



ACER Consultation Template

Fields marked with * are mandatory.

Introduction

The Agency for the Cooperation of Energy Regulators ('the Agency') has developed an online template following Article 26(5) of the Commission Regulation (EU) 2017/460 of 16 March 2017 establishing a Network Code on Harmonised Transmission Tariff Structures for Gas ('TAR NC'). The online template has been designed for the NRA/TSO responsible for carrying out the consultation on the reference price methodology to provide a summary of the consultation.

The online template and the tool for the submission of files to the Agency is implemented over a secure IT connection based on https.

Instructions for using the online template and for the submission of the consultation documents are on the appendix, at the end of the online template. For additional information on the online template, visit: [http://www.acer.europa.eu/Official_documents/Public_consultations/Pages/ACER-Consultation-Template.-Tariff-NC-Article-26\(5\).aspx](http://www.acer.europa.eu/Official_documents/Public_consultations/Pages/ACER-Consultation-Template.-Tariff-NC-Article-26(5).aspx)

General information on the consultation on the RPM

* Member state

Greece

Organisation responsible for the consultation on the RPM.

REGULATORY AUTHORITY FOR ENERGY (RAE)

Contact point in the NRA/TSO responsible for the consultation.

[Redacted contact point information]

Timeline for the final consultation: launch and closing dates.

Launch: 10.10.2018 - Closing date: 11.12.2018

Will there be any intermediate consultations prior to the final consultation? If so, what topics will they cover?
The last section of the survey allows the NRA/TSO providing information on this part of the process.

No.

Are any intermediate consultations planned/expected prior to the final consultation on the RPM?

- Yes
- To be decided
- No

A. Proposed reference price methodology [Article 26 (1)(a)]

A.1. Information on the parameters used in the proposed RPM related to technical characteristics of the transmission system [Articles 26(1)(a)(i), 30.(1)(a)].

Provide the information on the parameters listed in Article 30(1)(a)(i-v) when they are an input to the proposed RPM . For parameters that are not an input to the RPM, mark as 'Not applicable'.

The description of the RPM and the justification of the parameters may refer to information requested in other points of Article 26 and in other articles, such as Article 7.

A.1.A. Description of the proposed reference price methodology [Article 26(1)(a)].

The following description is intended to provide an overview of the RPM. Include a reference to, at least, the following elements. Only refer to these items if they are applicable to the RPM:

- Choice of RPM
- Cost drivers of the RPM
- Locational signals in E/E points resulting of the RPM (e.g.: capacity, distance). Locational signals are price levels that send incentives to network users in order for the network operators to achieve an efficient operation and/or expansion of the gas system.
- Entry/exit split. Cost reflectivity and application to the RPM.
- Capacity/commodity split. Cost reflectivity and application to the RPM.
- Intra-system/cross-system split. Cost reflectivity and application to the RPM.

- Adjustments (benchmarking, equalisation and rescaling).
- Use of inter-TSO compensation mechanism. Brief note on the application of the RPM in multi-TSO E/E system and reference to the inter-TSO compensation mechanism consultation.

Indicate the choice of RPM (e.g.: postage stamp, capacity weighted distance, virtual point, matrix, or other)

The proposed RPM is postage stamp. Further details on the RPM choice and its implementation are provided below.

The National Natural Gas Transmission System (NNGTS) is fairly simple comprising two interconnection points at the Greek-Bulgarian and Greek-Turkish borders in the North and North-East respectively (Sidirokastro and Kipi Entry Points), the LNG Entry Point from the Revythoussa LNG terminal at the South (Agia Triada Entry Point). A main transmission pipeline of 512km runs from North to South with a limited number of branches off the main pipeline of 952km total length. Currently the NNGTS has 44 Exit Points, including 24 points to distribution networks, 8 Exit Points to industrial consumers and CNG, connected to HP Network and 12 Exit Points to power plants .

The simple topology of the NNGTS and the fact that the 3 entry points to the NNGTS are located both to the north/north east and to the south justify the use of postage stamp over other approaches.

Provide description.

The Reference Price (RP) for the first year of the regulatory period (Year n) is calculated in Year (n-1). During the Regulatory Period, the RP is recalculated only if the Recoverable Difference exceeds a certain limit as described below (Articles 18 and 18A of the proposed DESFA Tariff Regulation).

The transmission services Required Revenue (herein after TSR) is equally split (50/50) between entries and exits (Article 3A par. 1 and 2 of the proposed DESFA Tariff Regulation). The 50/50 split is chosen so that the burden of the TSR is shared equally between entries/exits. A uniform reference price applies to all Entry Points calculated according to the procedure and the provisions of Articles 8A paragraph 1 and Article 11, except for the Entry Point from the Revythoussa LNG terminal (Agia Triada Entry Point). At Agia Triada a discount is applied according to Article 9 (2) of EU NC TAR (Article 11 paragraph 3 of the proposed DESFA Tariff Regulation). A uniform reference price applies to all Exit Points of the NNGTS calculated according to the procedure and the provisions of Articles 8A paragraph 2A and Article 11,. Exit Points in the proposed DESFA Tariff Regulation are considered as a cluster as per Article 2(19) of EU NC TAR. Herein after, the cluster of Exit Points is referred as NNGTS Exit."

Please refer to the Detailed Consultation Document page 5 for a more extensive description.

Reference to consultation document(s). Provide document ID and relevant page(s).

- Articles 3, 3A, 8, 8A, 9, 10, 11, 18, 18A and 19 of the Proposed DESFA Tariff Regulation.
- Detailed Consultation Document: page 5.

A.1.B. Justification of the parameters and how they are used in the RPM [Articles 26(1)(a)(i), 30(1)(a)(i-v)].

Justify the selection and use of the parameters listed in Article 30(1)(a)(i-v) that are and input to the RPM, in view of the level of complexity of the transmission network related to the technical characteristics of the transmission system.

Reference to consultation document(s). Provide document ID and relevant page(s).

- Articles 9, 10 and 11 of the Proposed DESFA Tariff Regulation.
- Detailed Consultation Document: page 8.

A.1.C. Technical capacity at entry and exit points: values and associated assumptions [Articles 26(1)(a)(i), 30(1)(a)(i)].

Is the parameter an input to the RPM?

- Yes
- No

A.1.D. Forecasted contracted capacity at entry and exit points: values and associated assumptions [Articles 26(1)(a)(i), 30(1)(a)(ii)].

