



**Publishing date:** 01/12/2020

**Document title:** Report to the European Commission on the Implementation of the ITC Mechanism in 2019

**We appreciate your feedback**



Please click on the icon to take a 5' online survey and provide your feedback about this document

**Share this document**



# **Report to the European Commission on the implementation of the ITC mechanism in 2019**

---

**November 2020**

The European Union Agency for the Cooperation of Energy Regulators accepts no responsibility or liability for any consequences arising from the use of the data contained in this document.

If you have any queries relating to this document, please contact:

**ACER**

Mr. David Merino

Tel. +386 (0)8 2053 417

Email: [david.merino@acer.europa.eu](mailto:david.merino@acer.europa.eu)

## Content

Executive summary.....	1
1 Introduction.....	2
2 Alignment between the 2019 ITC implementation and the Regulation.....	3
3 Accuracy of data .....	3
4 Treatment of third countries .....	4
5 ITC fund.....	4
5.1 Contributions to the ITC fund .....	6
5.1.1 Perimeter countries' fee .....	7
5.1.2 ITC Parties' and Perimeter countries' contributions.....	8
5.2 Compensations from the ITC fund .....	9
5.2.1 Transit and its reduction.....	9
5.2.2 Compensation for transmission losses.....	10
5.2.2.1 Criteria for valuing losses and its approval.....	11
5.2.2.2 Values of losses.....	12
5.2.3 Compensation for infrastructure availability for cross-border flows.....	14
6 Annexes.....	15
Table 2: Overview of compensation and contribution to the ITC fund in 2019.....	15
Table 3: Final net positions of ITC Parties between 2011 and 2019 .....	16
Table 4: Derivation of contributions to the ITC Fund .....	17
Table 5: Reduction in transits .....	18
Table 6: Derivation of compensation for transmission losses in 2018 and 2019 .....	19
Table 7: Derivation of compensation for cross-border infrastructure in 2019 .....	20

## Executive summary

- (1) ACER concludes that the implementation of the Inter-Transmission System Operator Compensation (“ITC”) mechanism and the management of the ITC Fund in 2019 continues to be in line with the requirements set out in the Regulation.
- (2) With regard to specific aspects of the implementation of the ITC mechanism in 2019, the major findings include the following:
  - After being relatively stable between 2015 and 2018, the ITC fund significantly increased in 2019, from 256.5 million EUR to 289.8 million EUR, reaching its highest value ever since its establishment in 2011.
  - This significant increase of the ITC fund is mainly explained by a 23% increase of the weighted average value of losses (from 40.25 EUR/MWh to 49.56 EUR/MWh, i.e. the highest change between two subsequent years ever since the ITC fund has been established). The volume of transmission losses due to transits remains stable (2% decrease) compared to 2018, after a sharp decrease by 14% the previous year.
  - The difference between the lowest and the highest value of losses among both EU and non-EU ITC Parties significantly increased in 2019 compared to the previous year. In 2018, the difference was 26.51 EUR/MWh in EU ITC Parties and 20.56 EUR/MWh in non-EU ITC Parties. In 2019, the difference among EU ITC Parties increased to 39.63 EUR/MWh (68.06 EUR/MWh in Great Britain and 28.45 EUR/MWh in Sweden) and to 28.72 EUR/MWh (72.72 EUR/MWh in Switzerland and 44 EUR/MWh in Kosovo) among the non-EU ITC Parties.
  - Among the EU ITC Parties, the highest relative increase in losses’ value of 56% occurred in Austria (from 30.18 EUR/MWh in 2018 to 47.04 EUR/MWh in 2019). Among the non-EU Parties, the highest relative increase in losses’ value of 58% occurred in Switzerland (from 45.91 EUR/MWh in 2018 to 72.72 EUR/MWh in 2019).
  - In 2019, the Perimeter countries’ fee increased for the second time in a row, after a gradual decrease between 2012 and 2017, reaching 0.8 EUR/MWh. ENTSO-E explained that the reason behind this development is a strong increase in losses costs due to higher market prices. Both absolute and relative contribution from Perimeter countries to the ITC fund increased in comparison to the previous year, changing from 15.1 million EUR to 20.9 million EUR or from 5.9% to 7.2%.

# 1 Introduction

- (3) Pursuant to point 1.4 of Annex Part A of Commission Regulation (EU) No 838/2010 on laying down guidelines relating to the inter-transmission system operator compensation mechanism and a common regulatory approach to transmission charging<sup>1</sup> (the “Regulation”), the European Union Agency for the Cooperation of Energy Regulators (“ACER”) is responsible, since 2012, for preparing a yearly monitoring report on the implementation of the Inter-Transmission System Operator Compensation (“ITC”) mechanism and the management of the ITC Fund. The data and information used for compiling this Report<sup>2</sup> were provided by the European Network of Transmission System Operators for Electricity (“ENTSO-E”).
- (4) The ITC scheme defined by the Regulation was implemented on 3 March 2011. Under the Regulation, the ITC Fund was established by ENTSO-E for the purpose of compensating transmission system operators (“TSOs”) for the costs incurred on national transmission systems due to the hosting of cross-border flows of electricity (“transits”). The ITC Fund consists of two parts which aim at covering, respectively,
- the costs of the incurred transmission losses,
  - the costs of making infrastructure available.
- (5) TSOs or groups of TSOs being treated as a single unit participating in the ITC mechanism (“ITC Parties”) receive compensation from the ITC Fund based on the transits they carry and contribute to the ITC Fund based on their net import and export flows. Non-participating countries connected to the ITC Parties’ networks (“Perimeter countries”<sup>3</sup>) pay a transmission system use fee for their scheduled imports from and scheduled exports to the ITC Parties’ networks.
- (6) The implementation of the provisions of the Regulation regarding the ITC mechanism and the management of the ITC Fund is carried out by ENTSO-E through the legal framework of the ITC Clearing and Settlement Multi-Year Agreement (“ITC Agreement”) concluded on 9 February 2011. In 2019, it comprised 35 ITC Parties<sup>4</sup>. The ITC Agreement contractually sets out ENTSO-E’s and ITC Parties’ duties and entitlements. It also sets out detailed ITC procedures, including the submission, audit and validation of data, calculation of compensation and contribution amounts, and the clearing and settlement of the ITC Fund.
- (7) ACER has reviewed the implementation of the ITC mechanism and the management of the ITC Fund in 2019 based on:
- the ITC Agreement and its amendments,
  - relevant data and information received from ENTSO-E in relation to the implementation of the ITC mechanism in 2019.

---

<sup>1</sup> OJ L 250, 24.9.2010, p.5

<sup>2</sup> The previous ACER ITC Monitoring Reports are available at ACER’s website: [http://www.acer.europa.eu/Official\\_documents/Publications/Pages/Publication.aspx](http://www.acer.europa.eu/Official_documents/Publications/Pages/Publication.aspx)

<sup>3</sup> Belarus, Moldova, Morocco, Russian Federation, Turkey and Ukraine

<sup>4</sup> TSOs from all EU Member States except Cyprus and Malta and from the following third countries: Albania, Bosnia and Herzegovina, Kosovo, North Macedonia, Northern Ireland (as a separate ITC party), Montenegro, Norway, Serbia, Switzerland and United Kingdom

## **2 Alignment between the 2019 ITC implementation and the Regulation**

- (8) No major amendments to the ITC Agreement were introduced in 2019, as there were only annual and technical amendments, which do not affect the main elements of the ITC agreement. Amendments were made for:
- updated schedules due to yearly updates (Schedule P: ENTSO-E convention on Business Day),
  - results of the last ITC audit (Schedule T: Yearly vertical loads, Schedule X: Table of losses costs, Schedule O: Ex-Ante Financial Spreadsheet),
  - name and format changes (Schedule S: Contact details, Schedule U: Lines and measurement points, V: List of countries/ITC parties/Country control block co-ordinators, W: Geographical parameters).
- (9) ACER concludes that the general arrangements are still in line with the guidelines set out in the Regulation.

