison Stoccaggio will proceed with the enforcement of the guarantees issued and if these are not sufficient, it will exercise the right of retention pursuant to paragraph 17.4.1, including without early termination of the Contract, or, as an alternative, enforce the guarantee on the Gas Provided as Guarantee for the quantity of gas corresponding to the credit for the principal and interest on arrears remaining after the successful enforcement. In this sense, Edison Stoccaggio S.p.A. considers itself to have been authorised in advance by the Shipper without the need for any further communication, evidence or reason, notice or request to the Shipper, with no exceptions, to the sale of said quantity of gas to satisfy, as a priority, its credit balance and the costs incurred according to the envisaged procedure following the exercise of the right of retention or enforcement of the gas provided as guarantee.

If the Shipper fully pays the uncovered credit balance before this deadline, Edison Stoccaggio S.p.A. will notify the Shipper of the day from which it will be possible once again to use the previously unusable gas, in whole or in part. Similarly, Edison Stoccaggio S.p.A., following the procedures envisaged for satisfying the credit and having verified that no further unpaid amounts have been identified, will communicate any quantities of gas that have again become available.

In the event of insolvency proceedings, Edison Stoccaggio S.p.A will retain from the amount collected a fixed charge for managing the sale, equivalent to Euro 50,000, as compensation for administrative and other expenses incurred, which will therefore not be considered as compensation for past-due amounts. The fixed charge is revalued each thermal year starting from the 2014-2015 Thermal Year, applying the general consumer price index for households of manual and clerical workers as reported by ISTAT.

It is understood that Edison Stoccaggio S.p.A. shall include all gas quantities described in this paragraph in the calculation of the Shipper's available gas for:

- i) verifying compliance with the Injection and Withdrawal profiles and the consequent application of the balancing costs;
- ii) calculating the available Injection and Withdrawal Capacities;
- iii) applying the provisions of Article 15.14 of Resolution no. 119/05.

In the event that the Shipper has several past-due payables to Edison Stoccaggio S.p.A., including relating to Contracts for previous Thermal Years, and makes one or more payments that do not fully repay the aforementioned past-due payables, each of these payments is allocated, regardless of any other indication from the Shipper at the time of payment, according to the following order of priority:

- a) invoices for tariffs for Mandatory Services, including invoices provided for in letters 5, 6, and 7 of paragraph 16.2 (as well as management costs and relative interest on late payments) and, amongst these invoices, the earliest due;
- b) invoices for fees for the use of Strategic Gas (and relative interest on late payments) and, amongst these invoices, the earliest due;
- c) invoices for balancing prices (and relative interest on late payments) and, amongst these invoices, the earliest due;
- d) remaining invoices.

In the event that Edison Stoccaggio S.p.A. exercises its right to enforce, partially or in full, the guarantees referred to in paragraph 5.2.1, the amount subject to enforcement will be allocated according to the aforementioned order of priority.

16.4.5 Procedures for advance payments and sending of invoices

The invoices and credit notes issued by the Storage Company, including annexes, will be advanced and sent to the Shipper in the manner provided for in the Storage Contract.

16.5 DISPUTES

If the Shipper disputes the invoiced amount, the Shipper must, in any case, pay the full amount of the invoice in question. If the dispute is found to be justified, the correction will be made along with the first invoice following the resolution of the dispute, taking into account the interest as defined in the event of late payment. For the rules for any arbitration necessary to settle the dispute, please refer to paragraph 17.8 of the chapter “Responsibilities of the Parties”.

Invoices that are not disputed by the Shipper within 60 days of the issue date will be understood to be definitively accepted by the Parties.

ANNEX 16A

PROCEDURE FOR ALLOCATING ELECTRICITY CONSUMPTION, EXCISE TAXES, AND REGIONAL SURCHARGES

16A.1 BREAKDOWN OF COSTS FOR ELECTRICITY CONSUMPTION	271
16A.2 BREAKDOWN OF EXCISE TAXES	272
16A.3 BREAKDOWN OF REGIONAL SURCHARGES	273

16A.1 BREAKDOWN OF COSTS FOR ELECTRICITY CONSUMPTION

The Storage Company assigns the Shippers of Hydrocarbon Storage, Modulation, and Balancing Services, whose Allocations are in alignment with the predominant flow of the FP_i system, charges to cover the electricity consumption of the compression and treatment stations and recognises an amount equal to the avoided cost of this consumption to Shippers whose allocations are of the opposite sign of the FP_i , as specified in the following procedure and subject to the provisions of para. 16.4.1..

The following is defined:

$$EE_{\%} = \frac{\sum_i EE_i}{\left| \sum_P S_k \right|}$$

Where:

EE_i = value in Euro, attributable to the physical movement of Gas withdrawn from and injected into the System, of charges to cover the electricity consumption necessary for the operation of the compression and treatment plants reported for Period P detected at the i-th storage site;

S_k = value of the Allocation for Period P of the k-th Shipper of the Hydrocarbon Storage, Modulation and Balancing Service on Gas-Day G at the virtual interconnection point corresponding to the storage hub. The values of S_k are understood to be positive if they concur with FP_i and negative if they do not concur. Until 31 March 2013, the values of S_k are understood to be positive if they are consistent with the measured physical flow and deemed equal to zero for the purposes of the application of the above formula in the other cases.

The Storage Company allocates the charges to cover the electricity consumption necessary for the operation of the compression and treatment plants in proportion to the total volume allocated to the Shipper according to the following criteria:

- a) The Shipper who moved gas at the storage site in the same direction as FP_i shall be attributed an Electricity Cost Cel_k equal to the percentage of $EE\%$ relating to the direction of FP_i applied to the quantity of gas moved;

- b) The Shipper who moved gas at the storage site in the opposite direction to FP_i shall be attributed an amount Cel_k in Euro equal to the percentage of $EE\%$ relating to the direction of FP_i applied to the quantity of gas moved.

Cel_k is calculated using the following formula:

$$Cel_k = S_k \times EE\%$$

Until 31 March 2013, only letter a) shall be applied to Shippers who moved gas consistently with the physical flow of the System and letter b) shall not be applied.

16A.2 BREAKDOWN OF EXCISE TAXES

Excise taxes for gas consumption, calculated as defined in paragraph 8.23 of the chapter “Balancing and Replenishment of Storage Sites” are broken down based on the following criteria:

The Storage Company allocates to the Shipper the excise taxes inherent in gas consumption in proportion to the total volume allocated to the Shippers of the Hydrocarbon Storage, Modulation, and Balancing Services according to the following criteria:

- a) The Shipper who moved gas at the storage site in the same direction as FP_i shall be attributed excise taxes $ACC_{gas,k}$ calculated using the following formula (1):
- b) The Shipper who moved gas at the storage site in the opposite direction as FP_i shall be attributed excise taxes $ACC_{gas,k}$ calculated using the following formula (1), with the exception of that envisaged in para. 16.4.1.

Until 31 March 2013, only letter a) shall be applied to Shippers who moved gas consistently with the physical flow of the System and letter b) shall not be applied.

$$ACC_{gas,k} = \frac{\sum_{g=1}^P AC_{k,g}}{\sum_{g=1}^P \sum_K AC_{k,g}} \times ACC_{GAS} \quad (1)$$

Where:

ACC_{GAS} is the total amount of excise taxes for gas consumption recorded in Period P, equal to $\sum_{g=1}^P \sum_K AC_k$, calculated as defined in paragraph 8.3 of the chapter “Balancing and Replenishment of Storage Sites”;

$ACC_{gas,k}$ is the percentage ACC_{GAS} charged to Shipper U in Period P;

$\sum_{g=1}^P \sum_K AC_k$ is the total internal consumption of gas of all of the k storage sites forming the System recorded during Period P;

$\sum_{g=1}^P AC_{k,g}$ is the internal consumption of gas allocated to Shipper U in Period P, as defined in paragraph 8.3 of the chapter “Balancing and Replenishment of Storage Sites”;

16A.3 BREAKDOWN OF REGIONAL SURCHARGES

Regional surcharges for gas consumption, calculated as defined in paragraph 8.3 of the chapter “Balancing and Replenishment of Storage Sites” are broken down based on the following criteria:

The Storage Company allocates to the Shipper the regional surcharges inherent in gas consumption in proportion to the total volume allocated to the Shippers of the Hydrocarbon Storage, Modulation, and Balancing Services according to the following criteria:

- c) The Shipper who moved gas at the storage site in the same direction as FP_i shall be attributed regional surcharges $AR_{gas,k}$ calculated using the following formula (2);
- d) The Shipper who moved gas at the storage site in the opposite direction as FP_i shall be attributed regional surcharges $AR_{gas,k}$ calculated using the following formula (2), with the exception of that envisaged in para. 16.4.1.