Is the parameter an input to the RPM?

- Yes
- No

Values of the forecasted contracted capacity at entry and exit points. Reference to consultation document(s). Provide document ID and relevant page(s).

The forecasted contracted capacities per entry (kWh/day/year) are shown below:

2018

Sidirokastro: 110.853.538
Kipi: 30.420.517
Agia Triada: 97.934.952

The forecasted contracted capacity at NNGTS Exit (kWh/day/year) are shown below:

2018

NNGTS Exit 292.064.473

(values are reported in RAE's decision 997/2017)

Associated assumptions for the values of the forecasted contracted capacity at entry and exit points. Reference to consultation document(s). Provide document ID and relevant page(s).

Natural gas demand is estimated by DESFA on a rolling yearly basis for the next decade (namely 2018–2027, 2019–2028 etc.) according to the procedure defined in Articles 90 and 91 of the NNGS Network Code. Due to the dominant share of electricity in natural gas consumption, DESFA has been obtained separate forecasts for natural gas demand due to electricity production through a number of detailed studies. The next paragraphs provide more details.

A. Natural gas demand forecast for power production

Projections of natural gas consumption of gas-fired power plants on an annual and daily basis are obtained from a detailed simulation of the Greek wholesale electricity market. The modelling approach takes into account the specificities of each market design mechanism.

Currently, according to the provisions of the Power Exchange Code for Electricity (PECE) and the Market Operation Manual, the Greek wholesale electricity market is organized as a centralized mandatory pool. The market operator solves on a daily basis a short-term unit commitment problem for the following day (also known as “Day-Ahead Scheduling” or DAS), performing a co-optimization of energy and reserves (primary, secondary). These models take into account several unit technical constraints and hence the problem is formulated and solved as a Mixed-Integer Linear Program (MILP).

Consequently, the production units, provided that they will be committed in the DAS schedule, are dispatched from their technical minimum to their available capacity (or within the corresponding limits when they operate under Automatic Generation Regulation, according to the provisions of Article 44 of PECE).

From 2020 onwards, the Greek wholesale electricity market is expected to transform into a decentralized market, based on the operation of a simple

voluntary day-ahead Power Exchange (PX), so as to comply with the European Target Model. Bilateral contracts between producers and suppliers, for the sale of electricity, is expected to constitute a basic feature of the new target model, in parallel with the operation of the PX.

The gas consumption forecasts for the electricity sector were obtained from simulations taking into account all of the above i.e. the evolution of the Greek market from simple mandatory Day Ahead to the Target Model .

Forecasts of the prices of the European Union Allowance (EUA), natural gas and competitive fuels (coal), the development of new plants including the new lignite fired Ptolemaida V, the evolution of RES penetration and evolution of interconnectors are all taken into account.

B. Natural gas forecasts of remaining sectors (other than power)

Natural gas consumption projections for the remaining sectors (domestic, services, industrial) are obtained by Exit Point. The demand of potential small Scale LNG infrastructure consumers, the reverse flow in Sidirokastro to Bulgaria if realised and the future exit point to FYROM are not taken into account. Estimates include the maximum daily peak of each year in the projection period and are based on the following:

- (i) The historical daily consumption data at each NNGTS metering station.
- (ii) Forecasts of the annual gas demand, as provided by NNGTS Users in accordance with Article 90 of the Network Code including Gas Distribution Companies (EDAs).
- (iii) Forecasts of demand due to new connections to distribution networks as provided by EDAs.
- (iv) The draft Development Plans of the EDA's, as published for public consultation by RAE.
- (v) The population of cities with urban gas consumption, where required.
- (vi) Historical temperature data from previous years from the Athens Observatory.
- (vii) Data regarding the Gross Domestic Product, as per the IMF forecast for period 2019-2023 and the Aristotle University of Thessaloniki forecast for period 2024-2028.

Please refer to:

<http://www.desfa.gr/en/national-natural-gas-system/development-of-the-nngs/development-study>

A.1.E. The quantity and the direction of the gas flow for entry and exit points: values and associated assumptions [Articles 26(1)(a)(i), 30(1)(a)(iii)].

Is the parameter an input to the RPM?

- Yes
 No

A.1.F. Structural representation of the transmission network with an appropriate level of detail and associated assumptions [Articles 26(1)(a)(i), 30(1)(a)(iv)].

The representation should include an image of a simplified network depicting the transmission network and distinguishing the elements defined in Article 2(1)(1) of the Regulation (EC) No. 715 /2009:

- High-pressure pipelines (other than the upstream pipeline network and other than high-pressure pipelines primarily used in the context of local distribution of natural gas, with a view to its delivery).
- Transmission networks which are dedicated to supplyin domestic customers.
- TSO-DSO interface (transmission exit points to DSO).

The representation should include the transmission network elements included in the regulatory asset base.

Reference to consultation document(s). Provide document ID and relevant page(s).

The structural representation of the transmission network is available via the following link: http://www.desfa.gr/?page_id=3278&lang=en

More detailed maps in English and also of higher resolution are available as part of this Consultation Document Pack.

Please note that only elements of the transmission network whose construction has been completed or construction is in progress are included in the transmission network regulatory asset base. Non-FID projects or projects not approved in the 10YDP are not included in the RAB.

Associated assumptions and criteria used for the structural representations (e.g.: clustering, average distances, etc).

Provide reference to consultation document(s):

As above, please see <http://www.desfa.gr/en/national-natural-gas-system/transmission> for a more detailed description on the NNGTS (including branches with information available at

http://desfa.gr/userfiles/5fd9503d-e7c5-4ed8-9993-a84700d05071/NNGTS_branches.xls.

Additional maps are included in the Consultation Document Pack.

A.1.G. Additional technical information and associated assumptions about the transmission network such as the length of pipelines, the diameter of pipelines and the power of compressor stations [Articles 26(1)(a)(i), 30(1)(a)(v)].

Are there other parameter used as input to the RPM related to technical characteristics of the transmission system? Provide pipeline pressure levels if available.

- Yes
 No

A.2. The value of the proposed adjustments for capacity-based transmission tariffs pursuant to Article 9 [Article 26(1)(a)(ii)]

A.2.A. Proposed discount(s) at entry points from and exit points to storage facilities [Articles 26(1)(a)(ii), 9(1)].

