Austrian Power Grid – Comments to ACER consultation

Austrian Power Grid (APG) welcomes the invitation to respond to the Public Consultation on "Assessment of the Annual Cross-Border Infrastructure Compensation Sum". APG asked Frontier Economics/EnergyNautics for a study on the use of LRAIC in relation to the ITC mechanism. The study focusses on the calculation of the ITC fund and a summary is attached to our responses. However, we note that only the responses of APG to the ACER questions are relevant.

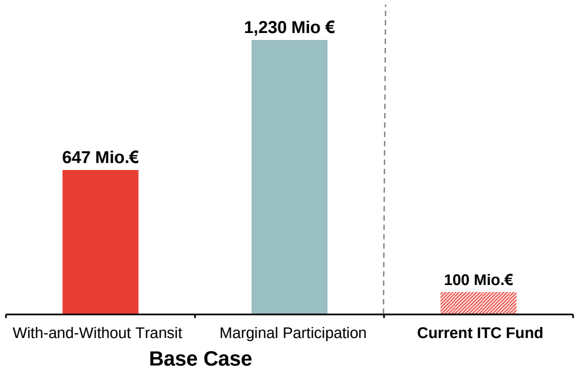
In the following we will comment on the 8 questions raised by ACER in the consultation process.

Question 1) Has Consentec's study considered a sufficient range of potentially suitable options for assessing the ITC infrastructure fund? What other options do you believe should be included in the assessment?

APG understands that Consentec uses the cost allocation methodology GTS for reason of simplicity and consistency with the way how contribution and compensations are interpreted. However, APG does not understand why Consentec did not include any further calculations – at least to define a range of the ITC fund based on different cost-allocation methods – using more sophisticated cost allocation methods already discussed in Frontier Economics/Consentec (2006)[1] (a report Consentec refers to in the current study).

1 Frontier Economics / Consentec, Study on the further issues relating to the inter-TSO compensation mechanism, Study commissioned by the European Commission, Final Report, 2006.

Figure. ITC Fund – Base Case



Source: Frontier/Energynautics (2012)

Frontier Economics/EnergyNautics (2012) assessed the ITC fund based on the cost allocation methods With-and-Witout Transits (WWT, which is currently used for cost allocation of losses) and Marginal Participation (MP). The results indicate a range of the total size of the ITC fund from 647 Mio.€ to 1,230 Mio.€. These values substantially exceed the current ITC fund of €100 Mio. APG recommends using this range for setting the ITC fund.

APG would recommend extending the analysis by using a more sophisticated cost allocation methodology. APG would recommend to use:

- **With-and-without Transits** – as this is the approach which is currently used as the cost allocation methodology for network losses in the ITC mechanism.

- **Marginal Participation** – as this approach was also proposed in Frontier Economics / Consentec (2006) and reflects most accurately power flows in the transmission network.

Question 2) Are the criteria adopted to assess these options and their application to the identified options appropriate? What additional or alternative criteria do you think should be applied?

Consentec (2012: 18-19) defined two main high level principles when designing and assessing their approaches:

"Bearing in mind the general principles set out in section 3.1, namely

- *the aim of a proportionate, relatively simple approach based on a global key for determining the relevant scope; and*

- *the understanding that the combination of the current ITC infrastructure fund size (100 m€/a) with the fixed method for determining compensations and contributions constitutes a consistent interpretation of Regulation 714."*

APG has some concerns with both high level principles.

- **Principle 1 – Simple key for cost allocation:** APG understands the purpose of Consentec trying to align the cost allocation key based on GTS with the rules for compensation and contributions. However, we note that such a simple key makes assumptions which may be difficult to justify and violate the objective of fair cost allocation for cross-border flows:

  - *Impact on Transit countries* – a uniform cost allocation key assumes implicitly that all countries are affected in the same way by cross-border flows. The network assets of a transit country will add to the ITC fund with the same share (based on GTS) as the assets from a typical exporting country, although the share of the network assets affected by cross-border flows is substantially higher for the first. For example the share of the affected network by cross-border flows in Austria based on the cost allocation method WWT (estimated by Frontier/EnergyNautics) is around 35%[2], which substantially exceeds the GTS figures from Consentec.