Until 31 March 2013, only letter c) shall be applied to Shippers who moved gas consistently with the physical flow of the System and letter d) shall not be applied.

$$AR_{gas,k} = \frac{\sum_{g=1}^P AC_{k,g}}{\sum_{g=1}^P \sum_K AC_{k,g}} \times AR_{GAS}$$

Where:

AR_{GAS} is the total amount of regional surcharges for gas consumption recorded in Period P, equal to $\sum_{g=1}^P \sum_K AC_k$, calculated as defined in paragraph 8.2 of the chapter “Balancing and Replenishment of Storage Sites”;

$AR_{gas,k}$ is the percentage AR_{GAS} charged to Shipper U in Period P;

$\sum_{g=1}^P \sum_K AC_k$ is the total internal consumption of gas recorded for all of the k storage sites forming the System;

$\sum_{g=1}^P AC_{k,g}$ is the internal consumption of gas allocated to Shipper U in Period P, as defined in paragraph 8.2 of the chapter “Balancing and Replenishment of Storage Sites”;

CHAPTER 17

RESPONSIBILITIES OF THE PARTIES

17.1 OBLIGATIONS OF THE PARTIES	277
<i>17.1.1 Obligations of the Shipper</i>	<i>277</i>
<i>17.1.2 Obligations of the Storage Company</i>	<i>278</i>
17.2 CONTRACTUAL NON-COMPLIANCE.....	280
<i>17.2.1 Non-compliance by the Storage Company.....</i>	<i>280</i>
<i>17.2.2 Non-compliance by the Shipper.....</i>	<i>281</i>
17.3 LIABILITY LIMITATIONS	282
<i>17.3.1 Wilful misconduct and gross negligence.....</i>	<i>282</i>
<i>17.3.2 Indemnity.....</i>	<i>282</i>
17.4 EARLY CONTRACT TERMINATION	282
<i>17.4.1 Early termination by the Storage Company</i>	<i>282</i>
<i>17.4.2 Early termination by the Shipper</i>	<i>283</i>
17.5 TRANSFER OF THE CONTRACT	284
17.6 FORCE MAJEURE	284
<i>17.6.1 Definition</i>	<i>284</i>
<i>17.6.2 Causes</i>	<i>285</i>
<i>17.6.3 Effects.....</i>	<i>285</i>
<i>17.6.4 Communications</i>	<i>285</i>
<i>17.6.5 Impact on storage fees</i>	<i>286</i>
17.7 ABSENCE OF TRANSFER OF OWNERSHIP OF GAS	286
17.8 DISPUTE RESOLUTION	286
<i>17.8.1 Competency of Regulatory Authority</i>	<i>286</i>
<i>17.8.2 Temporary provisions.....</i>	<i>287</i>
<i>17.8.3 Prior review</i>	<i>287</i>
<i>17.8.4 Judicial resolution</i>	<i>287</i>
<i>17.8.5 Technical arbitration.....</i>	<i>287</i>
17.9 APPLICABLE LAW	288
17.10 INTELLECTUAL PROPERTY.....	288
17.11 CONFIDENTIALITY	288
<i>17.11.1 Obligations of the Parties.....</i>	<i>288</i>

17.11.2 Exceptions.....	288
17.11.3 Effectiveness of obligations.....	289
17.12 PRIVACY	289

17.1 OBLIGATIONS OF THE PARTIES

17.1.1 *Obligations of the Shipper*

The Shipper, under the terms and conditions envisaged in the current Contract, commits to:

- a) deliver, or arrange for the delivery of, the injection at the Delivery Point through the Major Transport Company and to withdraw or to arrange for the withdrawal at the Redelivery Point through the Major Transport Company the gas that it owns according to the Injection Schedule and Withdrawal Schedule, with the operating procedures indicated in chapter 6;
- b) deliver, or arrange for delivery of, gas to the Storage Company through the Major Transport Company at the Delivery Point, whose quality must conform with the specifications contained in Annex 10A;
- c) deliver, or arrange for delivery of, gas to the Storage Company through the Major Transport Company at the Delivery Point that is at least at the minimum pressure indicated in chapter 11;
- d) not request the withdrawal of a quantity of gas that is greater than the quantity injected by the Shipper, which signed a contract for Storage Services, during the injection phase or is owned by the Shipper and held in stock;
- e) deliver, or arrange for the delivery by the Major Transport Company, the injection at the Delivery Point and to withdraw or to arrange for the withdrawal by the Major Transport Company at the Redelivery Point the gas that it owns according to the Injection Schedule and Withdrawal Schedule, with the operating procedures indicated in chapter 6, the quantities of space, capacity, performance and gas purchased or sold as part of the competitive procedures described in para. 5.8, 5.9.1, 5.9.2, and the procedures referred to in chap. 7;
- f) fulfil the commitments and obligations assumed towards other Shippers (selling/purchasing) and/or third parties;
- g) pay the fees for the Storage Services pursuant to para. 16.2, requested by the Storage Company, as well as any other amount that is due to the Storage Company as a result of the Contract's execution, according to the procedures established in this document;
- h) use the IT System in the manner and according to the timing envisaged by this Code, ensuring, in using said system, that procedures are adopted that do not in any way negatively impact the functionality provided for by the system and do not, in any case, hinder its operations, even temporarily.

If the Shipper, for any reason, does not deliver, or arrange for the delivery of, any quantity of Gas at the Delivery Point, the Shipper will have no liability whatsoever in relation to this missed delivery, but will be obliged only to pay the relative storage fees,

except in cases where the Shipper is released from this obligation pursuant to any other provision of this Contract.

17.1.2 Obligations of the Storage Company

The Storage Company, under the terms and conditions envisaged of this document, commits to:

- a) redeliver in Withdrawal equivalent quantities of gas, in terms of energy, to the quantities injected by the Shipper during the Injection phase;
- b) redeliver to the Shipper at the Redelivery Point quantities of gas, in terms of energy, in accordance with the confirmed daily reservations, at the quality and pressure values indicated in chapters 10 and 11;
- c) verify and confirm the reservations communicated by the Shipper, according to the procedures envisaged in the Storage Code;
- d) perform the activities necessary for the allocation of gas moved by each individual Shipper;
- e) accept delivery from the Major Transport Company on the Gas-Day of quantities of gas, expressed in energy, delivered or arranged for delivery by the Shipper at the Delivery Point (exit point of the transport network interconnected with storage sites), in accordance with the confirmed daily reservations, compliant with the quality and pressure specifications defined in the Storage Code;
- f) redeliver to the Major Transport Company on the Gas-Day the quantities of gas, expressed in energy, delivered or arranged for delivery by the Shipper at the Redelivery Point (entrance point of the transport network interconnected with storage sites), in accordance with the confirmed daily reservations, compliant with the quality and pressure specifications defined in the Storage Code;
- g) guarantee the availability of a transport capacity into and out of the Storage System adequate for the commitments assumed with Shippers following the signing of the contract;
- h) carry out transport capacity planning activities using the schedules received from Shippers as confirmed by the Storage Company;