Do you apply the discount(s) at entry points from and/or exit points to storage facilities?

- Yes
 No

Are there storage facilities connected to more than one transmission or distribution network system.

- Yes
 No

A.2.B. Proposed discount(s) at entry points from LNG facilities [Articles 26(1)(a)(ii), 9(2)].

Do you apply the discount(s) at entry points from LNG facilities?

- Yes
 No

Indicate discount (%) at entry points from LNG facilities.

33.6

Reference to consultation document(s). Provide document ID and relevant page(s).

The above discount rate (for entry point Agia Triada) is for 2018 and is calculated on the initial charge coefficient for reserved transmission capacity.

-Article 11, par. 3 of the proposed DESFA Tariff Regulation.
-Detailed Consultation Document: page 13.

A.2.C. Proposed discount(s) at entry points from and exit points to infrastructure developed with the purpose of ending the isolation of Member States [Articles 26(1)(a)(ii), 9(2)].

Do you apply discount(s) at entry points from and exit points to infrastructure developed with the purpose of ending the isolation of Member States?

- Yes
 No

A.3. Indicative reference prices subject to consultation [Article 26(1)(a)(iii)]

A.3.A. Indicative reference prices at each entry and at each exit point [Article 26(1)(a)(iii)].

Reference to consultation document(s). Provide document ID and relevant page(s).

-Simplified Model DESFA.xls: "Tariff Calcs" worksheet (G47,G55,G63,G100) .
-Detailed Consultation Document: page 13.

A.4. Cost allocation assessment [Articles 26(1)(a)(iv), 5]

According to Article 27(2)(b) the Agency shall assess the compliance of Article 7. Given that Article 7 (c) refers to the cost allocation assessment, the Agency's analysis of compliance applies to the cost allocation assessment. For this purpose, the Agency request the NRA/TSO responsible for the consultation to submit a justification of the cost allocation assessment together with the rest of the consultation documentation once the consultation is launched. This only applies for the case when the cost allocation ratio exceeds 10%. This justification is requested by the Agency independently of its inclusion in the NRA motivated decision described in Article 27(4). For the submission of documents relevant to this section, see the upload section at the end of this template.

A.4.A. Results of the capacity cost allocation assessment [Articles 26(1)(a)(iv), 5].

Capacity cost allocation comparison index (%)

A.4.B. Components of the capacity cost allocation assessment [Articles 26(1)(a)(iv), 5].

Reference to consultation document(s). Provide document ID and relevant page(s).

NAP. The cost allocation assessment, as described in article 5 of NC-TAR, analyses the degree of cross-subsidisation between intra-system network use and cross-system network use. There is no cross-system use in the NNGTS system, so this index is not relevant.

Detailed Consultation Document: page 14-15

A.4.C. Details of components of the capacity cost allocation assessment [Articles 26(1)(a)(iv), 5].

Description of the calculation, including:

- Details of the cost drivers following Article 5(1)(a).
- Rationale for the combination of capacity cost drivers.
- Where the result of the capacity cost comparison index exceeds 10%, provide the justification for such results.

Reference to consultation document(s). Provide document ID and relevant page(s).

NAP, see above.

A.4.A. Results of the commodity cost allocation assessment [Articles 26(1)(a)(iv), 5].

Commodity cost allocation comparison index (%).

A.4.B. Components of the commodity cost allocation assessment [Articles 26(1)(a)(iv), 5].

Reference to consultation document(s). Provide document ID and relevant page(s).

NAP, see above.

A.4.C. Details of components of the commodity cost allocation assessment [Articles 26(1)(a)(iv), 5].

Description of the calculation, including:

- Details of the cost drivers following Article 5(1)(a).

- Rationale for the combination of commodity cost drivers.
- Where the result of the commodity cost comparison index exceeds 10%, provide the justification for such results.

Reference to consultation document(s). Provide document ID and relevant page(s).

NAP, see above.

A.5. Assessment of the proposed reference price methodology in accordance to Article 7 and Article 13 of the Regulation (EC) No. 715/2009 [Article 26(1)(a)(v)]

The Agency will evaluate the compliance of the RPM against the set of principles laid out in Article 7 [Article 27(2)(b)(1)]. For the purpose of making explicit the criteria that will be used for this analysis, the template provides the following non-exhaustive list of suggestions to follow in the assessment. Quantitative analysis and stakeholder support will be taken by the Agency as evidence. When such proofs are not available, compliance will be reviewed based on the explanations provided.

A.5.A. The RPM should: enable network users to reproduce the calculation of reference prices and their accurate forecast.

The description of the RPM, together with the rest of elements listed in this template should be instrumental to allow replicating the calculation of reference prices. Provide the manner and the order in which these elements are used for the calculation of the RPM.

Reference to consultation document(s). Provide document ID and relevant page(s).

-Proposed Tariff Regulation, articles 3, 3A, 8, 8A, 9, 10, 11, 18, 18A and 19.
 -Consultation Document Detailed: page 15 (A.5.A)
 -Simplified Model DESFA.xls : Tariff Calcs

A.5.B. The RPM shall into account the actual costs incurred for the provision of transmission services considering the level of complexity of the transmission network.

Evaluate the cost reflectivity of the RPM related to the level of complexity and the technical characteristics of the transmission network. The assessment can be based on elements such as:

- How do the level of complexity and the technical characteristics of the transmission network influence the choice of RPM?

- Is the use or non-use of locational signals related to the level of complexity and the technical characteristics of the transmission network?
- How does the choice of E/E split affect the cost reflectivity of reference prices?
- How do reference prices at E/E points relate to the underlying costs of the network?
- Indicate any other elements of the RPM relevant to assess the cost reflectivity of the RPM

Reference to consultation document(s). Provide document ID and relevant page(s).

According to the Proposed Tariff Regulation, please see our response per item below:

1) How do the level of complexity and the technical characteristics of the transmission network influence the choice of RPM?

As already stated in our responses to other questions above, the NNGTS system of DESFA is fairly simple comprising of a single main transmission pipeline and a number of branches. Entry points are located both to the north (and north-east) and in the south. A postage stamp method such as the one selected herein can ensure non-discrimination amongst network users with utmost transparency and minor complexity in the calculations.

2) Is the use or non-use of locational signals related to the level of complexity and the technical characteristics of the transmission network?

No locational signals are used in the RP. The choice was made to avoid discrimination amongst users.

