Technical Rule no. 10 rev. 04 PAR

(pursuant to Article 4 of the Regulation of the Platform for the Allocation of Regasification Capacity, Approved by Autorità di Regolazione per Energia Rete e Ambiente with Resolution 111/2018/R/gas)

Title	**Determining the results of the auction sessions on the OLT segment and GNL Italia segment**

Reference Legislation	Article 39, paragraphs 39.1 and 39.4, Article 43, paragraph 43.2, Article 51, paragraphs 51.1 and 51.4 and Article 56, paragraph 56.2, of the Regulation

Published on 16 luglio 2019

1 Foreword

Article 39, paragraph 39.1 and Article 51, paragraph. 51.1 of the Regulation, respectively for the ADRIATIC LNG segment, the OLT segment and the GNL Italia segment, provide that GME shall carry out each open ascending auction session for the allocation of annual and multi-annual capacity, as described in the Technical Rules and in implementation of the criteria governed therein.

Article 39, paragraph 39.4, and Article 51, paragraph 5.4 of the Regulation, respectively for the OLT segment and the GNL Italia segment, provide that in order to determine the outcomes of each open ascending session, GME shall accept the valid and adequate offers as specified in the Technical Rules and in such a way that: a) the net value of the transactions is maximized, provided that the capacity covered by the accepted purchase offers is equal to the capacity that can be allocated; b) the payable price of the accepted offers is equal to the price determined as described in the Technical Rules.

Article 43, para. 43.2 and Article 56, paragraph 56.2 of the Regulation, respectively for the OLT segment and the GNL Italia segment, provide that, in order to determine the results of each auction session for the capacity allocation during the thermal year, GME shall accept the offers, valid and adequate, as specified in the Technical Rules in such a way that: a) the number of slots that can be allocated is maximized, taking into account the intra-session planning; b) without prejudice to the provisions of letter a) above, the net value of the transactions is maximized, provided that the number of capacity slots of accepted offers is equal to the number of capacity slots to be allocated.

2 Mechanism for determining the outcomes of the open ascending auction session

The mechanism for determining the outcomes of the open ascending auction may provide for the execution of several consecutive procedures, that start at the end of the session to collect bids/offers and which, according to the methods described below, may take into account:

- the reserve price level, or the different reserve prices based on auctions;
- for the allocations of capacity for which there are several reserve prices, of the

incremental amounts of capacity subject to the contribution as the reserve price increases;

- the proposed purchase capacity at each price level.

Below is the mechanism for determining the outcomes of the open ascending auction session (paragraph 2.1) and the case in which, given the above variables, the mechanism involves the execution of further auction phases (paragraph 2.2).

2.1. Determination of the outcomes of the open ascending auction session

The capacity proposed for purchase by the participant, at each price level[1], as described below, must not be greater than the capacity being allocated and, in any case, not increasing as the price level grows.

− **First procedure**:
  o if the aggregate purchase offer of all the participants expressed with reference to the reserve price P/R is ≤ of the capacity being allocated, the PAR information system carries out the auction with the allocation of the amounts requested at the auction price (i.e. reserve price P/R);
  o If the aggregate purchase offer of all participants expressed with reference to the P/R reserve price is > of the capacity being allocated, the information system shall not carry out the auction and proceed with the second procedure.

− **Second procedure**: the PAR information system shall carry out the auction at the auction price amounting to the sum of the reserve price P/R and the "high price step" (auction price of the second procedure);

  o if the aggregate purchase offer of all the participants expressed with reference to the auction price of the second procedure is = to the capacity being allocated, the PAR information system shall carry out the auction with the allocation of the amounts requested at the auction price of the second procedure;

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[1] Price level shall mean the reserve price (P) or reserve price (S), or each price level calculated as the sum of the reserve price and the high price steps or low price steps.

- o if the aggregate purchase offer of all the participants expressed with reference to the auction price of the second procedure is **> (CASE A) or <(CASE B)** of the allocated capacity, the information system of the PAR information system shall not carry out the auction and proceeds with the third procedure.

- **Third or subsequent procedure - CASE A**: PAR information system shall carry out the auction at the auction price amounting to the sum of the auction price of the previous procedure and the "high price step" (*auction price of the third or subsequent procedure - CASE A*);
  - o if the aggregate purchase offer of all the participants expressed with reference to the *auction price of the third or subsequent procedure - CASE A is = to the capacity being allocated*, the PAR information system shall carry out the auction with the allocation of the amounts requested at the *auction price of the third or subsequent procedure - CASE A*;
  - o if the aggregate purchase offer of all participants expressed with reference to the auction price of the third or subsequent procedure – CASE A is > than the capacity being allocated, PAR information system shall not carry out the auction and proceed with a further procedure according to the criteria described for the "**Third or subsequent procedure - CASE A**"[2].
  - o if the aggregate purchase offer of all participants expressed with reference to the *auction price of the third or subsequent procedure – CASE A is <* to the capacity being allocated, the PAR information system shall not carry out the auction and proceed with a further procedure according to the criteria described in the **"Third or subsequent procedure - CASE B"**.

