

Network Code on Harmonised Transmission Tariff Structures for Gas

ENTSOG Network Code for ACER Reasoned Opinion

This document constitutes the Network Code on Harmonised Transmission Tariff Structures for Gas (hereinafter 'the TAR NC').

The TAR NC was developed following an invitation letter from the European Commission to draft a Network Code on Tariff Structures in Gas Transmission Networks which was received by ENTSOG on 19 December 2013 ⁽¹⁾. The development of this network code is based on Framework Guidelines on rules regarding harmonised transmission tariff structures for gas published on 29 November 2013 by the Agency for the Cooperation of Energy Regulators ⁽²⁾.

The TAR NC is accompanied by the Accompanying Document for the Network Code on Harmonised Transmission Tariff Structures for Gas (TAR0451-14, hereinafter 'the Accompanying Document') which clarifies the chosen policy approaches and explains the refinements made further to the public consultation on the refined draft TAR NC (TAR0350-14) ⁽³⁾ in a form of Stakeholder Support Process (hereinafter 'the SSP'). The SSP is a form of public consultation which provided stakeholders with an opportunity to express their support of or their disapproval with the refined draft TAR NC ⁽⁴⁾. The Accompanying Document also includes the Report on the SSP summarising the feedback received during that public consultation.

For the avoidance of doubt, the Accompanying Document shall not be construed as part of the TAR NC and is publicly disclosed to the market for information purposes only and without any commitment whatsoever from ENTSOG as to the final content of the TAR NC. In case of inconsistency between the TAR NC and the Accompanying Document, the TAR NC shall prevail in all circumstances.

⁽¹⁾ Published on ENTSOG's website:

<http://www.entsog.eu/public/uploads/files/publications/Tariffs/2013/20131217%20Invitation%20ENTSOG%20draft%20NC%20TAR.pdf>.

⁽²⁾ Published on ACER's website:

http://www.acer.europa.eu/Official_documents/Acts_of_the_Agency/Framework_Guidelines/Framework%20Guidelines/Framework%20Guidelines%20on%20Harmonised%20Gas%20Transmission%20Tariff%20Structures.pdf.

⁽³⁾ Published on ENTSOG's website:

http://www.entsog.eu/public/uploads/files/publications/Tariffs/2014/TAR0350_141107_Refined%20Draft%20TAR%20NC_for%20SSP.pdf. See also the Analysis of Decisions Document for the Refined Draft Network Code on Harmonised Transmission Tariff Structures for Gas for Stakeholder Support Process (TAR0351-14) //

Published on ENTSOG's website:

http://www.entsog.eu/public/uploads/files/publications/Tariffs/2014/TAR0351_141107_Analysis%20of%20Decisions%20Document_for%20SSP.pdf.

⁽⁴⁾ See Article 26(4) of ENTSOG's Rules of Procedure // Published on ENTSOG's website:

[http://www.entsog.eu/public/uploads/files/publications/Statutes/2012/LGT0105-12_Rev_1_23%2011%202012_ENTSOG_RoP_Amendment_GA\(131212\)clean.pdf](http://www.entsog.eu/public/uploads/files/publications/Statutes/2012/LGT0105-12_Rev_1_23%2011%202012_ENTSOG_RoP_Amendment_GA(131212)clean.pdf).

ENTSOG hereby disclaim all responsibility for any changes to the TAR NC as presented. Such changes may result from, amongst others, the results of comitology procedure. The final content of the TAR NC shall be subject to the outcome of the procedure according to Article 5a(1) to (4) and Article 7 of Council Decision 1999/468/EC ⁽¹⁾, as foreseen by Article 28(2) of Regulation (EC) No 715/2009 ^(2,3). The content of the TAR NC and the Accompanying Document should not be considered to give rise to any specific right or obligation whatsoever to ENTSOG or any of its Members as to any stakeholders.

⁽¹⁾ Council Decision 1999/468/EC of 28 June 1999 laying down the procedures for the exercise of implementing powers conferred on the European Commission as amended by Council Decision 2006/512/EC of 17 July 2006 (OJ L 200, 22.7.2006, p. 11).

⁽²⁾ Regulation (EC) No 715/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the natural gas transmission networks and repealing Regulation (EC) No 1775/2005 (OJ L 211, 14.8.2009, p. 36).

⁽³⁾ Currently Regulation (EC) No 715/2009 provides for the application of the regulatory procedure with scrutiny. In case of the change of the applicable procedure due to the Lisbon Treaty, the new procedure will apply accordingly.

**COMMISSION REGULATION (EU) No [xx]/[xx]
of [xx]
establishing a Network Code on Harmonised Transmission Tariff Structures for Gas**

(Text with EEA relevance)

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Regulation (EC) No 715/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the natural gas transmission networks and repealing Regulation (EC) No 1775/2005 ⁽¹⁾, and in particular Article 6(11) thereof,

Whereas:

- (1) Regulation (EC) No 715/2009 sets non-discriminatory rules for access conditions to the natural gas transmission networks with a view to ensuring the proper functioning of the internal market in gas. This Regulation establishing a network code on harmonised transmission tariff structures for gas sets out the Union-wide rules which have the objective to contribute to market integration, to enhance security of supply, to promote competition and cross-border trade, to ensure non-discriminatory and cost-reflective transmission tariffs and to avoid cross-subsidisation between network users.
- (2) In order to move towards greater market integration, it is important that, where it is considered to be economically efficient, rules on harmonised transmission tariff structures for gas facilitate the merging of entry-exit systems. Therefore, these rules should not disincentivise such merging.
- (3) This Regulation sets out an exhaustive list and details of the possible primary cost allocation methodologies and secondary adjustments. Out of this list, only one primary cost allocation methodology may be applied, complemented, if necessary, by one or more secondary adjustments. Its application is aimed at calculating the reference price, which is the price for a capacity product for firm capacity with a duration of one year, and constitutes the starting point for the calculation of the reserve prices for non-yearly standard capacity products for

⁽¹⁾ OJ L 211, 14.8.2009, p. 36.

firm capacity and both yearly and non-yearly standard capacity products for interruptible capacity. Its application is preceded by a consultation conducted for the purpose of demonstrating the benefits of the proposed cost allocation methodology and assessing them against the benefits of one or more alternative cost allocation methodologies. The national regulatory authority then sets or approves the cost allocation methodology to be applied and when taking this decision, should be guided by considerations of cost-reflectivity, transparency, non-discrimination and stability of transmission tariffs.

- (4) In order to enable network users to forecast transmission tariffs to a reasonable extent and to understand the costs underlying the transmission tariffs, this Regulation sets out the requirements for publishing the information on the parameters of the primary cost allocation methodologies, the applied secondary adjustment(s), if any, and the other information related to the derivation of different transmission tariffs and the reconciliation of the regulatory account.
- (5) This Regulation sets out the principles for revenue reconciliation with the aim of promoting stability of transmission tariffs for network users and financial stability of transmission system operators. To that end, this Regulation stipulates that each transmission system operator is allowed to use only one regulatory account for aggregating the under- and over-recovery originating from all the entry and exit points. The details of the revenue reconciliation, in particular the frequency of the reconciliation of the regulatory account, are to be determined by the national regulatory authority. The under- and over-recovery should be treated by the national regulatory authority consistently.
- (6) [This Regulation has been adopted on the basis of Regulation (EC) No 715/2009 which it supplements and of which it forms an integral part. References to Regulation (EC) No 715/2009 in other legal acts shall be understood as also referring to this Regulation. This Regulation does apply to non-exempted capacities in major new infrastructures which have received an exemption from Article 41(6), (8) and (10) of Directive 2009/73/EC of the European Parliament and of the Council ⁽¹⁾ or from the former Article 25(2) and (4) of Directive 2003/55/EC of the European Parliament and of the Council ⁽²⁾ to the extent the application of this Regulation does not undermine such an exemption. This Regulation shall be applied taking into account the specific nature of interconnectors, meaning recognising

⁽¹⁾ Directive 2009/73/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC (OJ L 211, 14.8.2009, p. 94).

⁽²⁾ Directive 2003/55/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in natural gas and repealing Directive 98/30/EC (OJ L 176, 15.7.2003, p. 57).

the characteristics of interconnectors which make them require different regulatory treatment from meshed transmission networks.]

- (7) [This Regulation was established according to the procedure as set out in Article 6 of Regulation (EC) No 715/2009. It further harmonises the rules on tariffs for access to networks laid down in Article 13 of Regulation (EC) No 715/2009.]
- (8) National regulatory authorities and transmission system operators should have regard to best practices and endeavours to harmonise processes for the implementation of this Regulation. Acting in accordance with Article 7 of Regulation (EC) No 713/2009 of the European Parliament and of the Council ⁽¹⁾, the Agency and the national regulatory authorities should ensure that rules on harmonised transmission tariff structures for gas are implemented across the Union in the most effective way.
- (9) [The measures provided for in this Regulation are in accordance with the opinion of the Committee established pursuant to Article 51 of Directive 2009/73/EC.]

⁽¹⁾ Regulation (EC) No 713/2009 of the European Parliament and of the Council of 13 July 2009 establishing an Agency for the Cooperation of Energy Regulators (OJ L 211, 14.8.2009, p. 1).

CHAPTER I GENERAL PROVISIONS

Article 1

Subject matter

This Regulation establishes a Network Code setting out the rules on harmonised transmission tariff structures for gas, including but not limited to the rules on the aspects of Commission Regulation (EU) No 984/2013 related to transmission tariffs ⁽¹⁾.

Article 2

Scope

1. This Regulation shall apply to all entry points and all exit points with the exception of Chapters V, VII, VIII and IX which shall apply only to interconnection points.
2. Subject to the decision of the relevant national regulatory authority, this Regulation may apply to entry points from and/or exit points to third countries.
3. This Regulation shall not apply in Member States for the duration of derogations granted under Article 49 of Directive 2009/73/EC.
4. This Regulation shall be applied taking into account the specific nature of interconnectors, in particular with regard to having an effective revenue recovery mechanism.
5. Upon duly substantiated reasonable request of a transmission system operator submitted to the competent authority(-ies) within twelve months as from the entry into force of this Regulation, a Member State may apply through such competent authority to the Commission for partial non-application of this Regulation with respect to the transmission system of such transmission system operator. Where the partial non-application of this Regulation is granted, Chapter II or a part of Chapter II indicated by the Commission shall not apply and the other provisions of this Regulation shall apply, mutatis mutandis.

⁽¹⁾ Commission Regulation No 984/2013 of 14 October 2013 establishing a Network Code on Capacity Allocation Mechanisms in Gas Transmission Systems and supplementing Regulation (EC) No 715/2009 of the European Parliament and of the Council (OJ L 273, 15.10.2013, p. 5).

Article 3 **Definitions**

For the purposes of this Regulation, the definitions in Article 2 of Regulation (EC) No 715/2009, Article 3 of Commission Regulation (EU) No 984/2013, Article 3 of Commission Regulation (EU) No 312/2014 ⁽¹⁾, Article 2 of Commission Regulation (EU) No [000/00 of XXX] ⁽²⁾ as well as Article 2 of Directive 2009/73/EC shall apply. In addition, the following definitions shall apply:

- (1) ‘allowed revenue’ means the total revenue which a transmission system operator is entitled to obtain for the provision of transmission services and dedicated services within a given time period under a non-price cap regime and which is set or approved by the national regulatory authority;
- (2) ‘auction premium’ means the difference between the clearing price and the reserve price in an auction;
- (3) ‘dedicated services’ means the regulated services other than transmission services provided by the transmission system operator to specific network users, or infrastructure operators, or at specific entry or exit points;
- (4) ‘locational signal’ means the application of differential pricing mechanism applied to specific entry or exit points in order to achieve an efficient operation of the transmission system and/or to encourage investment in the transmission system;
- (5) ‘multiplier’ means the factor applied to the respective proportion of the reference price in order to calculate a reserve price for a non-yearly standard capacity product;
- (6) ‘reference price’ means the price which is derived in accordance with the cost allocation methodology for capacity product for firm capacity with a duration of one year and which is applicable at different entry and exit points;
- (7) ‘regulatory account’ means the account aggregating under- and over-recovery of the transmission services revenue where the transmission system operator functions under a non-price cap regime;
- (8) ‘regulatory period’ means the time period for which the national regulatory authority sets the general rules applied for the setting the transmission tariffs;

⁽¹⁾ Commission Regulation No 312/2014 of 26 March 2014 establishing a Network Code on Gas Balancing of Transmission Networks (OJ L 91, 27.3.2014, p. 15).