In order to ensure transport capacity availability that is adequate for the commitments assumed with Shippers following the signing of the contract, the Storage Company requests the Major Transport Company to provide, in accordance with the provisions of Resolution 297/2012/R/Gas and, in any case, after the deadlines established in its Storage Code for capacity assignments, the transport capacity necessary to perform Storage Services, in the following ways:

- capacity at the exit point interconnected with the Storage System:
 - i. transport capacity for the April-March period, on an annual basis, determined as equal to the maximum Injection capacity available to Shippers based on the capacity assigned to them for the Mandatory Services with a one-year duration and based on the application of the maximum value of the adjustment coefficients of Injection capacity;
 - ii. transport capacity less than one year, determined as equal to the Injection capacity assigned to Shippers for the Modulation Service including the Constant Peaks of Modulation Service, with assignment on a monthly, weekly, daily and “period” basis, possibly greater than the transport capacity required by the Storage Company pursuant to the previous point;
- capacity at the entrance point interconnected with the Storage System:
 - i. transport capacity for the April-March period, on an annual basis, determined as equal to the maximum Withdrawal capacity available to Shippers based on the capacity assigned to them for the Mandatory Services with a one-year duration and based on the application of the maximum value of the adjustment coefficients of Withdrawal capacity;
 - ii. transport capacity less than one year, determined as equal to the Withdrawal capacity assigned to Shippers for the Modulation Service including the Constant Peaks of Modulation Service, with assignment on a monthly, weekly, daily and “period” basis, possibly greater than the transport capacity required by the Storage Company pursuant to the previous point;
- i) ensure that competitive procedures are organized in a manner that ensures transparency and non-discriminatory conditions for access to storage services by all Shippers;
- j) guarantee to all Shippers, in an impartial and non-discriminatory manner, access to the IT System, ensuring its correct operation, maintenance and updating, ensuring, in the event of a malfunction, alternative methods of performing the scheduled activities and timely notification of the start and duration of the malfunction and recovery of the service.

In order to comply with the aforementioned obligations, the Storage Company, pursuant to resolution 297/2012/R/Gas, operates based on the indications received from its Shippers and is not responsible for the accuracy and completeness of the data communicated by its Shippers. Therefore, the Shippers expressly acknowledge that no liability can be assigned to the Storage Company regarding the obligations carried out by the Storage Company in relation to the transport contract based on the data it received.

17.2 CONTRACTUAL NON-COMPLIANCE

17.2.1 Non-compliance by the Storage Company

17.2.1.1. Pressure specifications

If the gas made available by the Storage Company to the Shipper at the Redelivery Point does not comply with the pressure specifications envisaged in the Storage Code and in the absence of timely notification by the Storage Company, the Shipper will promptly inform the Storage Company and, without prejudice to the obligation to pay the storage fees, shall have the right to obtain from the Storage Company, upon submission of appropriate documentation, reimbursement for all costs and charges incurred as a result of the non-compliance with the pressure specifications, within the limits indicated in paragraph 17.3.

17.2.1.2. Quality specifications

If the gas made available by the Storage Company to the Shipper at the Redelivery Point does not comply with the quality specifications envisaged in the Storage Code, the Storage Company will promptly inform the Shipper and the Transport Company. The Transport Company shall have the right to refuse the withdrawal of said gas; furthermore, without prejudice to the obligation to pay the storage fees, the Shipper shall have the right to obtain from the Storage Company, upon submission of appropriate documentation, reimbursement for all costs and charges incurred as a result of the non-compliance with the quality specifications, within the limits indicated in paragraph 17.3.

17.2.1.3. Failure to perform the service

Except in cases of a) *force majeure* or b) external causes, if the Storage Company does not carry out the activities for which it is responsible in accordance with the Storage Contract and as a result of such behaviour it is impossible to perform the service, the Shipper, for the period in which the performance is suspended, will be released from any obligation associated with the payment of the capacity fee for the service not provided and will be entitled to obtain from the Storage Company, upon submission of appropriate documentation, reimbursement of all costs and charges incurred as a result of the failure to perform the service, within the limits set forth in paragraph 17.3 below.

17.2.2 Non-compliance by the Shipper

17.2.2.1. Pressure specifications

If the gas delivered or arranged for delivery by the Shipper to the Storage Company at the Delivery Point does not comply, for any reason, with the pressure specifications established in this Code and in the absence of timely notification by the Shipper, the Storage Company will promptly notify the Shipper and, in addition to being released from the obligation to inject in the system the quantities of gas scheduled by the Shipper for the period in question, to the extent that injection is not permitted by the actual delivery pressure, shall have the right to reduce the injection of the gas in question until the values for the pressure specifications described in this document are restored.

It is also understood that all costs and charges, appropriately documented, incurred by the Storage Company as a result of the non-compliance with the pressure specifications, shall be borne by the Shipper, within the limits indicated in paragraph 17.3 below, and without prejudice to the Shipper's obligation to pay storage fees.

17.2.2.2. Quality specifications

If the gas delivered or arranged for delivery by the Shipper to the Storage Company at the Delivery Point does not comply, for any reason, with the quality specifications established in this Code and in the absence of timely notification by the Shipper, the Storage Company will promptly notify the Shipper and the Transport Company and shall have the right to refuse the injection of the gas in question into the system.

It is also understood that all costs and charges, appropriately documented, incurred by the Storage Company as a result of the non-compliance with the quality specifications, shall be borne by the Shipper, within the limits indicated in paragraph 17.3 below, and without prejudice to the Shipper's obligation to pay storage fees.

17.3 LIABILITY LIMITATIONS

17.3.1 Wilful misconduct and gross negligence

The responsibilities of the Parties for any damage deriving, or in any case connected with, the execution, failure to perform or the partial or delayed performance of their obligations in effect from the signing of the Storage Contract is expressly limited only to cases of wilful misconduct and gross negligence.

17.3.2 Indemnity

Each Shipper commits to indemnify and hold the Storage Company expressly harmless from any wider claim or request for compensation as advanced/formulated against Edison Stoccaggio S.p.A by other Shippers for commitments and obligations assumed amongst these Shippers as part of and deriving from the competitive procedures pursuant to paras. 5.8, 5.9.1, 5.9.2, and the procedures referred to in chap. 7.

17.4 EARLY CONTRACT TERMINATION

17.4.1 Early termination by the Storage Company

In addition to the causes established by law, the Storage Contract may be terminated by the Storage Company, in advance with respect to the envisaged expiration, by sending a written communication to the Shipper, pursuant to Article 1456 of the Italian Civil Code, with copy to the Regulatory Authority, in the following cases:

- a) The Shipper no longer meets, for any reason, even one of the requirements for access to the system referred to in paragraph 5.2;
- b) Prolonged improper use of IT systems by the Shipper such as to: (i) render said IT systems totally or partially unusable; (ii) make it difficult for the Storage Company to fulfil its contractual obligations and/or exercise its rights towards Shippers in a timely manner;
- c) Prolonged breach of the payment obligation, by the Shipper, for fees of any type invoiced by the Storage Company and provided for in the Contract. The Shipper's failure to pay amounts due for 2 months of service constitutes a prolonged breach;
- d) Initiation by the Shipper of bankruptcy proceedings, receivership, extraordinary administration, arrangement or other insolvency procedures, including out of court;

- e) Resolution of liquidation or dissolution for any reason of the Shipper or effective termination of the Shipper's business activities;
- f) Revocation and/or cancellation, in whole or in part, of the financial guarantees referred to in Article 5.2 for any reason;
- g) Inability to perform the service due to *force majeure* or external cause, if an event classified as *force majeure* or an external event in paragraph 17.6 continues for a period exceeding two months.