3) How does the choice of E/E split affect the cost reflectivity of reference prices?

According to the NC TAR, the purpose of the entry-exit split, is to avoid barriers to cross-border trade and cross-subsidies between types of network users. As there are no cross-border flows currently in Greece, the 50-50 split of the Transmission Required Revenue (TRR) proposed ensures an at least equal sharing of the overall transmission services cost between entries and exits. (see Article 3A of the proposed DESFA Tariff Regulation for a definition of the Transmission Required Revenue).

We note that Exit Points to final consumers in Greece bear additional costs namely the socialisation of the Revythoussa Allowed Revenue, for reasons related to security of supply and the Old Recoverable Difference of the years 2006-2016 due to the reduced demand in natural gas consumption in comparison to the forecasted values. An uneven exit-weighted split of the TRR (entry % < exit %) would result in a further burdening of the final consumers in favour of cross-border flows when these will materialise. On

the other hand, further burdening of entry flows (entry % > exit %) would increase the cost of importing gas, ultimately to the detriment of Greek consumers. Such a split would also create barriers to the development of cross-border flows as the reference price at IPs for their use as Exit Points is the same as with Entry Points.

4) How do reference prices at E/E points relate to the underlying costs of the network?

See our response above and also the results from the implementation of the CWD approach discussed below.

5) Indicate any other elements of the RPM relevant to assess the cost reflectivity of the RPM.

NAP

A.5.C. The RPM shall ensure non-discrimination and shall prevent undue cross-subsidisation including by taking into account the cost allocation assessments set out in Article 5.

Evidence for the assessment should take into account the cost allocation assessment, which checks the non-discrimination between two predefined groups of network users. Other means can be used to check non-discrimination between other groups of network users. Provide reference to consultation document(s). Provide document ID and relevant page(s).

Responses are provided separately for each element of the question above: (1) non-discrimination, (2) cost allocation assessments set out in Article 5, (3) undue cross subsidization.

1) Non-discrimination.

The proposed RPM is a cost-plus, postage stamp methodology with a 50/50 split of the transmission services revenue. This approach ensures non-discrimination amongst entry points and exit points as detailed below:

*The reference price for all interconnection points (IP RP) is the same and regardless of their use as Entry or Exit Points.

*The reference price is the same for all non-IP Exit Points.

*The discount applied at the LNG Entry Point (Agia Triada) ensures that the sum of the Agia Triada Entry reference price and the regasification tariff are equal to the reference price at IPs (herein after equalisation principle). Through this approach undue barriers to the use of the LNG terminal are avoided. The equalisation principle was adopted in recognition of Revythoussa's pivotal role towards security of gas supply and also, in relation to the terminal's role towards increasing gas-to-gas competition in the Greek gas market. Note that Revythoussa provides the only source of gas supply diversification for the Greek market.

2) Undue cross-subsidisation including by taking into account the cost allocation assessments set out in Ar.5.

Currently, there is no cross-system network use in the NNGTS system, so that the cost allocation assessments of Article 5 are non-applicable.

3) Undue cross-subsidisation in intra-system flows.

*Entry Points: The reader is referred to our responses to Question A.6 in relation to the implementation of the CWD methodology and its comparison to the proposed RPM.

In reference to the discount applied at the LNG Entry Point and the subsequent adjustment of the Reference Prices at the Entry Points of Sidirokastro and Kipi, the reader is referred to our response above in relation to the role of the LNG terminal of Revithoussa in ensuring not only security of supply but also gas-to-gas competition.

*Exit Points: As reported per our response to Question A.1.A, the NNGTS comprises 44 Exit Points, including 24 points to distribution networks, 8 Exit Points to industrial consumers and CNG and 12 Exit Points to power plants. To ensure that there is no discrimination among end-users (or categories of end-users), exit points were grouped into a single cluster.

A.5.D. The RPM shall ensure that significant volume risk related particularly to transports across an entry-exit system is not assigned to final customers within that entry-exit system.

Explain how the variation in transit flows affects reference prices for final consumers. The assessment can be based on elements such as:

- The contribution of the E/E split to the risk bared by final consumers.
- Are there any ex-ante splits of revenues for the purpose of intra-system and cross-system users?

Reference to consultation document(s). Provide document ID and relevant page(s).

NAP. There is no cross-system network use in the NNGTS system.

A.5.E. The RPM shall ensure that the resulting reference prices do not distort cross-border trade.

Refer at least to the effect of the E/E split on cross-border trade. Provide reference to consultation document (s). Provide document ID and relevant page(s).

See Article 2(1), 8A(2), 19A, 19B of the Proposed DESFA Tariff Regulation and responses to Question A.5.B item 3 and A.5.C above.

The proposed Tariff Regulation provides for the same Reference Price at Interconnection Points regardless if they are used as Entry or Exit Points. Thus the Reference Price for gas entering Greece is the same for gas exiting Greece for when and if such flows occur (Article 9 paragraph 6). Also note that IPs bear neither the extra cost related to the recovery of Old Recoverable Difference nor the LNG socialization cost charged to domestic exit Points.

A.6. Comparison with the CWD methodology [Article 8] accompanied by the indicative reference prices subject to consultation set out in Article 26 (1)(a)(iii)

A.6.A. Where the proposed reference price methodology is other than the capacity weighted distance reference price methodology detailed in Article 8, a comparison between both methodologies should be performed [Articles 26(1)(a)(vi), 8].

The comparison should be performed with an appropriate level of detail and should enable stakeholders to identify the main differences, advantages and disadvantages of the compared methodologies. The following non-exhaustive list provides relevant elements that can guide the comparison:

- Differences, if any, in the input parameters for each of the methodologies such as input parameters (e.g.: technical and forecasted capacity), ratios for the allowed or target revenue listed in Article 30(1)(b)(v) and discounts to storage and LNG.
- Differences in the manner in which each of the methodologies reflect the level of complexity and the technical characteristics of the transmission network.
- Relation of each of the methodologies to the principles laid out in Article 7.
- Cost allocation assessment in Article 5.

Provide the same parameters and assumptions used for the CWD as for the proposed RPM, highlighting the differences, if any. When the parameters used for each of the methodologies are different, indicate and follow through the differences in reference prices.

Reference to consultation document(s). Provide document ID and relevant page(s).