⁽²⁾ Commission Regulation No [000/00 of XXX] establishing a Network Code on Interoperability and Data Exchange Rules (OJ L [XXX]).

- (9) 'seasonal factor' means the factor reflecting the variation of demand within the year and that may be applied in combination with the relevant multiplier;
- (10) 'target revenue' means the sum of expected transmission services revenue calculated in accordance with the principles set out in Article 13(1) of Regulation (EC) No 715/2009 and expected dedicated services revenue for services that a transmission system operator provides within a given time period under a price cap regime;
- (11) 'tariff period' means the time period during which a particular level of transmission tariffs is applicable, which minimum duration is one year and maximum duration is the duration of the regulatory period;
- (12) 'transmission services' means the regulated services provided by the transmission system operator to all network users within the entry-exit system for the purpose of transmission.

CHAPTER II COST ALLOCATION METHODOLOGIES

Article 4

Composition of allowed or target revenue

1. The part of the allowed or target revenue of the transmission system operator which is related to the provision of transmission services shall be referred to as the transmission services revenue. Where an effective inter-transmission system operator compensation mechanism referred to in Article 5(5) is established, the transmission services revenue shall be adjusted accordingly.
2. The transmission services revenue shall be recovered by transmission tariffs which are capacity-based and set on the basis of reference prices, unless otherwise foreseen in this paragraph. In addition to capacity-based transmission tariffs and subject to the approval of the national regulatory authority, the transmission services revenue may also be recovered by the following commodity-based transmission tariffs which are set separately from each other:
 - (a) a flow-based charge shall be as follows:
 - (i) calculated on the basis of forecasted and/or historical allocations and set in such a way that it is the same at all entry points and the same at all exit points;
 - (ii) levied for the purpose of covering the costs mainly driven by the quantity of the gas flow;

- (iii) expressed in monetary terms or in kind.
- (b) a complementary revenue recovery charge shall be as follows:
 - (i) calculated on the basis of forecasted and/or historical allocations and in accordance with the applicable national rules;
 - (ii) levied for the purpose of revenue recovery;
 - (iii) applied at interconnection points where the fixed payable price approach is followed and at points other than interconnection points;
 - (iv) applied after the national regulatory authority makes an assessment of its cost-reflectivity and its impact on cross-subsidisation between interconnection points and points other than interconnection points and submits this assessment to the Agency for information.
- 3. The part of the allowed or target revenue of the transmission system operator which is related to the provision of dedicated services shall be referred to as the dedicated services revenue. The dedicated services revenue shall be outside of the application of the cost allocation methodology set out in Article 5(1) and reconciled in a manner other than the one set out in Chapter VI.
- 4. The dedicated services revenue shall be recovered by charges for dedicated services. Subject to Articles 21 and 22, when deciding on the application of charges for dedicated services charged to specific network users and at specific entry or exit points, the national regulatory authority shall take into account the need to avoid cross-subsidisation between network users and the objectives of security of supply and fulfilment of goals for renewable energy sources.
- 5. With the aim of promoting efficient use of the transmission system, alternative capacity- or commodity-based transmission tariffs set in a manner other than as referred to in paragraph 2 may be introduced subject to the approval the national regulatory authority for specific capacity products.

Article 5

Cost allocation methodology

- 1. The cost allocation methodology shall be applied to the part of the transmission services revenue to be recovered from capacity-based transmission tariffs and shall be based on one

of the primary cost allocation methodologies detailed in Articles 10 to 15 which may be complemented by one or more of the secondary adjustments detailed in Articles 16 to 18.

2. Subject to Article 19(3), a secondary adjustment may be applied after the application of the primary cost allocation methodology and/or as a step thereof. Where a secondary adjustment is applied after the application of the primary cost allocation methodology, the steps set out for the primary cost allocation methodologies shall indicate the initial reference prices. Where a secondary adjustment is applied only as a step of the primary cost allocation methodology, the steps set out for the primary cost allocation methodologies shall indicate the final reference prices.
3. The same primary cost allocation methodology shall apply to all entry and exit points in an entry-exit system.
4. In an entry-exit system where more than one transmission system operator is active, the national regulatory authority(-ies) shall take either of the following decisions:
 - (a) all the transmission system operators within such entry-exit system shall apply the cost allocation methodology jointly;
 - (b) each of those transmission system operators shall apply the cost allocation methodology separately.
5. With the aim of preventing detrimental effects on the transmission services revenue and cash flow positions of transmission system operators referred to in paragraph 4, the national regulatory authority(-ies) shall:
 - (a) establish an effective inter-transmission system operator compensation mechanism, where the national regulatory authority(-ies) took a decision in accordance with paragraph 4(a);
 - (b) decide whether such mechanism needs to be established, where the national regulatory authority(-ies) took a decision in accordance with paragraph 4(b).
6. When planning entry-exit system mergers within a Member State or cross-border entry-exit system mergers, the relevant national regulatory authority(-ies) may implement intermediate steps allowing for the application of different cost allocation methodologies in the entry-exit systems concerned. An impact assessment and a cost benefit analysis may be carried out prior to implementing such intermediate steps.

Article 6

Parameters of the primary cost allocation methodologies

The following parameters shall be used for the application of the primary cost allocation methodologies, where relevant:

- (1) the transmission services revenue and the following:
 - (a) information on cost-efficiency targets, if any, in particular information on incentive mechanisms implemented and the impact they have on the transmission services revenue;
 - (b) regulated asset base;
 - (c) regulated operational expenditures;
 - (d) regulated weighted average cost of capital;
 - (e) the chosen index of inflation and the index of the realised inflation;
 - (f) depreciation periods for different type of assets and the depreciation amount.
- (2) the following ratios:
 - (a) for the transmission services revenue, the revenue from capacity-based transmission tariffs and the revenue from commodity-based transmission tariffs (capacity-commodity split);
 - (b) for the transmission services revenue from capacity-based transmission tariffs, the revenue from all entry points and the revenue from all exit points (entry-exit split);
 - (c) for the transmission services revenue, the cross-border revenue and the domestic revenue calculated as set out in Article 23.
- (3) the following costs concepts:
 - (a) total observed costs;
 - (b) total incremental costs.
- (4) parameters related to the technical characteristics of the transmission system:
 - (a) technical capacity at entry and exit points and associated assumptions;
 - (b) forecasted contracted capacity at entry and exit points and associated assumptions;

- (c) the quantity and the direction of the gas flow for entry and exit points and associated assumptions, such as demand and supply scenarios for the gas flow under peak conditions;
 - (d) the structural representation of the transmission network with an appropriate level of detail;
 - (e) additional technical information about the transmission network, such as the length and the diameter of pipelines and the power of compressor stations.
- (5) description of the method used to achieve locational signals, where the transmission system operator or the national regulatory authority, as relevant, prioritises the provision of locational signals.

In addition to those set out in the first subparagraph, the transmission system operator may use other parameters for the application of a given primary cost allocation methodology.

Article 7

Details of parameters of the primary cost allocation methodologies

1. For the purpose of forecasting technical capacity, the national investment plans or the Community-wide network development plan may be used as a reference. Where there is a difference between the data from these plans and the values actually used for the purpose of forecasting technical capacity, it shall be justified.
2. For the purpose of forecasting contracted capacity, the actual contracted capacity for the respective tariff period as well as the future contracted capacity forecasted by each transmission system operator for such period taking into account historic and expected booking behaviour may be used.
3. For the purpose of forecasting the gas flow, demand and supply scenarios may be used.
4. The structural representation of the transmission network may be simplified primarily by identifying its segments and nodes. The nodes are the start or the end points of a segment of pipeline which represent entry points, exit points or key points in the transmission network such as junctions or compressor stations. The exact level of simplification shall be set or approved by the national regulatory authority depending on a given cost allocation methodology.
5. Further to the simplification set out in paragraph 4, the structural representation of the transmission network may be simplified by clustering of entry points and clustering of exit

points on the basis of their type and/or geographical location. The clustering shall be carried out before or after the calculation of the distance as set out in paragraphs 6 and 7.

6. The calculation of the distance between an entry point and an exit point shall be carried out in accordance with either of the following approaches:
 - (a) airline approach, where the distance shall be equal to the shortest straight line distance between the geographical locations of two points. This approach shall not be used for variant A of virtual point based methodology detailed in Article 12 and matrix methodology detailed in Article 14.
 - (b) path approach, where the distance, which may be determined on the basis of transmission costs, shall be equal to the shortest distance or the average distance of the pipeline routes between two points.
7. The calculation of the average distance between one entry point and exit points or between entry points and one exit point shall be carried out in accordance with either of the following approaches:
 - (a) simple average approach, where the distance shall be equal to the arithmetic mean of the distances between such points;
 - (b) weighted average approach, where the distance shall be weighted against the technical or forecasted contracted capacity of a given point and shall be calculated as follows:
 - (i) for the weighted average distance for an entry point, as the sum of the products of the weight of each exit point and the distance from this entry point to each exit point, divided by the sum of the weights of each exit point:

$$AD_{En} = \frac{\sum_{all\ Ex} CAP_{Ex} \times D_{En,Ex}}{\sum_{all\ Ex} CAP_{Ex}}$$

Where:

AD_{En} is the weighted average distance for an entry point;

CAP_{Ex} is technical capacity or forecasted contracted capacity, as relevant, of an exit point;

$D_{En,Ex}$ is the distance between a given entry point and a given exit point.

- (ii) for the weighted average distance for an exit point, as the sum of the products of the weight of each entry point and the distance to this exit point from each entry point, divided by the sum of the weights of each entry point:

$$AD_{Ex} = \frac{\sum_{all\ En} CAP_{En} \times D_{En,Ex}}{\sum_{all\ En} CAP_{En}}$$

Where:

AD_{Ex} is the weighted average distance for an exit point;

CAP_{En} is technical capacity or forecasted contracted capacity, as relevant, of an entry point;

$D_{En,Ex}$ is the distance between a given entry point and a given exit point.

Article 8

Criteria for choosing the parameters of the primary cost allocation methodologies

1. The necessity to use the information referred to in Article 6 as a parameter for a given primary cost allocation methodology shall be determined by its relevance therefor.
2. When deciding on whether the parameters referred to in Article 6(3) are relevant for a given primary cost allocation methodology, the transmission system operator shall take into account the following principles:
 - (a) observed costs shall be used to reflect the costs of the existing transmission system which is characterised by constant or decreasing demand or limited or stable supply sources.

These costs shall be based on either of the following:

- (i) historical costs, i.e. the costs registered when building the transmission system;
- (ii) replacement costs, i.e. the costs if the transmission system was to be entirely built in a specific year.

Where the regulatory rules are different from the commercial accounting rules, the observed costs shall be recorded in the audited financial statements or shall be approved by the national regulatory authority.

- (b) incremental costs shall be used to reflect the costs of expanding the existing transmission system in cases such as increasing demand, a change in supply sources or a change in the proportion of domestic and cross-border gas flow.

