ATTACHMENT F: Congestion management

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1. PRO-ACTIVE MEASURES

The Code of Conduct imposes the Storage Operator and the Storage User a number of minimum requirements that are to be complied with at all times in order to assure both an efficient and maximum use of Capacity for purposes of avoiding a.o. congestion (in accordance the Standard Storage Agreement).

In particular for the Storage Users, we remind the following obligations below as imposed by the Code of Conduct:

- the Storage User shall refrain from using the allocated Subscribed Capacities to hamper, limit or disturb the functioning of the market;
- the Storage User shall offer on the Secondary Market its Subscribed Capacities that it temporarily or permanently do not use;
- the Storage User who offers Subscribed Capacities on the Secondary Market is not allowed to stipulate conditions that may refrain the free tradability;
- the Storage User trading Storage Services on the Secondary Market by other means that the Secondary Market Platform, must notify (as soon as practically feasible) to the Storage Operator of each transaction. The minimum information to be communicated by the Storage User (like for example period, quantity of services and price) is defined in attachment C3 of the ACS.

In order to promote the maximum use of the Injection and Withdrawal Capacities (and as an additional anti-hoarding mechanism), the unused Injection/Withdrawal Capacity by the Storage User(s) is made available to other Storage Users through the DAM-NNS Unused Capacity Services (cf. attachment C1 of the ACS).

Finally, the Storage Operator publishes¹ at least on a weekly basis and on an aggregated level, the total volume and the average price of the services traded on the Secondary Market (i.e. both trades made via the Secondary Market Platform and over the counter transactions).

2. MONITORING STORAGE SERVICES

The Storage Operator monitors the use of the Storage Services that have been subscribed by the Storage Users on the Primary Market. This above active monitoring encourages an effective utilization of the subscribed Storage Services by the Storage Users.

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¹ unless the confidentiality of information can not be guaranteed on aggregated level

2.1. Criteria and simulations

Following criteria are applicable for determining whether the subscribed Storage Services are used by the Storage Users:

- For the filling on the level of storage, in accordance with the provisions of attachment D1 of the ACS, the specific conditions applies by which the Storage User has to attain 90% of his GIS. This condition is used to determine whether the subscribed Storage Capacities are being used or not. Is considered as unused: the positive delta between the 90 % of the subscribed Storage Volume of the Storage User concerned and its—his actual Gas in Storage as per November 1st, taking into account the global utilization of all Storage Users.
- During the injection period, the Storage Operator simulates, at least on a weekly basis, if the Storage User can still reach a level of Gas in Storage of at least 90% on the 1ste of November of its subscribed Storage Volume per November 1st (assuming that the Storage User is using his Injection Capacity at the maximum rate). If the simulation indicates that the 90% level cannot be reached per November 1st, is considered as unused: the part of the positive delta between the level of 90 % of the subscribed Storage Volume of the Storage User concerned and the maximum level of Gas in Storage that it he can reach per November 1st, taking into account the global utilization rate of all Storage Users.
 - The simulation at a certain date calculates the forecasted GIS (GIS_{u,Td90%}) at theon 1st November for a certain Storage User (u) as follows:

$$GIS_{u,Td90\%} = AvIN_{u,Td} * (T_{d90\%} - T_d) + GIS_{u,Td}$$

With:

T_d is the date on which the simulation is performed

T_{d90%} is the date of the 1st November for the 90% GIS rule in accordance with attachment D1 of ACS

AvIN _{u,Td} is the average at T_d of the available Injection Capacity for a Storage User (u) between T_d and T_{d90%}, taking into account (i) the forecasted Real Injection Capacity of the Storage User as described in attachment D1 of the ACS between T_d and T_{d90%} and (ii) the forecasted available Day Ahead Unused Capacity between T_d and T_{d90%}

GIS u,Td is the GIS of Storage User (u) at Td

If the calculation is performed on an aggregated level for all Storage User, the same formula as hereabove will result in the global forecasted Gas in Storage (GIS_{global,Td90%}).

- The forecasted GIS rate of a Storage User is calculated by the following ratio:

$$GIS\%_{u,} = GIS_{u,Td90\%} / RESV_{u,Td}$$

With, RESV_{u,Td} is the Real Storage Volume of Storage User (u) the as described in attachment D1of the ACS, at T_d

- The forecasted global GIS rate is calculated by the following ratio:

$$GIS\%_{global} = GIS_{global,Td90\%} / \sum_{u} RESV_{u,Td}$$

- The forecasted unused ratio of a Storage User taking into account the global GIS rate is then calculated as follows:

Unused%
$$u_{i} = Max (0, min (GIS\%_{global}, 90\%) - GIS\%_{u})$$

- The forecasted unused Storage Volume of a Storage User taking into account the global GIS rate is then calculated as follows:

Unused
$$u_{i}$$
 = Unused% u_{i} * RESV u_{i} Td

When Storage User reaches the 90% of its-his Gas in Storage before the point of time $T_{d90\%}$, then no unused Capacity is considered for the related Storage User in that case.

2.2. Electronic record and publication

The Storage Operator maintains per Storage User an electronic record providing an overview between the allocated Storage Services and the effective individual utilization rate of Storage Services subscribed by the Storage User. The individual daily utilization rate of Injection and Withdrawal Capacity is the ratio between:

- the cumulative quantities of gas that were effectively injected or withdrawn by the Storage User on that day, and
- the maximum quantities of gas that the Storage User could have injected or withdrawn when using its maximum capacity on that day;

In addition, the Storage Operator during the injection period adds in the electronic record the outcome of the simulation whether the Storage User can still reach a level of Gas in Storage of at least 90% of its subscribed Storage Volume per November 1st.