  - *Impact from country specific cost differences* – The Consentec report shows – based on the data collected from TSOs – substantial differences in investment costs in Europe. Hence, including country specific costs may be of merit. Consentec also acknowledges this fact. However, Consentec (p.18, FN 6) states that "*with cost allocation methods that calculate the total fund by adding up country-wise cost components, an increase or decrease of the "own" unit cost has a direct impact on the compensation claim. Consequently, using country-wise instead of standardised unit cost figures does not only lead to a proportional change of net payments (by altering the total fund size), but also changes the relative position of the ITC parties.*" Consentec rules out this option because such effects cannot occur in the current legal framework.

    APG notes that a simply cost allocation key has some advantages. However, the cost allocation key should allow for a fair cost allocation of costs incurred by national TSOs for cross-border flows. APG has some concerns that its specific situation as a transit country with topographic difficult terrain is not reflected appropriately in the current uniform cost allocation key.

- **Principle 2 – current ITC infrastructure fund size (100 m€/a) constitutes a consistent interpretation of Regulation 714:** APG does not agree with the principle that the current ITC fund of 100 Mio.€ is EC's interpretation of Regulation 714/2009. APG notes that there were no indications in the consultation for Regulation 838/2010 that the 100 Mio.€ can be interpreted in this way. As all stakeholders in the consultation process agreed that the objective of the ITC mechanism shall be cost recovery of the existing networks, neither the size of the ITC fund before nor the calculations (also in Frontier Economics/Consentec (2006)) indicated that the share of the network affected by crossborder flows has a value of 100 Mio.€. This is also acknowledge by Consentec (p.24, FN 12), when they state that "*most ITC methods discussed in the past that were somehow based on a bottom-up evaluation of network assets resulted in larger fund sizes*".

  Also the current calculations of Consentec give no evidence that 100 Mio.€ is an appropriate value for the network affected by cross-border flows at the time of entry-into-force of Regulation 838/2010 (March 2011). This would have indicated a GTS of only 0.60%[3] in the year 2010/11, which is in contrast with the respective Consentec figures.

APG notes that the principles to assess the approaches to set the ITC fund should be in line with the main objective of the ITC mechanism. APG understands that the ITC mechanism was implemented to compensate economically those countries whose networks are being used by external users (instead of network tariffs for cross-border transit). The scheme shall ensure that transmission operators receive compensation for the costs they incur in hosting flows from other countries, and to pay some of the costs that they impose upon others. Hence, the ITC mechanism's principal objective was to ensure that sufficient revenues are recovered to fund the existing parts of the host TSO's network which facilitates cross border flows. This position was supported by studies undertaken for the European Commission.[4]

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3 The LRAIC for the total network underlying Consentec's absolute approach is 16.7 bio.€ (= 1,260 mio € / 7,53%). In order to reach a value of 100 mio.€ based on this value the GTS has to be 0.60%.

4 „Inter-TSO payments are primarily meant to **compensate economically those countries whose networks are being used by external users** and not as a means to send precise locational signals to the individual agents of the market." (Comillas, Cost components of cross border exchanges of electricity, Study prepared for the Directorate-General for Energy and Transport / European Commission, 2003: 85); „It is worth pointing out, however, that **sending efficient price signals is hardly the aim of the ITC compensation mechanism** … The aim of the ITC mechanism is in fact the other primary objective of an economic system, that of equity. The scheme is intended to ensure that transmission operators receive compensation for the costs they incur in hosting flows from other countries, and to pay some of the costs that they impose upon others." (Florence School of Regulation, A study on the Inter-TSO compensation mechanism, 2005: 24).

The principle objective of cost recovery for existing networks was confirmed by the EC during the consultation for the new Regulation 838/2010. The EC stated that the ITC mechanism shall ensure a fair cost allocation associated with cross-border flows between ITC contract parties.[5] Therefore, it is essential that the LRAIC concept applied to calculate the ITC fund by the EC in the future has still to be in line with the main objective of the ITC mechanism – cost recovery for networks.

APG disagrees with **Principle 2** and asks ACER and Consentec to give strong legal evidence for this interpretation, which is currently not included in the Consentec report. This is necessary to justify Principle 2, as this principle has a substantial impact on the size of the ITC fund.