## **3 Accuracy of data**

- (10) Through the ITC Agreement, two TSOs (Amprion GmbH and Swissgrid AG) are appointed as “ITC Data Administrators” to manage relevant data and to carry out the clearing and settlement. The ITC Agreement includes yearly and monthly data audits and/or validation procedures involving all ITC Parties. Before the year’s settlement begins, a yearly audit of the vertical load, the costs of losses and the capacity not allocated in a manner compatible with the Congestion Management Guidelines is carried out. During the year, before the monthly settlements are issued, several data validation procedures are performed involving all ITC Parties.
- (11) In a letter dated 3 August 2020, ENTSO-E submitted to ACER data relating to the implementation of the ITC mechanism in 2019, as well as some relevant descriptive information. ENTSO-E provided explanations or a description of the results for:
- the calculation of the Perimeter Country fee,
  - transit reduction including the explanation regarding each border where transits are reduced due to the allocation of capacity on interconnections which is not compatible with point 2 of the guidelines of Annex 1 of Regulation 714/2009<sup>5</sup>,
  - results of the yearly audit process in terms of identified errors,
  - the amendments of the ITC Agreement,
  - the decisions on value of losses in non-EU countries.

In the same letter, ENTSO-E also informed ACER that the final settlements for 2019 (including the netted final settlement) had not yet been signed by all ITC Parties and the quantitative information should be considered as preliminary.

---

<sup>5</sup> Regulation (EC) No 714/2009 was valid until 31 December 2019 and covers the entire monitoring period. Regulation (EU) 2019/943 shall apply from 1 January 2020.

In an e-mail dated 8 September 2020, ENTSO-E informed ACER that in August, ITC Data Administrators identified an error in the settlements due to a mistake in the data of the reduced transits<sup>6</sup>. All ITC Parties were informed about this and the signature process was put on hold.

In an e-mail dated 6 October 2020, ENTSO-E submitted to ACER the final validated data related to the implementation of the ITC mechanism in 2019.

- (12) Based on the information provided by ENTSO-E, the ITC Parties' own revision of the submitted data resulted in 7 changes in costs of losses values, for Hungary, Ireland, Italy, Northern Ireland, Netherlands, Romania and Serbia<sup>7</sup>. Further on, ITC Parties sent 8 requests to other ITC Parties, including Switzerland, Netherlands, Bosnia and Herzegovina, to provide explanation on the information, all regarding the cost of losses in 2019. All ITC Parties' responses to the requests were satisfactory, except the one provided by Switzerland following a request from France. This case was discussed at the Market Committee meeting on 28 March 2019, but did not eventually result in a change of value.
- (13) ACER regards that the self-governance arrangement in the operation of the ITC mechanism is in principle an appropriate approach and ought to be sufficient for assuring the accuracy of the operation of the ITC mechanism. Therefore, ACER does not consider it necessary for its own review to conduct a detailed audit or validation of all the input and intermediate data used in the operation of the 2019 ITC mechanism.

## 4 Treatment of third countries

- (14) ACER notes that the ITC Agreement has not changed regarding the treatment of the ITC Parties, including TSOs from those third countries, which have adopted and apply European Union law in the field of electricity as well as TSOs from third countries which have not concluded such agreements with the EU, but participate in the ITC through a voluntary multi-party agreement, thus the former findings of ACER are still valid. In 2012, ACER noted that the ITC Agreement makes no distinction between categories of ITC Parties, whether the latter participate on a compulsory or voluntary basis under point 2 of Annex Part A of the Regulation or through voluntary multi-party agreements under point 3. Therefore, ACER concluded that the requirements of points 3.2 and 3.4 of Annex Part A of the Regulation are met.

## 5 ITC fund

- (15) In 2019, the ITC Fund amounted to 289.8 million EUR, consisting of 100 million EUR related to the costs of the transmission infrastructure which is made available for transits and 189.8 million EUR related to the costs of the incurred transmission losses due to transits. Of the total ITC Fund, 268.9 million EUR were recovered through contributions from the ITC Parties and the remaining 20.9 million EUR through the Perimeter countries' fees.
- (16) As shown in Figure 1, the ITC Fund had been relatively stable between 2015 and 2018, but it significantly increased in 2019, when it also reached its highest amount ever since being established in 2011. While the sum of the infrastructure part of the fund, which is set by the Regulation, remained the same in 2019 as throughout the entire period, the losses part

---

<sup>6</sup> According to ENTSO-E explanation, the values for the two directions between Switzerland and France were mixed up.

<sup>7</sup> For Hungary and Romania, the values were updated following NRA's approval. For Italy, the values were calculated on the basis of the weighted average clearing price and for Serbia, based on the weighted average market purchase price. The remaining jurisdictions provided no clear explanations on the change.



significantly increased by 21.3% in comparison to 2018, resulting in 13.0% increase of the total fund.

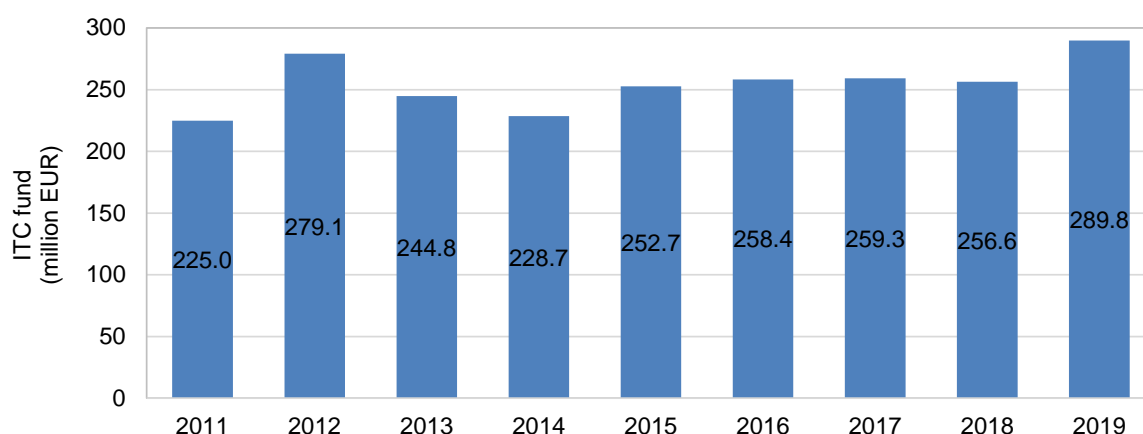


Figure 1: ITC fund size between 2011 and 2019

- (17) An overview of the compensations drawn from, and contributions made to the 2019 ITC fund by the ITC Parties, is provided in Table 2 in the Annex. The table also presents contributions from Perimeter countries collected through their directly-connected ITC Parties.
- (18) The final net positions of ITC Parties in 2019 are presented in Figure 2. Further on, Table 3 in the Annex shows the final net positions of each ITC Parties since 2011. ACER notes that for 18<sup>8</sup> out of 35 ITC Parties or for 51 % of all ITC Parties, the direction of the net balance has remained the same every year. For the remaining 17 ITC Parties, the direction of their net balance has changed at least once.

<sup>8</sup> Net receivers in each year: AT, DK, KS, LV, ME, PL, RS, SK, SI, CH  
 Net contributors in each year: AL, GB, IE, IT, LU, NI, NO, RO

