

A European comparison of electricity and natural gas prices for residential, small professional and large industrial consumers

June 2020

Errata



Supported by FORBEG

Errata

Two spots of errors were identified in the study. Given that this entails the modification of several charts - but has limited impact on conclusions - we provide a concise explanation of errors, an update of the charts that encountered modifications and a clear description of interpretation changes.

1. Flanders and Germany taxes

The description of taxes in Flanders and Germany for industrial consumers, which are here concerned, is detailed in chapter 5 under the “Electricity” section – more specifically from p.149 (Flanders) and p.154 (Germany). Then, pages that are subject to modifications due to a change in the computation are: pp. 199 – 200, 204 – 205, 209 – 210, 214 – 215, 219 – 220, 250 – 252.

Modifications:

Flanders

- *Green certificates*: only industrial consumers belonging to sectors NACE 5-33, 46391, 52100 et 52241 benefit from a 47% reduction on the consumption threshold ranging from 1 GWh to 20 GWh. These consumers are considered to be electro-intensive consumers. As opposed to what was considered before, non-electro-intensive consumers do not enjoy this reduction.
- *Combined heat/power certificates*: idem as above. Besides, a 0,3% difference in the applied quota was identified. We now use a 11,2% quota as in force now in Flanders.

Germany

- *Stromsteuer*: the minimum applicable tax rate must be computed as a 90% reduction on the reduced standard rate (25% reduction on standard rate) instead of a 90% reduction on the standard rate. The minimum applicable tax rate is now: $10\% \cdot (75\% \cdot 20,50) = 1,5375$ EUR/MWh. This is applied to all industrial profiles (E0 to E4).
- *EEG-Umlage*: the minimum applicable tax rate must be computed as the bottom rate charged to industrial users with electricity consumption > 1 GWh and which are part of the aluminium, zinc, lead and copper production industries. The minimum applicable tax rate is now 0,50 EUR/MWh and is applied to all industrial profiles (E0 to E4).
- *Konzessionsabgabe*: an exemption is granted if the consumer's electricity final price is below 125 EUR/MWh. Considering that only non-electro-intensive consumers display average electricity bills above 125 EUR/MWh, mostly due to paying the full EEG rate, an exemption on the *konzessionsabgabe* is now granted to all industrial profiles with regards to the minimum price option and all industrial profiles but E0 with regards to the maximum price option for electro-intensive consumers. This explains the downwards trend of minimum (E0 to E4) and maximum electro-intensive prices (E1 to E4). Residential and small professional users do not fall under the exemption scheme as they face average electricity bills higher than 125 EUR/MWh.

Charts updates:

This section gathers all updated charts labelled according to their figure number in the original report.

Profile E0 (Figures 36, 37 and 38; pp.199 - 200)

Figure 36: Total yearly invoice in kEUR/year (profile E0)