These costs shall be based on one or more of the following:

- (i) long run average incremental costs, i.e. the average costs required for building incremental capacity;

- (ii) standardised costs of expanding the existing transmission system, i.e. the unit price for building new assets;
 - (iii) investment plan based costs, i.e. the costs estimated in a specific investment plan for building incremental capacity.
3. The parameters referred to in Article 6 shall reflect the expected conditions of the transmission system in relation to the tariff period for which a particular cost allocation methodology is applied or considered to be applied. The value of the costs referred to in paragraph 2 shall be determined for a specific year and expressed using the price index of that specific year.
 4. Where the parameter referred to in Article 6(4)(c) is used to characterise the parameter referred to in Article 6(4)(a) or (b) and where the gas flow patterns are unstable, technical or contracted capacity shall be used as a proxy.

Article 9

Entry-exit split

1. Where the entry-exit split referred to in Article 6(2)(b) is not used as a parameter of the primary cost allocation methodology, it shall result from the application of the cost allocation methodology.
2. The entry-exit split shall be set or approved by the national regulatory authority(-ies) as part of the decision referred to in Article 21(3). In an entry-exit system where more than one transmission system operator is active, the entry-exit split shall be set or approved as follows:
 - (a) where the national regulatory authority(-ies) took a decision in accordance with Article 5(4)(a), the entry-exit split shall be set or approved for the entry-exit system;
 - (b) where the national regulatory authority(-ies) took a decision in accordance with Article 5(4)(b), the entry-exit split shall be set or approved for each transmission system operator concerned.
3. Where it does not result from the application of the cost allocation methodology, the entry-exit split shall be equal to 50/50, unless otherwise set or approved by the national regulatory authority. The national regulatory authority may decide to apply the entry-exit split other than 50/50 where:

- (a) it is based on cost drivers such as distance, technical capacity or forecasted contracted capacity; and
- (b) it better fulfils the following minimum objectives:
 - (i) minimise cross-subsidisation between network users, in particular between cross-border and domestic network users;
 - (ii) not create barriers to cross-border trade;
 - (iii) avoid the differences between the allowed revenue and the actually obtained revenue.

Article 10

Primary cost allocation methodology: postage stamp methodology

1. The relevant parameters for postage stamp methodology shall include, but shall not be limited to:
 - (a) the part of the transmission services revenue to be recovered from capacity-based transmission tariffs;
 - (b) the forecasted contracted capacity at each entry point and at each exit point;
 - (c) if applicable, the entry-exit split.
2. Where the entry-exit split is used as a parameter of the primary cost allocation methodology, the initial or final reference prices, as relevant, shall be derived in the following sequential steps:
 - (a) identify the part of the transmission services revenue to be recovered from capacity-based transmission tariffs at all the entry points and the part of the transmission services revenue to be recovered from capacity-based transmission tariffs at all the exit points by applying the entry-exit split;
 - (b) identify the part of the forecasted contracted capacity for all the entry points and the part of the forecasted contracted capacity for all the exit points;
 - (c) divide the resulting value referred to in point (a) by the resulting value referred to in point (b) in accordance with the following respective formulas:

$$T_{En} = \frac{R_{\Sigma En}}{FC_{\Sigma En}}$$

$$T_{Ex} = \frac{R_{\Sigma Ex}}{FC_{\Sigma Ex}}$$

Where:

T_{En} is the reference price at entry points;

T_{Ex} is the reference price at exit points;

$R_{\Sigma En}$ is the part of the transmission services revenue to be recovered from capacity-based transmission tariffs at all entry points;

$R_{\Sigma Ex}$ is the part of the transmission services revenue to be recovered from capacity-based transmission tariffs at all exit points;

$FC_{\Sigma En}$ is the forecasted contracted capacity at all entry points;

$FC_{\Sigma Ex}$ is the forecasted contracted capacity at all exit points.

3. Where the entry-exit split is not used as a parameter of the primary cost allocation methodology, the initial or final reference prices, as relevant, shall be derived in the following sequential steps:

(a) identify the transmission services revenue to be recovered from capacity-based transmission tariffs at all the entry points and all the exit points;

(b) identify the part of the forecasted contracted capacity for all the entry points and the part of the forecasted contracted capacity for all the exit points;

(c) divide the resulting value referred to in point (a) by the sum of the values referred to in point (b) in accordance with the following formula:

$$T_{En,Ex} = \frac{R_{\Sigma En,Ex}}{FC_{\Sigma En} + FC_{\Sigma Ex}}$$

Where:

$T_{En,Ex}$ is the reference price at entry points and exit points;

$R_{\Sigma En,Ex}$ is the part of the transmission services revenue to be recovered from capacity-based transmission tariffs at all entry points and all exit points;

$FC_{\Sigma En}$ is the forecasted contracted capacity at all entry points;

$FC_{\Sigma Ex}$ is the forecasted contracted capacity at all exit points.

(d) to arrive at the entry-exit split, multiply the resulting value referred to in point (c) by the respective resulting value referred to in point (b).

Article 11

Primary cost allocation methodology: capacity weighted distance methodology

1. The relevant parameters for capacity weighted distance methodology shall include, but shall not be limited to:
 - (a) the part of the transmission services revenue to be recovered from capacity-based transmission tariffs;
 - (b) the technical capacity and/or the forecasted contracted capacity at each entry point or a cluster of entry points and at each exit point or a cluster of exit points;
 - (c) where entry points and exit points can be combined in a flow scenario, the distance between an entry point or a cluster of entry points and an exit point or a cluster of exit points;
 - (d) the entry-exit split.

Where some entry points and some exit points cannot be combined in a flow scenario, the relevant combinations of entry points and exit points shall be used as an additional parameter.

2. The initial or final reference prices, as relevant, shall be derived in the following sequential steps:
 - (a) calculate the weighted average distance for each entry point or each cluster of entry points and for each exit point or each cluster of exit points, taking into account, where relevant, the combinations referred to in the second subparagraph of paragraph 1, in accordance with the formulas set out in Article 7(7)(b), *mutatis mutandis*;
 - (b) calculate the weight of cost for each entry point or each cluster of entry points and for each exit point or each cluster of exit points in accordance with the following respective formulas:

$$W_{c,En} = \frac{CAP_{En} \times AD_{En}}{\sum_{all\ En} CAP_{En} \times AD_{En}}$$

$$W_{c,Ex} = \frac{CAP_{Ex} \times AD_{Ex}}{\sum_{all\ Ex} CAP_{Ex} \times AD_{Ex}}$$

Where:

$W_{c,En}$ is the weight of cost for a given entry point or a cluster of entry points;

$W_{c,Ex}$ is the weight of cost for a given exit point or a cluster of exit points;

AD_{En} is the weighted average distance for an entry point or a cluster of entry points;

AD_{Ex} is the weighted average distance for an exit point or a cluster of exit points;

CAP_{En} is the technical capacity or the forecasted contracted capacity, as relevant, of an entry point or a cluster of entry points;

CAP_{Ex} is the technical capacity or the forecasted contracted capacity, as relevant, of an exit point or a cluster of exit points.

- (c) identify the part of the transmission services revenue to be recovered from capacity-based transmission tariffs at all the entry points and the part of the transmission services revenue to be recovered from capacity-based transmission tariffs at all the exit points by applying the entry-exit split;
- (d) calculate the part of the transmission services revenue to be recovered from capacity-based transmission tariffs at each entry point or each cluster of entry points and for each exit point or each cluster of exit points in accordance with the following respective formulas:

$$R_{En} = W_{c,En} \times R_{\Sigma En}$$

$$R_{Ex} = W_{c,Ex} \times R_{\Sigma Ex}$$

Where:

$W_{c,En}$ is the weight of cost for a given entry point or a cluster of entry points;

$W_{c,Ex}$ is the weight of cost for a given exit point or a cluster of exit points;

R_{En} is the part of the transmission services revenue to be recovered from capacity-based transmission tariffs at an entry point or a cluster of entry points;

R_{Ex} is the part of the transmission services revenue to be recovered from capacity-based transmission tariffs at an exit point or a cluster of exit points;

$R_{\Sigma En}$ is the part of the transmission services revenue to be recovered from capacity-based transmission tariffs at all entry points;

$R_{\Sigma Ex}$ is the part of the transmission services revenue to be recovered from capacity-based transmission tariffs at all exit points.

- (e) divide the resulting values referred to in point (d) by the forecasted contracted capacity at each entry point or each cluster of entry points and at each exit point or each cluster of exit points in accordance with the following respective formulas:

$$T_{En} = \frac{R_{En}}{FC_{En}}$$

$$T_{Ex} = \frac{R_{Ex}}{FC_{Ex}}$$

Where:

T_{En} is the reference price at an entry point or each entry point within a cluster of entry points;

T_{Ex} is the reference price at an exit point or each exit point within a cluster of exit points;

$FC_{\Sigma En}$ is the forecasted contracted capacity at an entry point or a cluster of entry points;

$FC_{\Sigma Ex}$ is the forecasted contracted capacity at an exit point or a cluster of exit points.

Article 12

Primary cost allocation methodology: variant A of virtual point based methodology

1. The relevant parameters for variant A of virtual point based methodology shall include, but shall not be limited to:
 - (a) the part of the transmission services revenue to be recovered from capacity-based transmission tariffs;
 - (b) the information on supply and demand for each entry point and for each exit point under a peak demand scenario;
 - (c) the detailed structural representation of the transmission network indicating its segments and nodes based on the existing pipelines and new pipelines expected to be operational as from or before the relevant tariff period;
 - (d) the expansion factor representing the costs for the expansion of the transmission network which are related to a given unit of energy over a given unit of distance;
 - (e) the annuitisation factor;
 - (f) the entry-exit split;
 - (g) the identification of a reference node.
2. The final reference prices shall be derived in the following sequential steps:
 - (a) choose one node from the transmission network as the reference node;

- (b) for each exit point, to set the demand under a peak demand scenario;
- (c) for each entry point, to set the supply to the level that is less than or equal to the technical capacity of the respective point as follows:
 - (i) to adjust the supply by following a merit order of categories of supply sources;
 - (ii) carry out the step set out in point (i) until the aggregate supply is equal to the aggregate demand under a peak demand scenario;
- (d) for each transmission network segment, to calculate and record the value of the gas flow distance as follows:
 - (i) to calculate the gas flow distance via an optimisation model which, using the location of the reference node and the supply and demand for all entry and exit points, carries out the following:
 - (1) derives the gas flow direction within a transport route from each entry point to the reference node and a transport route from the reference node to each exit point;
 - (2) calculates the minimum gas flow distance as the product of the gas flow and the distance taking into account the technical capacity of a given segment;
 - (ii) to record the resulting values as positive where the direction of the gas flow under a peak demand scenario coincides with the direction of the transport route from the entry point to the reference node or from the reference node to the exit point; otherwise, to record them as negative.
- (e) for each entry point and each exit point, to allocate the aggregate gas flow distance calculated as the sum of the gas flow distances for the transmission network segments within a given transport route;
- (f) to derive the initial marginal gas flow distance as follows:
 - (i) increase the level of demand at each exit point and increase the corresponding level of supply at the reference node;
 - (ii) increase the level of supply at each entry point and increase the corresponding level of demand at the reference node;
 - (iii) calculate the associated change in the aggregate gas flow distance for each entry or exit point, as relevant;

- (iv) divide the aggregate gas flow distance after the step set out in point (i) or (ii), as relevant, is carried out by the respective resulting value referred to in point (iii).
- (g) for each exit point, to derive the final reference prices as follows:
 - (i) to sum up the initial marginal gas flow distances referred to in point (f) for all entry points and, separately, for all exit points;
 - (ii) to calculate the average initial marginal gas flow distance for all entry points and, separately, for all exit points;
 - (iii) with the aim of ensuring that the entry-exit split is equal to the entry-exit split set or approved by the national regulatory authority, to use rescaling by adding to or subtracting from, as relevant, each of the resulting values referred to in point (ii) a constant calculated as a simple average of those values and, therefore, establish a virtual point;
 - (iv) for each exit point, to use additional rescaling by adding a constant to the final marginal gas flow distances, where it is necessary to ensure the recovery of the transmission services revenue referred to in paragraph 1(a) at the exit points;
 - (v) for each exit point, to derive the reference prices as the product of the resulting values referred to in point (iv), the expansion factor and the annuitisation factor. Where the resulting values are less than 0, set the corresponding reference price as a minimum value which is more than 0.
- (h) for each entry point, to derive the final reference prices by carrying out the steps set out in point (g), *mutatis mutandis*.