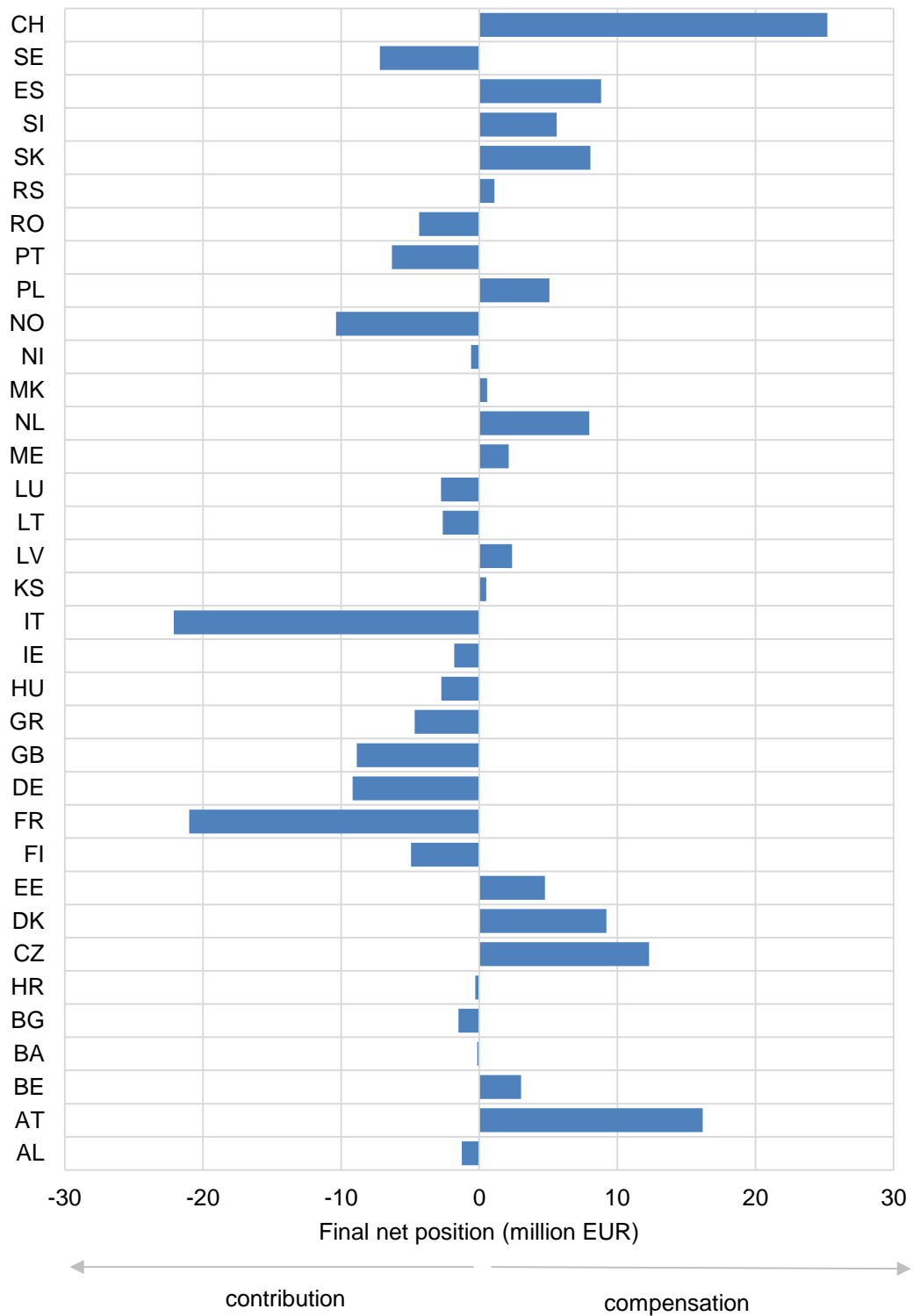


Figure 2: Final net positions per ITC party in 2019

## 5.1 Contributions to the ITC fund

- (19) Point 6 of Annex Part A of the Regulation sets out that each ITC Party shall contribute to the ITC Fund based on its share of the total absolute amount of net imports and net exports of all ITC Parties.

- (20) Point 7 of Annex Part A of the Regulation sets out that an ITC Party shall levy a transmission system use fee on all scheduled imports and exports between its national transmission system and that of a Perimeter country. Because the collection of the Perimeter countries' contributions is governed by a series of bilateral contracts, which are renewed annually in most cases, ENTSO-E is required to calculate this Perimeter countries' fee each year in advance based on projected flows for the relevant year.

#### **5.1.1 Perimeter countries' fee**

- (21) ENTSO-E's calculation of the Perimeter countries' fee was based on the equivalent losses and infrastructure compensation for historical flows of the previous year, which is, according to ENTSO-E, the best possible projection for flows in the subsequent year. The Perimeter fee has two elements: a losses-related and an infrastructure-related component. While the losses-related fee is calculated by dividing the "With-and-without transit" fund size by the sum of both net and scheduled imports and exports, the infrastructure-related fee is calculated by dividing the total "Framework Fund" contribution, which is still set at 100 million EUR<sup>9</sup>, by the sum of both net and scheduled import and export flows. The two components, summed and rounded to a single decimal place, create the Perimeter fee. This value is produced in January each year based on losses costs and vertical load data collected from ITC Parties. For timing reasons, it is calculated on the basis of unaudited data, but is updated after the data audit.
- (22) The Perimeter countries' fee for 2019 was calculated and approved by ENTSO-E at the value of 0.8 EUR/MWh, which is 0.2 EUR/MWh higher than in 2018. The evolution of the Perimeter countries' fee between 2011 and 2019 is presented on Figure 3, along with the Perimeter countries' contributions to the fund. ACER notes that the recent 0.2 EUR/MWh increase in Perimeter countries' fee represents the biggest absolute change between two consequent years. Further on, after it decreased from 0.8 EUR/MWh to 0.5 EUR/MWh in four years (from 2012 to 2016), it increased back to 0.8 EUR/MWh in only two years. ENTSO-E explained that the main reason for the latest increase was a strong increase in losses costs due to higher market prices and that the increase was not compensated by the small increase in flows (400 TWh compared to 389 TWh in 2018).

---

<sup>9</sup> In its Recommendation No 05/2013, ACER recommended the ITC infrastructure fund (Framework Fund) should be phased-out.

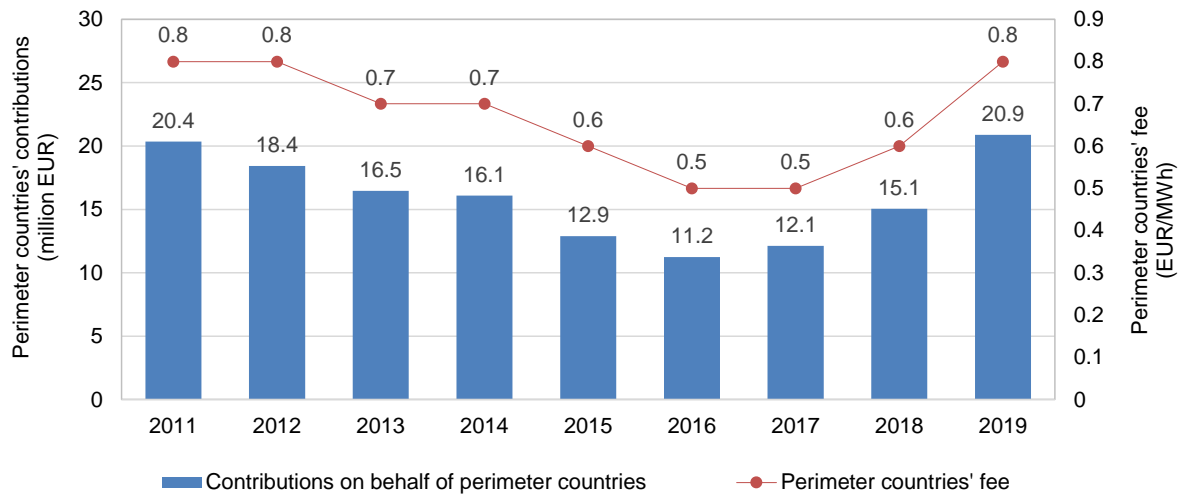


Figure 3: Values of the Perimeter countries contributions and Perimeter countries' fee calculated by ENTSO-E between 2011 and 2019

### 5.1.2 ITC Parties' and Perimeter countries' contributions

- (23) Table 4 in the Annex provides a summary of the annual Net Import, Net Export and the contribution amount each ITC Party paid into the ITC Fund in 2019, including the contribution it made on behalf of Perimeter countries with which it has a direct connection. Shares of contributions from ITC parties and Perimeter countries between 2011 and 2019 are presented on Figure 4. ACER notes that in 2019, Perimeter countries paid 20.9 million EUR to the ITC fund, which is their highest contribution ever since the fund was established. The Perimeter countries contribution constituted 7.2 % of the ITC fund in 2019 compared to 5.9 % in 2018.