APG recommends the following principles, if ACER should apply LRAIC as the sole future approach for setting the size of the ITC fund:

- The size of the ITC fund should be sufficient to fulfil the objective of the ITC mechanism of **cost recovery of the existing network** used for cross border flows;
- LRAIC should include **all physical network assets** potentially used for cross border flows. This may rule out assets at a lower voltage level;
- LRAIC should not **over- and/or under compensate** hosting TSOs. This means that LRAIC should not deviate too much from TSOs regulated costs; and
- The cost allocation methodology should **replicate the impact of cross border flows** and the affected network assets as realistic as possible

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[5] A binding ITC mechanism will support the completion of the internal energy market in electricity by:

- Ensuring that the costs of losses and of network infrastructure are fairly allocated between national users of the network and those responsible for cross-border flows;
- As a result of the first point, help to ensure that, in the context of the other measures envisaged by the Third Energy Package, that the right incentives exist to expand network infrastructure to accommodate cross-border flows, where such investment is economic, and to harmonise operating procedures to make effective use of the capacity.

(European Commission, Consultation document on the inter-TSO compensation mechanism and on harmonisation of transmission tarification, 2008: 10)

Question 3) Of the options identified by Consentec, do you have any preferences? If so, please provide reasons for your preferences.

Given the three approaches proposed by Consentec, APG prefers the **Absolute Approach**. We argue that this approach – compared to the other two approaches – at least partly is in line with our above stated principles:

- **Absolute Approach** and **ITC objective of cost recovery** – the absolute approach fulfils this principle since all networks are included in the calculation.

- **Absolute Approach** and **Inclusion of all physical networks** – the absolute approach fulfils this principle, as well.

- **Absolute Approach** and **No over-/under compensation of hosting TSOs** – there may be some drawback regarding this principle. APG notes that not taking into account the affected networks by cross-border flows on a country level may lead to under compensation at the country level. The same holds true, if country specific cost differences are not fully taken into account. Hence, in order to fully assess the reasonableness of the absolute approach at least a comparison of the underlying LRAIC and regulated costs per country should be undertaken.

- **Absolute Approach** and **Replication of the impact of cross border flows** – APG does not think that the uniform cost allocation key using GTS is appropriate to fully replicate the impact of cross border flows on the networks. APG would recommend further analysis using more sophisticated cost allocation methodologies.

APG prefers the **Absolute Approach** and thinks that this is at least partly in line with our principles stated above.

Question 4) Are the assumptions adopted for the illustrative numerical analysis appropriate? Considering the practical limitations of availability, what other data or assumption do you believe should be used in such analysis?

In the following APG will discuss some topics:

- **Data availability** – Consentec excludes Asset Category C and F from their calculations. Frontier Economics/Energynautics (2012) includes all assets classes when calculating the ITC fund. Hence, APG thinks that the asset data should be available. However, the result based on the cost allocation methodology WWT and MP indicates only a minor share of Asset class C enters the ITC fund. The results also showed that different asset classes are differently affected by cross-border flows leading to non-uniform cost allocation key per asset class (and per country). Hence, this tends to be a further indication that GTS may be an oversimplification and that the ITC fund based on more sophisticated cost allocation methodology should be tested.

- **Global key for cost allocation** – as already mentioned before APG thinks that this approach has some drawbacks, as it implicitly assumes that the share of the network affected by cross-border flows is the same for all countries. Further, this uniform cost allocation key assumes that all asset components are affected in the same way by cross border flows. Frontier Economics/Energynautics (2012) come to the conclusion that this is not the case.

- **Definition of LRAIC** – APG does not agree with the "thin" definition of LRAIC (we will discuss this in Question 7).

- **Sensitivity analysis** – APG thinks that the sensitivity analysis covers the main drivers. However, APG recommends extending the sensitivity analysis also for different cost allocation methodologies.

Question 5) How do you believe the different parts of the congestion revenues should be treated in calculating the ITC infrastructure fund and why?

APG agrees with the narrow interpretation of Consentec and agrees that this interpretation is applicable in the current legal context. This interpretation is also in line with the responses of stakeholders during the consultation for Regulation 838/2010.