Article 13

Primary cost allocation methodology: variant B of virtual point based methodology

1. The relevant parameters for variant B of virtual point based methodology shall include, but shall not be limited to:
 - (a) the part of the transmission services revenue to be recovered from capacity-based transmission tariffs;
 - (b) the technical capacity and the forecasted contracted capacity at each entry and at each exit point;
 - (c) the structural representation of the transmission network.

2. The location of the virtual point or referred to in this Article shall be determined geographically in accordance with either of the following approaches:
 - (a) by selecting one dominant node within the entry-exit system;
 - (b) on the basis of capacity weighted average geographical location of all entry and exit points.
3. The geographical determination referred to in paragraph 2(b) shall be carried out in the following sequential steps:
 - (a) calculate the percentage of technical capacity for each entry point and for each exit point out of the total technical capacity;
 - (b) identify the geographical location, namely the longitude and the latitude, of each entry point and of each exit point;
 - (c) for each entry point and for each exit point, multiply its longitude and latitude referred to in point (b) by the percentage of its technical capacity referred to in point (a);
 - (d) sum up the resulting values referred to in point (c) in order to determine the location of the virtual point.
4. The initial or final reference prices, as relevant, shall be derived in the following sequential steps:
 - (a) calculate the capacity weighted distance:
 - (i) for each entry point, as the product of the distance between a given entry point and the virtual point and the capacity weight of this entry point in the group of all entry points in accordance with the following formula:

$$W_{d,En} = \frac{D_{En,VP} \times CAP_{En}}{\sum_{all\ En} CAP_{En}}$$

Where:

$W_{d,En}$ is the weighted distance for a given entry point;

$D_{En,VP}$ is the distance between a given entry point and the virtual point;

CAP_{En} is the technical capacity or the forecasted contracted capacity, as relevant, for a given entry point.

- (ii) for each exit point, as the product of the distance between a given exit point and the virtual point and the capacity weight of this exit point in the group of all exit points in accordance with the following formula:

$$W_{d,Ex} = \frac{D_{Ex,VP} \times CAP_{Ex}}{\sum_{all\ Ex} CAP_{Ex}}$$

Where:

$W_{d,Ex}$ is the weighted distance for a given exit point;

$D_{Ex,VP}$ is the distance between a given exit point and the virtual point;

CAP_{Ex} is the technical capacity or the forecasted contracted capacity, as relevant, for a given exit entry point.

- (b) sum up the resulting values referred to in point (a) for all the entry points and, separately, for all the exit points;
- (c) identify the part of the transmission services revenue to be recovered from capacity-based transmission tariffs at all the entry points and the part of the transmission services revenue to be recovered from capacity-based transmission tariffs at all the exit points in accordance with the following formula:

$$R_{\sum En} = \frac{\sum_{all\ En} W_{d,En}}{\sum_{all\ En} W_{d,En} + \sum_{all\ Ex} W_{d,Ex}} \times R_{\sum En,Ex}$$

$$R_{\sum Ex} = \frac{\sum_{all\ Ex} W_{d,Ex}}{\sum_{all\ En} W_{d,En} + \sum_{all\ Ex} W_{d,Ex}} \times R_{\sum En,Ex}$$

Where:

$R_{\sum En}$ is the part of the transmission services revenue to be recovered from capacity-based transmission tariffs at all entry points;

$R_{\sum Ex}$ is the part of the transmission services revenue to be recovered from capacity-based transmission tariffs at all exit points;

$R_{\sum En,Ex}$ is the part of the transmission services revenue to be recovered from capacity-based transmission tariffs at all entry points and all exit points.

- (d) set the initial reference prices for each entry and each exit point taking account of the distance from such point to the virtual point and multiply the resulting values by the respective amount of the forecasted contracted capacity;
- (e) adjust the resulting values referred to in point (d) to meet the revenue referred to in point (c) in order to set the final reference prices.

Article 14

Primary cost allocation methodology: matrix methodology

1. The relevant parameters for matrix methodology shall include, but shall not be limited to:
 - (a) the structural representation of the transmission network indicating its segments and the combinations of all entry points or their clusters and all exit points or their clusters;
 - (b) the direction of the gas flow under certain conditions, such as peak conditions;
 - (c) the capacity for each segment;
 - (d) either of the following:
 - (i) an index of the unit cost for transmission determined as the costs related to the different technical characteristics of the pipelines divided by the respective technical capacity;
 - (ii) the relevant costs associated with each zone, consisting of one or a group of segments, within the transmission network of a transmission system operator.

The part of the transmission services revenue to be recovered from capacity-based transmission tariffs, forecasted capacity, based on contracted or historical allocations or, if applicable, the entry-exit split may be used for the application of the secondary adjustment referred to in Article 16 or as constraints referred to in paragraph 2(d).

2. The initial or final reference prices, as relevant, shall be derived in the following sequential steps:
 - (a) calculate the unit cost for transmission in accordance with either of the following approaches:
 - (i) for each transmission network segment, as the product of the relevant index of the unit cost for transmission and its length, taking account of the prevailing direction of the gas flow. The unit cost for transmission of the transmission network segments where the direction of the gas flow is opposite to the prevailing direction shall be calculated as the product of:
 - (1) the unit cost for transmission of the transmission network segments where the direction of the gas flow is prevailing; and
 - (2) the constant, the value of which shall be subject to the approval by the national regulatory authority and shall be no less than 0 and no more than 1.
 - (ii) for each transmission network segment or zone, in the following sequential steps:

- (1) divide the total costs associated with the relevant zone by its total length. If applicable and where the zone consists of a group of segments, multiply the resulting value by the length of the pipelines within each segment;
 - (2) divide the resulting values referred to in point (1) by the respective forecasted capacity as set out in the second subparagraph of paragraph 1 for each segment or zone, as relevant.
- (b) calculate the unit cost for transmission of each possible path as the sum of the resulting values referred to in point (a) relevant to each path. Where multiple pipeline routes are possible between two points, the shortest or the average path determined as set out in Article 7(6)(b) shall be selected. Where the approach set out in point (a)(ii) is followed and where the second sentence in point (1) thereof is not applicable, the resulting sum shall be multiplied by the distance between the entry point or zone and the exit point or zone.
- (c) create the matrix of the unit cost for transmission referred to in point (b) which shall consist of the number of rows corresponding to the number of entry points or their clusters and the number of columns corresponding to the number of exit points or their clusters, or vice versa.
- (d) derive the initial or final reference prices by minimising the sum of the squared differences between each value within the matrix referred to in point (c) and the sum of possible reference prices at the entry point or the cluster of entry points and the exit point or the cluster of exit points within the respective combination, in accordance with the following formula:

$$\text{MIN} \sum_{\text{all En and all Ex}} [CT_{\text{En and Ex}} - (\overline{T}_{\text{En}} + \overline{T}_{\text{Ex}})]^2$$

Where:

$CT_{\text{En and Ex}}$ is the unit cost for transmission of a given path;

\overline{T}_{En} is the possible reference price at the entry point or the cluster of entry points within the respective combination;

\overline{T}_{Ex} is the possible reference price at the exit point or the cluster of exit points within the respective combination.

Such minimisation is carried out taking into account the constraint to avoid the negative values of the reference prices and, where necessary, other constraints such as fixing a

reference price at an entry or an exit point or applying a further derivation to arrive at one set of initial or final reference prices.

Article 15

Primary cost allocation methodology: asset allocation methodology

1. The relevant parameters for the asset allocation methodology shall include, but shall not be limited to:
 - (a) the value of assets;
 - (b) the technical capacity and the forecasted contracted capacity at each entry point and each exit point;
 - (c) the entry-exit split for one of the homogenous groups of network users;
 - (d) the quantity and the direction of the gas flow under peak conditions;
 - (e) if applicable, the technical capacity of pipeline segments.
2. The initial or final reference prices, as relevant, shall be derived in the following sequential steps:
 - (a) identify the homogenous groups of network users, the primary and supporting assets and their values;
 - (b) allocate the value of the primary assets to the groups of network users referred to in point (a) according to the use of these assets for providing transmission services to each such group, taking account of in particular:
 - (i) the relevant characteristics of the transmission system, including the quantity and the direction of the gas flow to cover gas demand under peak conditions;
 - (ii) the necessary surplus capacities defined in line with legal obligations for security of supply, diversification of sources and promotion of competition on the gas commodity market.

Where primary assets are jointly used for providing transmission services to different homogenous groups of network users, the value of these assets shall be allocated according to the ratio of technical capacity necessary for providing transmission services to those groups through the associated pipeline segments.

- (c) allocate the value of the supporting assets to the groups of network users referred to in point (a) in proportion to the values of the primary assets allocated to the respective homogenous groups of network users as set out in point (b);
- (d) sum up the values of the primary and the supporting assets allocated to each group of network users as set out in points (b) and (c) and set the associated transmission services revenues based on the annual costs comprising the return on the identified asset value and associated operational costs and depreciation;
- (e) for each group of network users referred to in point (a), identify the relevant entry and exit points and the corresponding forecasted contracted capacity;
- (f) for one of the groups of network users referred to in point (a), define the entry-exit split and derive the reference prices at the relevant entry and exit points as follows:
 - (i) apply the entry-exit split to the associated transmission services revenue; and
 - (ii) divide the resulting value by the corresponding forecasted contracted capacity.
- (g) for each of the other groups of network users referred to in point (a), derive the reference prices at the relevant entry and exit points as follows:
 - (i) for the jointly used entry points, the same reference prices calculated as set out in point (f) shall apply;
 - (ii) calculate the respective share of the associated transmission services revenue for the jointly used entry points as the product of the reference prices applicable at these points and the sum of the corresponding forecasted contracted capacity;
 - (iii) calculate the residual share of the associated transmission services revenue by subtracting the resulting value referred to in point (ii) from the associated transmission services revenue;
 - (iv) derive the reference prices at the relevant exit points by dividing the resulting value referred to in point (iii) by forecasted contracted capacity at such exit points.

Article 16

Secondary adjustment: rescaling

1. The conditions for the application of rescaling shall be as follows:
 - (a) ensure that the transmission services revenue forecasted to be obtained corresponds to the transmission services revenue;

- (b) adjust the entry-exit split so that it is equal to the entry-exit split set or approved by the national regulatory authority;
- (c) avoid the negative values of the transmission tariffs.

Where rescaling is used, the transmission system operator or the national regulatory authority, as relevant, shall assess the possibility of its application against the economic and locational signals expected from the application of a chosen primary cost allocation methodology, in particular with regard to its effect on the entry-exit split.

2. Rescaling shall be carried out by adjusting the reference prices at all entry and/or all exit points in accordance with either of the following approaches:
 - (a) by multiplying these values by a constant;
 - (b) by adding to these values a constant.

Article 17

Secondary adjustment: equalisation

1. The conditions for the application of equalisation shall be as follows:
 - (a) contribute to security of supply;
 - (b) enhance stability of transmission tariffs;
 - (c) foster competition in the retail market;
 - (d) foster competition in the renewable energy sector.
2. Equalisation shall be carried out by applying the same reference price within a homogenous group comprised of the following entry or exit points: entry interconnection points, exit interconnection points, domestic entry points, domestic exit points, entry points from storage facilities, exit points to storage facilities, entry points from LNG facilities, exit points to LNG facilities, entry points from production facilities.
3. When deciding to apply equalisation, the transmission system operator or the national regulatory authority, as relevant, shall provide a justification in case its application may remove locational signals created after the application of the primary cost allocation methodology.