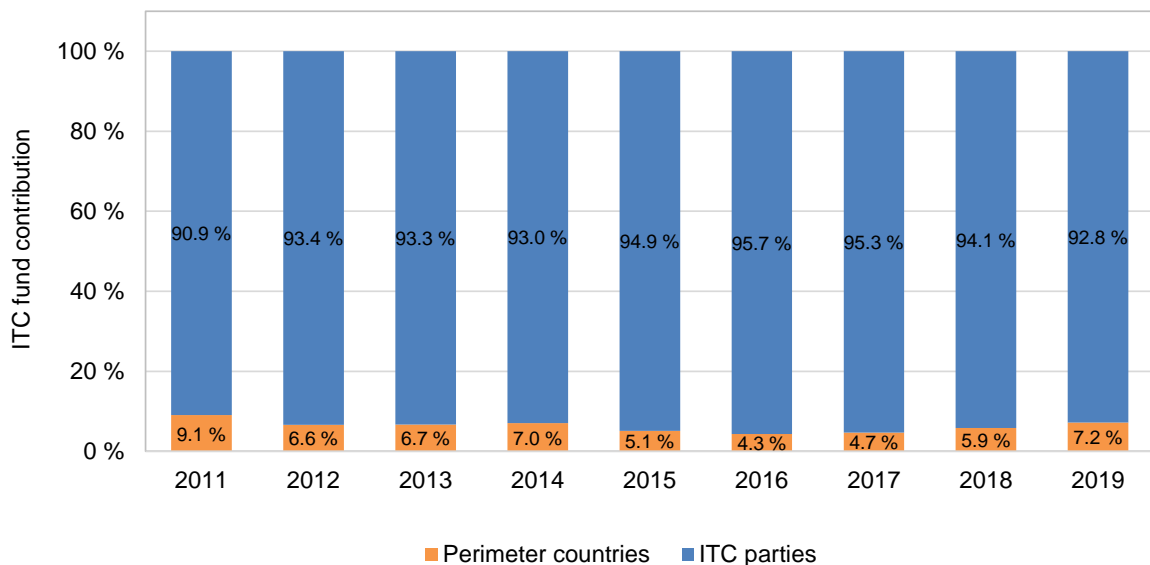


Figure 4: Shares of contributions to the fund between 2011 and 2019

- (24) Based on the review of the ITC Agreement and the final dataset submitted by ENTSO-E, ACER is able to confirm that the ITC fund contribution amounts were derived according to the requirements of points 6 and 7 of Annex Part A of the Regulation.

## 5.2 Compensations from the ITC fund

- (25) Under the Regulation, the ITC Parties should receive compensation for losses incurred due to hosting cross-border flows and for making their infrastructure available to host these flows. The key input for the determination of the compensation amounts are the transits. More information on the transit consideration is provided in section 5.2.1 and on the compensations in sections 5.2.2 and 5.2.3 of this report.

### 5.2.1 Transit and its reduction

- (26) Point 1.6 of Annex Part A of the Regulation requires that transit of electricity is calculated by taking the lower of the absolute amount of imports and the absolute amount of exports between national transmission systems. In addition, for the purpose of calculating transits, the amount of imports and exports at each interconnection between the ITC Parties must be reduced in proportion to the share of capacity allocated in a manner which is not compatible with the congestion management methods set out in Point 2 of Annex I of Regulation (EC) No 714/2009<sup>10</sup>. Ultimately, these reductions lead to decreased financial net positions of the concerned ITC Parties.
- (27) ACER notes that ENTSO-E took the following steps in line with the definition in the Regulation related to transits reductions:
- The affected ITC Parties indicated, for each concerned border, the overall exports and imports, as well as the schedules allocated in a manner compatible with the Congestion Management Guidelines;
  - The ITC Data Administrators translated this information into the amount by which the relevant transit needs to be reduced;
  - The reduced transit represented the basis for calculating the compensation amounts relating to both the infrastructure and the losses parts of the ITC Fund.
- (28) Table 5 in the Annex provides a summary of the transits through each ITC Party's network before and after such reductions. In 2019, the border between France and Switzerland was affected by the reduced transits in both directions as well as the border between Switzerland and Italy in the direction towards Italy, due to the existence of long-term priority contracts. Figure 5 presents shares of scheduled exchanges in 2019 that were allocated in a manner compatible and not compatible with the Congestion Management Guidelines .
- (29) In 2019, there was no decrease in capacity not allocated in a manner compatible with the congestion management methods, because none of the long-term contracts expired.
- (30) In 2019, the amount of transits was reduced by 4.8 TWh, resulting in 233.5 TWh. A comparison of transits before and after reduction in the period between 2011 and 2019 is provided in Figure 6.

---

<sup>10</sup> OJ L 211, 14.8.2009, p.15, Regulation (EC) No 714/2009 of the European Parliament and of the Council on conditions for access to the network for cross-border exchanges in electricity and repealing Regulation (EC) No 1228/2003. Point 2.1 of Annex I of Regulation (EC) No 714/2009 stipulates that "capacity shall be allocated only by means of explicit (capacity) or implicit (capacity and energy) auctions".

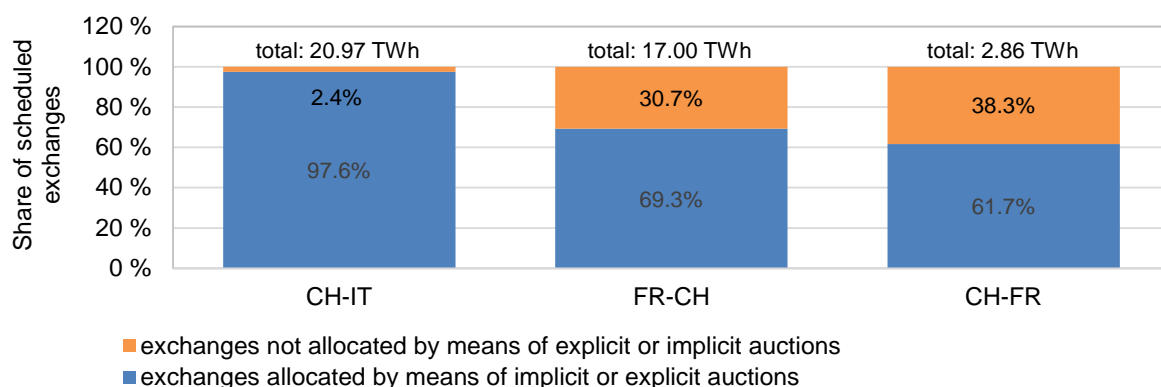


Figure 5: Shares of scheduled exchanges according to the manner of their allocation for the three borders affected by reduced transits

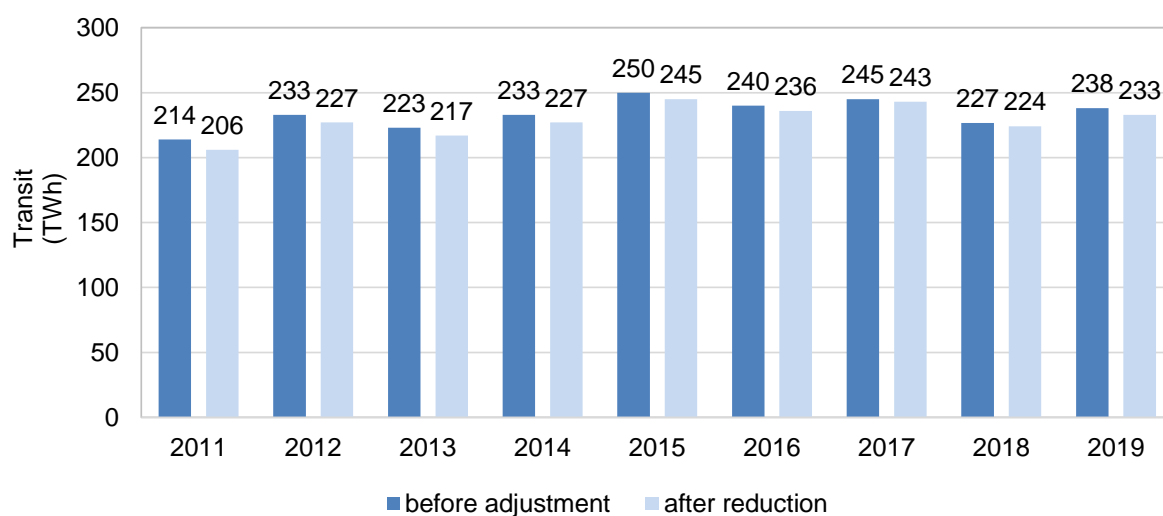


Figure 6: Amounts of transits before and after reduction between 2011 and 2019 (all values are rounded)

## 5.2.2 Compensation for transmission losses

- (31) The key steps for calculating the amount of compensation received by each ITC Parties for the transmission losses incurred by carrying cross-border flows of electricity are defined under Point 4 of Annex Part A of the Regulation. They are summarised below:
- The physical amount of the relevant losses must be calculated by ENTSO-E based on the difference between actual losses with transits and estimated losses without transits on the ITC Party's network.
  - The value of losses incurred by a national system as a result of transits shall be calculated on the same basis as those approved by the respective NRA in respect of all losses on the national transmission system. Where the relevant NRA has not approved the basis for the calculation of losses, ENTSO-E is required to estimate the value of losses for the purpose of the ITC mechanism.
- (32) ENTSO-E sets out the detailed method for the calculation of the volume of losses in the ITC Agreement. Based on the review of the ITC Agreement and the dataset submitted by ENTSO-E,

ACER is able to confirm that this aspect of the implementation of the ITC mechanism is in line with the definition in the Regulation.