In all the above cases of contractual termination, the following will occur:

- h) The Storage Company may suspend acceptance of the Shippers' schedules, notifying the Regulatory Authority, the Ministry of Economic Development, and the Major Transport Company;
- i) The Shipper will still be required to pay to the Storage Company the amounts effectively accrued, for any reason, including the related fees, up to the date of the Contract's termination. With the exception of contract termination due to *force majeure* or external causes, the Shipper will also be required to pay the Storage Company an amount resulting from the discounting - to the termination date and at a discount rate equal to the average annual rate of return on the 10-year treasury bonds for the last available year, increased by 0.75% - of the amounts representing the fees due by the Shipper for the period between the early termination date and the natural expiration date of the contract, as well as to compensation for additional damage caused to the Storage Company, relieving and indemnifying the latter with respect to any claim made in relation to damage caused to other parties;
- j) Without prejudice to any performance of the Deposit Service referred to in paragraph 3.3.1 of the Storage Code, Edison Stoccaggio, as depositary, shall also have the right to retain the quantities of gas that may be present in the system and will be automatically authorised in advance by the Shipper, without the need for any further communication, evidence or reason, notice or request to the Shipper, with no exceptions, to sell by auction the aforementioned gas to satisfy, as a priority, its credit balance and the costs incurred for the sale of gas by auction and using the latest available value of the "C_{MEM}" component referred to in Article 6 of the TIVG approved with resolution ARG/GAS 64/09 and subsequent amendments as the auction base.

17.4.2 Early termination by the Shipper

If an event occurs that prevents the Shipper from carrying out the Injection into or Withdrawal from the system for a consecutive period greater than 6 months starting from the date said event occurred, the Shipper may terminate the contract in advance by sending a written communication, with an initial notification by fax and/or e-mail, pursuant to Article 1456 of the Italian Civil Code.

This Shipper will, in any case, be obliged to pay the Storage Company the amounts referred to in paragraph 17.4.1 letter i).

If the capacities envisaged in the terminated Contract are assigned, in whole or in part, to another Shipper, the capacity fees collected by the Storage Company following the assignment of said capacity will be credited to the Shipper affected by the early termination.

17.5 TRANSFER OF THE CONTRACT

Neither of the Parties may transfer the Storage Contract to third parties without prior written authorisation from the other party, which cannot be denied if the third party meets the eligibility requirements set out in this Storage Code.

This written authorisation shall not be necessary if the purchasing Shipper is a subsidiary of the selling Shipper or under common control of another company pursuant to Article 2359, paragraph 1 of the Italian Civil Code and the transfer shall be effective from the date indicated in the transfer deed communicated by the selling Shipper to the Storage Company.

In the event of transfer, the Shipper commits to maintain all financial guarantees given in relation to the obligations deriving from the contract until these are replaced by the purchasing Shipper with equivalent guarantees.

17.6 FORCE MAJEURE

17.6.1 Definition

Force majeure is defined as any act by public authorities, an exceptional natural event for which a state of disaster has been declared by the competent authorities, strikes, failure to obtain authorisations, acts, facts or circumstances not attributable to the Party invoking this clause ("Party Concerned"), beyond the control of the Parties, and which could not be foreseen and/or avoided with ordinary diligence and at reasonable costs, having the effect of making it impossible or illegitimate to fulfil, all or in part, the obligations of the Party Concerned, as long as the cause of *force majeure* persists but exclusively when such circumstance affects the Storage Company's system.

17.6.2 Causes

Cases of *force majeure* include, but are not limited to, the following:

- a) adverse natural phenomena including lightning, earthquakes, landslides, fires and floods;
- b) explosions, radiation and chemical contamination;
- c) strikes, lock-outs and any other form of industrial unrest, with the exception of cases of business disputes, declared on occasions other than during collective bargaining, which directly concern the Storage Company or the Shipper;
- d) delay in obtaining or failure to obtain the necessary permits and/or concessions necessary for the Storage Service;
- e) defects, breakdowns, or failures in facilities, equipment or installations necessary for the system.

External causes are defined as:

- war, terrorist activities, sabotage, acts of vandalism, and riots.

17.6.3 Effects

The Party Concerned will be released from all liability regarding the breach of obligations envisaged in the Storage Contract, as well as for any damage or loss incurred by the other Party, to the extent that they are affected by *force majeure* or by an external cause and for the period in which this situation continues.

In the event of *force majeure* or an external event, the Party Concerned must however make every effort, to the extent possible, to limit the negative effects of the event in order to allow normal performance of its contractual obligations to resume as soon as possible.

The inability of a Party to fulfil its payment obligation is not considered *force majeure* or an external event.

17.6.4 Communications

The Party Concerned shall be required to notify the other Party in a timely manner of:

- a) the occurrence of the event that renders the fulfilment of the obligations, in whole or in part, impossible, providing a clear indication regarding the nature of the event and indicating, if a reasonable estimate can be made, the time that may be necessary to correct the situation;
- b) the status of the event, providing a regular update on the expected duration;
- c) the end of the *force majeure* or external event.

17.6.5 Impact on storage fees

If there is a situation of *force majeure* or an external cause, and for as long as this situation continues, the fee for Withdrawal and Injection capacity borne by the Shipper will be applied:

- a) *Pro-rata temporis*, in the event of total interruption of service performance;
- b) In proportion to the effective reduction of the quantities of gas delivered and/or redelivered to the Shipper at the Delivery and/or Redelivery Points, in the case of partial reduction of service performance.

17.7 ABSENCE OF TRANSFER OF OWNERSHIP OF GAS

With the exceptions described in paras. 5.2.1.1.1, 5.2.1.1.2, 5.2.1.1.3, 5.2.1.1.4, 5.10, 16.4.4, and 17.4.1, the delivery of the Gas at the Delivery Point or Redelivery Point from or on behalf of the Shipper does not entail the transfer of the right of ownership of said gas to the Storage Company, which will hold the gas for the sole purpose of performing the service, unless the latter performs the Custody Service referred to in paragraphs 3.3.1 *et seq.* of the Storage Code. The right of ownership of the delivered gas will remain at all times with the Shipper, as irregular deposit does not constitute custody of the gas by the Storage Company, pursuant to Article 1782 of the Italian Civil Code.

17.8 DISPUTE RESOLUTION

17.8.1 Competency of Regulatory Authority

In the event of disputes relating to the interpretation and application of the Storage Contract and until the adoption of the regulation referred to in Italian Law no. 481 of 14 November 1995, the Parties refer to Regulatory Authority to launch arbitration proceedings, according to the procedures defined by the authority in its regulations.

17.8.2 Temporary provisions

Until the Regulatory Authority issues the regulations defining the procedures for launching arbitration proceedings, any disputes will be governed according to the procedures indicated below.

17.8.3 Prior review

Any disputes that may arise between the Storage Company and the Shipper in relation to the interpretation and application of the Storage Contract, except in cases that, in the opinion of one of the Parties, require the use of precautionary and emergency measures, will be subject, on the initiative of each Party and with formal notice sent to the other, to the prior joint examination of the parties appointed for this purpose by the Storage Company and Shipper, chosen from top-level executives, in an attempt to reach a satisfactory agreement.

17.8.4 Judicial resolution

In the event that said settlement attempt does not have a positive outcome within sixty days from the date of the notice referred to in the previous paragraph - and without prejudice to the powers to resolve disputes attributed to the Regulatory Authority pursuant to Italian Law no. 481 of 14 November 1995 - each Party will have the right to appeal to the courts to resolve the dispute.

In this situation, the parties attribute exclusive jurisdiction to the Court of Milan.

17.8.5 Technical arbitration

All technical disputes, which are not settled amicably within 15 (fifteen) working days from the time a Party has communicated to the other the existence of the dispute, will be definitively resolved in accordance with the National Arbitration Regulation of the Chamber of Arbitration of Milan by a single arbitrator, who will be appointed, will proceed and will decide in accordance with said regulation. The Arbitrator must have suitable technical skills in the gas sector and, more specifically, with regard to the transport, unloading, regasification, storage and sale of gas. The arbitration will be held in Italian. The arbitration will take place in Milan. The Arbitrator will decide informally, in accordance with the law. The Arbitrator will make his/her decision in writing, stating the justifications, within 60 (sixty) working days from the date the appointment is accepted. The Arbitrator's decision will be final and binding for the Parties. The Parties waive any form of appeal except in the case of a conflict of interest, negligence, or error on the part of the Arbitrator.