- **Third or subsequent procedure CASE B**: the PAR information system shall carry out the auction at the auction price amounting to the sum of the auction price of the procedure before the undercutting[3] is observed for the first time and the "low price step" (*auction price of the third subsequent procedure - CASE B*);

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[2] The procedures described therein start from a new auction price obtained by continuing to add further high price steps and, if the aggregate purchase offer is still greater than the capacity awarded, they continue until the end of the high price steps at which the participants submitted offers. If, even at the last price step, the aggregate purchase offer is still greater than the capacity awarded, the auction will not determine any result. GME informs participants and the regasification company about this circumstance so as to organize a new auction starting from the last price step and providing for further high and low price steps with respect to which participants have to submit offers.

[3] Undercutting shall mean the case in which the aggregate purchase offer of all the participants expressed with reference to a price level is ≤ the capacity being allocated.

- o if the aggregate purchase offer of all the participants expressed with reference to the *auction price of the third procedure or the auction price of the subsequent procedure - CASE B is* ≤ of the capacity being allocated, the PAR information system shall carry out the auction with the allocation of the amounts requested at the auction price (i.e. the auction price of the third procedure or the auction price of the subsequent procedure);;

- o if the aggregate purchase offer of all the participants expressed with reference to the *auction price of the third procedure or the auction price of the subsequent procedure - CASE B is* > of the capacity being allocated, the PAR information system shall not carry out the auction and proceeds with the subsequent procedure. The auction relating to the subsequent procedure is carried out with an auction price amounting to the sum of the *auction price of the third or subsequent procedure - CASE B* and of a further "low price step" and so until it the aggregate purchase offer of all participants is ≤ the capacity being allocated. In this case, the auction is considered closed and the PAR information system shall award the capacity, for the amounts corresponding to the purchase proposals of the individual offer considered in the procedure in which the first undercutting took place, at the auction price of that procedure.

2.2. Determination of the outcomes of the open ascending auction session (execution of subsequent auction phases)

For capacity allocations for which there are multiple reserve price levels (PR_1, PR_2, PR_3 ... PR_n, with $PR_1 < PR_2 < PR_3 < PR_n$) and amounts subject to incremental allocation in relation to these reserve prices (QPR_1, QPR_2, QPR_3 ... QPR_n, with $QPR_1 < QPR_2 < QPR_3 < QPR_n$), the mechanism for determining the outcome described above (paragraph 2.1) may involve the execution of subsequent auction phases, each for each reserve price level and the related amount subject to allocation.

Specifically, for these allocations, the session for the submission of bids/offers is initially opened and participants may submit purchase proposals at PR1 and the price levels obtained by adding the related high and low price steps to PR1, up reaching PR24, for an amount not exceeding

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[4] Given two consecutive reserve prices PRn and PRn + 1, with PRn < PRn + 1, to which the amounts of available capacity QPRn and QPRn + 1 are associated, with QPRn < QPRn + 1, the last price level obtained by adding all the related price steps to PRn corresponds to PRn + 1.

QPR_1. Once the submission phase is closed, GME starts determining the outcomes as described above (paragraph 2.1) and allocates the capacity only if, for one of the price levels starting from PR_1 up to PR_2 (included), the first undercutting is recorded. In this case, the auction is considered closed and the PAR's computer system allocates the capacity, for the amounts corresponding to the purchase proposals making up the individual bids/offers considered in the procedure in which the first undercutting occurred[5].

On the other hand, if the aggregate purchase offer is always greater than the capacity being allocated even at the last price level (= PR_2), the outcomes are not determined, and a new following auction phase is opened, where:

- participants are required to submit bids/offers starting from PR_2 and for all price levels obtained by adding the related high and low price steps to PR_2, up to PR_3[6], for an amount not exceeding QPR_2 (namely the capacity available for allocation> QPR_1);
- only participants who have submitted purchase offers at the last price step in the previous auction phase may participate.

Once the submission phase has been closed, GME starts determining the outcomes as described above (paragraph 2.1) and in line with the procedures adopted during the previous auction phase. This implies that GME will allocate the capacity only if, for one of the price levels starting from PR_2 up to PR_3 (included) - or the last price step if PR_3 is not defined - the first undercutting is recorded. In this case, the auction is considered closed and the PAR's computer system allocates the capacity, for the amounts corresponding to the purchase proposals making up the individual bids/offers considered in the procedure in which the first undercutting occurred[7].