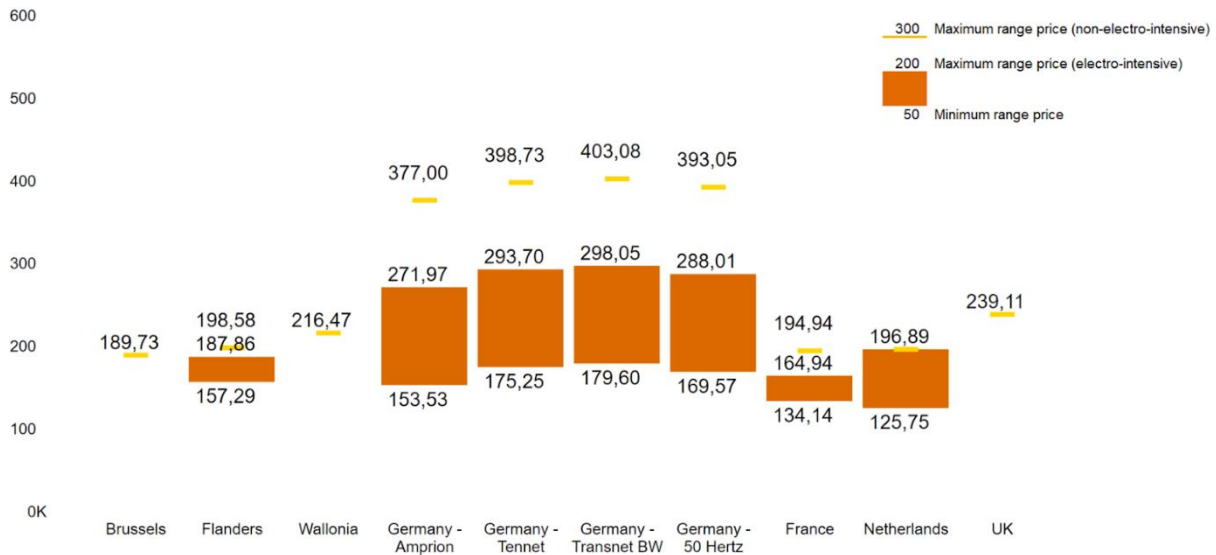


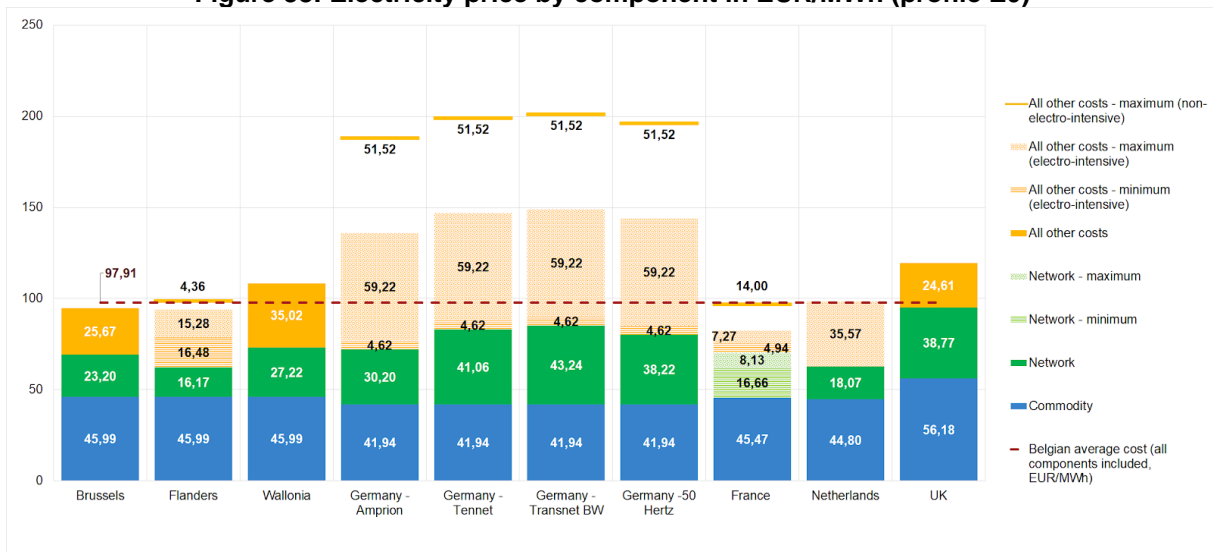
Figure 37: Total yearly invoice comparison in % (profile E0; Belgium Average 2020 = 100)



Interpretation of changes

The change in the minimum applicable prices in Germany led to lower minimum prices. Consequently, the price range in each German zone widened. As for Flanders, the maximum price for non-electro-intensive consumers raised as a result of the non-application of reductions on the first consumption threshold.

Figure 38: Electricity price by component in EUR/MWh (profile E0)



Interpretation of changes

The change in the minimum applicable prices in Germany led to lower minimum prices (i.e. all other costs - minimum (electro-intensive)). In Flanders, the maximum price for non-electro-intensive consumers raised as a result of the non-application of reductions on the first consumption threshold.

