

## **BUSINESS RULES III Pt. 1**

# **Cost Allocation and Determination of the Reference Price**

DRAFT

## **1. General**

- 1.1 The choice of cost allocation methodology shall reflect system characteristics in order to best achieve the objectives of non-discrimination, competition and promotion of cross-border trade.
- 1.2 At least every 4 years, the relevant authority shall assess all assumptions regarding the stability and evolution of the input parameters to the tariff methodologies against relevant available technical and market data and outlooks.

## **2. Cost allocation methodology selection**

- 2.1 At the entry into force of the Network Code on Tariffs, NRAs, or where appropriate TSOs, shall launch a public consultation on the proposed methodology for determining reference prices.
- 2.2 The choice of a cost allocation methodology is limited to postage stamp, capacity weighted distance, distance to the virtual point approach and matrix.
- 2.3 The choice of methodology will be determined by the circumstances criteria, a cost allocation test and a methodology counterfactual. The NRA will consider each of these to assess the appropriateness of the methodology before deciding on the cost allocation methodology to be implemented.

## **3. Circumstances influencing the choice of a cost-allocation methodology**

- 3.1 The use of a postage stamp methodology should be limited to networks where one of the following two criteria is met:
  - a) Where at least two thirds of the transmission capacity is dedicated either to the domestic market or to cross border gas flows; or
  - b) The difference between the average distance travelled by cross-border flows and the average distance travelled by domestic flows does not exceed a maximum threshold of fifty percent.
- 3.2 In a network with a unique geographical node where all the flows converge can be identified, the virtual point based methodology may be used.

3.3 The choice for or against the matrix methodology, or the virtual point methodology, relative to the capacity weighted distance methodologies, shall consider both the drawback of necessary network representation simplifications and the benefit in cost reflectivity, as compared to the capacity-weighted distance approach.

3.4 [Further specification of circumstances]

#### **4. Methodology counterfactual**

4.1 A methodology counterfactual shall be developed which consists of comparing the chosen cost allocation methodology with at least one other cost allocation methodology from the limited number of methodologies allowed.

4.2 All of the relevant input data necessary to determine the tariffs for the counterfactual methodology shall be provided.

4.3 The postage stamp methodology may be used for counterfactual purposes, even where it cannot be applied as the cost allocation methodology due to the restrictions specified in the circumstances requirements.

4.4 Where the proposed cost allocation methodology is the postage stamp methodology, it is not necessary to provide a counterfactual.

4.5 If the NRA considers that the methodology counterfactual better meets the objectives of the Framework Guidelines, and if it better satisfies the circumstances requirements and the cost allocation test, then it may be approved and implemented instead of the original chosen methodology.

4.6 In establishing the counterfactual, the primary data inputs and assumptions shall be applied consistently with the chosen methodology.

## 5. Cost allocation test

- 5.1 A cost allocation test shall be carried out comparing expected revenues and cost drivers of domestic and cross-border points to provide an indication of the cost reflectivity of the cost allocation methodology being used.
- 5.2 The NRA, or the relevant TSO, shall be responsible for correctly calculating and publishing the results of the test.
- 5.3 The test should be carried out after the application of the chosen cost allocation methodology and after the application of secondary adjustments, if any. The test should also be carried out on the counterfactual cost allocation methodology, if any.
- 5.4 The test shall be based on physical cost drivers such as distance and capacity, where these cost drivers are taken into account. If multiple cost drivers are identified, the relative importance of the cost drivers shall be explained.
- 5.5 The assumptions used in connection to the cost drivers and the cost allocation shall be explained.
- 5.6 The test shall consist of two ratios, as set out below:
- 5.6.1  $Ratio\ 1 = \frac{\text{total revenue from entry and exit points for domestic customers}}{\text{cost drivers for domestic customers}}$
- 5.6.2  $Ratio\ 2 = \frac{\text{total revenue from entry and exit points for cross border customers}}{\text{cost drivers for cross border customers}}$
- 5.7 In determining the revenue for domestic and cross border customer and also the capacity (if used as a cost driver), the amount of cross-border exit capacity shall be used as a proxy for the amount of entry capacity dedicated to cross-border use on networks where such information is not readily identifiable. The rest of the entry capacity shall be considered as dedicated to domestic use.
- 5.8 If distance is used as a cost driver then the average distance used by cross-border and domestic customers shall be determined by using a weighted average formulation. The

weight used would be technical capacity, booked capacity or flows depending on what is used in your cost allocation methodology.

5.9 The NRAs shall justify the reasons for any deviation between the two ratios by more than 10%, where the first ratio is compared to the second.

5.10 If a deviation exceeding 10% results from the use of alternative charges e.g. commodity charges to collect revenues and/or reconcile the regulatory account on points not under the scope of CAM, the NRA shall ensure the revision of the alternative charges so that the deviation between the two ratios does not exceed the 10% limit.

