

V. MANAGEMENT AND SUPERVISION OF THE GAS STORAGE SYSTEM

The control centre of the Gas Storage System

Article 1.

- (1) For the purpose of efficient and reliable management and maintenance of the Storage the Operator is obliged to supervise the operation of the Storage, the measurement of input and output flows, gas quality parameters and also reliability of gas delivery.
- (2) Supervision of operation and the Storage management is performed constantly from the control centre of the Operator, as well as by systematic operational system supervision.
- (3) The Operator will manage the system in such a manner as to meet the conditions prescribed by verified project documentation while adhering to technical and operating limitations of the system.
- (4) Technical and operational limitations of the Storage are based on the maximum allowed pressure of the reservoir and the surface facility and on the minimal pressure of the reservoir as well as pressure of the system to which it is connected.
- (5) The Operator's control centre will cooperate and exchange information with the Transmission System Operator and Users in matters concerning nominations, balancing of the transmission system, cooperation during disruption of storage activities or transmission and also during crisis, and in accordance with applicable legislation.
- (6) In order to maintain contact with the Operator the User needs to manage the following communication tools and constantly keep them in function during each gas day:
 - a computer connected to the internet with the option of sending and receiving e-mails;
 - telephone connection 0-24;
 - a device for receiving and sending fax messages.

Article 2.

In order to manage the Storage, for the purposes of ensuring safety and reliability of its operation and supervision of Storage plant, the control centre of the Operator has to have access to the measurement, information and telecommunication system which enables him to:

- keep continuous supervision of the technological parameters and management of key facilities; of the Storage in real time;
- notice disruptions in the technological gas storage process;
- measuring, recording and centralised data gathering on the achieved gas flow at the entry into the Storage and exit from the Storage;
- communicate with the Transmission System Operators' dispatcher centre for the purpose of exchanging operational data;
- exchange data and operational communication with the connected Distribution System Operator's dispatcher centre and the Gas Market Operator;
- achieve operational communication with Users;
- report on the Storage usage.

Article 3.

For the purpose of ensuring the safety and reliability of Gas Storage System operations, aside from what has been mentioned in Article 14 of this Storage Code, the Operator is obliged to organise permanent readiness for the emergency repair of defects or faults in the Storage, or rather to undertake measures to lessen their impact on the Storage operations.

Determining the technical storage capacity

Article 4.

- (1) The procedure for determining the technical storage capacity guarantees that the nominations of the Users do not exceed the technical capabilities of the Storage. The technical storage capacity is defined by the maximum operating volume of the Storage, the maximum daily injection capacity and the maximum daily withdraw capacity which are dependent on the level of occupancy of the Storage, and is determined by the Operator.
- (2) Storage is also limited by the minimal withdraw capacity and the minimal injection capacity of gas as follows, which is determined by the technical characteristics of the Storage:
- (3) Minimal hourly gas withdraw capacity (MinQph) is 200 000 kWh/h and the minimal daily gas withdraw capacity (MinQpd) is 2 000 000 kWh/day.
- (4) The Operator during the transitional mode in the withdraw cycle shall operate only if the withdraw with MinQph lasts continuously for at least 10 hours during a gas day.
- (5) The minimal hourly gas injection capacity (MinQuh) amounts to 300 000 kWh/h and the minimal daily gas injection capacity (MinQud) amounts to 2 400 000 kWh/day. The Operator shall operate only if the injection with a MinQuh lasts continuously for at least 8 hours during a gas day during the transitional mode in the injection cycle.
- (6) In order to ensure safety and reliability of the Storage operation the Operator may refuse User's nominations if the nominated withdraw capacity of all Users is less than MinQpd or if the nominated injection capacity of all Users is less than MinQud respectively.

Managing the capacities of the Gas Storage System

Article 5.

- (1) The gas injection cycle lasts from the gas day 1st of April until the gas day 30th of September \pm 30 days, while the withdraw cycle lasts from the gas day 1st of October until the gas day 31st of March \pm 30 days.
- (2) The Operator decides on the operation mode and the planned and/or unplanned change of storage operation mode cycle.
- (3) The Operator notifies the Users on the planned date for the regular cycle change from Paragraph 1 of this Article by posting a notification on his website seven days in advance. After determining the final date for the regular cycle change, the Operator will deliver via e-mail the final confirmation on the change of operating cycle at least 24 hours in advance to the User's authorized person.
- (4) As an exception from Paragraph 1 of this Article the cycle change is also possible due to an occurrence of an extraordinary situation on connected systems if the Operator assesses that a cycle change is possible within the scope of his operational possibilities.