- (33) The Regulation also requires ENTSO-E to publish the calculation of the volume of losses and its method. ACER notes that, on 1 October 2020, ENTSO-E published the calculation method and the results for 2019<sup>11</sup>.
- (34) For each ITC party, Table 6 in the Annex provides a summary of the volume of annual losses due to transits, the values of losses adopted by them and the compensation received from the ITC Fund in the two recent years. Further on, the evolution of the overall volume of transmission losses due to transits is presented on Figure 7. Although the impact of transits on losses volume decreased by 2% in 2019, the losses component of the ITC fund increased by 21%, from 156.5 million EUR in 2018 to 189.8 million EUR in 2019, and thus reached its highest value. The increase is purely the result of an increased average value of losses. More information on the losses values is provided in section 5.2.2.2 of this report.

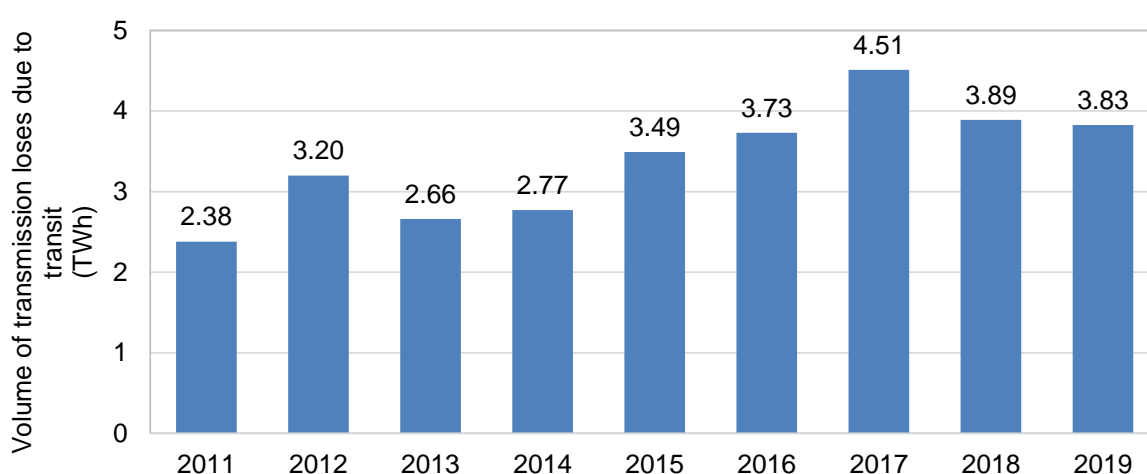


Figure 7: Volume of transmission losses due to transits between 2011 and 2019

### 5.2.2.1 Criteria for valuing losses and its approval

- (35) Pursuant to point 4 of Annex Part A of the Regulation, the value of losses incurred by a national transmission system as a result of the cross-border flows of electricity shall be calculated on the same basis as the one approved by the regulatory authority in respect of all losses on the national transmission system. ACER shall verify the criteria for the valuation of losses at national level taking particular account that losses are valued in a fair and non-discriminatory way.
- (36) ACER's latest detailed review of the criteria for the valuation of losses at national level based on the information on the criteria for valuing losses received from all NRAs of the EU ITC Parties, as well as from the NRAs of Norway and Switzerland is provided in section 2.6 of the ACER's report on the implementation of the ITC mechanism in 2018<sup>12</sup>.

<sup>11</sup> ENTSO-E ITC Transit Losses Data Report 2019, [https://eepublicdownloads.azureedge.net/clean-documents/Publications/Position%20papers%20and%20reports/entsoe\\_ITC\\_Transit\\_Losses\\_Data\\_report\\_2019\\_201001.pdf](https://eepublicdownloads.azureedge.net/clean-documents/Publications/Position%20papers%20and%20reports/entsoe_ITC_Transit_Losses_Data_report_2019_201001.pdf)

<sup>12</sup> Report to the European Commission on the implementation of the ITC mechanism in 2018, December 2019, [https://www.acer.europa.eu/Official\\_documents/Acts\\_of\\_the\\_Agency/Publication/ITC%20Monitoring%20Report%202019.pdf](https://www.acer.europa.eu/Official_documents/Acts_of_the_Agency/Publication/ITC%20Monitoring%20Report%202019.pdf)

### 5.2.2.2 Values of losses<sup>13</sup>

- (37) Previous editions of the ITC monitoring report already describe that the differences of energy prices for different products in different markets and from auctions and bilateral contracts result in a broad range of values of losses for the EU ITC Parties. The summary of the losses values used for the purpose of the ITC implementation in 2019 and in 2018 is provided in Table 1<sup>14</sup>.
- (38) Figure 8 presents average values of losses, weighted by their volume, for all ITC Parties between 2011 and 2019. ACER notes that the weighted average value of losses had been gradually decreasing between 2012 and 2017, but started to increase after 2017. In 2019, the weighted average value of losses increased by 23% in comparison to 2018, from 40.25 EUR/MWh to 49.56 EUR/MWh, which is also the highest absolute change in two subsequent years ever since the ITC mechanism has been established.

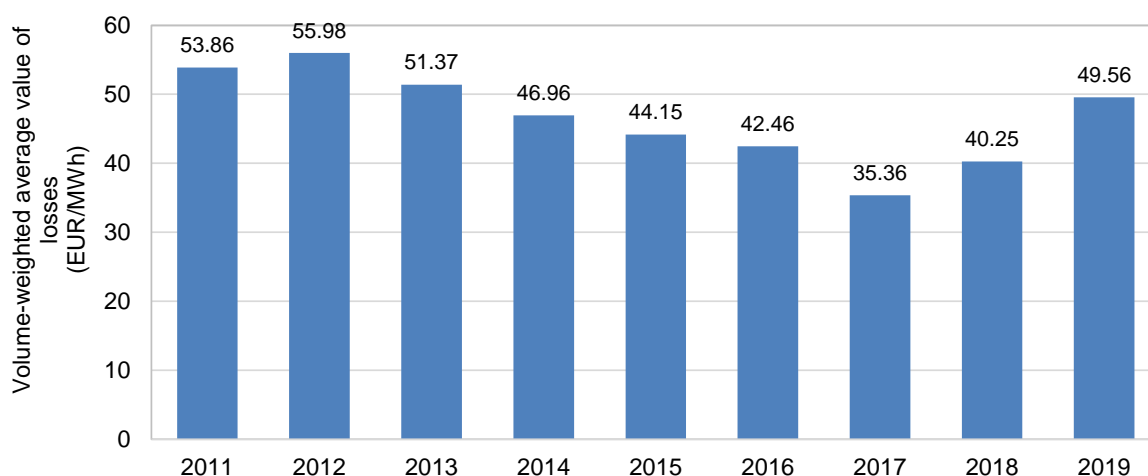


Figure 8: Volume-weighted average value of losses for all ITC Parties between 2011 and 2019

- (39) ACER notes the difference between the highest and the lowest losses' value significantly increased for both EU and non-EU ITC Parties. Compared to 2018, the average value of losses, weighted by their volume, increased by 17% for EU ITC Parties and by 45% for non-EU ITC Parties. For non-EU ITC Parties, the average losses value weighted by their volume in 2019 was 44% or 20.44 EUR/MWh higher than for EU ITC Parties.

Table 1: Comparison of losses values in EU and non-EU ITC Parties in 2018 and 2019

	EU ITC Parties		Non-EU ITC Parties	
	2018	2019	2018	2019
<b>Maximum value</b> (EUR/MWh)	56.13 (IT)	68.08 (GB)	51.32 (BA)	72.72 (CH)
<b>Minimum value</b> (EUR/MWh)	29.62 (SE)	28.45 (SE)	30.76 (NO)	44.00 (KS)

<sup>13</sup>The values reported in this section are the losses' values used for the implementation of the ITC mechanism, which are typically calculated or estimated ex ante (i.e. at the end of the previous year based on forecasted market prices) and they may not be the same as the "actual" losses' values, which are typically registered ex post (i.e. using the actual costs/market prices).