Article 18

Secondary adjustment: benchmarking

1. The conditions for the application of benchmarking on a case-by-case basis shall include all of the following:
 - (a) where there is effective pipeline-to-pipeline competition between the transmission system operators;
 - (b) where the result of the application of the primary cost allocation methodology is not sufficient for meeting the competitive level of transmission tariffs;
 - (c) in order to increase the quantity of the gas flow at a given entry or exit point;
 - (d) where the result of its application better meets the objectives set out in Article 1 of Regulation (EC) No 715/2009.
2. Upon request of a transmission system operator, benchmarking shall be carried out by decreasing transmission tariffs at a given entry or exit point so that the resulting value meets the competitive level of transmission tariffs. As part of the consultation detailed in Article 21, the transmission system operator or the national regulatory authority, as relevant, shall explain the consequences of the decreased transmission tariffs for:
 - (a) the other transmission tariffs; and
 - (b) the entry-exit split derived after the application of the primary cost allocation methodology.
3. Where the forecasted capacity sales at the points at which the benchmarking is carried out are not expected to ensure obtaining the allowed revenue, the transmission system operator or the national regulatory authority, as relevant, may increase the transmission tariffs at other entry or exit points.

Article 19

Criteria for choosing a primary cost allocation methodology and a secondary adjustment

1. The criteria for the application of the postage stamp methodology shall be as follows:
 - (a) at least two thirds of the amount of transmission capacity is used by domestic or by cross-border network users; or

- (b) the absolute difference between the average distance calculated as detailed in Article 7(7) for domestic exit points and for cross-border exit points, calculated in accordance with the following formula, does not exceed fifty percent:

$$\frac{|AD_{DM,Ex} - AD_{CB,Ex}|}{AD_{Ex}}$$

Where:

$AD_{DM,Ex}$ is the average distance for domestic exit points;

$AD_{CB,Ex}$ is the average distance for cross-border exit points;

AD_{Ex} is the average distance for domestic and cross-border exit points.

2. The criteria for the application of the methodologies other than the postage stamp shall be as follows:
- (a) for the virtual point based methodologies, the consideration is whether the transmission network allows for the identification of a reference node or the virtual point where the majority of the gas flow converges;
 - (b) for the asset allocation methodology, the consideration is whether both of the following conditions are met in an entry-exit system:
 - (i) the total technical cross-border exit capacity is equal to or higher than the daily peak demand of domestic network users occurring with a statistical probability of once in 20 years;
 - (ii) a price cap regime and a non-price cap regime will be applied in parallel.
 - (c) for the other methodologies, the consideration is better cost-reflectivity and the necessity to simplify the structural representation of the transmission network.
3. The criteria for the application of a secondary adjustment shall be as follows:
- (a) the chosen secondary adjustment does not contradict the primary cost allocation methodology;
 - (b) the application of any secondary adjustment is possible after the application of any primary cost allocation methodology;
 - (c) the application of rescaling and/or equalisation is possible as a step of any primary cost allocation methodology whereas the application of benchmarking is possible only after the application of a primary cost allocation methodology.

Article 20

Storage

When the national regulatory authority sets or approves the transmission tariffs for the storage facilities, the following shall be taken into consideration:

- (1) the net benefits that the storage facilities may provide to the transmission system;
- (2) the need to promote efficient investment in the transmission system;
- (3) the need to minimise detrimental effects on cross-border trade.

CHAPTER III

CONSULTATION REQUIREMENTS

Article 21

Consultation and approval of the cost allocation methodology, dedicated services and fixed payable price approach

1. A consultation shall be conducted by the transmission system operator(s) or the national regulatory authority(-ies), as relevant, on the following:
 - (a) the proposed cost allocation methodology as well as:
 - (i) the assessment of the proposed cost allocation methodology against the criteria set out in Article 19;
 - (ii) the indication of the relevant parameters of the proposed primary cost allocation methodology set out in Article 6, the justification for their relevance and the corresponding information on their respective values and the assumptions used;
 - (iii) the results, the components and the details of these components for the cost allocation test as set out in Article 23 after the application of the primary cost allocation methodology and, if any, after the application of the secondary adjustment(s);
 - (iv) the comparison of the proposed primary cost allocation methodology against at least postage stamp methodology accompanied by the relevant information as set out in points (i) to (iii). Where the proposed primary cost allocation methodology is the postage stamp methodology, the transmission system operator(s) or the national regulatory authority(-ies), as relevant, shall be entitled not to provide such comparison.

- (b) the proposed dedicated services charged to specific network users and at specific entry or exit points and the manner in which the associated dedicated services revenue is reconciled;
- (c) where the fixed payable price approach referred to in Article 42(1)(b) is considered to be offered, the proposed index, the proposed risk premium calculation and treatment and the way in which both fixed and floating payable price approaches are offered at a given interconnection point.

2. The consultation referred to in paragraph 1 shall be completed by:

- (a) the date referred to in the third subparagraph of Article 50; or
- (b) a date no later than twenty four months as from the date referred to in the third subparagraph of Article 50, where Article 49 is applied.

The information referred to in paragraph 1 shall be published in the official language(s) of the Member State and in English.

3. Based on the results of the consultation, the national regulatory authority shall approve the following:

- (a) either the proposed cost allocation methodology or any of its alternatives;
- (b) the dedicated services charged to specific network users and at specific entry or exit points;
- (c) where the fixed payable price approach referred to in Article 42(1)(b) is considered to be offered, the index, the risk premium calculation and treatment and the way in which both fixed and floating payable price approaches are offered at a given interconnection point.

The national regulatory authority shall take and publish a motivated decision, including with regard to commodity-based transmission tariffs referred to in Article 4(2)(a) and (b) and alternative capacity- or commodity-based transmission tariffs referred to in Article 4(5), and the consultation responses within three months following the end of the consultation. Such a decision shall contain a detailed explanation of and a reasoned justification for the choice. For the transmission tariffs for the storage facilities, the decision of the national regulatory authority shall contain a detailed explanation of how the requirements of Article 20(1) to (3) have been taken into consideration.

4. In an entry-exit system where more than one transmission system operator is active, the consultation referred to in paragraph 1 shall be conducted:

- (a) by all the transmission system operators or the national regulatory authority(-ies), where the national regulatory authority(-ies) took a decision in accordance with Article 5(4)(a);
- (b) by each transmission system operator or each national regulatory authority, where the national regulatory authority(-ies) took a decision in accordance with Article 5(4)(b).

Article 22

Review of the parameters, the cost allocation methodology, dedicated services and fixed payable price approach

At least every four years as from the date of the approval referred to in Article 21(3), the transmission system operator(s) or the national regulatory authority(-ies), as relevant, shall:

- (1) review the information referred to in Article 21(1)(a)(ii). Such review shall be based on the assessment of the stability and evolution of the relevant parameters of the chosen primary cost allocation methodology against the relevant available technical and market data and outlooks. Any changes identified as a result of such assessment shall be published within a reasonable time period.
- (2) conduct the consultation following the process referred to in Article 21(1), (3) and (4), *mutatis mutandis*.

Article 23

Cost allocation test

- 1. As part of the consultation referred to in Article 21, the cost allocation test shall be applied to the transmission services revenue and shall be carried out by the transmission system operator(s) or the national regulatory authority(-ies), as relevant.
- 2. The cost allocation test shall demonstrate the degree of cost-reflectivity of the primary cost allocation methodology and, if any, secondary adjustment(s), where applied after the primary cost allocation methodology.
- 3. The cost allocation test shall be carried out as follows:
 - (a) the transmission services revenue to be obtained from domestic network users at both entry and exit points shall be divided by the value of the relevant cost driver(s) for domestic network users in accordance with the following formula:

$$(R : CD)_{DM} = \frac{R_{DM}}{CD_{DM}}$$

Where:

R_{DM} is the revenue from domestic network users;

CD_{DM} is the value of cost driver(s) for domestic network users.

- (b) the transmission services revenue to be obtained from cross-border network users at both entry and exit points shall be divided by the value of the relevant cost driver(s) for cross-border network users in accordance with the following formula:

$$(R : CD)_{CB} = \frac{R_{CB}}{CD_{CB}}$$

Where:

R_{CB} is the revenue from cross-border network users;

CD_{CB} is the value of cost driver(s) for cross-border network users.

- (c) the correlation between ratio 1 and ratio 2 referred to in points (a) and (b) shall be calculated in accordance with the following formula:

$$\frac{|(R : CD)_{DM} - (R : CD)_{CB}|}{[(R : CD)_{DM} + (R : CD)_{CB}] / 2}$$

4. The transmission services revenue to be obtained from domestic network users at entry points referred to in paragraph 3(a) shall be calculated as follows:
- where the actual amount of capacity attributed to the provision of transmission services to cross-border network users at the entry points is not known, it shall be deemed equal or proportionate to the amount of capacity attributed to the provision of transmission services to cross-border network users at the exit points;
 - the amount of capacity determined as set out in point (a) shall be used to calculate the transmission services revenue to be obtained from cross-border network users at the entry points;
 - the difference between the overall transmission services revenue to be obtained at the entry points and the resulting value referred to in point (b) shall be equal to the transmission services revenue to be obtained from domestic network users at entry points.
5. Where more than one cost driver referred to in paragraph 3 is identified as relevant, the combination of such cost drivers shall be used taking into account the following:
- the total number of cost drivers shall be minimised;

- (b) the relative importance of all the cost drivers shall be demonstrated;
 - (c) where distance is used as a cost driver, the weighted average distance shall be used.
6. Where the results of the calculation referred to in paragraph 3(c) exceed ten percent, the national regulatory authority shall provide the justification therefor in the decision referred to in Article 21(3). Where the reason for such excess originates from levying the charge referred to in Article 4(2)(b), the value or the application of such charge shall be reviewed so that the results of the calculation referred to in paragraph 3(c) do not exceed ten percent.

CHAPTER IV PUBLICATION REQUIREMENTS

Article 24

General provisions

1. The information set out in this Chapter shall be published to enable network users to understand:
 - (a) different types of transmission services and dedicated services;
 - (b) transmission tariffs and charges for dedicated services charged to specific network users and at specific entry or exit points corresponding to the services referred to in point (a);
 - (c) how transmission tariffs and charges referred to in point (b) are set, have changed and may change.
2. The confidentiality of commercially sensitive information shall be preserved.

Article 25

Information to be published in a standardised format

1. For each tariff period, the transmission system operator or the national regulatory authority, as relevant, depending on the party responsible for setting the transmission tariffs, shall publish the information on the following:
 - (a) the allowed revenue or the target revenue of the transmission system operator and the information related to changes in its level;
 - (b) the transmission services revenue, the treatment of the auction premium and, where the transmission system operator functions under a non-price cap regime, the following

- information on the reconciliation of the regulatory account related to the previous tariff period, where relevant:
- (i) the actually obtained revenue, the under- or over-recovery of the allowed revenue and the part thereof attributed to the regulatory account;
 - (ii) the reconciliation period, the incentive mechanisms implemented, the applied mitigating measures.
- (c) the parameters of the applied primary cost allocation methodology as detailed in Article 6, the information on the applied secondary adjustment(s), if any, and, where it is not used as a parameter of the primary cost allocation methodology, the entry-exit split;
- (d) transmission tariffs applicable at each entry and each exit point or at each group of points, as relevant:
- (i) the reserve prices for standard capacity products for firm capacity, the formulas for their calculation and, if these formulas include multipliers or seasonal factors, justification for introducing such multipliers and seasonal factors;
 - (ii) the reserve prices for standard capacity products for interruptible capacity and the formulas for their calculation;
 - (iii) if any, the transmission tariffs set out in Article 4(2)(a) and (b) and the relevant information related to their derivation;
 - (iv) if any, the transmission tariffs set out in Article 4(5) or the formulas for their calculation and the relevant information related to their derivation;
 - (v) the prices applicable at points other than interconnection points and the relevant information related to their derivation.
- (e) if any, charges for dedicated services charged to specific network users and at specific entry or exit points and the relevant information related to their derivation.
2. In an entry-exit system where more than one transmission system operator is active, the information referred to in paragraph 1 shall be published as follows:
- (a) where the national regulatory authority(-ies) took a decision in accordance with Article 5(4)(a), the information shall be published on an aggregated level for all those transmission system operators;
 - (b) where the national regulatory authority(-ies) took a decision in accordance with Article 5(4)(b), the information shall be published individually per transmission system operator.