17.9 APPLICABLE LAW

This document is governed by Italian law.

17.10 INTELLECTUAL PROPERTY

Any intellectual property rights made available by one of the Parties pursuant to the Storage Contract will remain the property of, and available to, said Party or its licensor.

17.11 CONFIDENTIALITY

17.11.1 Obligations of the Parties

All information regarding the activity of one of the Parties, including those deriving from the exchange of data in electronic form between the Storage Company and the Shipper pursuant to the Storage Code, should be considered confidential and may not be used by each Party, its employees and/or agents other than in relation to the execution of the Storage Code, nor can it be disclosed to third parties unless in compliance with the prior instructions or written authorisations of the Party to whom the information refers and upon the signing of a confidentiality clause by third parties.

17.11.2 Exceptions

Without prejudice to the provisions of the previous paragraph, information that shall not be considered confidential refers to:

- a) information that was in the public domain at the time it was disclosed or that became public due to causes other than the breach or fault of the receiving Party;
- b) information of which the receiving Party was already aware at the time it was disclosed by the other Party and for which there was no obligation of confidentiality;
- c) information whose confidentiality no longer applies when it is required to fulfil legal obligations or requests from the Regulatory Authority;
- d) information that the receiving Party has legally obtained from third parties without violating any confidentiality obligation towards the other Party;
- e) information on coordination between storage companies and transport companies pursuant to the Storage Code;
- f) information relating to the management of the “Gas Emergency Procedure” referred to in chapter 19 “Procedure for Passing from Normal Operating Conditions to General Emergency Conditions”;
- g) information communicated to administrative, regulatory or judicial bodies and/or authorities, and/or in any case in compliance with applicable laws or provisions.

17.11.3 Effectiveness of obligations

Confidentiality obligations indicated herein shall remain in effect for a period of 2 years from the effective date of termination or resolution of the contractual obligations that arose in execution of the Storage Code.

17.12 PRIVACY

With regard to Law no. 675/96 and subsequent amendments, (hereinafter, the “Law”), the Parties acknowledge that:

- a) the Shipper is the Data Controller (hereinafter, the “Controller”), pursuant to Article 1, paragraph 2, letter d) of the Law.
- b) The Storage Company has the experience, integrity, capabilities and structures required by Article 8 of the Law to perform the function of “Data Processor” (hereinafter “Data Processor”) and ensures full compliance with the governing provisions on the processing of personal data, including in relation to security. Given the above, the Parties agree that the Storage Company will be Data Processor, pursuant to Article 1, paragraph 2, lett. e) of the Law, with reference only to the processing operations and only to the data that the Storage Company will be required to handle in order to execute the contractual relationships referred to in the Storage Code.

In particular:

- c) the Shipper will prepare and send, at its own expense, modifications to the notification to the Italian Data Protection Authority, referred to in Articles 7 and 28 of the Law; it will also ensure the fulfilment of the obligation to inform its Appropriate Customers of the appointment of the Storage Company as Data Processor.
- d) The Storage Company:
 - will process the Shipper’s personal data in a lawful and proper manner, in compliance with governing legislation on privacy and within the limits of the processing performed by the Shipper, as identified in the notification to the Data Protection Authority referred to in Articles 7 and 28 of the Law;
 - will maintain the Shipper’s personal data pursuant to Articles 9 and 15 of the Law;
 - will identify - if necessary - the parties assigned the qualification of “Data Processor”, pursuant to Articles 8 and 19 of the Law, and, on the basis of the subsequent appointment deed, set forth the instructions to be given to said parties, monitoring the relative operations, in accordance with the combined provisions of the aforementioned articles;
 - will only carry out data processing operations that are strictly necessary to execute its contractual obligations, such as archiving and processing. The Transporter must carry out the aforementioned processing operations in accordance with the Shipper’s purposes for processing. Furthermore, the

Transporter cannot carry out any processing operations other than those mentioned, and the Shipper will indemnify the Transporter from any liability connected to processing operations under the Shipper's exclusive responsibility. In this regard, the Transporter will not be liable for the collection of personal data and the related obligations - such as obtaining the consent of the relevant parties - as well as the relevance and accuracy of the data. Thus, the Shipper will be solely responsible for any dispute concerning these activities;

- will comply with the instructions provided by the Shipper and will not be liable for any violations deriving from incomplete or incorrect instructions given by the Shipper, which will therefore release the Storage Company from any consequent or connected claim;
- will allow the Shipper to exercise the power of control, pursuant to Article 8 of the Law;
- will adopt the measures identified by the Shipper designed to allow the relevant party the effective exercise of rights envisaged in Article 13 of the Law, and will facilitate the exercise of these rights, within the limits of its scope of responsibility;
- will process, without delay and at the Shipper's request, any requests made by relevant parties, pursuant to the aforementioned Article 13 and Article 29, paragraph 2, of the Law, always within the limits of the functional operations scope of the Data Processor;
- will generally ensure compliance with the provisions of the Data Protection Authority, within the limits of its scope of responsibility.

The Storage Company may not adopt independent decisions regarding the purposes and methods of processing. In cases of need and emergency, the Storage Company shall inform the Shipper as soon as possible, so that the latter can take appropriate decisions. In any case, if the Shipper's instructions, legislative and/or regulatory amendments, as well as provisions of the Data Protection Authority involve additional costs and/or activities for the Transporter, the relative charges will be the exclusive responsibility of the Shipper.

The appointment of the Storage Company as Data Processor is effective throughout (and only for) the duration of the contract between the Parties.

CHAPTER 18

SERVICE EMERGENCY MANAGEMENT

18.1 INTRODUCTION.....	292
18.2 GENERAL ORGANISATION.....	292
<i>18.2.1 Emergency situations and definitions.....</i>	<i>292</i>
<i>18.2.2 Emergency levels.....</i>	<i>292</i>
18.3 EMERGENCY MANAGEMENT	293

18.1 INTRODUCTION

This chapter describes the procedures activated by the Storage Company when emergency situations arise due to unexpected temporary conditions, which interfere with normal operations, or that impose special constraints on operations.

This chapter does not cover general emergencies resulting from the lack of availability of Gas in the system, which will be covered in the following chapter.

18.2 GENERAL ORGANISATION

18.2.1 *Emergency situations and definitions*

A service emergency is defined as an anomalous, unexpected and temporary situation, which interferes with the security service of the storage network or which imposes special constraints on its performance, and which may be detrimental to the safety of individuals or cause damage to objects or the environment.

A service emergency is categorised according to the following types, distinguishing between cases in which an uncontrolled gas leak occurs:

- a) unscheduled downtime of pipelines, whether total or partial;
- a) unscheduled downtime of treatment and/or compression stations, whether total or partial;
- c) damage to facilities.

The emergency plan prepared by the Storage Company contains the procedures that define the actions as a function of the roles and priorities based on the emergency levels defined in paragraph 18.2.2 of this chapter.

18.2.2 *Emergency levels*

The actions that each party responsible for managing the emergency must undertake are a function of the severity of the emergency.

For the above, in order to establish criteria to immediately assess the emergency situation, emergencies have been divided into three levels: Minor, Average, Major.

18.2.2.1. *Minor emergency*

A minor emergency situation is defined as:

- a) The resources available on-site are sufficient to quickly resolve the problem and/or
- b) The immediate and future consequences are limited and/or
- c) No impacts are expected on the Shippers' schedules.

18.2.2.2. Average emergency

An average emergency situation is defined as:

- a) The resources available on-site are not sufficient to quickly resolve the emergency and/or
- b) The consequences, although possibly difficult to measure at the time, could be significant in relation to the safety of individuals and damage to objects and/or
- c) There is a reduction in the facility's performance and it is necessary to manage the storage sites in an integrated manner to minimise the impact on the Shippers' schedules.

