

## **BUSINESS RULES V**

### **RESERVE PRICE**

DRAFT

## 1. Scope of the Chapter

- 1.1. This chapter applies to all entry and exit points under the scope of the Network Code on CAM.

## 2. Multipliers

- 2.1. NRAs may decide to apply multipliers or, subject to NRA approval, TSO may propose multipliers serving as factors to calculate reserve prices for non-yearly standard capacity products applied to the proportional yearly reference price, before the application of a seasonal factor, if any.
- 2.2. If multipliers are not applied then the reserve prices for all standard capacity products shall be set proportionately to the yearly reference price.
- 2.3. The issues that NRAs shall take into account when determining reserve prices and the potential application of multipliers are the following:
  - The balance between facilitating short-term gas trading and efficient revenue recovery;
  - The balance between facilitating short-term gas trading and providing long term signals for efficient investment;
  - The need to ensure that transport contracts signed with non-standard dates or with durations shorter than a standard annual transport contract shall not result in arbitrarily higher or lower tariffs.
  - The prevention of cross-subsidisation between network users with different booking behaviours.
- 2.4. Before NRAs adopt their decision regarding the application of multipliers, NRAs shall consult with NRAs of adjacent Member States and relevant stakeholders. In adopting their decision, NRAs shall take account of the adjacent NRAs' opinions.
- 2.5. In determining multipliers, the absence or presence of congestion needs to be taken into account. NRAs will evaluate the presence or absence of congestion at IPs taking into account either if the IP is fully or highly booked or taking into account the clearing price of the auctions. When the clearing price is taken into account for the

analysis, an IP shall be considered congested when the clearing price was higher than the reserve price in the previous year or in one of the subsequent two years

- (a) for at least three firm capacity products with a duration of one month or
- (b) for at least two firm capacity products with a duration of one quarter or
- (c) for at least one firm capacity product with a duration of one year or more or
- (d) where no firm capacity product with a duration of one month or more has been offered.

NRAs may use the information in the yearly monitoring report of ACER in order to decide about the presence of congestion at one IP while being aware of any time lag issues with the publication of the report.

2.7. When the NRA decides to allow multipliers, the NRA shall take into account whether the TSO has offered additional capacity that has been paid by incentives as defined in Section 2.2 of Annex I of the Gas Regulation.

2.8. In determining multipliers, the following ranges apply:

Duration of the short term product	Multiplier range <u>with</u> congestion	Multiplier range <u>without</u> congestion
Quarterly and monthly	0.5 – 1	0.5 – 1.5
Daily and within-day	0 – 1	0 – 1.5

2.9. In the absence of seasonal factors, for quarterly and monthly firm standard capacity products, the reserve prices shall be calculated using the following formula:

$$P_{st} = m_i \times (p_y/365) \times d$$

where:

$i$  represents the short-term product: quarterly or monthly capacity,

$P_{st}$  is price of a short-term product of a duration of 'd' days,

$m_i$  is the multiplier corresponding to the standard product ( $m_Q$  or  $m_m$ ),

$p_y$  is price of yearly product,

$d$  is duration of short-term product in days,

For leap years,  $P_{st} = m_i \times (p_y/366) \times d$ .

2.10. In the absence of seasonal factors, for daily firm standard capacity products, the reserve prices shall be calculated using the following formula:

$$P_{st} = m_D \times (p_y/365) \times d$$

where:

$P_{st}$  is price of a short-term product of a duration of 'd' days,

d is duration of short-term product in days equal to 1

$m_D$  is the multiplier corresponding to daily products,

$p_y$  is price of yearly product,

For leap years,  $P_{st} = m_D \times (p_y/366) \times d$

2.11. In the absence of seasonal factors, for within-day firm standard capacity products, the reserve prices shall be calculated using one of the following options:

Option 1: setting of within-day capacity products tariffs based on the proportion of the yearly product with a specific multiplier for within-day products

$$P_{st} = m_{WD} \times (p_y/8760) \times h$$

where:

$P_{st}$  is price of a short-term within-day product of a duration of 'h' hours,

$m_{WD}$  is the multiplier corresponding to within-day products,

$p_y$  is price of yearly product,

h is duration in remaining hours of the gas day,

For leap years,  $P_{st} = m_{WD} \times (p_y/8784) \times h$ .

Option 2: setting of within-day capacity product tariffs at the same level as the tariff of the daily capacity products

$$P_{st} = m_D \times (p_y/365) \times d$$

where:

$P_{st}$  is price of a short-term product of a duration of 'd' days,

d is duration of short-term product in days equal to 1

$m_D$  is the multiplier corresponding to daily products,

$p_y$  is price of yearly product,

For leap years,  $P_{st} = m_D \times (p_y/366) \times d$ .