Consultation Document Detailed : pages 19–21 (A.6.A)

Implementation:

The next paragraphs explain the implementation of the CWD methodology

1) The shortest pipeline distances between each one of the Exit Points to each Entry Point are provided by DESFA.

2) As stated in our responses to other questions above, Exit points in the proposed DESFA Tariff Regulation are clustered in a single NNGTS Exit so that a distance $D_{(En(i),Ex)}$ of each Entry Point (i) to the NNGTS Exit is evaluated as the technical capacity weighted average of the shortest pipeline distances between each one of the Exit Points Entry Point (i). This approach (which allows the calculation of the distance $D_{(En(i),Ex)}$ of each Entry Point (i) to the NNGTS Exit through a weighting based on the technical capacities) is aligned with the guidance provided by the relevant ENTSOG Implementation Document (see page 62, case 'Distance before cluster'). Three (3) distances are computed, one for each Entry Point.

3) The weighted average distance, $AD_{(En(i))}$, of each Entry Point from the NNGTS Exit is then evaluated in accordance with the formula of Article 8, par 2(a)i of EU NC TAR. Due to the clustering, the formula results to the weighted average distances being equal to the Distances $D_{(En(i),Ex)}$, for Entry Point (i).

4) The weighted average distance of the NNGTS Exit from each Entry Point is calculated in accordance with the formula of Article 8, par 2(a)ii of EU NC TAR.

5) The weights of cost for each Entry Point (i) are calculated in accordance with the respective formulas of Article 8, par 2(b) of EU NC TAR. Naturally, due to the clustering, the weight of the cost of the NNGTS Exit, is unity.

6) The 50/50 Entry/Exit on the transmission required revenue was applied.

7) The part of the transmission services revenue to be recovered from capacity-based transmission tariffs at each entry point and the NNGTS Exit is evaluated in accordance with the respective formulas of Article 8, par 2 (d).

8) The resulting values from the application of paragraph (7) above are divided by the contracted capacity in accordance with the respective formulas of Article 8, par 2(e) to obtain the CWD based Reference price.

Differences in the application of the CWD methodology in comparison to the proposed RPM:

Input data used in the implementation of the CWD are the exactly the same to those applied for the proposed RPM. No discount was applied to the Entry Point of Agia Triada (from the Revythoussa LNG Terminal).

A.6.B. Comparison of indicative reference prices at each entry point and at each exit point of the proposed RPM and the CWD detailed in Article 8.

Reference to consultation document(s). Provide document ID and relevant page(s).

-Consultation Document Detailed : page 22 (A.6.B)
-Simplified Model DESFA.xls: "Tariff Calcs".

B. Allowed or Target Revenue of the TSO [Article 26(1)(b)]

B.7. Indicative information set out in Article 30(1)(b)(i), (iv) and (v)

B.7.A. Allowed or target revenue, or both, of the transmission system operator [Articles 26 (1)(b), 30(1)(b)(i)].

- If allowed and target revenue are both used, provide detail for each case.
- In the case of multiple TSOs, indicate the approach adopted. In the case where the NRA is carrying out the consultation, provide the reference where the information on allowed or target revenue for each TSO can be found.
- Units: currency/year

Description.

The concept of Allowed Revenue (AR) is used.

AR comprises of the following:

- Allowed Revenue Transmission, defined as the sum of transmission services revenue and non-transmission services revenue.

-Allowed Revenue LNG. The latter refers to the provision of services by the Revythoussa LNG terminal.

The Allowed Revenue at all entry points (Article 8A, part 1 of the proposed DESFA Tariff Regulation), to be recovered from capacity-based transmission tariffs, is the sum of:

i) 50% of the TSR for year n of the Regulatory Period.

ii) The Transmission Services Recoverable Difference at entry points at Year (n-2) (Article 18 and 19A).

iii) The forecasted Transmission Services Recoverable Difference at entry points at the end of Year (n-1), as per Articles 18, 18A and 19A of the proposed DESFA Tariff Regulation.

The Allowed Revenue at the NNGTS Exit (Article 8A, part 2 of the proposed DESFA Tariff Regulation), to be recovered from capacity-based transmission tariffs, is the sum of:

i) 50% of the TSR for year n of the Regulatory Period.

ii) The Transmission Services Recoverable Difference at exit points at the end of Year (n-2) (Articles 18 and 19A of the proposed DESFA Tariff Regulation).

iii) The forecasted Transmission Services Recoverable Difference at exit points at the end of Year (n-1) (Articles 18, 18A and 19A of the proposed DESFA Tariff Regulation.).

iv) The product of the LNG Facility Dispersion Percentage (SocLNG) by the following sum (Article 8A par 4 of the proposed DESFA Tariff Regulation):

a) The Required Revenue for the Revythoussa LNG terminal for year (n) of the Regulatory Period.

b) The Recoverable Difference corresponding for the Revythoussa LNG terminal at the end of Year (n-2), multiplied by the factor $(1 + inf)$.

c) The forecasted Recoverable Difference for the Revythoussa LNG terminal at the end of Year (n-1).

Reference to consultation document(s). Provide document ID and relevant page(s).

-Consultation Document Detailed : page 4-5 (A.1.A, par. 3 & 4), page 15 (A.5.A), page 23 (B.7.A).

-Articles 3A, 8, 8A, 9, 10, 11, 18, 18A, 19 and 19A of the proposed DESFA Tariff Regulation.

-Simplified Model DESFA: "Tariff Calcs" worksheet.

B.7.B. Transmission services revenue [Articles 26(1)(b), 30(1)(b)(iv)].

Description (Units: currency/year)

2018 (values according to RAE's decisions 352/2016 and 997/2017)

Allowed Revenue from Transmission Entries: 51,611,660€

Allowed Revenue from Transmission Exits: 87,684,487€

Old Recoverable Difference: 23,600,00€

Total Allowed Revenue recovered from Transmission Tariffs for 2018:
162,896,147€

Reference to consultation document(s). Provide document ID and relevant page(s).

-Consultation Document Detailed : page 23 (B.7.A)
-Article 3A of the DESFA proposed Tariff Regulation.
-Simplified Model DESFA: "Tariff Calcs" worksheet

B.7.C. Capacity-commodity split of the transmission services revenue.

Breakdown between the revenue from capacity-based transmission tariffs and the revenue from commodity-based transmission tariff [Articles 26(1)(b), 30(1)(b)(v)(1)].