<sup>14</sup> As the United Kingdom was an EU Member State in 2019 for which year the monitoring of the ITC implementation is carried out, Great Britain and Northern Ireland are considered in this report as an EU ITC Parties.



<b>Difference between the maximum and the minimum (EUR/MWh)</b>	26.51	39.63	20.56	28.72
<b>Average value weighted by the volume of losses (EUR/MWh)</b>	39.28	46.11	45.95	66.55
<b>Number of countries with increased value of losses compared to the previous year</b>	20 (an average increase by 16 %)	23 (an average increase by 24 %)	7 (an average increase by 69 %)	6 (an average increase by 37 %)
<b>Number of countries with decreased value of losses compared to the previous year</b>	6 (an average decrease by 8 %)	3 (an average decrease by 2 %)	1 (an average decrease by 11 %)	1 (an average decrease by 5 %)
<b>Number of countries with the same value of losses compared to the previous year</b>	1	1	0	1

- (40) Losses values of individual ITC Parties in 2018 and 2019 are shown in Table 6. Further on, relative changes of losses' values compared to the previous year are presented in Figure 9 for EU ITC and in Figure 10 for non-EU ITC Parties. Among the EU ITC Parties, the highest relative increase of 56% occurred in Austria where losses' value changed from 30.18 EUR/MWh to 47.04 EUR/MWh. For the non-EU Parties, the highest relative increase in losses' value of 58 % occurred in Switzerland, considering the values 45.91 EUR/MWh in 2018 and 72.72 EUR/MWh in 2019.

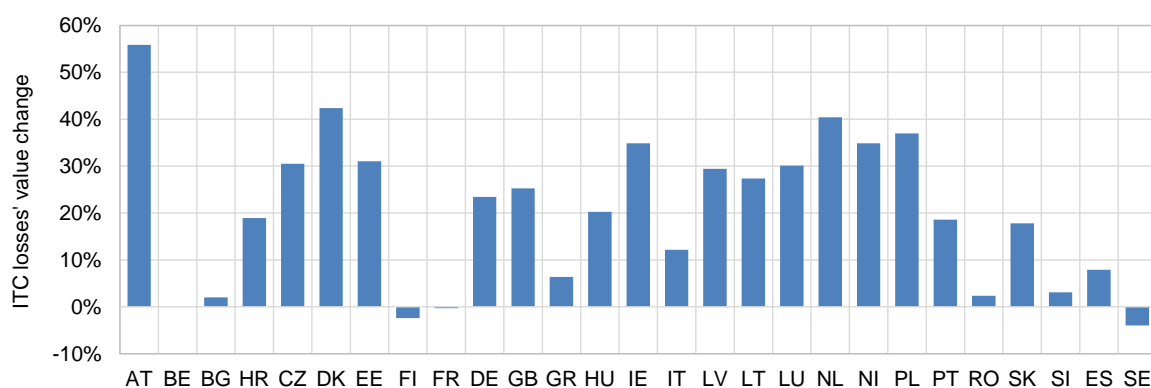


Figure 9: Changes of losses' values of each EU ITC Party in 2019 compared to 2018

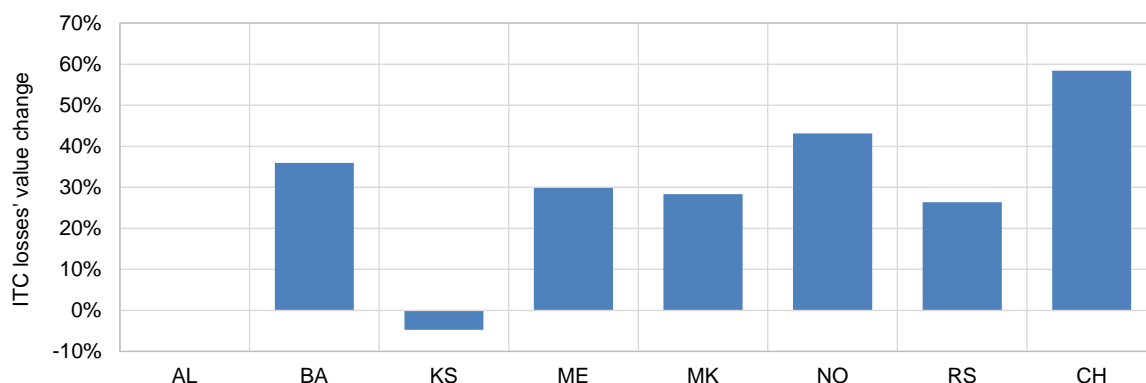


Figure 10: Changes of losses' values of each non-EU ITC Party in 2019 compared to 2018

### 5.2.3 Compensation for infrastructure availability for cross-border flows

- (41) The key parameters for calculating the amount of compensation an ITC Party should receive for provision of infrastructure to carry cross-border flows are defined in Point 5 of Annex Part A of the Regulation. They are summarized below:
- The annual cross-border infrastructure sum is set at 100 million EUR until determined otherwise by the European Commission.
  - Transit factor and load factor are used to apportion the above sum to each ITC Party. The transit factor refers to the amount of transits carried by an ITC Party as a proportion of all transits carried by all ITC Parties. The load factor refers to the relative amount of transits measured by the square of transits divided by the level of the load plus transits in proportion to the relative amount of all ITC Parties' transits. In apportioning the infrastructure compensation amount for an ITC Party, the Transit Factor has a weighting of 75 % and the Load Factor a weighting of 25 %.
- (42) Based on the review of the ITC Agreement and the final dataset submitted by ENTSO-E, ACER is able to confirm that the compensation amounts relating to the provision of cross-border infrastructures were derived according to the above requirements.
- (43) Table 7 in the Annex provides a summary of the annual amount each ITC Party received in 2019 based on their transit factors and load factors.

## 6 Annexes

Please note that while the actual ITC settlement is in Euro cents, the tables below present all monetary values in millions of Euros rounded to three decimal places.

**Table 2: Overview of compensation and contribution to the ITC fund in 2019**

ITC Party	Compensation (million EUR)		Contribution on behalf of Perimeter countries (million EUR)		Contribution from ITC Party (million EUR)		Final net position (million EUR)
	losses	infrastructure	losses	infrastructure	losses	infrastructure	
Albania	0.284	0.245	0.000	0.000	1.200	0.599	-1.271
Austria	11.982	11.026	0.000	0.000	4.557	2.275	16.176
Belgium	4.895	3.720	0.000	0.000	3.725	1.860	3.030
Bosnia	1.467	1.132	0.000	0.000	1.832	0.915	-0.148
Bulgaria	1.310	1.121	0.621	0.621	1.793	0.895	-1.500
Croatia	1.935	2.251	0.000	0.000	2.988	1.492	-0.294
Czech Rep.	16.379	4.812	0.000	0.000	5.937	2.964	12.291
Denmark	12.440	3.742	0.000	0.000	4.652	2.322	9.207
Estonia	4.381	1.537	0.000	0.000	0.773	0.386	4.759
Finland	8.165	1.577	3.026	3.026	5.765	2.878	-4.953
France	15.869	3.964	0.000	0.000	27.238	13.599	-21.004
Germany	12.287	12.034	0.000	0.000	22.337	11.152	-9.168
Great Britain	5.594	1.072	0.000	0.000	10.366	5.175	-8.875
Greece	0.657	0.349	0.263	0.263	3.440	1.717	-4.676
Hungary	3.183	3.038	1.456	1.456	4.043	2.018	-2.753
Ireland	0.074	0.118	0.000	0.000	1.341	0.669	-1.818
Italy	3.598	1.457	0.000	0.000	18.127	9.050	-22.122
Kosovo	0.621	0.761	0.000	0.000	0.588	0.294	0.499
Latvia	1.801	1.514	0.000	0.000	0.622	0.310	2.383
Lithuania	4.549	1.869	3.129	3.129	1.868	0.933	-2.642
Luxembourg	0.026	0.033	0.000	0.000	1.886	0.942	-2.769
Montenegro	1.178	1.726	0.000	0.000	0.518	0.258	2.128
Netherlands	8.719	5.961	0.000	0.000	4.483	2.238	7.959
North Macedonia	0.493	1.381	0.000	0.000	0.870	0.434	0.571
Northern Ireland	0.171	0.326	0.000	0.000	0.723	0.361	-0.587
Norway	1.607	0.867	0.037	0.037	8.523	4.255	-10.378
Poland	10.517	2.436	0.560	0.560	4.509	2.251	5.072
Portugal	0.488	0.390	0.000	0.000	4.801	2.397	-6.321
Romania	-2.115	0.788	0.224	0.224	1.714	0.856	-4.345
Serbia	1.319	1.570	0.000	0.000	1.193	0.596	1.100
Slovakia	4.733	6.025	0.592	0.592	1.026	0.512	8.035
Slovenia	2.985	4.233	0.000	0.000	1.081	0.540	5.597
Spain	14.371	3.163	0.534	0.534	5.100	2.546	8.820
Sweden	7.077	3.921	0.000	0.000	12.141	6.062	-7.205
Switzerland	26.784	9.843	0.000	0.000	7.621	3.805	25.201
<b>TOTAL</b>	<b>189.823</b>	<b>100.000</b>	<b>10.442</b>	<b>10.442</b>	<b>179.381</b>	<b>89.558</b>	<b>0.000</b>