2.12. When determining multipliers, NRAs may apply multipliers different from those within the proposed ranges, if this improves the gas transmission system's efficiency, minimises cross subsidisation and enhances the cost-reflectivity of reserve prices.

### 3. Seasonal factors

- 3.1. Seasonal factors may apply to quarterly, monthly, daily and within-day products.
- 3.2. Seasonal factors shall only apply if they improve the gas transmission system's efficient use and cost reflectivity of reserve prices. Seasonal factors shall be proposed by TSOs to NRAs, if their application meets the aforementioned criteria.
- 3.3. When seasonal factors are applied, the reserve price for short-term products is calculated using the seasonal factor on top of the designated multiplier.
- 3.4. When seasonal factors are applied, the arithmetic mean of the products of multipliers and seasonal factors shall over the gas year not be lower than 0.5 and shall not exceed 1.5 unless point 2.11 above applies.
- 3.5. The methodology to calculate seasonal factors includes the following steps:
- Calculate the system usage for each month of the year. System usage profiling may be based on historic and/or forecasted flow profiles or on historic and/or forecasted booking profiles.
  - Sum up the system usage over the year.
  - For each month, divide the system usage value by the sum of the year to get the usage rate.
  - For each month, multiply the usage rate by 12 (12 months) to get the primary factor.
  - For each month, apply the following formula to get the seasonal factor:  
$$\text{Initial seasonal factor} = (\text{primary factor})^s$$

The appropriate level of the parameter 's' is to be decided at national level should be between 0 and [x].

If  $s = 1$ , seasonal factors are directly proportional to the use of the system.  $S_f = \text{usage rate} / \text{average usage}$

If  $s > 1$ , the dispersion within the seasonal factors increases, to penalize/incentivize more clearly the months that deviate the most from a flat usage.

$0 < s < 1$  could be applied to ‘soften’ seasonal factors – only for cases where flows changes are extreme between the different periods

- Calculate the average over the year of the initial seasonal factor.

If this number is within the range allowed by the NRA, the Initial seasonal factor for each month becomes the Final Seasonal factor applied for that month.

Otherwise, apply for each month a correction step to adjust the initial seasonal factor in order to meet the cap allowed by the NRA of the average during the year:

$$\text{Correction factor} = \frac{\text{cap allowed by NRA}}{\text{initial average over the year}}$$

The Final Seasonal Factor applied for each month then becomes the Initial Seasonal Factor for that month multiplied by the correction factor.

- A rounding step could be applied, optionally.
- In case of zero or very low flows for one month - a minimum value for the seasonal factor will be set at national level.

3.6. The methodology for calculating seasonal factors gives a seasonal factor for each month, to be applied to monthly, daily and within-day standard capacity products relating to that month. For quarterly products, the average of the seasonal factors for the corresponding months shall be applied.

3.7. TSOs can apply the same set of seasonal factors to all IPs, to a group of IPs or a different set of seasonal factors per IP. TSOs will evaluate which approach is more appropriate to promote efficient use of the system. When applying the same seasonal factors to all IPs or to a group of IPs, the methodology would be based on average flow/booking profile of the network or group of points. When applying seasonal factors per IP, the methodology would be based on average flows/booking profiles per IP.

3.8. When seasonal factors are applied, the reserve prices for monthly and quarterly firm standard capacity products shall be calculated using the following formula:

$$P_{st} = (m_i \times sf_i) \times (p_v/365) \times d$$

where:

$sf_i$  is the final seasonal factor corresponding to the given quarter or month ( $sf_Q$  or  $sf_M$ ),

For leap years,  $P_{st} = (m_i \times sf_i) \times (p_y/366) \times d$ .

- 3.9. When seasonal factors are applied, the reserve prices for daily firm standard capacity products shall be calculated using the following formula:

$$P_{st} = (m_D \times sf_D) \times (p_y/365) \times d$$

where:

$sf_D$  is the final seasonal factor corresponding to the period of the year in which the daily product is booked,

$d$  is duration of short-term product in days equal to 1

For leap years,  $P_{st} = (m_D \times sf_D) \times (p_y/366) \times d$ .

