Business Rules V
Reserve Prices
Interruptible Capacity
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DRAFT

BUSINESS RULES V, Pt 1.

RESERVE PRICE – Interruptible Capacity

Interruptible Capacity

1. General

1.1 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.

1.2 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.

2. Standard interruptible capacity products at bidirectional IPs

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

2.2. Discount Options and Risk Assessment

2.2.1. 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.

2.2.2. 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: Ex-ante Discount (%) = Risk (%) x 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.

2.2.2.1. 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

2.2.2.2. The appropriate level of the factor of proportionality 'a' will be decided at national level. It could be different for different standard 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.

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

Di_l 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 standard interruptible capacity products:

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

where:

P_{INT} is price of a yearly interruptible product

For quarterly and monthly interruptible standard capacity products:

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

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

For daily interruptible standard capacity products:

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

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 standard 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, $P_{INT} = (1 - Di_I) \times (m \times sf) \times (p_y/366) \times d$.

2.2.4. When 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 (%):

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

The discount is capped to 100%. The default value for the factor 'f$_{ex-post}$' 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$_{ex-post}$' will be decided at national level. It could be different for different interruptible standard 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.

2.2.5. 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.

2.3. Assessment Report

2.3.1. 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 level more frequently than once a year, to ensure an appropriate evaluation of the Risk and subsequent cost-reflectivity in the price.

2.3.2. The assessment report will include a list of the interruptible standard 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 standard 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.

3. **Standard interruptible capacity products at uni-directional points, offered in the direction of the physical flow.**

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

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

   4.1. For the pricing of interruptible products offered at unidirectional points in the other direction of the flow, the same methodology shall apply as that used for the bi-directional interruptible products as set out in section 2.2 above.

   [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.]