Revenue from recovered from capacity-based transmission tariffs, %:

100

Revenue from recovered from commodity-based transmission tariffs, %:

0

Reference to consultation document(s). Provide document ID and relevant page(s).

-Article 3A of the DESFA proposed Tariff Regulation.

Transmission services required revenue acquired from capacity based tariffs
: 100%

B.7.D. Entry-exit split of the transmission services revenue.

Breakdown between the revenue from capacity-based transmission tariffs at all entry points and the revenue from capacity-based transmission tariffs at all exit points [Articles 26(1)(b), 30(1)(b)(v)(2)].

Revenue from capacity-based transmission tariffs at all entry points, %:

50

Revenue from capacity-based transmission tariffs at all exit points, %:

50

Reference to consultation document(s). Provide document ID and relevant page(s).

The above % refer to Transmission services required revenue, as described in article 3A, par 2 of the Proposed Tariff Regulation.

B.7.E. Intra-system/cross-border split of the transmission services revenue.

Breakdown between the revenue from domestic network users at both entry points and exit points and the revenue from cross-border network users at both entry points and exit points calculated as set out in Article 5, [Articles 26(1)(b), 30(1)(b)(v)(3)]

Revenue from domestic network users at entry points and exit points, %:

Revenue from cross-border network users at entry points and exit points, %:

Reference to consultation document(s). Provide document ID and relevant page(s).

Article 3A, par 2 of the Proposed Tariff Regulation. There is no cross-border use.

C. Information on commodity based and non-transmission tariffs [Article 26(1)(c)]

Following Article 27(2), the Agency shall analyse the compliance of the criteria used for setting commodity-based tariffs as set out in Article 4(3), and of the criteria used for setting non-transmission tariffs as set out in Article 4(4). The analysis of compliance will be based on the terms listed in this section.

C.8. Flow based charge. Information on commodity-based transmission tariffs referred to in Article 4(3) [Article 26(1)(c)(i)]

Do you apply a flow based charge?

- Yes
 No

Comments, if relevant.

C.9. Complementary revenue recovery charge: Information on commodity-based transmission tariffs referred to in Article 4(3) [Article 26(1)(c)(i)]

Do you use a complementary revenue recovery charge?

- Yes
 No

C.9.A. The manner in which they are set [Articles 26(1)(c)(i)(1), 4(3)(b)].

Provide description, rationale and the extent to which the complementary revenue recovery charge is used.

The complementary revenue recovery charge is levied for the purpose of managing revenue under-recovery for the period 2006–2016 due to the reduced demand in natural gas consumption in comparison to forecasted values. This is the so-called Old Recoverable Difference, see Article 2 par 2(j) and Article 19B of the proposed DESFA Tariff Regulation. As it is related to final demand, the Old Recoverable Difference is solely recovered from commodity charges upon the NNGTS Exit, see also our response in Question A.5. B.

The 2006–2016 Old Recoverable Difference was set to 308.753.733,91 € for the Transmission System and 17.087.059,79 € for the LNG Facility, according to article 61 of the Law 4409/2016 (O.G A 136/28.07.2016) and the Decisions of RAE nr. 344/2016 (O.G. B 3235/7.10.2016) and 352/2016 (O.G. B 3513/1.11.2016) – see also Article 19B of the proposed DESFA Tariff Regulation.

Reference to consultation document(s). Provide document ID and relevant page(s).

Articles 2 par (j) and 19B of the proposed DESFA Tariff Regulation.

C.9.B. The share of the allowed forecasted to be recovered from such tariffs or target revenue [Articles 26(1)(c)(i)(2), 4(3)(b)].

Share of transmission service revenue (allowed or target revenue) to be recovered by complementary revenue recovery charges.

The 2006–2016 Old Recoverable Difference was set to 308.753.733,91 € for the Transmission System and 17.087.059,79 € for the LNG Facility, according to article 61 of the Law 4409/2016 (O.G A 136/28.07.2016) and the Decisions of RAE nr. 344/2016 (O.G. B 3235/7.10.2016) and 352/2016 (O.G. B 3513/1.11.2016).

For 2018, the part of the Old Recoverable Difference to be recovered from 2018 tariffs was set at 23.600.000€ (RAE decision 997/2017).

Reference to consultation document(s). Provide document ID and relevant page(s).

Article 19B of the proposed DESFA Tariff Regulation.

C.9.C. The indicative complementary revenue recovery charge [Articles 26(1)(c)(i)(3), 4(3)(b)].

Description:

The complementary revenue recovery charge (commodity tariff) is calculated at 0,000479 (€/kWh) for 2018.

Reference to consultation document(s). Provide document ID and relevant page(s).

Simplified Model DESFA: "Tariff Calcs" worksheet.

C.10. Information on non-transmission services provided to network users [Article 26(1)(c)(ii)]

Are there non-transmission services provided to network users on the bases of a non-transmission service tariff methodology?

- Yes
 No

C.10.A. Non-transmission service tariff methodologies [Articles 26(1)(c)(ii)(1), 4(1)].

Provide:

- List of services considered as non-transmission service on the basis of the criteria laid out in Article 4(1).
- Users to which each of the non-transmission services applies. Indicate if it is not possible to identify the beneficiary of the non-transmission service.
- Explanation of the non-transmission tariff methodology provided per service.

Description:

DESFA foresees three types of non-transmission services : odorisation, metrology and certification of welding operators.

Reference to consultation document(s). Provide document ID and relevant page(s).

Pricing Methodology_non-transmission services.doc

C.10.B. Share of the allowed or target revenue forecasted to be recovered from such tariffs, [Articles 26(1)(c)(ii)(2)]

Share of the allowed or target revenue forecasted to be recovered from non-transmission service tariffs. Provide, if possible, details per type of non-transmission service.

The accounting unbundling for these three specific non-transmission services is not finalised so that shares of previous years cannot be reported (as they were not foreseen as a separate item in the Tariff Regulation). A specific share will be estimated for the application of the proposed methodology.

Reference to consultation document(s). Provide document ID and relevant page(s).

Not applicable.

C.10.C. The manner in which the associated non-transmission services revenue is reconciled as referred to in Article 17(3) [Articles 26(1)(c)(ii)(3), 17(3)].

Provide details about how is the reconciliation done including the use of a regulatory account, the split of regulatory accounts into sub-accounts, and the use of separate accounts.

The revenue of non-transmission services is included in the Allowed Revenue of exit points.