Profile E1 (Figures 41, 42 and 43; pp. 204 - 205)

Figure 41: Total yearly invoice in MEUR/year (profile E1)

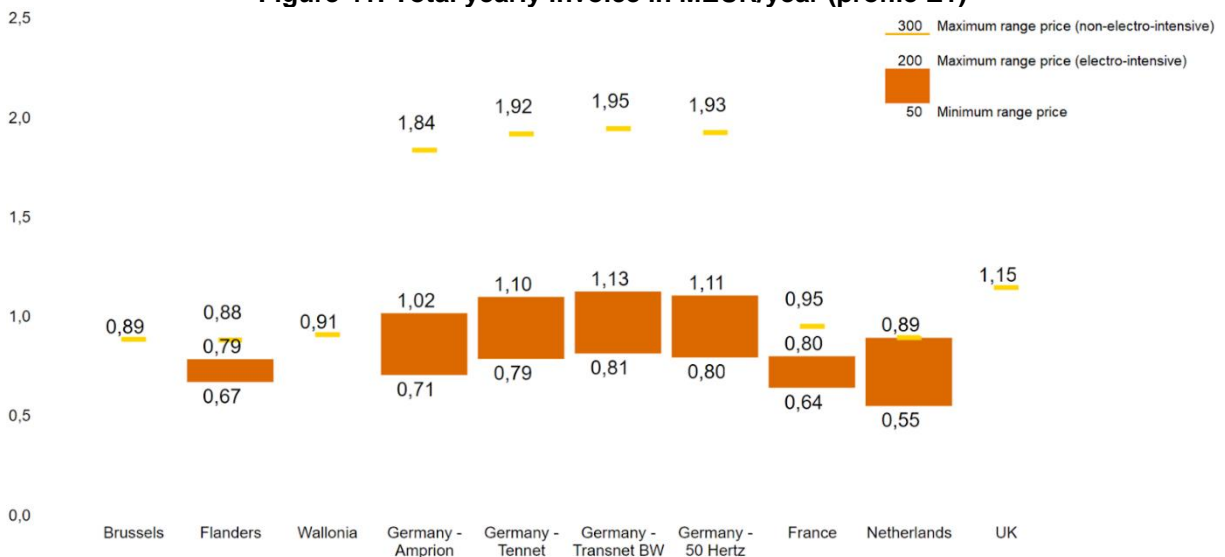
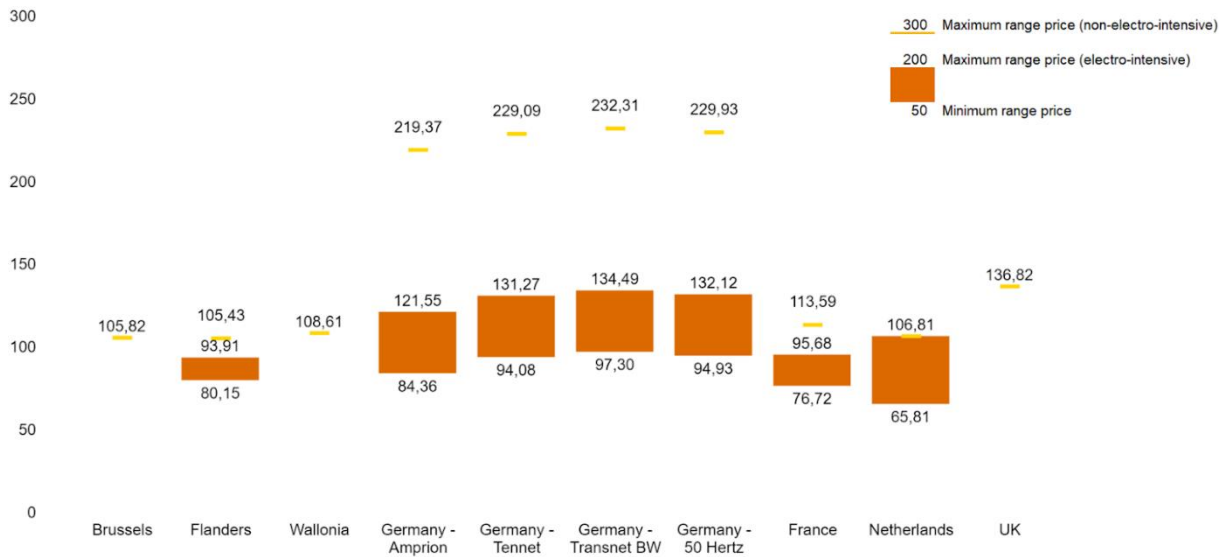