- 3.10. When seasonal factors are applied, the reserve prices for within-day firm standard capacity products shall be calculated using the following formula:

Option 1: setting of within-day capacity products tariffs based on the proportion of the yearly product with a specific multiplier for within-day products

$$P_{st} = (m_{WD} \times sf_{WD}) \times (p_y/8760) \times h$$

where:

$P_{st}$  is price of a short-term within-day product of a duration of 'h' hours,

$m_{WD}$  is the multiplier corresponding to within-day products,

$p_y$  is price of yearly product,

$h$  is duration in remaining hours of the gas day

For leap years,  $P_{st} = (m_{WD} \times sf_{WD}) \times (p_y/8784) \times h$ .

Option 2: setting of within-day capacity product tariffs at the same level as the tariff of the daily capacity products

$$P_{st} = (m_D \times sf_D) \times (p_y/365) \times d$$

where:

$P_{st}$  is price of a short-term product of a duration of 'd' days,

$d$  is duration of short-term product in days equal to 1

$m_D$  is the multiplier corresponding to daily products,

$p_y$  is price of yearly product,

$d$  is duration of short-term product in days equal to 1

For leap years,  $P_{st} = (m_D \times sf_D) \times (p_y/366) \times d$ .

3.11. As a general rule, seasonal factors shall be set at the beginning of the tariff year and shall remain valid for the whole tariff year. However, if it improves the cost reflectivity and the efficient usage of the system, seasonal factors can be adjusted in the course of the tariff period.

#### **4. Interruptible Capacity**

4.1. Interruptible capacity means gas transmission capacity that may be interrupted by the transmission system operator in accordance with the conditions stipulated in the transport contract, as set out in Article 2(1)(13) of Gas Regulation.

4.2. Reserve prices for interruptible capacity shall be set at a discount to the reserve price of the firm standard capacity product with equivalent duration, except in the case that an ex-post discount is applied.

#### **5. Interruptible capacity products at bidirectional IPs**

5.1. For bi-directional points, the discounts applied to interruptible products shall adequately reflect the risk of interruptions.

##### **5.2. Discount Options and Risk Assessment**

5.2.1. TSOs and NRAs will have the following alternatives for the discount: ex-ante discount, ex-post discount or a combination of ex-ante and ex-post discount. The type of discount to be applied shall be decided at a national level.

5.2.2. When an ex-ante discount applies, the reserve price of the corresponding interruptible capacity products will be calculated by applying the ex-ante discount to the reserve price of the equivalent firm capacity product. The discount will be proportional to the risk of interruption, calculated via the following formula:

$$\text{Ex-ante Discount (\%)} = \text{Risk (\%)} \times a.$$

The discount is capped to 100%. As an alternative to the formula, the discount value can be defined on the basis of risk of interruption ranges. The ranges and associated interruption levels would be defined nationally by TSOs and NRAs.

5.2.2.1. To evaluate the level of the parameter 'Risk (%)' used for the calculation of the ex-ante discount, historic or forecast data can be used. The parameter can be evaluated per IP individually. The following formula shall be used to determine the level of 'Risk (%)':

$$\text{Risk (\%)} = \frac{N \times d}{\text{total duration of the product}} \times \frac{C}{\text{total capacity of the product}}$$

Where,

N: statistical expectation of number of interruptions over the whole duration of the product

d: average duration of each interruption

C: average interrupted capacity of each interruption

5.2.2.2. The appropriate level of the factor of proportionality 'a' will be decided at national level. It cannot be lower than 1. It could be different for different interruptible capacity products. This factor could help to better reflect the actual value of the interruptible products and to reflect the sequence of interruptions according to CAM NC.

5.2.3. When the ex-ante discount is applied, the following formulas will apply to calculate the reserve price of a interruptible product, where:

$D_i$  is the ex-ante discount of the product (%),

$m$  is the multiplier corresponding to the standard product ,

$sf$  is the corresponding seasonal factor,

$p_y$  is price of the yearly firm product.

For yearly interruptible capacity products:

$$P_{INT} = (1 - D_i) \times p_y$$

where:

$P_{INT}$  is price of a yearly interruptible product

For quarterly and monthly interruptible capacity products:

$$P_{INT} = (1 - D_i) \times (m \times sf) \times (p_y/365) \times d$$

where:

$P_{INT}$  is price of a interruptible product of a duration of 'd' days,

$d$  is duration of short-term product in days,

For leap years,  $P_{INT} = (1 - Di_i) \times (m \times sf) \times (p_y/366) \times d$ .