Conversely, if the aggregate purchase offer is always greater than the capacity sbeing allocated, even at the last price level, the outcomes are not determined, and a new following auction phase is opened according to the same criteria above.

2.3. Special cases relating to the determination of the outcomes of the ascending open auction session

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[5] In this case, the amount allocated is $\leq QPR_1$

[6] Where PR3 is missing, the number of steps and the last price level is defined by the regasification company.

GME will start a new auction phase in the event that:

- regardless of the number of reserve prices provided, at a given price level, an excess demand is observed and, for subsequent levels up to the last step, a zero-aggregate purchase offer is recorded[8]. In this case, GME organizes a new auction phase in which the starting price corresponds to the last price level at which there was an excess demand during the previous phase. Only participants that have submitted purchase offers at the last price step for which there was an excess demand during the previous phase may participate in this new auction phase. If this second phase does not lead to any solution:

  A) because for all the price levels there is an aggregate purchase offer equal to zero is, the auction is considered concluded and the capacity is not allocated;

  B) because for the price levels following the auction-based price there are an aggregate purchase offer equal to zero and an excess demand[9] at the auction-based price, the auction is considered concluded and no capacity is allocated;

  C) because for a price level following the auction base and for the following levels up to the last step, there is an aggregate purchase offer equal to zero[10], GME organizes a new auction phase in which the starting price corresponds to the last price level at which there was an excess demand during the previous phase and this will apply until the solution has been identified or the situation referred to in previous A or B points does not occur. Only participants who have submitted purchase offers at the last price step for which there was an excess demand during the previous phase may participate in each following auction phase.

- for capacity allocations involving several reserve prices, during an auction phase, the allocation is found to be in favor of a single participant that has submitted bids/offers for an amount equal to the one being allocated for the said auction phase, at all price

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[7] In this case, the amount allocated is $\leq QPR_2$

[8] This circmustance also occurs if there is an excess demand at the last price level of the individual procedure/auction phase.

[9] In this circumstance the same results of the previous phase are confirmed.

[10] This circmustance also occurs if there is an excess demand at the last price level of the individual procedure/auction phase.

levels. In this case, the allocation is to be confirmed pending the execution of the next auction phase, where only the participant who is the potential beneficiary in the previous auction phase may participate. If this participant fails to submit bids/offers in the next auction phase, the outcome of the previous auction phase is confirmed.

3 Determination of the results of the *pay as bid* auction session

The determination of the results of the auctions for the allocation of capacity slots during the thermal year through quotation of products for which the unloading date is scheduled, is carried out in compliance with the following criteria:

- − maximization of the number of capacity slots to be allocated
- − maximization of the value of the bids/offers, with priority given to the bids/offers submitted at the highest price, consistent with the scheduling made. For bids/offers submitted at the same price, the time priority for submitting them will be considered.

In the event of non-determination, the slots closest to the bids/offers with the highest priority will be allocated.