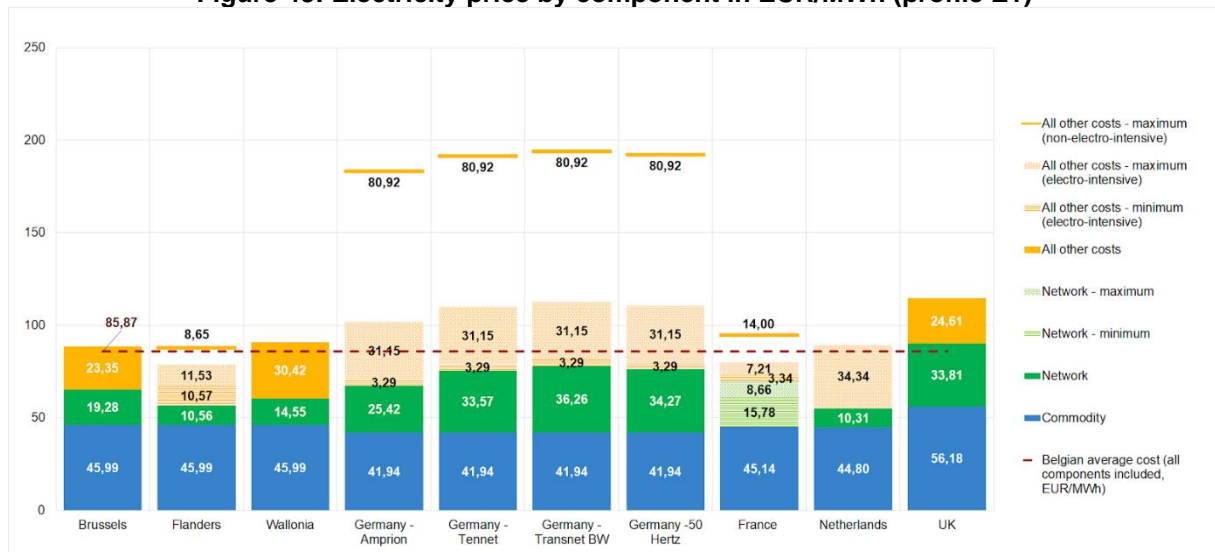
Figure 42: Total yearly invoice comparison in % (profile E1; Belgium Average 2020 = 100)



Interpretation of changes

The change in the minimum applicable prices in Germany led to lower minimum prices. Consequently, the price range in each German zone widened. As for Flanders, the maximum price for non-electro-intensive consumers raised as a result of the non-application of reductions on the first consumption threshold.

Figure 43: Electricity price by component in EUR/MWh (profile E1)



Interpretation of changes

The change in the minimum applicable prices in Germany led to lower minimum prices (i.e. all other costs - minimum (electro-intensive)). In Flanders, the maximum price for non-electro-intensive consumers raised as a result of the non-application of reductions on the first consumption threshold.

Profile E2 (Figures 46, 47 and 48; pp. 209 - 210)