For daily interruptible capacity products:

$P_{INT} = (1 - Di_i) \times (m \times sf) \times (p_y/365) \times d$

where:

$P_{INT}$  is price of a interruptible product of a duration of 'd' days,

d is duration of short-term product in days equal to 1

For leap years,  $P_{INT} = (1 - Di_i) \times (m \times sf) \times (p_y/366) \times d$ .

For within-day interruptible capacity products, two alternatives could be applied:

Option 1: setting of within-day capacity products tariffs based on the proportion of the yearly product with a specific multiplier for within-day products

$P_{INT} = (1 - Di_i) \times (m \times sf) \times (p_y/8760) \times h$

where:

$P_{INT}$  is price of a within-day interruptible product,

h is duration in remaining hours of the gas day

For leap years,  $P_{INT} = (1 - Di_i) \times (m \times sf) \times (p_y/8784) \times h$

Option 2: setting of within-day capacity product tariffs at the same level as the tariff of the daily capacity products

$P_{INT} = (1 - Di_i) \times (m \times sf) \times (p_y/365) \times d$

where:

$P_{INT}$  is price of a interruptible product of a duration of 'd' days,

d is duration of short-term product in days equal to 1

For leap years,  $P_{INT} = (1 - Di_i) \times (m \times sf) \times (p_y/366) \times d$ .

5.2.4. Where an ex-post discount applies, the reserve price of the interruptible product is set to the same level as the equivalent firm product, with a reimbursement to the network user in case of interruptions. The reimbursement will depend on the fraction of capacity that was actually interrupted. It will be calculated applying the ex-post discount to the reserve price of the interruptible product: Reimbursement = Ex-post Discount (%) x Reserve Price

The following formula will apply to calculate the Ex-post Discount, Ex-post Di (%):

$$\text{Ex-post Di (\%)} = f_{\text{ex-post}} \times \frac{\sum \text{interrupted cap for the product duration}}{\sum \text{nominated cap for the product duration}}$$

The discount is capped to 100%. The default value for the factor 'f<sub>ex-post</sub>' shall be 1. Other values shall also be possible, subject to the NRA approval, in order to find the appropriate level for the ex-post discount, depending on the characteristics of each system or its circumstances. The appropriate level of the factor 'f<sub>ex-post</sub>' will be decided at national level. It could be different for different interruptible capacity products. This factor could help to reflect the actual value of the interruptible products and to reflect the sequence of interruptions according to CAM NC.

The calculation will need to be carried out for each invoice period separately. The auction premium is not affected by the ex-post discount.

5.2.5. TSOs can decide to apply both an ex-ante discount to the reserve price and an ex-post discount for interruptible capacity. In this case, the ex-ante discount will be applied to the reserve price of the equivalent firm standard product, resulting in the reserve price of the interruptible product. The reimbursement will be calculated applying the ex-post discount to the reserve price of the interruptible product.

### 5.3. Assessment Report

5.3.1. TSOs, or where applicable NRAs, will publish an assessment of the risk of interruptions at the same time as tariffs are published. The report will include an analysis of the risk of interruptions, taking into account the specificities of each system. In case the system is subject to significant changes that affect the risk of interruption, TSOs, or where applicable NRAs, shall have the option to re-calculate the 'Risk(%)' and the corresponding discount levels more frequently than once a year, to ensure an appropriate evaluation of the Risk and subsequent cost-reflectivity in the price.

5.3.2. The assessment report will include a list of the interruptible capacity products offered during the following year and a detailed explanation of how the risk of interruption is calculated. In addition, an annex with a table for each IP and for each interruptible standard product offered will be provided which:

- Classifies the different products offered per interruptible capacity product in a limited number of types.
- Includes the value of 'Risk(%)' for each type offered.
- Any other optional information such as the max. duration of each interruption, the max. duration of overall all interruptions over the whole duration of the product or the notification period before the interruption is applied.
- Specifies the level of the ex-ante discount, if applicable; and the formula for the calculation of the ex-post discount, if applicable.

**6. Interruptible capacity products at uni-directional points, offered in the direction of the physical flow.**

6.1. For the pricing of interruptible products offered at unidirectional points in the direction of the physical flow, the methodology set out in section 5.2. shall also apply.

**7. Interruptible capacity products at uni-directional points, offered in the opposite direction of the physical flow (Non-Physical Backhaul Capacity)**

7.1. For the pricing of interruptible products offered at unidirectional points in the opposite direction of the physical flow, the methodology set out in section 5.2 shall also apply.

[ENTSOG believes that the above pricing is more aligned with the objectives of the Regulation 715/2009 than the marginal pricing of uni-directional interruptible capacity as stipulated in the TAR FG.