There is no explicit example for calculating the ITC fund based on the narrow interpretation for congestion revenues. APG understands the calculation as follows (figures only for illustrative purposes):

- Existing network: 1000 km;
- Current costs/km: 10 €
- Total value of network at current costs: 10,000 € (= 1,000km x 10€);
- Congestion revenues used for investments: 2,000 €;
- Total value of network adjusted by congestion revenues: 8,000 € (= 10,000 € - 2,000€);
- Calculation of LRAIC:
    - Capital costs – Annuities for 8,000 €

    - Operating costs – Opex Mark-up on 8,000 €
- ITC fund = LRAIC x GTS

If the above understanding of the narrow interpretation is correct, in principle, APG agrees with this approach.

However, there are two issues which may need further adjustments and analysis:

- **Operating costs** –the operating costs should be calculated from the unadjusted asset value. APG thinks that this is appropriate since the annual operating costs are not covered by the one-off use of congestion revenues to finance investments. Hence, the maintenance of the assets financed by congestion revenues and used for cross-border flows has to be financed from other sources. Since these operating costs are partly caused by cross-border flows, the respective share should be covered by the ITC fund.

- **Impact of cost allocation method** – APG understands that congestion revenues are deducted from the total asset value before applying the cost allocation key. APG would be interested in the results (and if there are differences in the results) if the adjustment for congestion revenues takes place after the cost allocation key has been applied.

In principle, APG agrees with the **narrow interpretation** for treating congestion revenues. APG would further recommend:

- *Adjustment for Opex* – the calculation of Opex should be based the unadjusted asset value.
- *Analysis of impact of cost allocation key* if the adjustment for congestion revenues takes place after the cost allocation key has been applied

The **wide interpretation** for treating congestion revenues is in any case no suitable solution for APG

Question 6) Do you agree with Consentec's assessment and the preliminary conclusions on the options for determining the ITC infrastructure fund?

APG does not follow the assessment and preliminary conclusions for the three options:

- Absolute approach;
- Incremental approach;
- Restricted absolute approach.

As discussed above APG has reservations regarding Principle 2, which is also used by Consentec (2012: 42) to assess the three proposed approaches.

At the beginning of Section 5.1 Consentec (2012: 42) states that "*generally, the size of the ITC infrastructure fund differs considerably among the three considered methodology approaches. However, the differences decrease over time*." APG notes that this must not be read in such a way that the differences between the three approaches cancel out over time and that the choice for one approach will have only a minor impact in the long run. On the contrary, although the differences decrease over time, the difference between the three approaches stays substantial even in the year 2022! Hence, the choice for one approach will have a substantial impact in the short run as well as in the long run.

- **Absolute Approach** – APG does not share the concerns of Consentec that "*an abrupt increase of the ITC fund could be interpreted as a violation of the principle that the combination of the current fund size and the method for determining contributions and compensations constitute a consistent implementation of the requirements of Regulation 714*." Additionally, APG is not of the opinion that the value of the ITC fund based on the absolute approach is not appropriate, as this value lies in the range for the ITC fund based on the Frontier Economics/Energnautics (2012). APG further notes that the calculations in Frontier Economics/Consentec (2006) indicate an ITC fund in a similar size. Hence, APG concludes that if the ITC objective of cost recovery is taken serious a substantial increase of the current ITC fund will be inevitable.

- **Incremental Approach** – APG has concerns with the legal assessment of Consentec for the incremental approach and that the incremental approach is in line with the ITC objective of cost recovery. APG notes that in no section of the report Consentec mentions other sources for their argument in favour of their legal interpretation of Regulation 714/2009 and Regulation 838/2009. As already discussed above, there are no indications from the consultation that the current ITC fund (100 Mio.€) may be interpreted as the value of the existing network in March 2011 used for cross-border flows. Additionally, even Consentec's calculations in the report give strong evidence that the 100 Mio.€ are not appropriate.

  Hence, APG concludes that based on the main objective of the ITC fund, economic reasons and concerns from a legal perspective, the incremental approach is not a valid option to set the ITC fund.