## **6. Cost Allocation Methodology Consultation**

6.1 The public consultation on the proposed methodology for determining reference prices shall be launched by the NRA or, where appropriate, by the TSO once the Tariff NC enters into force.

6.2 The documentation relevant for the public consultation shall be detailed.

6.3 This documentation shall be published in the official language(s) of the Member State and in English.

6.4 This documentation shall consist of:

- i. the assessment of the proposed cost allocation methodology against the specified circumstances influencing its choice;
- ii. the relevant input data necessary for the calculation of tariffs pursuant to the proposed methodology;
- iii. the results of the application of the cost allocation test, including, in case of the deviation between the two cost allocation ratios, its extent as well as the explanation and justification for this extent;
- iv. at least one methodology counterfactual accompanied by the same information as foreseen for the chosen cost allocation methodology, except in the case where postage stamp is used as the primary methodology.

6.5 After the close of the public consultation the NRA shall fix or approve the proposed cost allocation methodology.

- 6.6 The decision of the NRA shall be accompanied by the detailed explanation and the reasoned justification for the choice of the cost allocation methodology.
- 6.7 Such detailed explanation and reasoned justification shall take account of the information in relation to:
- i. circumstances criteria,
  - ii. the results of the cost allocation test,
  - iii. the methodology counterfactual,
  - iv. responses to the public consultation
- 6.8 The NRA shall review and update the detailed explanation and the reasoned justification for the choice of the cost allocation methodology at least every 4 years.
- 6.9 The NRA shall conduct the public consultation on any changes proposed as a result of such review.
- 6.10 The NRA shall approve the proposed changes after the close of the public consultation.

## **7. Transmission Services**

- 7.1 Transmission services shall be defined at ‘any service necessary to transport natural gas through a transmission system, excluding those activities which may be linked to local requirements, depending on national circumstances (e.g. regional and local transmission activities, flexibility services, metering, depressurisation, ballasting, quality conversion, biogas related services, odourisation, system operation services for third parties and any other dedicated services or infrastructures)’.
- 7.2 All of the revenue from the transmission services as defined in 7.1 shall be an input to the cost allocation methodology unless the following charge is in place.
- 7.2.1 A specific charge related to the volume actually flowed may be established if approved by the NRA.
- 7.3 All of the revenue from the transmission services as defined in 7.1 shall be an input to the cost allocation test even if some of that revenue is earned from the charge as set out in 7.2.1.

## **8. Other Charges/Non-capacity based charges**

- 8.1 The collection of revenue shall be based on capacity charges except in specific cases where the NRA may approve or determine a specific non-capacity based charge.
- 8.2 A specific charge, which may be expressed in monetary terms or in kind, that is related to the volume actually flowed may be established to cover costs that are mainly driven by the volume actually flowed, if approved or determined by the NRA.
- 8.3 Where a specific charge related to volume is applied, it shall be levied equally for all entry points and equally for all exit points, based on the actual flows of individual network users.
- 8.4 For points not under the scope of CAM, alternative charges, e.g. commodity charges, may be used to recover revenue.
- 8.5 In applying alternative charges for revenue recovery, the concerned NRA shall assess that they are cost reflective and do not result in cross subsidies between domestic and cross border points. Before such alternative methodologies are applied, the concerned NRA should submit the result of the assessment to the Agency.

## **9. The entry-exit split**

- 9.1 An entry-exit split is the split between the revenue to be recovered from entry points of an entry-exit-zone in a Member State and the revenue to be recovered from its exit points.
- 9.2 In order to avoid barriers to cross-border trade and of cross-subsidies between any type of network users, especially between cross-border and domestic network users, in setting or approving the cost allocation methodology, the NRA may apply a split based on cost drivers, such as capacity and distance. Otherwise, the NRA shall adopt a 50:50 split as a general principle.
- 9.3 The split can be either a result of or an input to the applied cost allocation methodology.
- 9.4 [For cross border entry-exit zones the split shall be determined or approved by all involved NRAs.]

## 10. Distance, Average Distance and Network Representation

10.1 The point-to-point distance between an entry point (specific entry point or clustered entry point) and an exit point (specific exit point or clustered exit point), which is needed to calculate average distances in the network, shall be calculated using an approach such as the::

- i. Euclidean approach (airline): this is the shortest airline distance based on the coordinates from each point in the projected coordinate system. Euclidean distance provides a measure as if one would use a ruler to measure the air-distance between two points. or
- ii. Path approach (pipeline): the distance along the shortest or the average pipeline route connecting the entry and exit points.

10.2 Average distances in the network (used for the cost-allocation test and the criteria for applying the postage stamp methodology) can be calculated based on the distance matrix from each (clustered) entry point to each (clustered) exit point.