According to Article 19A, within (5) months from the beginning of each Year (n) of the Regulatory Period, the System Operator calculates and submits to RAE the Actually Obtained Revenue (regulated and invoiced) of the Operator for Year (n-1), including revenues from Non-Transmission services. Part of the non-transmission services revenue is used to reduce the recoverable difference.

Reference to consultation document(s). Provide document ID and relevant page(s).

-Articles 8A, par. 2.(C) and 19A, par 2 of the Proposed DESFA Tariff Regulation.

-Consultation Document Detailed: page 27 (C.10.C)

C.10.D. Indicative non-transmission tariffs for non-transmission services to network users [Articles 26(1)(c)(ii)(4)].

Formula and description:

Please refer to the document "Pricing Methodology_non-transmission services.doc".

Reference to consultation document(s). Provide document ID and relevant page(s).

Pricing Methodology_non-transmission services.doc

D. Compared tariffs and tariff model [Article 26(1)(d)]

D.11. The indicative information set out in Article 30(2)

The comparison should be based on indicative reference prices. Whenever the data necessary for this comparison is not available at the time of the consultation on the RPM (e.g.: multipliers and seasonality), provide the date and the source where the information will be available.

D.11.A. Comparison between transmission tariffs applicable for:

- the prevailing tariff period, and for
- the tariff period for which the information is published.

Explain the difference between the level of transmission tariffs [Articles 26(1)(d), 30(2)(a) (i)].

Comparison with the past tariff period. The comparison should be based on transmission tariffs.

Reference to consultation document(s). Provide document ID and relevant page(s).

```
-Consultation Document Detailed: page 28-29 (D.11.A). Data for 2018.  
  
RAE will provide information for the next Regulatory Period once the  
Transmission Revenue and the Allowed Revenue for the Regulatory Period 2019-  
2022 have been approved.
```

Link to information on TSO/NRA website.

```
-http://www.rae.gr/categories_new/about_rae/activity/global_consultation  
/current/1018.csp (EL)  
  
-http://www.rae.gr/site/en_US/categories_new/about_rae/factsheets/2018/maj  
/1010.csp (EN)  
  
-http://www.desfa.gr/en/regulatory-services/transmission/tariffs.
```

D.11.B. Comparison between transmission tariffs applicable for:

- the tariff period for which the information is published, and for
- each tariff period within the remainder of the regulatory period.

Provide estimated difference in the level of transmission tariffs [Articles 26(1)(d), 30(2)(a) (ii)].

Comparison with upcoming tariff periods. The comparison should be based on transmission tariffs.

Reference to consultation document(s). Provide document ID and relevant page(s).

```
Simplified Model DESFA: "Tariff Calcs" and "Comparisons"worksheets  
  
(Data only for 2018 / RAE will provide this information once the
```

Transmission Revenue and the Allowed Revenue for the Regulatory Period 2019-2022 have been approved)

Link to information on TSO/NRA website.

-http://www.rae.gr/categories_new/about_rae/activity/global_consultation/current/1018.csp (EL)

-http://www.rae.gr/site/en_US/categories_new/about_rae/factsheets/2018/maj/1010.csp (EN)

-<http://www.desfa.gr/en/regulatory-services/transmission/tariffs>.

D.11.C. At least a simplified tariff model, updated regularly, enabling network users to calculate the transmission tariffs applicable for the prevailing tariff period and to estimate their possible evolution beyond such tariff period [Articles 26(1)(d), 30(2)(b)].

Tariff model for prevailing tariffs and future tariff periods. The simplified tariff model should serve for the calculation of tariffs. If the information on multipliers and seasonality is not available at the time of the publication of the consultation on the RPM, it should be indicated. By the time this information is published, the simplified tariff model should be updated to include information on tariffs.

Reference to consultation document(s). Provide document ID and relevant page(s).

-Simplified Model DESFA: "Tariff Calcs" and "Comparisons"worksheets
-Consultation Document Detailed: page 30.

Link to information on TSO/NRA website.

--http://www.rae.gr/categories_new/about_rae/activity/global_consultation/current/1018.csp (EL)

-http://www.rae.gr/site/en_US/categories_new/about_rae/factsheets/2018/maj/1010.csp (EN)

-<http://desfa.gr/regulatory-services/transmission/tariffs/tariffs-coefficients> (for the model based on the current Tariff Regulation)

D.11.D. Explanation of how to use the simplified tariff model [Articles 26(1)(d) and 30(2)(b)].

Reference to consultation document(s). Provide document ID and relevant page(s).

The Simplified Tariff Model included in the Consultation Document Pack (see file Simplified Model_DESFA.xls) allows interested parties to better understand the reference price methodology as outlined in Articles 3A, 9, 10, 11, 18, 18A, 19A and 19B of the proposed DESFA Tariff Methodology and estimate final tariffs according to their assumptions.

Users increase/decrease forecasted contracted capacity, modify the allowed and automatically calculate the new reference prices (i.e. the capacity charges) and also the commodity charges. The first S/S of the Simplified Tariff Model gives some basic instructions on how to use the model. A comparison with the existing tariffs is also included.

E. Fixed payable price under price cap regime [Article 26(1)(e)]

E.12. Where the fixed payable price referred to in Article 24(b) is offered under a price cap regime for existing capacity

Is the fixed payable price referred to in Article 24(b) offered under a price cap regime for existing capacity.

- Yes
 No

Documentation submission to the Agency

The online template and the tool for the submission of files to the Agency is implemented over a secure IT connection based on https.

Final consultation on th RPM

The Agency requests the NRA/TSO responsible for launching the final consultation on the RPM to follow the below requirements when submitting the consultation documentation to the Agency:

- **All files containing numerical data** must be provided to the Agency in non-protected Excel or Excel compatible files independently of how they are published in the consultation.
- **Files containing text** must be provided to the Agency in Word, Word compatible files, or PDF.
- **Files containing images** must be provided to the Agency in a commonly used image formats or PDF.
- **All data must be provided in non-protected files** that allow editing. If PDFs are used, they must not be protected against editing (e.g.: they must allow copying the text of the PDF)
- **Confidential information must be clearly marked as confidential. In the cases where the consultation includes confidential information, a non-confidential version of the consultation must also be provided as part of the documentation.** Such version can be prepared erasing or aggregating the sensible information to render the data non-confidential.