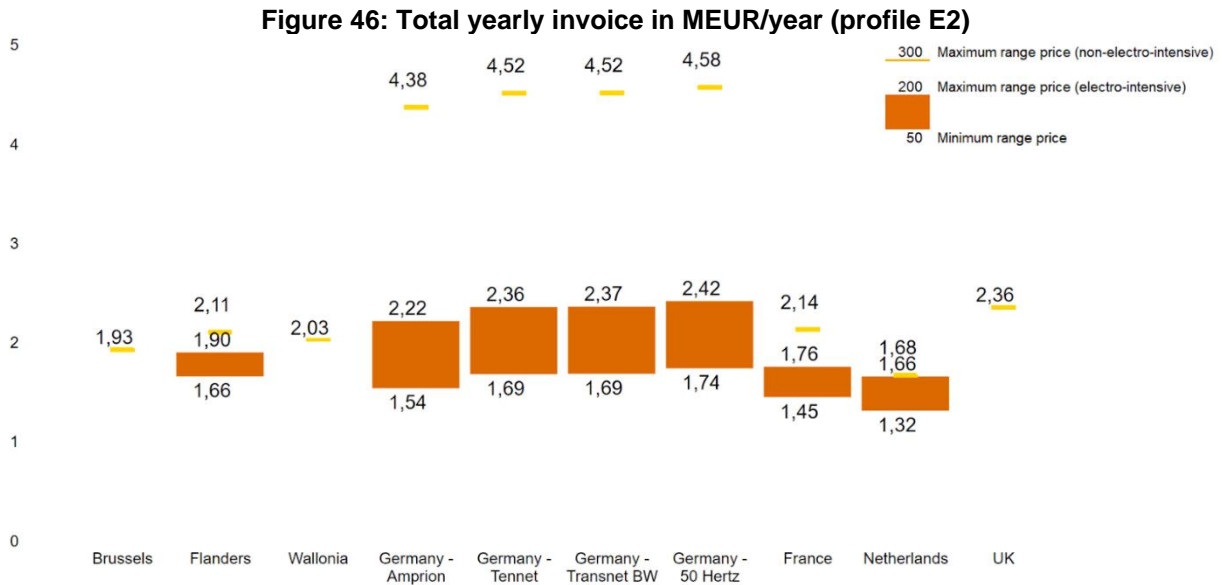
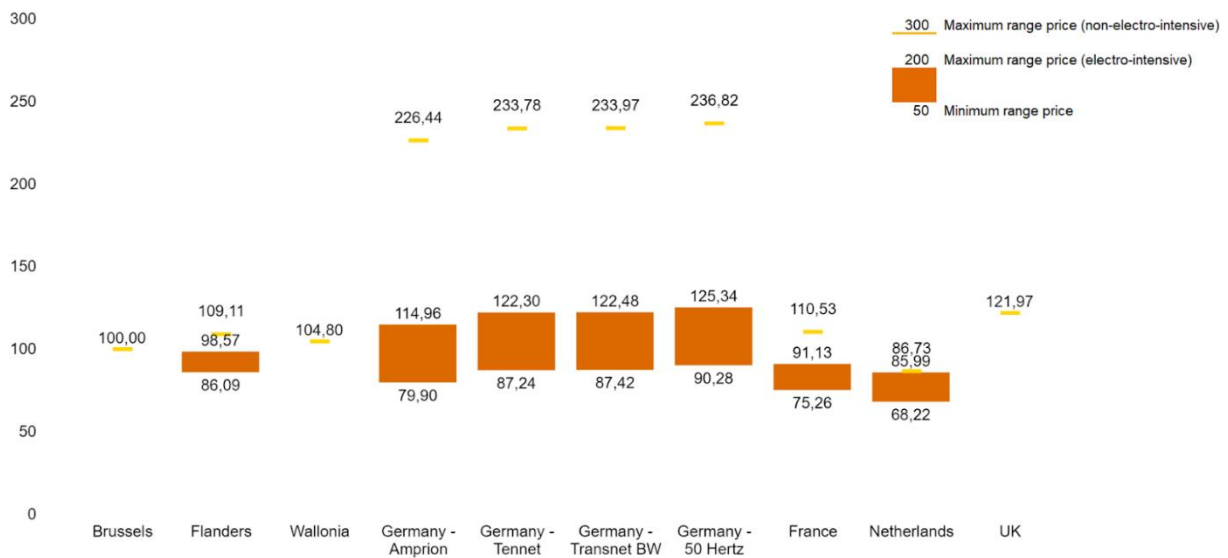