18.2.2.3. Major emergency

A major emergency situation is defined as:

- a) The resources available on-site are not sufficient to resolve the emergency and/or
- b) The consequences, in relation to the safety of individuals and damage to objects, are considered severe and/or
- c) There is a complete disruption of the facility's performance and it is necessary to manage the storage sites in an integrated manner to minimise the impact on the Shippers' schedules.

18.3 EMERGENCY MANAGEMENT

The Storage Company has an organisation structure, equipment and written procedures that enable it to ensure timely and effective management of service emergencies in coordination with the competent local authorities and with public safety forces in compliance with the relevant governing technical rules.

The procedures envisage, *inter alia*:

- a) the identification of an emergency manager;
- b) an emergency plan with measures to be taken to secure the affected area(s) of the facility and ensure the recovery of the former safety conditions and normal operating conditions.
- c) procedures and timing for notifying the CIG of a service emergency.

In addition, the Storage Company:

- a) has one or more fixed telephone lines dedicated exclusively to emergency services, that connect directly to an operator with needing to enter other telephone numbers;
- b) publishes on its website the number of the fixed telephone line, active 24 days a day, 7 days a week, able to receive any reports of emergencies or requests for intervention for safety reasons in relation to the reservoirs managed;

- c) includes the aforementioned telephone number on specific signs that are posted in all areas in which portions of facilities are located throughout the region and/or near populated areas;
- d) in the event of a change in the dedicated telephone number(s) for the emergency service, immediately publishes on the website the new telephone number(s) and provides a written communication to the Shippers of the storage service and transport companies, as well as updating the telephone number(s) included on the signs posted in the regions in which the various parts of the managed storage systems are located;
- e) has tools to ensure the guaranteed recording, including voice, of telephone calls received at said telephone numbers, with a switchboard autonomy of at least 24 hours in the event of an interruption to the external power supply.

The Storage Company notifies the CIG of the service emergency in accordance with the provisions of the CIG Guidelines.

In the event of a service emergency, the Storage Company ensures the necessary coordination with the natural gas transport and/or distribution companies involved.

An emergency situation during normal working hours is handled directly by the Storage Company.

An emergency situation outside normal working hours can be reported in accordance with the following procedure:

- a) by anyone who identifies an anomalous situation and communicates it to the “toll-free number” affixed to the fences of the facilities, active 24 hours a day, to which an operator responds;
- b) from the automatic system the notifies the contact persons for the facility, both through a dialler with a pre-recorded message, as well as via SMS (Short Message System). There are always at least two operators per facility acting as contact persons.

The immediate contact persons to be notified in the event of an emergency are available on the website of the Storage Company.

CHAPTER 19

PROCEDURE FOR PASSING FROM NORMAL OPERATING CONDITIONS TO GENERAL EMERGENCY CONDITIONS

19.1 INTRODUCTION.....	296
19.2 GAS EMERGENCY PROCEDURES	296
19.3 OBLIGATIONS OF THE PARTIES	296
<i>19.3.1 Authorised withdrawal of strategic gas and its restocking.....</i>	<i>297</i>

19.1 INTRODUCTION

The chapter describes the procedures for passing from normal operating conditions to general emergency conditions set forth by the Ministry of Economic Development pursuant to Article 8, paragraph 7, of Legislative Decree no. 164/00.

19.2 GAS EMERGENCY PROCEDURES

As established by the Article 8, paragraphs 1 and 2 of the Decree of 26 September 2001, a technical committee for emergencies and monitoring of the gas system was established within the Ministry of Economic Development, with advisory functions to the Ministry and having the following tasks:

- a) Formulate proposals for defining possible emergency situations;
- b) Identify intervention tools in the event of an emergency;
- c) Formulate proposals for defining procedures and timing for activating said tools;
- d) Periodically monitor the functioning of the gas system, in relation to emergency situations.

The Ministry of Economic Development approved, on 25 June 2004, on the proposal of the emergency technical committee, the “Emergency procedure to address shortfalls in the natural gas supply in case of unfavourable weather events”.

The Procedure defines the interventions and their sequence, and identifies the natural gas companies and the operators within the gas and electricity sector responsible for their activation, to handle an emergency situation, in the overall balancing of the national system for natural gas, which may occur due to unfavourable weather conditions.

If the emergency conditions defined in Article 8.7 of the Legislative Decree should occur, the Storage Company, within its scope of responsibility, follows the gas emergency procedure described above.

19.3 OBLIGATIONS OF THE PARTIES

Storage companies, if they have operated in compliance with the rules described in the Weather Emergency Procedure, are not required to pay Shippers that use the storage services any penalty or compensation for either contractual breaches directly or

indirectly connected to the emergency situation, or for damages that the Shippers may incur as a result of said breach.

19.3.1 Authorised withdrawal of strategic gas and its restocking

Shippers may be authorised by the Ministry of Economic Development to use strategic stock directly connected to their network, in the event of:

- a) Interruption or reduction of importation from non-EU countries;
- b) Interruption or reduction of importation from EU Countries and emergencies in the National Gas Pipeline Network;
- c) An unusually cold winter season on the whole.

To ensure the safe operation of the gas system in the event that strategic gas supplies are withdrawn, the company that used said gas is required to purchase from the owner of the gas intended for strategic supplies, under conditions such as to guarantee the selling Shipper the availability of financial resources to then repurchase and restock an equivalent volume of gas by the next injection phase.

CHAPTER 20

UPDATING THE STORAGE CODE

20.1 INTRODUCTION.....	299
20.2 CONSULTATION COMMITTEE	299
20.3 PARTIES ENTITLED TO SUBMIT CHANGE REQUESTS	299
20.4 ADMISSIBILITY REQUIREMENTS FOR CHANGE REQUESTS	300
20.5 PROCEDURE FOR MANAGING CHANGE REQUESTS	300
20.6 PROCEDURE FOR UPDATING THE STORAGE CODE	301

20.1 INTRODUCTION

This chapter describes the procedure for updating the Storage Code, the timing and procedures for submitting change requests, and for approving the suggested modifications.

The Storage Company uses its web portal to publish the proposals for updates, as well as to manage the related consultation phases, keeping the relevant parties constantly informed.

In the chapter the following terminology will be adopted:

Change request: an amendment to the Code, drafted by one of the entitled parties pursuant to Article 4, paragraph 4.1 of Resolution 55/09, as reported in paragraph 20.3, and submitted to the Storage Company with request for adoption.

Update proposal: the proposal for updating the Code drafted and submitted for consultation to the Storage Company, including as a result of the positive assessment of the change request.

20.2 CONSULTATION COMMITTEE

The Consultation Committee is a technical consultation body, the sole body for all storage codes, representing the interests of shippers and system operators.

The Committee's establishment, composition, organisation, as well as the minutes of Committee meetings are published on the website of the Major Storage Company, to which the Storage Company provides a link on its own web page.

20.3 PARTIES ENTITLED TO SUBMIT CHANGE REQUESTS

The parties entitled to make changes requests to the Storage Company are:

- a) Shippers of the service, individually or in association;
- b) other companies (as defined in Resolution 55/09 in Article 1, point 1.1 a); and trade unions of distribution companies, limited to the matters in which they are directly involved.

20.4 ADMISSIBILITY REQUIREMENTS FOR CHANGE REQUESTS

Only proposals submitted in accordance with the provisions of this paragraph will be taken into consideration.

Each proposal for updating the Storage Code must comply with the following requirements to be deemed admissible:

- a) it must be submitted in written form and by means of a specific format available on the Storage Company's website;
- b) it must be sent in advance by e-mail to the address indicated on the website;
- c) it must thoroughly describe the nature of the change;
- d) it must be designed to improve the achievement of the Storage Code's objectives;
- e) it must be consistent with governing regulations and legislation;
- f) it must clearly indicate which portions (chapter, paragraphs and sub-paragraphs) will be amended/abolished/affected.