(4) As an exception from Paragraph 1 of this Article, with the proviso that the change of operating cycle is acceptable with regards to technical and operational frameworks of the Operator, an extraordinary cycle change is possible during gas day D or gas day D+1 due to:

- 4.1 extraordinary situation at the Storage System,
 - 4.2 extraordinary situations on connected systems, with the condition that the connected operator sends a request via email which contains a statement about the extraordinary situation on the connected system,
 - 4.3 agreement of all Users with the condition that an authorized person of each individual User of the Storage System Operator's information platform sends a request via email which has to contain connected Operator's approval.
- (5) The applicant delivers by email the requests for changing the operating mode of the storage from the previous paragraph of this article, delivered by the Users of the Operator's information platform, sent to the following address: sala.kontrol@psp.hr and prodaja@psp.hr, with subsequent delivery by regular mail.
- (6) In the event of an extraordinary change of storage operating cycle, the Operator notifies the authorised Users of the Operator's information platform about the extraordinary cycle change via email.
- (7) During each storage operating cycle change all User nominations/renominations received via the Operator's information platform are deleted, the authorised information platform users are notified of this via email and are asked to submit new nominations.

Storage System operation mode

Article 6.

(1) The Operator determines the Storage's operation mode, depending on the Storage's cycle mode and received daily nominations as well as the effect the change of operation mode has on the deposit and facility characteristics.

(2) Storage can be in one of the following operation modes:

- withdraw;
- injection;
- standby;
- transitional operating mode.

(3) Storage is out of service when it is not in one of the previously listed operating modes.

Article 7.

(1) Due to the technical-technological characteristics of the Storage System the minimal time required in the event of change from the injection operation mode to withdraw operation mode is 8 hours, and in the event of change from the withdraw operation mode to injection operation mode it amounts to 16 hours, during which the start of a new storage operating cycle is harmonized with the beginning of a gas day or at the beginning of a nomination/renomination period which is decided by the Operator.

Change of operating mode

Article 8.

(1) the following rules apply during the withdraw cycle:

- If the sum of nominated hourly gas quantities from all the delivered nominations is greater than the MinQph:
 - the Operator will accept all of the nominations which are delivered in accordance with contracted capacities and continue with the withdraw operating mode.
- If the sum of nominated daily gas quantities from all the delivered nominations is greater than the MinQpd, and the sum of nominated hourly gas quantities from all the delivered nominations is less than MinQph:
 - the Operator will accept all of the nominations which are delivered in accordance with the contracted capacities and will operate in the transitional operating mode
- If the sum of nominated daily gas quantities from all the delivered nominations is less than MinQpd, and the sum of nominated daily gas quantities from the delivered nominations for injection is greater than MinQpd:
 - the Operator will accept all of the nominations for withdraw which are delivered in accordance with contracted capacities.
 - the Operator will proportionally reduce the virtual nominations for injection in such a way that the sum of all nominated daily quantities is greater than MinQpd and will operate in the transitional operating mode.
- If the sum of nominated daily gas quantities from all the delivered nominations is less than the MinQpd and the sum of nominated daily gas quantities from all the delivered nominations for injection is also less than the MinQpd:
 - the Operator may refuse the received nominations and will change the operation mode to standby.

(2) During the injection cycle the following rules apply:

- If the sum of nominated hourly gas quantities from all the delivered nominations is greater than the MinQuh:
 - the Operator will accept all of the nominations which are delivered in accordance with the contracted capacities and will continue with the injection operating mode.
- If the sum of nominated daily gas quantities from all of the delivered nominations is greater than MinQud, and the sum of nominated hourly gas quantities from all of the delivered nominations is less than MinQuh:
 - the Operator will accept all of the nominations which are delivered in accordance with contracted capacities and will operate in the transitional operating mode.
- If the sum of nominated daily gas quantities from all the delivered nominations is less than the MinQud, and the sum of all nominated daily gas quantities from delivered nominations for withdraw is greater than the MinQud:
 - the Operator will accept all of the injection nominations which are delivered in accordance with the contracted capacities
 - the Operator will proportionally reduce the virtual nominations for withdraw in such a way that the sum of all nominated daily quantities is greater than the MinQud and will operate in the transitional operating mode.
- If the sum of nominated daily gas quantities from all the delivered nominations is less than the MinQud and the sum of nominated daily gas quantities from the delivered nominations for injection is also less than the MinQud:
 - the Operator may refuse the received nominations and will switch to standby operation mode.

- (3) During each change of storage operating cycle the received User's nominations will be deleted in accordance with provision of Article 17.7 of this Storage Code.

Own gas consumption and losses

Article 9.