Upload consultation documentation

f599b7ab-22a8-419d-93c9-095683ffa843/Detailed_Consultation_Document.docx
bbed6c00-6ab3-4a5d-a1a7-553b94cebfcd/Map_1.pdf
c10db073-b8f0-48c6-9b8f-58b399781c7e/Map_2.pdf
6a6fb4cc-0cef-461d-964c-1c3d7d3c7ceb/Pricing_Methodology_for_non-transmission_services.docx
ddf05600-4d3c-4353-be0f-a1b8546418a8/Proposed_DESFA_Tariff_Regulation_clean_EL_.docx
135a0bbb-f4e0-41a2-a98e-92d0440da629/Proposed_DESFA_Tariff_Regulation_tc_EL_.docx
cfdf1c67-52dd-4316-a6bb-d04d75de70a6/Simplified_Model_DESFA.xlsx
5bf1574-705e-4987-9d6b-6b1b72384e08/Tariff_Regulation_EN.rar

Provide a description of the uploaded documents and how they relate to the consultation (e.g.: main documents, supporting files, etc)

-Proposed DESFA Tariff Regulation clean (EL).docx: TSO's proposal for the amendment of the existing Tariff Regulation in Greek Language (without track changes)

-Proposed DESFA Tariff Regulation tc (EL).docx: TSO's proposal for the amendment of the existing Tariff Regulation in Greek Language with track changes, in order to make the proposed amendments clear compared to the current Regulation (RAE Decision 644/2018).

-Tariff Regulation EN.rar: TSO's proposal for the amendment of the existing Tariff Regulation in English Language.

-Simplified Model DESFA.xlsx: Model for the reference price which allows the calculation of capacity and commodity-based tariffs.

-Pricing Methodology for non-transmission services.docx: includes additional information and data on non-transmission services offered by the TSO pursuant to Article 26 (1) (c) (ii) of the European Regulation.

-Detailed Consultation Document: is based on the relevant ACER template (in more detail)

- Two maps of the TSO's transmission system in high-resolution and in English Language (Map 1, Map 2).

Information on confidentiality. If any of the submitted files are subject to confidentiality rules, please identify these files and provide additional non confidential versions.

Cost allocation assessment justification

Does the capacity and/or the commodity cost allocation comparison index, as per Articles(3)(c) and Article(4) (c), exceed 10%?

Yes

No

Additional supporting documents

For the purpose of making the implementation of the TAR NC more efficient, the Agency provides below two sections to facilitate information on intermediate consultations and on the publication of stakeholder responses relative to the final consultation on the RPM. The Agency advocates that NRAs /TSOs provide links to this data and/or the documentation itself by the time it is available. The survey can be accessed after the submission of the final consultation for the purpose of providing this data.

Final consultation on th RPM: responses and summary

Upload consultation documentation

Link to the consultation documents.

```
-http://www.rae.gr/categories_new/about_rae/activity/global_consultation  
/current/1018.csp (EL)
```

```
-http://www.rae.gr/site/en_US/categories_new/about_rae/factsheets/2018/maj  
/1010.csp (EN) .
```

Intermediate consultation(s) on th RPM

Upload intermediate consultation documentation.

Link to the consultation documents.

Appendix: Instructions for using the survey

The online template and the tool for the submission of files to the Agency is implemented over a secure IT connection which will be operational as of end of September 2017.

Reading the survey

The online template lists all legal requirements for the consultation on the RPM according to Article 26. In addition, it provides interpretation and guidelines to several requirements of Article 26. These two levels of text can be distinguished based on the colour of the typography used:

- **Blue typography** replicates the text of the Tariff NC and provides references to articles of the Tariff NC.
- **Black typography** provides descriptions and clarifications to the text of the TAR NC.

The additional clarifications and guidelines provide the reasoning and arguments that ACER will employ when reviewing the consultations, following the requirement set in Article 27(2).

The online template is structured into five different sections following the structure of Article 26. At the end of the survey, a section for uploading the consultation document(s) is provided.

The online template mirrors all requirements laid out in the template checklist which is available at:

Timeline for completing the survey

The online template can be filled as of its date of publication (5 July 2017). It can be saved as a draft and can be subsequently updated following the steps of the national process until the final submission. The Agency advocates that the NRA/TSO responsible for the consultation provides the requested information relative to the consultation on the RPM using the online template. This includes:

- **Prior to the consultation**, the NRA/TSO should provide details relative to the contact point, the estimated timeline for the consultation, and the planning of intermediate consultations, if any.
- **After the publication of the final consultation**, the NRA/TSO should submit details relative to the publication of the stakeholder responses [Article 26(3)] and the NRA motivated decision [Article 27(4)].

NRA/TSO input on the survey

When filling out the survey, the NRA/TSO responsible for the consultation on the RPM, should provide the following information:

- **Descriptions and justifications** based the requirements listed on Article 26.

- **References to the consultation document(s)** where the requested information can be found. References should include the name of the document and the page(s) being referred.
- **Relevant information on the consultation process.**

Whenever the format of the survey incurs in any incompatibility with the structure of the consultation, the NRS/TSO should contact ACER.

Submission of the consultation document(s) to the Agency

This platform allows NRAs/TSOs submitting the consultation document(s) to the Agency. The submission of these documents is an obligation laid out under Article 27(1) and it is independent of the use that NRAs/TSOs make of the template. For this purpose, the NRA/TSO carrying out the consultation can use this file submission tool above.

Publication of the survey summary

Upon filling in the requested information laid out in the online template tool, the NRA/TSO can access a summary of the consultation on PDF format. The PDF document can be included as an annex to the national consultation.

Regardless of the NRA/TSO decision to publish this document, the Agency will release on its website the completed templates as part of its analyses on the RPM consultations [Article 27(2)].

Useful links

[COMMISSION REGULATION \(EU\) 2017/460 of 16 March 2017 establishing a network code on harmonised transmission tariff structures for gas \(NC TAR\) \(http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32017R0460&from=EN\)](http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32017R0460&from=EN)

[ACER Tariff Template website \(http://www.acer.europa.eu/en/Gas/Framework%20guidelines_and_network%20codes/TAR_IMP/Pages/default.aspx\)](http://www.acer.europa.eu/en/Gas/Framework%20guidelines_and_network%20codes/TAR_IMP/Pages/default.aspx)

Contact

tariff@acer.europa.eu