3. The information referred to in paragraph 1 shall be published via a standardised table. The standardised table shall consist of three columns, namely the indication of the information item, the respective value in the applicable units and, if necessary, other details. Each of the information items shall be indicated in a separate row of the standardised table.
4. The standardised table referred to in paragraph 3 shall be published in the following manner:
 - (a) via the platform referred to in point 3.1.1(1)(h) of Annex I to Regulation (EC) No 715/2009;
 - (b) on the website of the transmission system operator or the national regulatory authority, as relevant;
 - (c) accessible to the public, free of charge;
 - (d) in a user-friendly manner;
 - (e) in a clear, quantifiable, easily accessible way and on a non-discriminatory basis;
 - (f) in a downloadable format;
 - (g) in the official language(s) of the Member State and in English.

Article 26

Additional information on transmission tariffs to be published

1. At the same frequency as the publication of information referred to in Article 25(1), the transmission system operator or the national regulatory authority, as relevant, depending on the party responsible for setting the transmission tariffs, shall publish the explanation for the following:
 - (a) the difference in the level of transmission tariffs for the same type of transmission service applicable for the current tariff period and for the tariff period for which the information is published;
 - (b) the estimated difference in the level of transmission tariffs for the same type of transmission service applicable for the tariff period for which the information is published and:
 - (i) for the following tariff period;
 - (ii) for each tariff period within the remainder of the respective regulatory period.

2. In addition to the information set out in paragraph 1, the transmission system operator or the national regulatory authority, as relevant, depending on the party responsible for setting the transmission tariffs, shall publish either of the following:
 - (a) a simplified tariff model enabling network users to calculate the transmission tariffs applicable for the current tariff period and to estimate their possible evolution in the following tariff periods;
 - (b) sensitivity analyses enabling network users to estimate the possible evolution of transmission tariffs in the following tariff periods.

The user-friendly tool referred to in point (a) shall be accompanied by the explanations on how to use such tool.

Article 27

Publication notice period

1. At least thirty days in advance of the tariff period, the transmission system operator or the national regulatory authority, as relevant, depending on the party responsible for setting the transmission tariffs, shall publish the following information::
 - (a) the transmission tariffs applicable for that tariff period;
 - (b) the charges for dedicated services charged to specific network users and at specific entry or exit points.

Where the difference in the level of the respective transmission tariffs or charges referred to in the first subparagraph applicable for next tariff period as compared to the current one is expected to exceed twenty percent, the transmission tariffs or charges applicable for the next tariff period shall be published at least sixty days in advance thereof.

2. At least thirty days before the annual yearly capacity auction, the transmission system operator or the national regulatory authority, as relevant, depending on the party responsible for setting the transmission tariffs, shall publish at least the indicative reference prices and the binding multipliers and seasonal factors applicable for the tariff period following such auction.
3. Where the charge referred to in Article 4(2)(b) or the discounts for monthly and daily standard capacity products for interruptible capacity are recalculated within the tariff period, the updated transmission tariffs shall be published as early as possible before they

are applicable. Each update shall be accompanied by the supporting information indicating the reasons for the changes in the level of such transmission tariffs.

4. The reference price may be recalculated within the tariff period only in exceptional cases and subject to the approval of the national regulatory authority.

CHAPTER V RESERVE PRICES

Article 28

General provisions

1. For yearly standard capacity products for firm capacity, the reference prices shall be used as reserve prices. For non-yearly standard capacity products for firm capacity, the reserve prices shall be calculated as set out in this Chapter. For both yearly and non-yearly standard capacity products for interruptible capacity, the reserve prices shall be calculated as set out in this Chapter.
2. A transmission system operator may propose to the national regulatory authority for approval:
 - (a) the level of multipliers and, where relevant, the calculations as set out in Article 29;
 - (b) where relevant, the level of seasonal factors and the calculations as set out in Article 31;
 - (c) the methodology to calculate reserve prices for standard capacity products for interruptible capacity, including factors A and B, and the levels of discount(s) as set out Article 32.

The national regulatory authority shall take the decision within a reasonable period of time following the receipt of the proposal from the transmission system operator. The transmission system operator's right of proposal is without prejudice to the right of the national regulatory authority to take a decision on its own initiative.

3. Before taking the decision on the level of multipliers and on the level of seasonal factors, the national regulatory authority shall consult with the national regulatory authorities of adjacent Member States and relevant stakeholders. In adopting its decision, the national regulatory authority shall take account of the opinions received.
4. When setting or approving the level of multipliers, the national regulatory authority shall take account of the following:

- (a) the balance between facilitating short-term gas trade and providing long-term signals for efficient investment in the transmission system;
 - (b) impact on under- or over-recovery of transmission services revenue, where the transmission system operator functions under a non-price cap regime;
 - (c) the need to avoid cross-subsidisation between network users and to enhance cost-reflectivity of reserve prices;
 - (d) the situations of physical congestion and contractual congestion.
5. The seasonal factors shall only be introduced if their application:
- (a) facilitates the economic and efficient utilisation of the infrastructure; and
 - (b) improves the cost-reflectivity of reserve prices.

Article 29

Level of multipliers and seasonal factors

1. The level of multipliers shall fall within the following ranges:
 - (a) for quarterly standard capacity products and for monthly standard capacity products, the level of the respective multiplier shall be no less than 0.5 and no more than 1.5;
 - (b) for daily standard capacity products and for within-day standard capacity products, the level of the respective multiplier shall be no less than 0 and no more than 1.5.
2. The level of multipliers may be more than 1.5 where the transmission system operator or the national regulatory authority, as relevant, justifies that the result of the following calculation exceeds 1.5 for at least one of the three years preceding the date of the calculation or for the year after the date of the calculation:

$$N_m = \frac{\max(CAP_{c,i}) \times 365}{\sum_{i=1}^{365} CAP_{c,i}}$$

Where:

$CAP_{c,i}$ is the actual or forecasted amount of contracted capacity for non-yearly standard capacity products in kWh/d;

N_m is the figure that is compared against 1.5.

For leap years, the formula shall be adjusted so that the figure 365 is substituted with the figure 366.

In such case, the level of multipliers shall not exceed the lower of 5 or the result of the calculation set out in the first subparagraph.

3. The transmission system operator or the national regulatory authority, as relevant, may review the levels of multipliers on an annual basis. Where a necessity to change the level of multipliers is identified as a result of such review, Article 28(2) to (4) shall apply, *mutatis mutandis*.
4. Where seasonal factors are applied, the arithmetic mean over the gas year of the product of the multiplier applicable for the respective standard capacity product and the relevant seasonal factor shall be:
 - (a) where the level of multipliers is as set out in paragraph 1, within the same range as for the level of the respective multipliers;
 - (b) where the level of multipliers is as set out in paragraph 2, no more than the level of the respective multipliers.

Article 30

Calculation of reserve prices for non-yearly standard capacity products for firm capacity in absence of seasonal factors

The reserve prices for non-yearly standard capacity products for firm capacity shall be calculated as follows:

- (1) for quarterly standard capacity products, for monthly standard capacity products and for daily standard capacity products, in accordance with the following formula:

$$P_{st} = (M \times T / 365) \times D$$

Where:

P_{st} is the reserve price for the respective standard capacity product;

M is the level of the multiplier corresponding to the respective standard capacity product;

T is the reference price;

D is the duration of the respective standard capacity product expressed in gas days.

For leap years, the formula shall be adjusted so that the figure 365 is substituted with the figure 366.

- (2) for within-day standard capacity products, in accordance with either of the following formulas:

- (a) as set out in paragraph (1) for daily standard capacity products;
- (b) as follows:

$$P_{st} = (M \times T / 8760) \times H$$

Where:

P_{st} is the reserve price for the within-day standard capacity product;

M is the level of the corresponding multiplier;

T is the reference price;

H is the duration of the within-day standard capacity product expressed in hours.

For leap years, the formula shall be adjusted so that the figure 8760 is substituted with the figure 8784.

Article 31

Calculation of reserve prices for non-yearly standard capacity products for firm capacity with seasonal factors

1. Where seasonal factors are applied, the reserve prices for non-yearly standard capacity products for firm capacity shall be calculated in accordance with the relevant formulas set out in Article 30 complemented with multiplication by the respective seasonal factor.
2. For monthly standard capacity products for firm capacity, the seasonal factors shall be calculated for each, some or all interconnection points in the following sequential steps:
 - (a) calculate for each month within a given gas year the usage of the transmission system on the basis of forecasted flows or forecasted contracted capacity using:
 - (i) the data for the individual interconnection point, where the seasonal factors are calculated for each interconnection point;
 - (ii) the average data, where the seasonal factors are calculated for some or all interconnection points.
 - (b) sum up the resulting values referred to in point (a);
 - (c) calculate the usage rate by dividing each of the resulting values referred to in point (a) by the resulting value referred to in point (b);

- (d) multiply each of the resulting values referred to in point (c) by 12. Where the resulting values are equal to 0, to adjust these values to the lower of 0.1 or the lowest of the resulting values other than 0;
 - (e) calculate the initial level of the respective seasonal factors by raising each of the resulting values referred to in point (d) to the same power which is no less than 0 and no more than 2;
 - (f) calculate the average of the products of the resulting values referred to in point (e) and the multiplier for monthly standard capacity products;
 - (g) compare the resulting value referred to in point (f) with the range referred to in Article 29(1) or with the cap referred to in Article 29(2), as relevant:
 - (i) if this value falls within this range or does not exceed this cap, as relevant, then the level of seasonal factors shall coincide with the respective resulting values referred to in point (e);
 - (ii) if this value falls outside of this range or exceeds this cap, as relevant, then point (h) shall apply.
 - (h) the level of seasonal factors shall be calculated as the product of the respective resulting values referred to in point (e) and the correction factor calculated as follows:
 - (i) where the resulting value referred to in point (f) is more than 1.5 or the cap referred to in Article 29(2), as relevant, the correction factor shall be calculated as 1.5 or the cap referred to in Article 29(2), as relevant, divided by this value;
 - (ii) where the resulting value referred to in point (f) is less than 0.5, the correction factor shall be calculated as 0.5 divided by this value.
3. For daily standard capacity products for firm capacity and within-day standard capacity products for firm capacity, the seasonal factors shall be calculated by carrying out the step set out in paragraph 2(f) to (h), *mutatis mutandis*.
4. For quarterly standard capacity products for firm capacity, the seasonal factors shall be calculated as follows:
- (a) calculate the initial level of the respective seasonal factors as either of the following:
 - (i) equal to the simple average of the respective seasonal factors applicable for the three relevant months;
 - (ii) no less than the lowest and no more than the highest level of the respective seasonal factors applicable for the three relevant months;

- (b) carry out the step set out in paragraph 2(f) to (h), using the resulting values referred to in point (a), *mutatis mutandis*.
5. Where deemed necessary, the rounding of the resulting values referred to in paragraphs 2 to 4 shall be carried out.

Article 32

Calculation of reserve prices for standard capacity products for interruptible capacity

1. The reserve prices for standard capacity products for interruptible capacity shall be calculated in accordance with either of the following approaches:
- (a) by applying an ex-ante discount to the reserve prices for the respective standard capacity products for firm capacity, as detailed in Article 33;
 - (b) by applying a combination of ex-ante and ex-post discounts, as follows:
 - (i) the reserve prices for standard capacity products for interruptible capacity shall be calculated as detailed in Article 33; and
 - (ii) in case the capacity is interrupted, the reimbursement shall be calculated as detailed in Article 34.