Furthermore, it is possible to attach any documentation supporting the change request submitted.

The proposal is considered admissible if the Storage Company does not comment on it within 10 working days from its receipt.

20.5 PROCEDURE FOR MANAGING CHANGE REQUESTS

Change requests may be submitted by the entitled parties referred to in point 20.3 at any time during the thermal year.

Within 20 days of receiving a change request, the Storage Company shall:

- a) publish it on the web portal for the relative consultation process;
or
- b) make it available to the Regulatory Authority, together with a report describing the reasons for which the Storage Company has decided not to submit it to consultation.

Moreover, if the Regulatory Authority determines that is advisable to submit for consultation a change request made available pursuant to point b) above, the Storage Company must start the relative process within 15 days from the date of receipt of the appropriate communication from the Regulatory Authority.

20.6 PROCEDURE FOR UPDATING THE STORAGE CODE

The proposal for updating the Code, after it has been drafted by the company, including following the positive assessment of a change request received from one or more entitled parties, must be published by the company and submitted for consultation, at any time during the thermal year.

The duration of the consultation phase is 45 days from the date the proposal is published on the Storage Company's website.

The Consultation Committee makes its opinion available to the Storage Company as part of the consultation process.

The Storage Company also allows parties who are not part of the Consultation Committee to submit their own comments on the published update proposals.

Within 20 days from the end of the consultation, the Storage Company makes the proposal for updating the Storage Code available to the Regulatory Authority, together with:

- a) a report describing the justifications for the proposal;
- b) the opinion of the Consultation Committee;
- c) the comments received from non-members of the Consultation Committee;
- d) the changes made to the proposal as a result of the consultation process, as well as the related justifications;
- e) additional remarks that emerged during the consultation phase that the Storage Company decided not to adopt, with the related justifications.

If the proposals for updating the Code must be drafted by the Storage Company in compliance with decrees, resolutions or other provisions issued by competent authorities that identify the general criteria, delegating to the relevant parties the definition of the specific procedures without indicating a deadline, these shall be understood to be set at:

- 15 days from the publication of the provision to publish the update proposal on the web portal;
- 30 days for the conclusion of the consultation phase.

Moreover, in this case, the time available to the Storage Company to make the proposal for updating the network code available to the Regulatory Authority, together with that which is described in points a), b), c), d), and e), is reduced to 10 days from the end of the consultation phase.

The Storage Company will assess the update proposals for the Storage Code based on the following criteria:

- a) Consistency with the amendments to the reference regulatory content and the principles of the Storage Code;
- b) Degree of improvement in functionality of the Storage Code;
- c) Extent of the implications on operational management of the Storage System;
- d) Impact on the Storage Company of the changes requested and the related timing for implementing changes with regard to processes, organisation and IT systems;
- e) Economic impact in terms of benefits, costs and possible investments.

In the event that a change request requires significant investments or increases in operating costs for its implementation, the Storage Company will note these economic aspects and the implementation timing in the document that it will submit to the Regulatory Authority for approval.

The updated Storage Code is published on the Regulatory Authority's website and becomes effective on the publication date.

The Storage Company updates and publishes the Storage Code on its website within 10 days of its publication by Regulatory Authority and, within the same deadline, sends the related communication to Shippers of the service.

GLOSSARY

Allocation	Process whereby the gas, expressed in energy, measured daily in Injection or Withdrawal is attributed to the Shipper for accounting purposes, also allowing to determine the stock.
Thermal Year	Period from 1 April of every year to 31 March of the following year.
Regulatory Authority	Regulatory Authority for Energy, Networks and the Environment (ARERA).
Storage Capacity	Capacity in terms of Space, Withdrawal, and Injection.
Capacity Assigned (S, CE, CI)	Storage capacity to which the Shippers are entitled as a result of the assignment procedure, defined in chapter 2, "Description of Storage Facilities and their Operation" and chapter 5 "Assignment of Storage Capacities".
Interruptible Storage Capacity	Storage capacity subject to interruptibility, with obligation for the Storage Company to provide advance notice.
Primary Capacity	Continuous space, withdrawal or injection capacity that is available following prior assignment procedures or that has been obtained, including not structurally, through the optimisation of the storage sites during the thermal year.
Secondary Capacity	Continuous space, withdrawal or injection capacity that the Shippers make available to the Storage Company for assignment to third parties.
"In advance" Capacity	Injection or withdrawal capacity, in addition to primary capacity, that can be made available each day for the next day against a reduction in the subsequent period.

“Not Otherwise Usable” Capacity	Injection and withdrawal capacity corresponding to the difference between the assigned capacity and the maximum capacity that can be scheduled on the gas day, taking into account renomination restrictions on the capacities scheduled the previous day.
Short-Term Capacity	Space, withdrawal or injection capacity that is assigned on a monthly, weekly, daily and “period” basis.
Reverse Flow Capacity	Injection capacity during the Withdrawal phase, on a continuous or interruptible basis, and/or Withdrawal capacity during the Injection phase, on a continuous or interruptible basis, assigned to the Shipper according to the procedures described in this Code.
Storage Code	The present document, including all the Annexes that constitute an integral and essential part thereof.
Assignment	Outcome of the process for the commitment of storage capacity.
Storage Contract or Contract	Document whereby the contracting parties (the Storage Company and the Shippers) define the specific elements of the required storage service, regulated on the basis of the provisions per the Storage Code.
GME-Edison Stoccaggio Agreement	Agreement between GME and Edison Stoccaggio S.p.A. governing the functional relationships for managing the MGS market, approved by ARERA with Resolution 630/2017/R/Gas of 14 September 2017 and subsequent amendments.
Cushion Gas	Gas that must remain fixed in the storage site for the use of storage services. The function of Cushion Gas is to allow Working Gas to be withdrawn. Thus, Cushion Gas constitutes a fixed resource that cannot be withdrawn for sale throughout the life cycle of the stock.
Regulations	Intended as the new regulations for storage concessions approved by Directorial Decree dated 04/02/2011.

Escomas	IT system that provides Shippers with the functionality to manage the information flows between Shippers and the Storage Company as well as the commercial processes described in this Code and the Escomas user manual. The term ESCOMAS is used as an alternative to the term IT system.
Withdrawal	Withdrawal of natural gas from the storage reservoirs.
WE/WD FLEX	Method of assigning secondary injection and withdrawal capacity on a daily basis, applied to each day in the WE period with reference to the WE FLEX assignment procedure, or, each day of the WD period with reference to the WD FLEX assignment procedure.
G_{Ug} stock	Quantity of Operational Working Gas, expressed in energy, held by the Shipper in the system at the end of day G, determined in accordance with Chapter 8 “Balancing and Replenishment of Storage Sites”.
Prevalent flow	The physical movement of gas entering or exiting the storage hub.
“In phase” prevalent flow	Prevalent flow that coincides with the direction of injection during the injection phase or with the direction of withdrawal during the withdrawal phase.
“In reverse phase” prevalent flow	Prevalent flow that coincides with the direction of withdrawal during the injection phase or with the direction of injection during the withdrawal phase.
Gas or natural gas	Mix of hydrocarbons, comprising mainly methane and to a lesser extent ethane, propane and higher hydrocarbons. It may also contain some inert gases, including nitrogen and carbon dioxide.