10.3 Average distance can be calculated for a certain entry point, a certain exit point or a group of points:

Average Distance for a certain Exit Point:

$$=(\sum_i(\text{Weight of entry point } i) \times (\text{distance between entry point } i \text{ and exit point } j)) / (\sum_i(\text{Weight of entry point } i))$$

Average Distance for a certain Entry Point:

$$=(\sum_i(\text{Weight of exit point } i) \times (\text{distance between entry point } i \text{ and exit point } j)) / (\sum_i(\text{Weight of exit point } i))$$

Average Distance for a group of Point:

$$=(\sum_j(\text{Weight of certain point } j) \times (\text{Average distance of certain point } j)) / (\sum_j(\text{Weight of certain point } j))$$

10.4 A weighted average approach may be used for calculating the average distance with the weights based on e.g. capacity or flows.



- 10.5 A simplification of the network representation, for the purpose of calculation of average distances may be carried out.
- 10.6 Network representations may be complicated and detailed; therefore it is not always appropriate or practical to use the TSO's detailed network model when applied to a particular cost allocation methodology.
- 10.7 Simplification of the network representation can be carried out by e.g. clustering points. The entry or exit points can be clustered, for example, on the basis of geography or the type of point.
- 10.8 The level of simplification shall be considered with regards to the relevant cost allocation methodology and shall be approved by the NRA.

## **11. Inputs for Cost Allocation Methodologies**

- 11.1 The inputs for cost allocation methodologies listed here below shall reflect the expected situation of the system for the relevant tariff period. This means that, for example, the capacity data used (technical or booked) shall reflect the expected future technical or booked capacity for the tariff period on which the allocation methodology is applied.

### **COSTS/FINANCIAL INPUTS**

- 11.2 In line with its definition, the cost allocation methodology determines how the regulated transmission revenue is allocated to the different transmission services. Therefore, the main input required for the cost allocation methodology is the regulated transmission services revenue.
- 11.3 For some cost allocation methodologies, specific costs of parts of the network components (pipelines, compressors, etc.) are used as cost drivers. These specific costs, used as cost drivers, can be two types of cost concepts: observed costs or incremental costs.
- 11.4 Inputs such as the indexes of inflation, realised inflation and depreciation should be taken into account to their full extent where used in the cost allocation methodology.
- 11.5 Observed costs reflect the costs of the existing system and can be represented by historical costs or replacement costs.

- 11.6 The observed costs shall be recorded in the audited financial statements or shall be approved by the NRA if the regulatory accounting rules are different from the commercial accounting rules.
- 11.7 Incremental costs reflect the costs of expanding the system and can be represented as long run average incremental costs, standardised costs of expansion of the system and investment plan based costs.
- 11.8 Incremental costs may be the appropriate costs to use in expanding systems, either resulting from an increase in demand, or triggered by a change in the general system sourcing (including a change in the proportion of domestic/ cross-border flows).
- 11.9 Observed costs may be the appropriate costs to use in systems with constant or decreasing consumptions and that have limited or stable supply sources.

#### **CAPACITY/FLOWS/SYSTEM CHARACTERISTIC INPUTS**

- 11.10 The relevant capacity data, (technical or booked), which relates to all network points to which the tariff methodology applies, should be specified. This would allow the total entry and the total exit capacity to be identified.
- 11.11 The capacity data used can be the technical capacity, the booked capacity or the flow resulting from a given demand/supply scenario. When capacity is based on flows the reference conditions of the demand/supply scenario flows should be specified. These reference conditions may be peak conditions associated with measured values or average value considered for contractual values.
- 11.12 When the cost allocation methodology requires the flow direction as an input, it should be specified. Flows, for the network points to which the tariff methodology applies, should be specified. This would allow the total flows from entry points and exit points to be identified.
- 11.13 Some networks are capable of different physical flow directions and have several peak scenarios. In such systems, using flows based on supply/demand scenarios as a capacity concept could create inappropriate locational signals due to unstable flow patterns, then technical or booked capacity approaches could be used instead as both are suitable.

- 11.14 When forecasting capacities where technical capacity is used for the tariff calculation reference may be made to the relevant National Development Plan (NDP) or to ENTSOG's TYNDP. Any deviations between these development plans and capacities used shall be justified.
- 11.15 When forecasting capacities where booked capacity is used for the tariff calculation the forecasted bookings are based on a commercial estimation by the TSO created on the basis of actual bookings and forecasted bookings. The input data depends on the TSO estimation.
- 11.16 When forecasting capacities where flows are used for the tariff calculation, the flow approach takes both supply and demand into account (the demand estimation could be a peak estimation or based on a national demand forecast). This approach considers the capacity in the system in certain flow situations. The input data depends on the system optimisation and does not consider bi-directional points and storages in both configurations
- 11.17 The network representation used as an input to the methodology should be detailed or simplified depending on what is necessary for the chosen allocation methodology. Segments and nodes may be used to simplify the network representation.
- 11.18 Technical network information such as pipeline sizes, lengths and diameters and compressor stations power may be provided as an input, if relevant.
- 11.19 The capacity assumption used in the cost allocation methodology shall be consistent with the economic signals expected from the chosen methodology.