The approach set out in point (b) may be followed where either of the following conditions is met at a given interconnection point for the tariff period preceding the date of the calculation:

- (i) absence of physical congestion;
 - (ii) available firm capacity for the daily standard capacity products exceeds ten percent of technical capacity on average.
2. The calculation referred to in paragraph 1 shall apply to all standard capacity products for interruptible capacity regardless of the direction of the gas flow at a given interconnection point. This calculation shall also apply to interruptible capacity products offered in the direction opposite to the physical gas flow at unidirectional interconnection points where technical capacity is offered only in one direction as set out in Article 21 of Commission Regulation (EU) No 984/2013.
3. Simultaneously with the publication of transmission tariffs referred to in Article 27(1) and, if relevant, Article 27(3), the transmission system operator or the national regulatory authority, as relevant, depending on the party responsible for setting the transmission

tariffs, shall publish a report on the probability of interruption of the interruptible capacity for the next tariff period. This report shall include at least the following information:

- (a) the list of all the types of standard capacity products for interruptible capacity offered;
 - (b) for each, some or all interconnection points, as relevant, and for each standard capacity product for interruptible capacity of a certain duration, a table indicating the information related to each type of product referred to in point (a):
 - (i) the probability of interruption;
 - (ii) the level of the relevant discount applied.
 - (c) the explanation of how the probability of interruption is calculated for each type of product referred to in point (a);
 - (d) the historical and/or forecasted data used for the estimation of the probability of interruption.
4. The transmission system operator or the national regulatory authority, as relevant, may review the levels of discounts for standard capacity products for interruptible capacity on an annual basis. Where a necessity to change the levels of discounts is identified as a result of such review, Article 28(2) shall apply, *mutatis mutandis*.
5. The discounts for monthly and daily standard capacity products for interruptible capacity may be recalculated within the current tariff period subject to the approval of the national regulatory authority where the probability of interruption changes by more than twenty percent.

Article 33

Ex-ante discount for interruptible capacity

1. An ex-ante discount shall not exceed 100% and shall be calculated in accordance with the following formula:

$$D_{i_{\text{ex-ante}}} = \text{Pro} \times A \times 100\%$$

Where:

$D_{i_{\text{ex-ante}}}$ is the level of an ex-ante discount;

Pro is the probability of interruption of the type of standard capacity product for interruptible capacity;

A is the adjustment factor applied to reflect the estimated economic value of the type of standard capacity product for interruptible capacity, which shall be no less than 1 and may differ per standard capacity product for interruptible capacity of a certain duration.

- The factor Pro referred to in paragraph 1 shall be calculated for each, some or all interconnection points per type of standard capacity product for interruptible capacity offered in accordance with the following formula on the basis of forecasted information related to its components:

$$\text{Pro} = \frac{N \times D_{\text{int}}}{D} \times \frac{\text{CAP}_{\text{av.int}}}{\text{CAP}}$$

Where:

N is the expectation of the number of interruptions over D;

D_{int} is the expected average duration of each interruption expressed in hours;

D is the total duration of the respective type of standard capacity product for interruptible capacity expressed in hours;

$\text{CAP}_{\text{av.int}}$ is the expected average amount of interrupted capacity for each interruption related to the respective type of standard capacity product for interruptible capacity;

CAP is the total amount of interruptible capacity for the respective type of standard capacity product for interruptible capacity.

- Where an ex-ante discount is applied, the reserve prices for standard capacity products for interruptible capacity shall be calculated by multiplying the reserve price for the respective standard capacity product for firm capacity by the difference between 1 and the level of an ex-ante discount.

Article 34

Combination of ex-ante and ex-post discounts for interruptible capacity

- When an ex-post discount is applied in combination with ex-ante discount and in case the capacity is interrupted, the reimbursement shall be calculated at the same frequency as the respective transmission tariffs are invoiced to network users, in accordance with the following formula:

$$E_R = B \times E \times \max \left(\frac{\sum_{i=1}^n \text{CAP}_{\text{diff},i} \times D_i}{\text{CAP} \times D} - \text{Pro}; 0 \right)$$

Where:

E_R is the amount to be reimbursed for an invoicing period within a given contract;

B is the adjustment factor applied to reflect the estimated economic value of the type of standard capacity product for interruptible capacity, which shall be no less than 1 and may differ per standard capacity product for interruptible capacity of a certain duration;

E is the contractual payment for an invoicing period within a given contract excluding, if any, the auction premium;

CAP is the amount of contracted capacity with respect to one hour or one day;

D is the number of hours or days of an invoicing period within a given contract;

$CAP_{diff, i}$ is the amount of interrupted capacity with respect to each hour or each day when the capacity was interrupted for each interruption i ;

D_i is the number of hours or days of an invoicing period within a given contract when the capacity was interrupted for each interruption i ;

n is the total number of interruptions that the standard capacity product underwent during the invoicing period within a given contract;

Pro is the probability of interruption of the type of standard capacity product for interruptible capacity as set out in Article 33.

Where the applied capacity units are kWh/h, the formula shall be applied using the hours. Where the applied capacity units are kWh/d, the formula shall be applied using the days.

2. The reimbursement shall not exceed the contractual payment per invoicing period, excluding, if any, the auction premium.

CHAPTER VI REVENUE RECONCILIATION

Article 35

General provisions

1. Where the transmission system operator functions under a non-price cap regime, meaning a regulatory regime under which the national regulatory authority sets the allowed revenue for the transmission system operator, the following principles shall apply for transmission services revenue:

- (a) when setting the transmission tariffs, the transmission system operator or the national regulatory authority, as relevant, shall seek to minimise the under- or over-recovery of the transmission services revenue;
 - (b) the level of transmission tariffs shall ensure that the allowed revenue from transmission services is recovered by the transmission system operator in a timely manner;
 - (c) significant differences between the level of transmission tariffs applicable for two consecutive tariff periods shall be avoided to the extent possible.
2. Where the transmission system operator functions under a price cap regime, meaning a regulatory regime under which the national regulatory authority does not set the allowed revenue for the transmission system operator, only Article 37(4) shall be applied.

Article 36

Under- and over-recovery

1. The under- or over-recovery of the transmission services revenue shall be equal to:

$$R_A - R$$

Where:

R_A is the actually obtained revenue from transmission services;

R is the transmission services revenue.

The values of R_A and R shall be attributed to the same tariff period and, where an effective inter-transmission system operator compensation mechanism referred to in Article 5(5) is established, shall take such mechanism into account.

2. Where the difference calculated in accordance with paragraph 1 is positive, it shall indicate an over-recovery of the transmission services revenue. Where such difference is negative, it shall indicate an under-recovery of the transmission services revenue.

Article 37

Regulatory account

1. The regulatory account shall indicate at least the information on the transmission services revenue referred to in Article 36(1) for a given tariff period.
2. All of the transmission system operator's under- or over-recovery shall be attributed to the regulatory account, unless otherwise decided by the national regulatory authority. Where

incentive mechanisms on capacity sales are implemented in accordance with the decision of the national regulatory authority, only a part of the transmission system operator's under- or over-recovery shall be attributed to the regulatory account. In such case, the residual part thereof shall be met by the transmission system operator.

3. Each transmission system operator shall use one regulatory account. This regulatory account may be split into a number of sub-accounts for the purpose of tracking the under- or over-recovery originating from a particular group of points or from a particular type of transmission tariff.
4. Subject to the decision of the national regulatory authority, the earned auction premia, if any, may be attributed to a specific account separate from the regulatory account referred to in paragraph 3. The national regulatory authority may decide to use this auction premia for reducing physical congestion.

Article 38

Reconciliation of regulatory account

1. The national regulatory authority shall set or approve the reconciliation period, meaning the time period over which the regulatory account referred to in Article 37(3) shall be reconciled.
2. The regulatory account shall be reconciled with the aim of reimbursing to the transmission system operator the under-recovery and of returning to the network users the over-recovery.
3. The reconciliation of the regulatory account shall be carried out in accordance with the applied cost allocation methodology and, if relevant, by applying the charge referred to in Article 4(2)(b). When setting the transmission tariffs for the next tariff period, the decision of the national regulatory authority referred to in paragraph 1 shall be taken into account.

CHAPTER VII

PRICING OF BUNDLED CAPACITY AND CAPACITY AT VIRTUAL INTERCONNECTION POINTS

Article 39

Pricing of bundled capacity

1. The reserve price for a bundled capacity product shall be equal to the sum of the reserve prices for the capacities contributing to such product. The reserve prices for corresponding

entry and exit capacities shall be made available when the bundled capacity product is offered and allocated by means of a joint booking platform referred to in Article 27 of Commission Regulation (EU) No 984/2013.

2. The revenue originating from the bundled capacity product sales corresponding to the reserve price for such product shall be attributed to the respective transmission system operators:
 - (a) after each transaction for a bundled capacity product; and
 - (b) in proportion to the reserve prices for the capacities contributing to such product.
3. The auction premium originating from the bundled capacity product sales shall be attributed to the respective transmission system operators in accordance with:
 - (a) the decision of the relevant national regulatory authority, where the interconnection point concerned connects adjacent entry-exit systems within one Member State or an entry-exit system with an interconnector; or
 - (b) the agreement between the relevant national regulatory authorities, where the interconnection point concerned connects adjacent entry-exit systems of two Member States.
4. The decision or the agreement, as relevant, referred to in paragraph 3 shall be taken or entered into sufficiently in advance and no later than three months before the start of the auctions for all standard capacity products. In absence of such decision or agreement, as relevant, the auction premium shall be attributed to the respective transmission system operators equally.
5. Once the agreement referred to in paragraph 3(b) is entered into, the respective national regulatory authorities shall submit it to the Agency for information.

Article 40

Pricing of capacity at a virtual interconnection point

1. The reserve price for a given unbundled standard capacity product offered at a virtual interconnection point shall be equal to the combination of the reserve prices for the respective unbundled standard capacity products offered at interconnection points contributing to such virtual interconnection point.
2. Where capacity in an entry-exit system is marketed by one transmission system operator, the reserve price referred to in paragraph 1 shall be:

- (a) calculated on the basis of the reference price derived in accordance with the applied cost allocation methodology, where such methodology allows for taking account of the established virtual interconnection point;
- (b) equal to the weighted average of the reserve prices, calculated on the basis of the reference prices derived for each interconnection point contributing to such virtual interconnection point, in accordance with the applied cost allocation methodology, where such methodology does not allow for taking account of the established virtual interconnection point, in accordance with the following formula:

$$P_{st, VIP} = \frac{\sum_i^n (P_{st, i} \times CAP_i)}{\sum_i^n CAP_i}$$

Where:

$P_{st, VIP}$ is the reserve price for a given unbundled standard capacity product at the virtual interconnection point;

i is an interconnection point contributing to the virtual interconnection point;

n is the number of interconnection points contributing to the virtual interconnection point;

$P_{st, i}$ is the reserve price for a given unbundled standard capacity product at interconnection point i ;

CAP_i is technical capacity or forecasted contracted capacity, as relevant, at interconnection point i .

3. In an entry-exit system where more than one transmission system operator is active, the reserve price referred to in paragraph 1 shall be calculated as follows:
 - (a) where the national regulatory authority(-ies) took a decision in accordance with Article 5(4)(a), paragraph 2 shall be applied, *mutatis mutandis*;
 - (b) where the national regulatory authority(-ies) took a decision in accordance with Article 5(4)(b), the reserve price shall be calculated in the following sequential steps:
 - (i) each transmission system operator shall follow the process set out in paragraph 2;
 - (ii) the weighted average of the resulting values referred to in point (i) shall be derived in accordance with the formula set out in paragraph 2(b), *mutatis mutandis*.
4. Where the standard capacity product offered at a virtual interconnection point is a bundled capacity product, its reserve price shall be calculated as set out in Article 39(1).