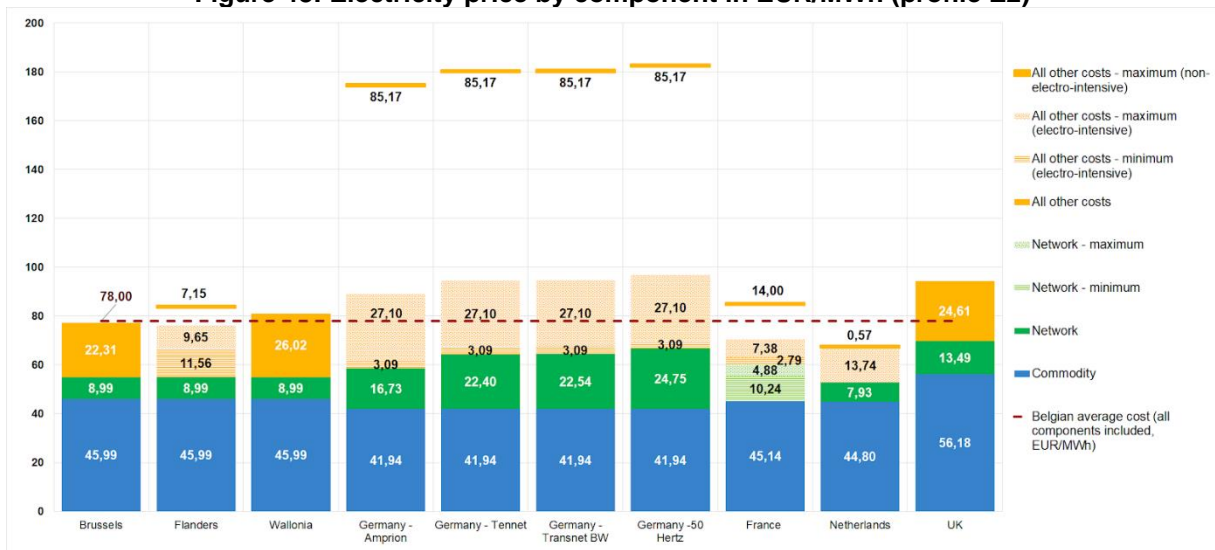
Figure 47: Total yearly invoice comparison in % (profile E2; Belgium Average 2020 = 100)



Interpretation of changes

The change in the minimum applicable prices in Germany led to lower minimum prices. Consequently, the price range in each German zone widened. As for Flanders, the maximum price for non-electro-intensive consumers raised as a result of the non-application of reductions on the first consumption threshold.

Figure 48: Electricity price by component in EUR/MWh (profile E2)



Interpretation of changes

The change in the minimum applicable prices in Germany led to lower minimum prices (i.e. all other costs - minimum (electro-intensive)). In Flanders, the maximum price for non-electro-intensive consumers raised as a result of the non-application of reductions on the first consumption threshold.

Profile E3 (Figures 51, 52 and 53; pp. 214 - 215)

Figure 51: Total yearly invoice in MEUR/year (profile E3)