Gas-Day G	Period of 24 consecutive hours that starts at 6:00 am on each calendar day and ends at 6:00 am on the next calendar day. For the purposes of this Code, reference is made to standard time.
Strategic gas	Gas whose presence in storage sites is intended to avert situations in which gas supplies are absent or reduced or crises in the gas system. The cost for establishing and maintaining strategic supplies are borne by the parties that import natural gas and by the holders of exploitation concessions obligated to pay a portion of the exploitation product, in accordance with the Ministerial Decree of 29 March 2012.
kWh	The unit for measuring energy. Energy shall be calculated as the product between the volume of natural gas at the standard reference conditions (P=1.01325 bar, T=15°C) and Higher Heating Value under 25/15 conditions, i.e. reference temperature of combustion at 25°C and standard reference pressure of the mc (with P=1.01325 bar).
Edison Stoccaggio Hub	Virtual hub of confluence of all storage concessions managed by the Storage Company, through which the reservation, assignment and allocation of the capacities reserved by the Shippers will be managed.
Wobbe Index	Ratio between the Higher Heating Value of the gas per unit of volume and the square root of its relative density in the same reference conditions.
Importation	The importing of natural gas produced in European Union countries or produced in countries outside the European Union.
Transport Company	Company that performs the transport and dispatch service through its pipeline network and on the basis of its Network Code.

Major Transport Company	Snam Rete Gas S.p.A. Pursuant to the TIB, this is the Responsible for Balancing.
Storage Company	Edison Stoccaggio S.p.A.
Major Storage Company	Stogit S.p.A.
Injection	The insertion of natural gas into the storage reservoirs.
Maintenance operations	All types of maintenance operations as defined in Chapter 13 “Scheduling and Managing Maintenance Operations”.
MGAS	Organized market for trading natural gas. It takes place on the IT system for natural gas trading managed by GME, as envisaged by the Decree of the Ministry of Economic Development of 18 March 2010, the TIB, and TICORG.
MGS	Organised market for the trading of gas stored as per Article 7 of the TIB. It takes place on the IT system managed by GME, as envisaged by the TIB and TICORG.
Overnomination	Mechanism by which the Shipper, during the Gas-Day, can formulate renominations of injection and/or withdrawal capacity beyond its contractual capacity.
Party or Parties	The Storage Company and the Shipper, respectively individually and collectively.
Period (WE/WD)	Interval of Gas-Days for which capacity assigned with the FLEX assignment procedure are valid. With reference to the WE FLEX assignment procedure, the WE period is intended as the day prior to the holiday and the day following the holiday(s); with reference to the WD FLEX assignment procedure, the WD period is intended as the working days between the two consecutive WE periods.

Withdrawal period or phase	Time between 1 November and 31 March.
Injection period or phase	Time between 1 April and 31 October.
Periods	Periods 1-15 April and 16-31 October.
IT system	IT System of Edison Stoccaggio which manages assignment requests as well as the exchange of information via internet between the Shipper and the Storage Company with regard to the commercial management of the Contract, as provided by this Code and available starting from 1 April 2011. The term IT system is used as an alternative to ESCOMAS.
Withdrawal Flow Rate or Performance (PE)	Daily peak withdrawal performance available, depending on the case, for the system or for the Shipper to whom a Withdrawal Capacity has been assigned, as defined in chapter 2 "Description of Storage Facilities and their Operation".
Injection Flow Rate or Performance (PI)	Daily peak injection performance available, depending on the case, for the system or for the Shipper to whom an Injection Capacity has been assigned, as defined in chapter 2 "Description of Storage Facilities and their Operation".
Certified Electronic Mail	In accordance with Italian Presidential Decree no. 68 of 11 February 2005, this is "any electronic mail system in which the sender is provided with electronic documentation certifying the transmission and delivery of electronic documents".
Higher Heating Value (HHV)	Quantity of energy expressed in Megajoule (MJ) produced by the complete combustion, at constant pressure, of one cubic metre of gas in anhydrous air at the pressure of 1.01325×100000 Pa, and at the temperature of 25°C, when all the water formed by combustion is condensed to the liquid state.

Average Contractual Pressure	Value of pressure below which the daily performance could be reduced.
Minimum Contractual Pressure	Value of pressure below which the daily performance could be interrupted altogether.
Minimum Contractual Pressure at Redelivery Point	Minimum value of pressure at which the Storage Company undertakes to deliver the gas to the Shipper at the Redelivery Point.
Performance or Peak	The Injection or the Withdrawal provided by the Storage Company to the Shipper, depending on the case.
Daily Performance	The daily Injection or the daily Withdrawal provided by the Storage Company to the Shipper, depending on the case.
Pseudo Working Gas	Gas in storage similar to Cushion Gas, in that it is necessary for the use of Operational Working Gas and cannot be allocated to Shippers. It can be withdrawn in longer times than those required by the market, which is essential to assure the peak performance that may be required by the variability of demand in daily and hourly terms.
Delivery point	Physical point, corresponding to the inlet flange, upstream of the measuring system of any one of the storage facilities comprising the Storage System, in which the gas is entrusted in custody from the Shipper to the Storage Company.
Delivery Point	Aggregation of all delivery points comprising the Storage System.
Redelivery point	Point, corresponding to the outlet flange, downstream of the measuring system of any one of the storage facilities comprising the Storage System, in which the gas is entrusted in custody from the Storage Company to the Shipper.
Redelivery Point	Aggregation of all redelivery points belonging to the Storage System.

RAST	Supplemented text of “Regulation on Access to Natural Gas Storage Services”, Annex A to ARERA Resolution 67/2019/R/Gas.
Responsible for Balancing	The Major Transport Company, as envisaged by the TIB.
Purchase or Sale Request	Request submitted by the Shipper to be able to purchase and sell storage capacity.
Request for Access to the IT System	Request submitted by the Shipper for access to the Edison Stoccaggio IT system (ESCOMAS).
Assignment request	Request submitted by the Shipper to access the Storage System and use the storage services.
RQSG	Annex A to Resolution 596/2014/R/Gas (Regulation of the Quality of the Natural Gas Storage Service).
RTSG	Annex A to Resolution 531/2014/R/Gas (Regulation of the Tariffs of the Natural Gas Storage Service), as updated by Resolution 68/2018/R/Gas.
TSI	Total System Imbalance as defined by Resolution ARG/GAS 45/11 as amended.
Storage Service	Services offered by the Storage Company.
Modulation Storage Service	Service designed to ensure the modulation of the daily, seasonal and peak consumption trends.
Peak Modulation Service	Modulation Service that involves a withdrawal performance that varies according to the moment of the withdrawal stage, with any constraints specified in the annual ministerial measures regarding the distribution of the storage capacities for the different services.
Flat Modulation Service	Modulation Service that involves a constant withdrawal performance for the entire duration of the withdrawal stage.

Constant Peaks of Modulation Service	Storage Service aimed to ensure the Shipper a constant available injection capacity and a constant available withdrawal capacity on each day of the Thermal Year.
Deposit Service	Service provided by the Storage Company designed to allow Shippers to establish a guarantee on stored gas in the form of an irregular pledge pursuant to Resolution 423/2014/R/Gas.
Storage System or System	The set of all storage sites managed by the Storage Company.
Website	www.edisonstoccaggio.it
Space	Storage capacity as defined in chapter 3 "Description of services".
TIB	Integrated balancing regulation - Annex A to Resolution 312/2016/R/Gas "Gas balancing, in adopting (EU) Regulation 312/2014".
TICORG	Amended act relative to provisions regarding regulatory conditions for performing management activities for physical gas markets - Annex to Resolution 66/2017/R/Gas.
Shipper	Party that stipulates with the Storage Company the Contract for the performance of the storage services.
Working Gas	Gas present in reservoirs that can be made available and replenished, to be used for hydrocarbon storage, modulation, operational and strategic balancing (Operational Working Gas), and includes Pseudo Working Gas.
Operational Working Gas	Gas present in reservoirs that can be made available and replenished, to be used for hydrocarbon storage, modulation, operational and strategic balancing.

Published by
Edison Stoccaggio S.p.A.
Foro Buonaparte, 31
20121 Milan, Italy
Tel. +39 02 6222.1

On the Cover
Salvatore Vitolo, "Flusso"
Oil on canvas, cm 40 x 50
Courtesy of the Author

Milan, December 2021



Edison Stoccaggio