**Table 3: Final net positions of ITC Parties between 2011 and 2019**

ITC party	Final net position (million EUR)								
	2011	2012	2013	2014	2015	2016	2017	2018	2019
<b>Albania</b>	-2.176	-2.320	-1.518	-1.607	-1.364	-1.239	-1.878	-1.624	-1.271
<b>Austria</b>	11.144	17.915	11.263	6.223	7.136	5.526	9.817	7.650	16.176
<b>Belgium</b>	2.566	-3.077	-1.604	-5.964	-9.933	1.989	0.592	-5.768	3.030
<b>Bosnia</b>	3.398	3.444	1.018	0.897	2.329	0.375	1.132	0.488	-0.148
<b>Bulgaria</b>	-4.265	-2.815	-0.713	0.002	-2.691	0.907	0.137	-2.333	-1.500
<b>Croatia</b>	2.147	0.110	5.264	2.359	0.974	2.556	-0.472	4.604	-0.294
<b>Czech Rep.</b>	-5.702	-4.941	-4.544	0.841	7.842	6.447	5.946	8.785	12.291
<b>Denmark</b>	4.600	13.108	12.675	11.154	8.674	5.411	9.356	7.640	9.207
<b>Estonia</b>	-0.532	1.389	1.853	5.471	8.378	3.854	2.813	3.701	4.759
<b>Finland</b>	0.769	-9.125	-5.713	-1.262	3.545	-2.886	-8.054	-5.116	-4.953
<b>France</b>	-25.685	-22.123	-19.032	-29.079	-27.331	2.070	-6.880	-20.893	-21.004
<b>Germany</b>	20.974	26.786	13.207	0.912	-6.101	-12.475	-2.156	-8.435	-9.168
<b>Great Britain</b>	-6.794	-11.534	-12.706	-13.274	-14.063	-10.028	-10.344	-7.506	-8.875
<b>Greece</b>	0.317	4.693	0.612	-3.634	-3.065	-4.637	-0.686	0.278	-4.676
<b>Hungary</b>	1.765	2.507	-4.412	-3.910	-3.938	-4.034	-2.745	-5.058	-2.753
<b>Ireland</b>	-0.661	-0.449	-1.217	-0.934	-0.932	-1.167	-1.413	-1.410	-1.818
<b>Italy</b>	-30.544	-33.931	-29.760	-24.035	-29.726	-25.559	-24.901	-25.849	-22.122
<b>Kosovo</b>	-	-	-	-	-	0.225	0.069	1.036	0.501
<b>Latvia</b>	0.764	3.185	3.676	2.995	3.548	3.126	2.798	2.966	2.383
<b>Lithuania</b>	-4.969	-5.447	-4.359	-3.719	-3.371	1.454	-0.397	-1.858	-2.642
<b>Luxembourg</b>	-2.846	-3.264	-2.849	-2.309	-2.551	-2.905	-2.783	-2.405	-2.769
<b>Montenegro</b>	0.425	0.784	1.032	2.127	0.672	0.504	0.419	0.791	2.128
<b>Netherlands</b>	-0.184	-4.540	-1.799	4.559	11.181	4.526	6.230	10.030	7.959
<b>North Macedonia</b>	-0.833	-1.031	-0.695	0.395	0.803	1.096	0.218	0.349	0.571
<b>Northern Ireland</b>	-0.305	-0.896	-0.818	-0.664	-0.619	-0.539	-0.729	-0.315	-0.587
<b>Norway</b>	-10.870	-13.643	-9.100	-6.274	-5.813	-12.794	-11.978	-10.358	-10.378
<b>Poland</b>	2.635	5.013	2.853	10.106	15.532	8.342	5.775	3.381	5.072
<b>Portugal</b>	-2.692	-3.281	-2.102	-0.292	0.255	-2.894	-3.476	-2.331	-6.321
<b>Romania</b>	-2.282	-3.329	-1.737	-4.257	-4.352	-3.725	-3.762	-1.303	-4.345
<b>Serbia</b>	3.297	2.015	1.461	2.012	3.740	2.221	2.473	3.785	1.100
<b>Slovakia</b>	6.994	11.415	6.985	7.722	7.737	5.298	6.573	4.218	8.035
<b>Slovenia</b>	4.130	3.808	4.023	4.624	5.919	5.186	6.612	1.360	5.597
<b>Spain</b>	-1.064	-5.317	-0.191	0.989	1.195	4.972	1.249	10.312	8.820
<b>Sweden</b>	14.311	10.400	16.074	19.795	3.996	4.007	4.391	10.438	-7.205
<b>Switzerland</b>	22.172	24.491	22.877	18.030	22.396	14.789	16.056	20.752	25.201
<b>TOTAL</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>

**Table 4: Derivation of contributions to the ITC Fund**

ITC Party	Net Import (MWh)	Net Export (MWh)	Contribution to infrastructure (million EUR)		Contribution to losses (million EUR)	
			Perimeter countries	ITC Party	Perimeter countries	ITC Party
Albania	2,513,928	107,917	0.000	0.599	0.000	1.200
Austria	7,511,437	2,444,422	0.000	2.275	0.000	4.557
Belgium	3,199,599	4,938,371	0.000	1.860	0.000	3.725
Bosnia	131,503	3,871,255	0.000	0.915	0.000	1.832
Bulgaria	1,345	3,916,743	0.621	0.895	0.621	1.793
Croatia	6,345,703	182,609	0.000	1.492	0.000	2.988
Czech Republic	113,511	12,856,152	0.000	2.964	0.000	5.937
Denmark	7,915,122	2,247,061	0.000	2.322	0.000	4.652
Estonia	1,482,173	207,385	0.000	0.386	0.000	0.773
Finland	12,589,739	3,795	3.026	2.878	3.026	5.765
France	1,918,703	57,585,868	0.000	13.599	0.000	27.238
Germany	7,145,571	41,651,985	0.000	11.152	0.000	22.337
Great Britain	22,192,003	453,468	0.000	5.175	0.000	10.366
Greece	7,439,072	75,186	0.263	1.717	0.263	3.440
Hungary	8,829,538	2,707	1.456	2.018	1.456	4.043
Ireland	1,792,219	1,136,415	0.000	0.669	0.000	1.341
Italy	39,548,013	52,900	0.000	9.050	0.000	18.127
Kosovo	784,653	500,981	0.000	0.294	0.000	0.588
Latvia	868,298	489,766	0.000	0.310	0.000	0.622
Lithuania	4,080,953	0	3.129	0.933	3.129	1.868
Luxembourg	4,121,002	0	0.000	0.942	0.000	1.886
Montenegro	610,669	520,304	0.000	0.258	0.000	0.518
Netherlands	5,147,396	4,645,973	0.000	2.238	0.000	4.483
North Macedonia	1,862,633	37,158	0.000	0.434	0.000	0.870
Northern Ireland	857,667	721,101	0.000	0.361	0.000	0.723
Norway	9,507,145	9,112,436	0.037	4.255	0.037	8.523
Poland	9,444,436	407,072	0.560	2.251	0.560	4.509
Portugal	6,944,124	3,545,055	0.000	2.397	0.000	4.801
Romania	2,013,324	1,732,080	0.224	0.856	0.224	1.714
Serbia	1,399,236	1,207,682	0.000	0.596	0.000	1.193
Slovakia	2,097,093	144,902	0.592	0.512	0.592	1.026
Slovenia	1,021,304	1,339,861	0.000	0.540	0.000	1.081
Spain	8,739,151	2,401,800	0.534	2.546	0.534	5.100
Sweden	88,846	26,434,870	0.000	6.062	0.000	12.141
Switzerland	5,382,375	11,267,088	0.000	3.805	0.000	7.621
TOTAL	195,639,484	196,242,370	10.442	89.558	10.442	179.381
			100.000		189.823	