CHAPTER VIII CLEARING PRICE AND PAYABLE PRICE

Article 41

Calculation of clearing price at interconnection points

The clearing price for a given standard capacity product at an interconnection point shall be calculated in accordance with the following formula:

$$P_{cl} = P_{R,au} + AP$$

Where:

P_{cl} is the clearing price;

$P_{R,au}$ is the applicable reserve price for a standard capacity product which is published at the time when this product is auctioned;

AP is the auction premium, if any.

Article 42

Payable price at interconnection points

1. The payable price for a given standard capacity product at an interconnection point shall be calculated in accordance with either of the following formulas:

(a) where the floating payable price approach is followed:

$$P_{flo} = P_{R,flo} + AP$$

Where:

P_{flo} is the floating payable price;

$P_{R,flo}$ is the reserve price for a standard capacity product applicable at the time when this product may be used, as set or approved by the national regulatory authority;

AP is the auction premium, if any.

(b) where the fixed payable price approach is followed:

$$P_{fix} = (P_{R,au} \times IND) + RP + AP$$

Where:

P_{fix} is the fixed payable price;

$P_{R,au}$ is the applicable reserve price for a yearly standard capacity product which is published at the time when this product is auctioned;

IND is the chosen index which is accessible to the public;

RP is the risk premium reflecting the benefits of certainty regarding the level of transmission tariff, which shall be no less than 0;

AP is the auction premium, if any.

2. The floating payable price approach shall be offered at each interconnection point. Subject to Articles 21 and 22, the fixed payable price approach may be offered in addition to the floating payable price approach with the aim of achieving at least one of the following:
 - (a) enhance stability of transmission tariffs while taking account of the contribution that the revenues originating from capacity sales under such approach provide for revenue recovery and the objective of minimising cross-subsidisation between network users;
 - (b) promote long-term contracts;
 - (c) facilitate the offer of incremental capacity;
 - (d) promote financial stability of transmission system operators.

CHAPTER IX INCREMENTAL CAPACITY

Article 43 **Economic test**

1. The economic test shall be applied for each offer level of an incremental capacity project after binding commitments of network users for contracting capacity have been obtained by the respective transmission system operators and shall consist of the following parameters:
 - (a) the present value of binding commitments of network users for contracting capacity, which is calculated as the discounted sum of the following parameters:
 - (i) the sum of the respective estimated reference price and a potential auction premium and a potential mandatory minimum premium multiplied with the amount of contracted incremental capacity;
 - (ii) the sum of a potential auction premium and a potential mandatory minimum premium multiplied with the amount of available capacity that was contracted in combination with the incremental capacity;

- (b) the present value of the estimated increase in the allowed revenue or target revenue of the transmission system operator that is attributable to the incremental capacity included in the respective offer level;
 - (c) the f-factor that defines the minimum share of the parameter set out in point (b) that needs to be covered by the parameter set out in point (a).
2. The outcome of the economic test application shall be:
- (a) positive, where the value of the parameter set out in paragraph 1(a) is at least equal to the share of the parameter set out in paragraph 1(b) as defined by the f-factor;
 - (b) negative, where the value of the parameter set out in paragraph 1(a) is lower than the share of the parameter set out in paragraph 1(b) as defined by the f-factor.
3. An incremental capacity project shall proceed if the economic test has a positive outcome for at least one offer level that is including incremental capacity. In case more than one offer level results in a positive outcome of the economic test, the offer level with the largest amount of capacity that resulted in a positive outcome shall be used for proceeding with the next phases of the incremental capacity project towards commissioning.

Article 44

The f-factor

1. When approving the level of f-factor for a given offer level, the relevant national regulatory authority or relevant Member State shall take into account the following:
- (a) the amount of technical capacity set aside in accordance with Article 8(8) and 8(9) of Commission Regulation (EU) No 984/2013;
 - (b) positive externalities of the incremental capacity project on the market and/or the transmission network;
 - (c) the duration of binding commitments of network users for contracting capacity compared to the economic life of the asset;
 - (d) the extent to which the demand for the capacity established in the incremental capacity project can be expected to continue after the end of the time horizon used in the economic test.
2. The part of the allowed revenue or target revenue associated with the incremental capacity project which is not covered by binding commitments of network users for contracting capacity shall be covered by the future contracting of the incremental capacity and to the

extent future contracting of the incremental capacity does not occur, be guaranteed through transmission tariffs paid by network users also at other points of the system or through another appropriate payment mechanism established by the relevant national regulatory authorities or the relevant Member States.

3. The mechanisms described in paragraph 2 shall also apply for the share of the present value of the increase in allowed revenue or target revenue defined by the f-factor if all or part of binding commitments of network users for contracting capacity is for any reason cancelled.

Article 45

Combination into single economic test

1. In order to facilitate the offer of bundled capacity products, individual economic test parameters of the involved transmission system operators for a given offer level shall be combined into a single economic test.
2. The single economic test shall consist of the following parameters:
 - (a) the present value of binding commitments of network users for contracting bundled capacity, which is the sum of the values according to Article 43(1)(a) of the involved transmission system operators;
 - (b) the sum of the individual present values of the estimated increase in the allowed revenue or target revenue of the involved transmission system operators that is attributable to the incremental capacity of a respective offer level;
 - (c) the f-factor that defines the share of the parameter set out in point (b) that needs to be covered by the parameter set out in point (a) and allows all the involved transmission system operators individually to cover their individual upfront defined respective shares.
3. The outcome of the single economic test application shall be positive where all underlying economic tests result in positive outcomes as set out in Article 43(2)(a) taking into account a possible redistribution of revenues according to paragraphs 4 and 5. Otherwise, the outcome of the single economic test application shall be negative.
4. In case a redistribution of revenues could potentially lead to a decrease in the level of binding commitments of network users for contracting capacity required for a positive single economic test outcome, transmission system operators may submit to the relevant national regulatory authorities for co-ordinated approvals the mechanisms for a redistribution of revenues from incremental capacity.

5. A redistribution of revenues may be carried out as follows:
 - (a) during the process of integrating the individual economic test parameters into a single economic test;
 - (b) in case the single economic test has a negative outcome while at the same time the level of binding commitment of network users for contracting capacity exceeds the minimum required to cover the individual present value of the increase in the allowed revenue or target revenue for at least one of the involved transmission system operators.

Article 46

Publication requirements relating to the economic test

1. For a given incremental capacity project, the transmission system operator(s) shall submit to the relevant national regulatory authority(-ies) for approval the following information for each offer level:
 - (a) the reference prices estimated for the time horizon of the initial offer of incremental capacity that are used for the calculation of the parameter set out in Article 43(1)(a) and 45(2)(a), as relevant;
 - (b) the parameters set out in Article 43(1)(b) to (c) and 45(2)(b) to (c), as relevant;
 - (c) if applicable, the mandatory minimum premium for each offer level and interconnection point applied in the first auction and possibly in subsequent auctions in which the incremental capacity is offered as defined in Article 47(2).
2. Following the approval of the relevant national regulatory authority(-ies), the information set out in paragraph 1 shall be published by the involved transmission system operator(s) as set out in Article 20c(5) of Commission Regulation (EU) No 984/2013.

Article 47

Tariff principles for incremental capacity

1. The minimum price at which network users can request incremental capacity is the reference price resulting from the cost allocation methodology. For the calculation of the economic test, reference prices shall be estimated by making the relevant assumptions taking into account the incremental capacity to be provided.
2. In case the allocation of all incremental capacity at the reference price would not generate sufficient revenues for a positive economic test outcome, a mandatory minimum premium

may be applied in the first auction in which the incremental capacity is offered. The mandatory minimum premium may also be applied in subsequent auctions when the capacity is offered that initially remained unsold or when capacity is offered that was initially set aside according to Article 8(8) and 8(9) of Commission Regulation No (EU) 984/2013. The decision on whether and in which auctions to apply a mandatory minimum premium is subject to the approval of the relevant national regulatory authority.

3. The level of the mandatory minimum premium shall enable a positive economic test outcome with the revenues generated by the allocation of all offered capacity in the first auction in which the incremental capacity is on offer.
4. A mandatory minimum premium approved by the national regulatory authority shall be added to the reference price for the bundled capacity products at the respective interconnection point and shall exclusively be attributed to the transmission system operators, for which the mandatory minimum premium was approved by the respective national regulatory authority. This default principle for the attribution of a mandatory minimum premium is without prejudice to the provisions on the split of a possible additional auction premium according to Article 39(3) or an alternative agreement between the involved national regulatory authorities.
5. In case initial commitments for contracting of incremental capacity by network users are for any reasons cancelled, the transmission system operator may charge the outstanding amounts resulting from a mandatory minimum premium for the initial contract duration to the respective network users.
6. Where a mandatory minimum premium is applied and the relevant national regulatory authorities conclude that based on the relevant assumptions described in paragraph 1 there are doubts whether future capacity bookings will generate sufficient revenues to cover the allowed revenues or target revenues associated with the incremental capacity beyond the initial time horizon for booking capacity, the part of the revenues following from the mandatory minimum premium shall be used for measures to mitigate possible future under-recovery with regard to the incremental capacity. The extent of the occurrence of such under-recovery shall be monitored by the transmission system operators. This shall be achieved by either of the following:
 - (a) including the associated revenues into the revenue recovery mechanism as set out in Chapter VI;
 - (b) a specific account separate from the regulatory account;

- (c) an adjustment of the yearly rate of depreciation for the incremental capacity in accordance with the outlook on the level of contracting of the incremental capacity in order to increase the alignment between the duration of binding commitments of network users for contracting capacity and the economic life of the asset;
 - (d) any other measure agreed between the respective transmission system operator and national regulatory authority.
7. When, in the future, under-recovery associated with the incremental capacity as described in paragraph 6 does not occur, over-recovery at that time shall be prevented by using the accumulated revenues from the mandatory minimum premium in accordance with the applied cost allocation methodology.

CHAPTER X

FINAL AND TRANSITIONAL PROVISIONS

Article 48

Mitigating measures

1. The implementation of any mitigating measure shall be subject to the approval by the national regulatory authority. A transmission system operator may apply for the implementation of a mitigating measure(s) for a time period which lasts no longer than twenty four months as from the date referred to in the third subparagraph of Article 50. In such case, the transmission system operator shall demonstrate that the application of this Regulation results in an increase of the reference price at least at one entry or exit point by more than twenty percent.
2. The detailed design of mitigating measures shall be defined by the transmission system operator or the national regulatory authority, as relevant. Such measures may include the following:
 - (a) use of auction premium earned in the previous tariff period that exceeds the allowed revenue applicable for that tariff period for the purpose of decreasing the transmission tariffs applicable for the current tariff period at those interconnection points where the auction premium was earned;
 - (b) apportionment of any increase of or decrease in transmission tariffs applicable for two consecutive tariff periods over a number of tariff periods which shall not exceed twenty four months as from the date referred to in the third subparagraph of Article 50.

Article 49

Transitional provisions

The implementation of a transitional period shall be subject to the approval by the national regulatory authority. A transmission system operator may request to apply this Regulation as from a date no later than twenty four months as from the date referred to in the third subparagraph of Article 50. In such case, the transmission system operator shall demonstrate that the application of this Regulation as from the date referred to in the third subparagraph of Article 50:

- (1) may affect the execution of specific contracts; or
- (2) does not coincide with the beginning of the gas year, the regulatory period or the tariff period.

Article 50

Entry into force

This Regulation shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Union*.

To the extent covered by this Regulation, Article 26 of Commission Regulation (EU) No 984/2013 shall not be applied as from the date referred to in the third subparagraph.

This Regulation shall apply as from whichever of the following dates is the later:

- (1) 1 October 2017; or
- (2) the first day of the month following the date calculated as twenty four months as from the entry into force.

This Regulation shall not affect the level of transmission tariffs foreseen in the contracts which are concluded before the entry into force of this Regulation where such contracts foresee no change of their level except for the indexation, if any.

This Regulation shall be binding in its entirety and directly applicable in all Member States.