- (1) The measurement of gas consumption for the needs of the Operator will be performed with the measuring device which is owned by the Operator for which he possesses all of the required documentation in accordance with the metrological requirements (certificates, test reports).
- (2) The Operator is obliged to ensure sufficient gas quantities required to feed the compressor, technological consumption, to cover the losses and to supplement the gas cushion.
- (3) The gas intended for the purposes described in Paragraph 2 of this Article is acquired by the Operator based on market principles while also defining the dynamic and location of delivery.
- (4) The Operator acquires the gas at the storage entry or in the storage itself.
- (5) The Operator is obliged to publish the tender for the procurement of gas for the purposes described in Paragraph 2 of this Article on his website and in at least one public newspaper.
- (6) The basic criteria for choosing the most favourable tender is the lowest unit gas price.
- (7) On the basis of the most favourable tender, the Operator and the chosen supplier conclude a Gas Supply Agreement.
- (8) In case of dissatisfaction with the conduct of the Operator in the gas procurement proceedings, the supplier has the right to lodge an appeal to the Croatian Energy Regulatory Agency (hereinafter: Agency).

Temporary restriction and termination of service

Article 10.

- (1) The Operator has the right to temporarily restrict or terminate the injection or withdraw of gas for regular maintenance of the facility and installations, performing necessary hydrodynamic measurements, inspections, system tests, system upgrades or reconstructions and for other reasons as prescribed by this Storage Code, the Law and by other current legal and sublegal regulations.
- (2) The Operator develops and implements planned annual works from Paragraph 1 of this Article in as short a time period as possible.
- (3) The Operator publishes on his website the planned deadlines for the termination of service before the beginning of the storage year, and if necessary he revises them monthly and ultimately confirms it to the Users by delivering a notification at least 19 hours in advance.
- (4) Due to performing hydrodynamic measurements, the Operator has the right to terminate the injection and withdraw service twice a year in the duration of 96 hours. The Operator will carry out the abovementioned measurements in agreement with the Users and the operator of the connected system, and he will carry them out no later than 15 days after the completion of the injection or rather the withdraw cycle respectively.
- (5) In the event that the restriction or termination of storage service has lasted in accordance with the announced deadlines or was prolonged due to reasons which the Operator couldn't foresee and/or prevent, the Operator is not obliged to reimburse the Users for possible

damages or expenses that may have occurred as the result of restriction or termination of the storage service.

Article 11.

After the announced operations from Article 22 of this Storage Code are completed the Operator will immediately notify the User and continue with the provision of contracted services.

Management and procedures during extraordinary circumstances

Article 12.

(1) An extraordinary situation with regards to managing the Storage is any event which is not avoidable or foreseeable, and whose consequences directly endanger the safety of people and property from uncontrolled gas discharge, cause restriction or termination of Storage capacity usage and endanger the reliability of gas supply.

(2) Extraordinary situations described in Paragraph 1 of this Article in terms of managing the Storage also include extraordinary circumstances on connected systems.

(3) In the event of an extraordinary situation at the Storage the Operator will undertake measures without delay which will ensure the preservation of the storage system viability and will decrease the impact the disruption has on the possibility of Storage capacity usage and the reliability of gas supply. The abovementioned measures encompass the following:

- notification of competent public authorities and bodies;
- control of the Storage operation through the control centre in accordance with internal instructions, for the purpose of surmounting the arisen circumstances;
- elimination of the cause of danger for the safety of people and property;
- termination or restriction of the Storage capacity usage.

Article 13.

(1) In the event of a malfunction or breakdown at the Storage which endangers the safety of people and property, the Operator has the right to immediately terminate or restrict the gas storage service, along with a telephone notice to the User and the operator of a connected system and a subsequent written notice.

(2) In the event of a malfunction or breakdown at a connected system, the operator of the connected system sends a notice by telephone and subsequently in writing about the malfunction on the connected system to the Operator as well as a request for the termination or restriction of the storage system service. After receiving the notice, the Operator will notify the Users who are affected by the restriction or termination of service on the time of the gas storage service termination or restriction.

(3) In the event of a malfunction or breakdown on the connected system, for which the Operator is aware could threaten people's lives or health or cause material property damage, the Operator will terminate or restrict the gas storage service without delay.

(4) In the event that the termination or restriction of the gas storage service is caused by a malfunction at the Storage or at the connected system which would result in the endangerment

of people's safety and property, the Operator is not obliged to reimburse Users the potential damages or expenses caused as a result of the restriction or termination of the gas storage service.

(5) The Operator will request Users to deliver extraordinary nominations during the termination or restriction of the storage service in accordance with the provisions of this Article.

Management and procedures during crisis

Article 14.

(1) During a crisis the Operator manages the Storage based on the measures prescribed by the Regulation (EC) 994/2010 of the European Parliament and of the Council (hereinafter: Regulation on security of gas supply) and provisions adopted on the basis of Regulation on Gas Supply Security.

(2) Depending on the technical possibilities and available capacities of the Storage the Operator will undertake measures to mitigate the resulting situation within the scope of his responsibilities.

(3) On the basis of the Decision on the adoption of the intervention plan on measures to protect the security of gas supply in Croatia, the Operator prepares the Plan for crisis situations, and has an obligation to inform the Ministry in charge of Energy in the event of early warning crisis levels, alerting and state of emergency on the level of stored gas, and implement measures in accordance with the Crisis Team's order.