**Table 5: Reduction in transits**

ITC party	Transit before adjustment (MWh)	Reduction due to non-auctioned interconnection capacity (MWh)	Transit after reduction (MWh)
Albania	662,563	0	662,563
Austria	20,399,890	0	20,399,890
Belgium	9,551,986	0	9,551,986
Bosnia	2,693,454	0	2,693,454
Bulgaria	3,041,157	0	3,041,157
Croatia	5,053,963	0	5,053,963
Czech Republic	10,858,713	0	10,858,713
Denmark	7,946,331	0	7,946,331
Estonia	3,201,575	0	3,201,575
Finland	4,420,647	0	4,420,647
France	13,271,098	1,481,278	11,789,820
Germany	31,548,553	0	31,548,553
Great Britain	3,269,446	0	3,269,446
Greece	1,047,529	0	1,047,529
Hungary	7,265,735	0	7,265,735
Ireland	359,514	0	359,514
Italy	4,406,020	3,635	4,402,385
Kosovo	1,696,365	0	1,696,365
Latvia	2,981,753	0	2,981,753
Lithuania	3,924,666	0	3,924,666
Luxembourg	98,790	0	98,790
Montenegro	2,972,602	0	2,972,602
Netherlands	14,633,537	0	14,633,537
North Macedonia	2,870,823	0	2,870,823
Northern Ireland	873,587	0	873,587
Norway	2,555,528	0	2,555,528
Poland	6,785,377	0	6,785,377
Portugal	1,154,901	0	1,154,901
Romania	2,237,717	0	2,237,717
Serbia	4,020,013	0	4,020,013
Slovakia	11,430,863	0	11,430,863
Slovenia	7,999,969	0	7,999,969
Spain	9,139,878	0	9,139,878
Sweden	10,409,639	0	10,409,639
Switzerland	23,481,514	3,312,140	20,169,374
<b>TOTAL</b>	<b>238,265,695</b>	<b>4,797,053</b>	<b>233,468,642</b>

**Table 6: Derivation of compensation for transmission losses in 2018 and 2019**

ITC party	2018			2019		
	Impact of transits on losses volume (MWh)	Value of losses (EUR/MWh)	Compensation (million EUR)	Impact of transits on losses volume (MWh)	Value of losses (EUR/MWh)	Compensation (million EUR)
Albania	4,124	50.00	0.206	5,675	50.00	0.284
Austria	193,145	30.18	5.829	254,729	47.04	11.982
Belgium	69,248	44.44	3.077	110,155	44.44	4.895
Bosnia	37,363	51.32	1.917	21,029	69.78	1.467
Bulgaria	23,424	55.07	1.290	23,319	56.18	1.310
Croatia	106,716	47.67	5.087	34,132	56.69	1.935
Czech Rep.	274,065	42.32	11.598	296,515	55.24	16.379
Denmark	258,956	35.73	9.252	244,544	50.87	12.440
Estonia	86,994	36.30	3.158	92,103	47.57	4.381
Finland	155,273	35.23	5.470	237,347	34.40	8.165
France	304,755	40.37	12.303	394,054	40.27	15.869
Germany	391,983	29.64	11.618	335,798	36.59	12.287
Great Britain	65,624	54.34	3.566	82,164	68.08	5.594
Greece	41,015	53.30	2.186	11,586	56.70	0.657
Hungary	25,325	40.78	1.033	64,896	49.05	3.183
Ireland	53	47.55	0.003	1,148	64.14	0.074
Italy	928	56.13	0.052	57,146	62.96	3.598
Kosovo	21,371	46.17	0.987	14,112	44.00	0.621
Latvia	55,713	37.00	2.061	37,602	47.90	1.801
Lithuania	80,835	37.10	2.999	96,269	47.25	4.549
Luxembourg	617	31.86	0.020	627	41.45	0.026
Montenegro	3,718	48.52	0.180	18,704	62.99	1.178
Netherlands	200,540	42.99	8.621	144,458	60.36	8.719
North Macedonia	8,627	50.07	0.432	7,675	64.25	0.493
Northern Ireland	5,779	47.55	0.275	2,664	64.14	0.171
Norway	23,045	30.76	0.709	36,487	44.03	1.607
Poland	145,682	40.93	5.963	187,596	56.06	10.517
Portugal	31,602	51.44	1.626	8,001	61.00	0.488
Romania	8,263	42.15	0.348	-49,023	43.15	-2.115
Serbia	64,771	47.48	3.075	21,981	60.00	1.319
Slovakia	59,967	38.42	2.304	104,556	45.27	4.733
Slovenia	84,926	44.69	3.795	64,776	46.08	2.985
Spain	326,718	53.13	17.359	250,633	57.34	14.371
Sweden	323,429	29.62	9.580	248,752	28.45	7.077
Switzerland	404,419	45.91	18.567	368,316	72.72	26.784
<b>TOTAL</b>	<b>3,889,010</b>	<b>-</b>	<b>156.548</b>	<b>3,830,524</b>	<b>-</b>	<b>189.823</b>

**Table 7: Derivation of compensation for cross-border infrastructure in 2019**

ITC Party	Transit (MWh)	Load <sup>15</sup> (GWh)	Transit Factor based compensation (million EUR)	Load Factor based compensation (million EUR)	Total Infrastructure compensation (million EUR)
Albania	662,563	6,930	0.213	0.032	0.245
Austria	20,399,890	30,727	6.553	4.473	11.026
Belgium	9,551,986	67,395	3.069	0.652	3.720
Bosnia	2,693,454	12,274	0.865	0.266	1.132
Bulgaria	3,041,157	32,220	0.977	0.144	1.121
Croatia	5,053,963	17,320	1.624	0.627	2.251
Czech Rep.	10,858,713	38,095	3.488	1.324	4.812
Denmark	7,946,331	21,239	2.553	1.189	3.742
Estonia	3,201,575	7,865	1.028	0.509	1.537
Finland	4,420,647	63,886	1.420	0.157	1.577
France	11,789,820	420,477	3.787	0.177	3.964
Germany	31,548,553	256,418	10.135	1.899	12.034
Great Britain	3,269,446	264,504	1.050	0.022	1.072
Greece	1,047,529	47,313	0.337	0.012	0.349
Hungary	7,265,735	33,962	2.334	0.704	3.038
Ireland	359,514	28,661	0.115	0.002	0.118
Italy	4,402,385	244,377	1.414	0.043	1.457
Kosovo	1,696,365	5,628	0.545	0.216	0.761
Latvia	2,981,753	5,807	0.958	0.556	1.514
Lithuania	3,924,666	9,992	1.261	0.608	1.869
Luxembourg	98,790	4,251	0.032	0.001	0.033
Montenegro	2,972,602	3,325	0.955	0.771	1.726
Netherlands	14,633,537	78,759	4.701	1.260	5.961
North Macedonia	2,870,823	6,990	0.922	0.459	1.381
Northern Ireland	873,587	8,447	0.281	0.045	0.326
Norway	2,555,528	74,810	0.821	0.046	0.867
Poland	6,785,377	91,932	2.180	0.256	2.436
Portugal	1,154,901	38,330	0.371	0.019	0.390
Romania	2,237,717	37,276	0.719	0.070	0.788
Serbia	4,020,013	27,844	1.291	0.279	1.570
Slovakia	11,430,863	19,088	3.672	2.353	6.025
Slovenia	7,999,969	13,149	2.570	1.663	4.233
Spain	9,139,878	193,278	2.936	0.227	3.163
Sweden	10,409,639	92,828	3.344	0.577	3.921
Switzerland	20,169,374	46,291	6.479	3.363	9.843
<b>TOTAL</b>	<b>233,468,642</b>	<b>2,351,687</b>	<b>75.000</b>	<b>25.000</b>	<b>100.000</b>

<sup>15</sup> This is the total amount of electricity which exits the national transmission system to distribution systems and to end consumers directly connected to the transmission system, as well as to electricity producers for their consumption in the generation of electricity.





**Publishing date:** 01/12/2020

**Document title:** Report to the European Commission on the Implementation of the ITC Mechanism in 2019

**We appreciate your feedback**



Please click on the icon to take a 5' online survey and provide your feedback about this document

**Share this document**