Both the individual utilization rate (on a daily basis) and the simulation (on a weekly basis), are indicatively published via the Extranet Storage individually accessible by each Storage User. In addition, the Storage Operator forwards the electronic record towards the CREG at least on an annual basis (before the end of February of each year) and upon request of the CREG or in case of congestion (cf. point 3 below).

Finally, the Storage Operator also publishes the global utilization rate for subscribed storage services daily via the data publication platform (https://gasdata.fluxys.com/storage/data.fluxys.com).

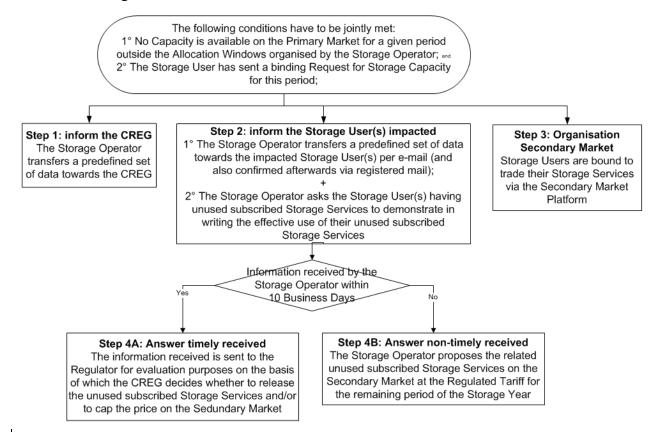
3. CONGESTION

As for the Storage Services offered on the Primary Market, the Service Allocation Rules (Attachment C2 of the Access Code for Storage), already take into account specific allocation rules in case of congestion.

Outside the allocation windows, congestion occurs if:

- (i) there is no Capacity available on the Primary Market for a given period; and
- (ii) a Storage User sends a binding request for Storage Capacity for this period.

In line with section 1.4 of the Code of Conduct, the following procedure is applicable when congestion occurs:



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• Step 1: inform the CREG

Upon occurrence, the Storage Operator transfers the following information/data towards the CREG:

- the Storage Installation concerned and the likely duration of congestion (in which a distinction is made between physical and contractual congestion);
- the Storage User(s) affected by the congestion;
- for each affected Storage User, the requested amount of firm Storage Services that cannot be allocated together with the desired contract duration by the Storage User;
- the amount of unused subscribed Storage Services per Storage User;
- the measures taken by Storage Operator to limit the congestion to a minimum;
- the measures proposed by the Storage Operator to remedy the congestion.

• Step 2: inform the Storage User(s) impacted

Furthermore, the Storage Operator immediately informs via email the Storage User(s) impacted by the congestion of the following information/data:

- the Storage Installation concerned and the estimated duration of the congestion;
- the measures taken by Storage Operator to limit the congestion to a minimum;
- the measures proposed by Storage Operator to remedy the congestion;
- on an aggregated basis, the requested amount of firm Storage Services that cannot be allocated together with the desired contract duration by the Storage User(s);

The above information is also confirmed towards the impacted Storage User(s) via registered mail.

In addition the Storage Operator also asks the related Storage User(s) having unused subscribed Storage Services to demonstrate in writing the effective use of the unused subscribed Storage Services listed previously in the communication towards the CREG (see step 1).

Step 3: Organization Secondary Market

In accordance with article 20 §5 of the Code of Conduct, from the moment the Storage Operator has informed the Storage Users of congestion, the Storage Users are bound to trade their Storage Services via the Secondary Market Platform (i.e. trading over the counter is no longer allowed).

• Step 4: Assessment Storage User's response regarding effective use

Within the timeframe of 10 Business Days as from the receipt of the request from the Storage Operator, each Storage User concerned must confirm by letter the effective use of its Storage Services.

Following article 15 §1 of the Code of Conduct, the Storage User can demonstrate an effective use of the subscribed Storage Services amongst others using historical data related to the use of its Storage Services and his activities on the Secondary Market, and in each case by using his supply contracts

The Storage Operator provides the CREG a copy of the received information from the Storage User(s).

Case A: Answer timely received from the Storage User

The CREG evaluates the information received from the Storage User as to whether the effective use of the Storage Services is sufficient or insufficient. Based upon the assessment, the CREG decides whether to release the unused subscribed Storage Services, either in part or in full, or not. In addition, the CREG might decide to cap the price of the unused Storage Services made available on the Secondary Market Platform at the Tariff.

Within 10 Business Days after receipt of the written release notification by the CREG, the Storage Operator must propose the related Storage Users' unused Storage Services for the remaining period of the current Storage Year at the Tariff of that Storage Year, under the condition however that these Storage Services have not been proposed already by Storage User itself on the Secondary Market Platform.

In case there are multiple Storage Users offering unused Storage Volume of through the Secondary Market Platform, the Storage Operator will allocate this global unused Capacity to the Storage Users concerned in proportion to their share in the total offered unused Capacity. The Storage Operator applies hereby a fee, charged to the Storage User, as provided for in the Regulated Tariffs.

Case B: Answer non-timely or not received from the Storage User

In case the Storage Operator does not receive an answer from the Storage User in due time, the CREG will be informed and the Storage Operator subsequently offers the related unused subscribed Storage Services immediately after on the Secondary Market Platform for the remaining period of the current Storage Year at the Regulated Tariff of that Storage Year, under the condition however that these Storage Services have not been proposed already by Storage User itself on the Secondary Market Platform.

Storage Operator reimburses the tariff paid by Storage User for the released Storage Services, however decreased with a fee as provided for in the Regulated Tariffs, insofar these released Storage Services are subscribed by another Storage User.