EXAMPLE 1

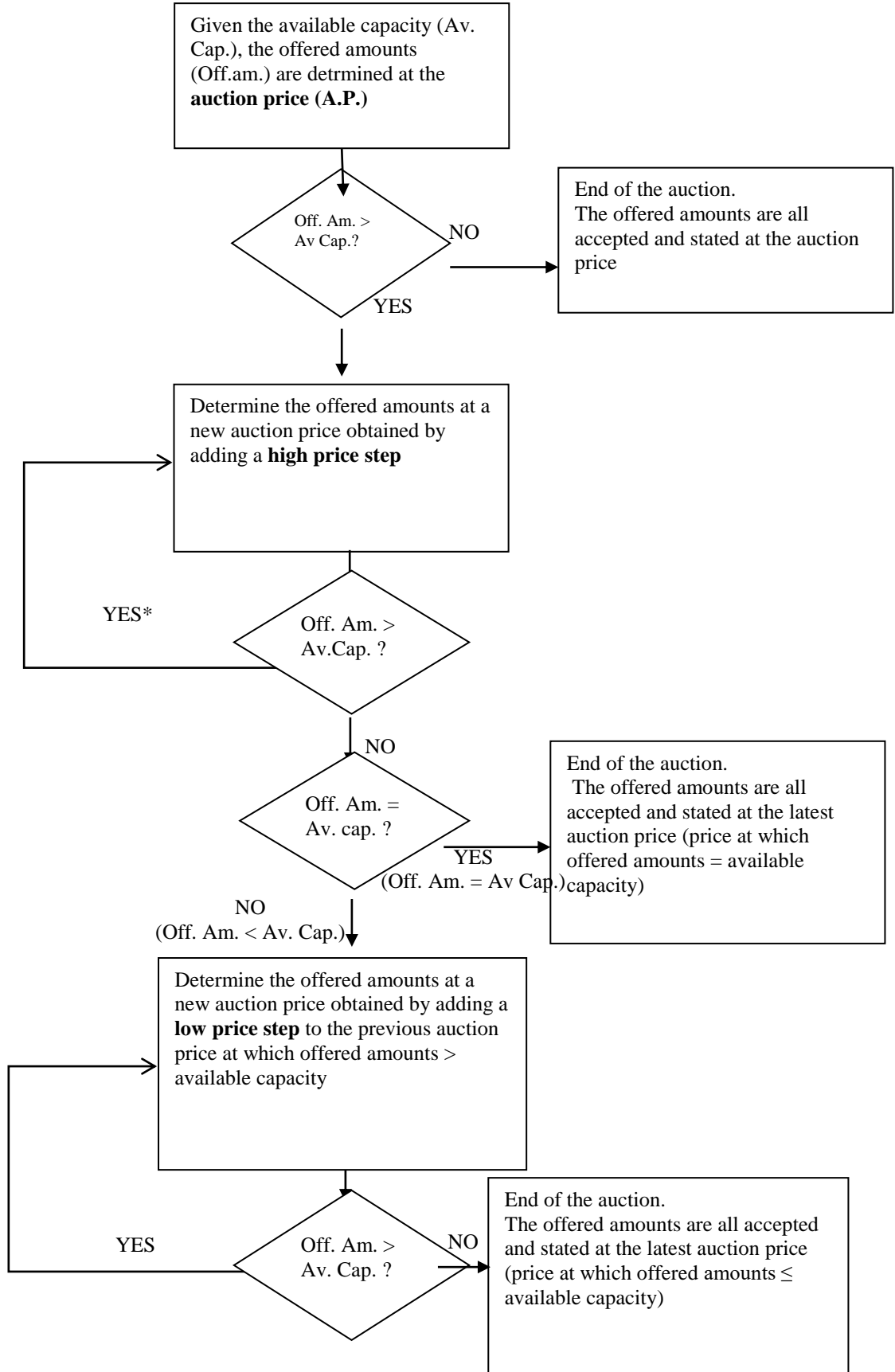|	01-Jun	08-Jun	15-Jun	22-Jun
User A	10			
User B	8	8	8	8
User C	6			
User D		4		4
User E	3		3	
User F				2
User G				1
	10	8	3	4
25				**Maximum revenue**

Therefore, by mere way of example, on the basis of the example shown in the table, the slot of 1 June is assigned to user A as it offered the highest price for the available slot. The slot of 8 June is assigned for the same reason to user B. Please note that in order to maximize the capacity and revenues, allocating the slot of 8 June to user B and the slot of 22 June to user D or vice versa makes no difference; in this case the user who has offered the highest price will be awarded the first slot.

EXAMPLE 2

	01-Jun	08-Jun	15-Jun	22-Jun
User A	10	10		
User B			9	9
User C			8	
User D				7
User E				3
User F			2	
User G	1			
	1	10	8	9
	28			**Maximum revenue**

The slot of 1 June is allocated to the user G (as if it had been allocated to the user A, the next slot could not have been allocated to the latter, thus reducing revenues from 11 to 10, but above all, it would have halved the allocated capacity). Since the user A has indicated two slots without any preference, it has been possible for the first slot to prefer User G who has submitted its bid/offer only for that one.

4 APPENDIX: Flow chart of the process for determining the results for the allocation of annual/multi-annual capacity

Given the available capacity (Av. Cap.), the offered amounts (Off.am.) are detrmined at the **auction price (A.P.)**

Off. Am. > Av Cap.? — NO → End of the auction. The offered amounts are all accepted and stated at the auction price

YES

Determine the offered amounts at a new auction price obtained by adding a **high price step**

Off. Am. > Av.Cap. ? — YES*

NO

Off. Am. = Av. cap. ? — YES (Off. Am. = Av Cap.) → End of the auction. The offered amounts are all accepted and stated at the latest auction price (price at which offered amounts = available capacity)

NO (Off. Am. < Av. Cap.)

Determine the offered amounts at a new auction price obtained by adding a **low price step** to the previous auction price at which offered amounts > available capacity

Off. Am. > Av. Cap. ? — YES / NO → End of the auction. The offered amounts are all accepted and stated at the latest auction price (price at which offered amounts ≤ available capacity)

* This iteration continues for n times where n is equal to the number of high steps for which the participants have submitted offers. If at the end of the last iteration a solution is not found, the procedure stops without determining an outcome and in the following days a new auction will take place.