- **Restricted absolute approach** – APG understands the political challenge to substantially increase the ITC fund size. However, APG does not think that the restricted absolute approach is appropriate to solve this challenge. Additionally, APG has concerns with the design of the restricted approach, especially the definition of the reference year as every reference year is arbitrary. This is also acknowledged by Consentec. APG also has concerns with Consentec's proposal to use 1996 as the reference year[6], which tends to contradict the reasoning for the implementation of the ITC mechanism. The ITC mechanism was implemented after the liberalisation of the electricity market as a substitute for transit tariffs. Hence, it was a substitute for tariffs which should recover the costs for assets built before the liberalisation. Excluding these assets from the ITC fund based on the restricted absolute approach will be in conflict with the initial objective of the ITC mechanism. Additionally, APG notes that the restricted absolute approach tends to contradict the concept of cost recovery as well as LRAIC, since in principle the age structure of the network is not taken into account when determining LRAIC.

APG does not follow the assessment and preliminary conclusions for the three options:

- *Absolute approach* – APG notes that the resulting ITC fund leads to appropriate figures.
- *Incremental approach* – APG has concerns that this approach is a valid option.
- *Restricted absolute approach* – APG has concern with this approach, as setting the reference years is arbitrary.

Question 7) What are your views regarding the suitability of using LRAIC to determine the ITC infrastructure fund? Do you consider the LRAIC proposed by Consentec appropriate?

APG notes that the suitability of LRAIC has to be assessed against our above stated principles in response to Question 2. The results from Frontier Economics/Energynautics (2012) indicate that the concept of LRAIC, as such, tends to be in conflict with the ITC objective of costs recovery, as the resulting costs entering the ITC fund are substantially lower than regulated costs for selected TSOs. Hence, an adjustment of cost parameters may be necessary to align the costs with regulated values.

APG has main concerns with the LRAIC proposed by Consentec. The concern relates to the treatment of "joint and common costs", which Consentec excludes from the definition of LRAIC. For the reasoning Consentec (2012: 15) refers to

6 Consentec (2012: 24): "One possible position would be that infrastructure built after the entry into force of the first electricity market directive in 1996 should be relevant for ITC."

the discussion in Frontier Economics/Consentec (2006), where a "thin", i.e. excluding joint and common cost, definition of LRAIC was proposed.

However, APG notes that the discussion in Frontier Economics/Consentec (2006) and the reasoning for "thin" LRAIC has to be set into context of the full report.

First Frontier Economics/Consentec (2006: 8) states: "*This would imply that the* ***ITC mechanism's principal objective*** *should be ensuring that* ***sufficient revenue*** *is recovered to fund the parts of the host TSO's network which facilitate cross border flows*."

Frontier Economics/Consentec (2006: 9) then concludes that: "*This approach could be implemented by using a unit cost basis for the mechanism calculated as a* ***weighted average*** *of* ***forward looking average incremental costs*** *and the* ***costs of the existing infrastructure****, with the* ***weighting heavily skewed towards the latter****.*" Hence, this means that cost recovery should be reached by a strong focus on regulated costs, where the share of LRAIC is only minor. As a consequence, Frontier Economics/Consentec (2006: 12) uses a "thin" definition of LRAIC.

However, in the Regulation 838/2010 regulated values were removed while the objective of cost recovery for hosting cross border flow did not change. Hence, LRAIC has to be designed in a way to allow cost recovery, which gives strong arguments for a "thick" interpretation of LRAIC, i.e. including joint and common costs.

APG notes that the **suitability of LRAIC** has to be **assessed against** the ITC objective of **cost recovery**. Hence, APG recommends evaluating the alignment of LRAIC with regulated costs. If these two costs differ substantially, an adjustment of LRAIC should be done.

APG recommends **including joint and common costs** when calculating LRAIC.

Question 8) Are there any other issues that you believe should be taken into account in this review? In particular, how do you believe the on-going wider developments in the European energy market and regulatory arrangements should impact the Agency's proposal on the infrastructure fund?

APG agrees with Consentec, that a double compensation for projects of common interest (PCI) by the ITC mechanism should be avoided. APG thinks that treating PCIs in the same way as assets financed by congestion revenues (according to the narrow interpretation) will be an appropriate approach.