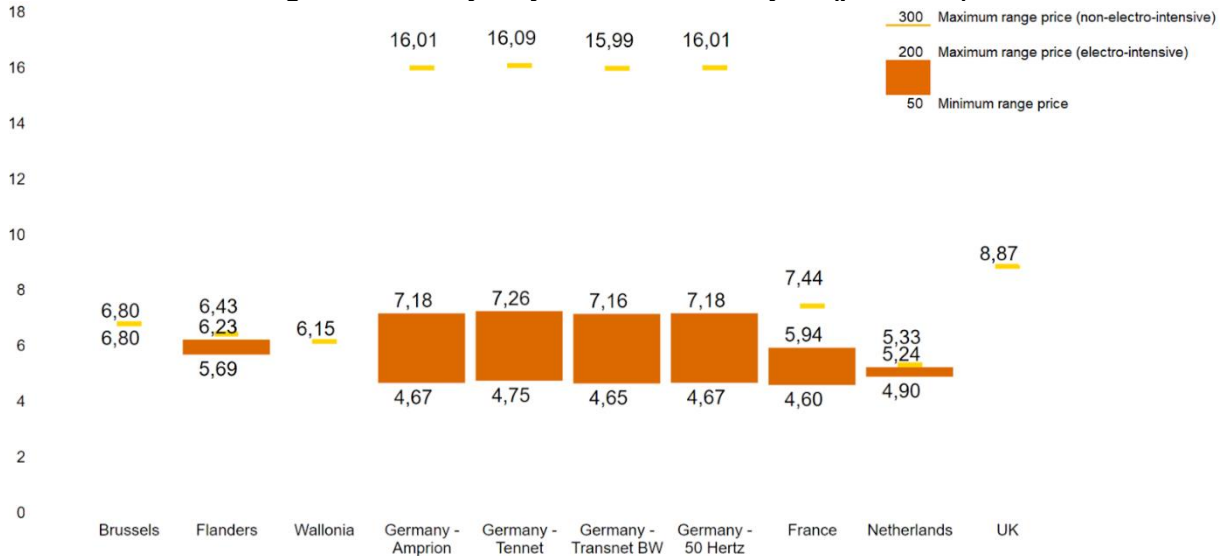


Figure 52: Total yearly invoice comparison in % (profile E3; Belgium Average 2020 = 100)



Interpretation of changes

The change in the minimum applicable prices in Germany led to lower minimum prices. Consequently, the price range in each German zone widened. As for Flanders, the maximum price for non-electro-intensive consumers raised as a result of the non-application of reductions on the first consumption threshold.

Figure 53: Electricity price by component in EUR/MWh (profile E3)



Interpretation of changes

The change in the minimum applicable prices in Germany led to lower minimum prices (i.e. all other costs - minimum (electro-intensive)). In Flanders, the maximum price for non-electro-intensive consumers raised as a result of the non-application of reductions on the first consumption threshold.

Profile E4 (Figures 56, 57 and 58; pp. 219 - 220)

Figure 56: Total yearly invoice in MEUR/year (profile E4)

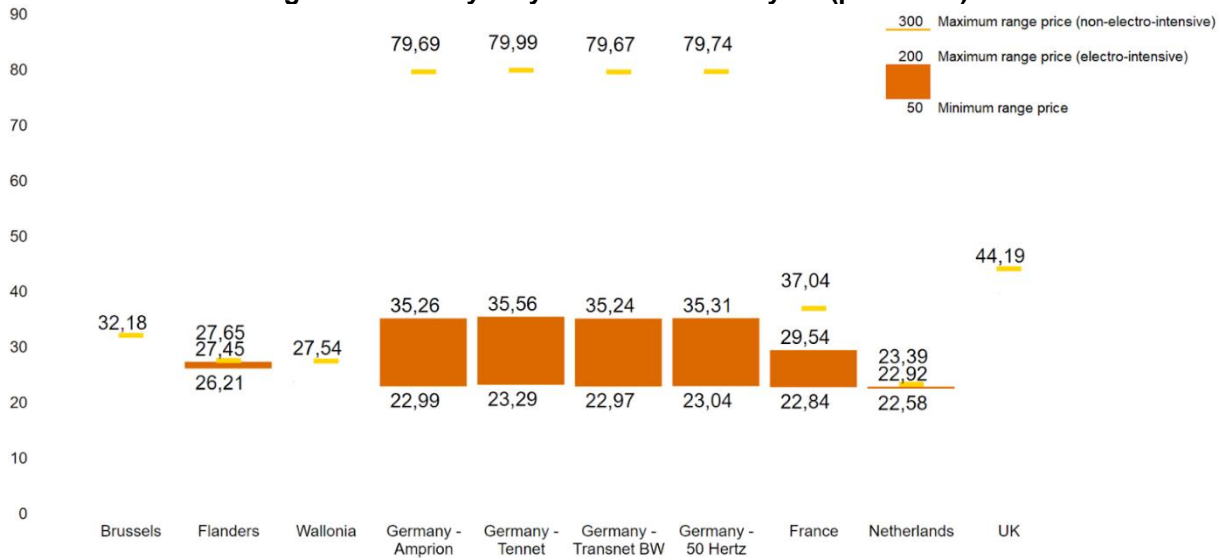
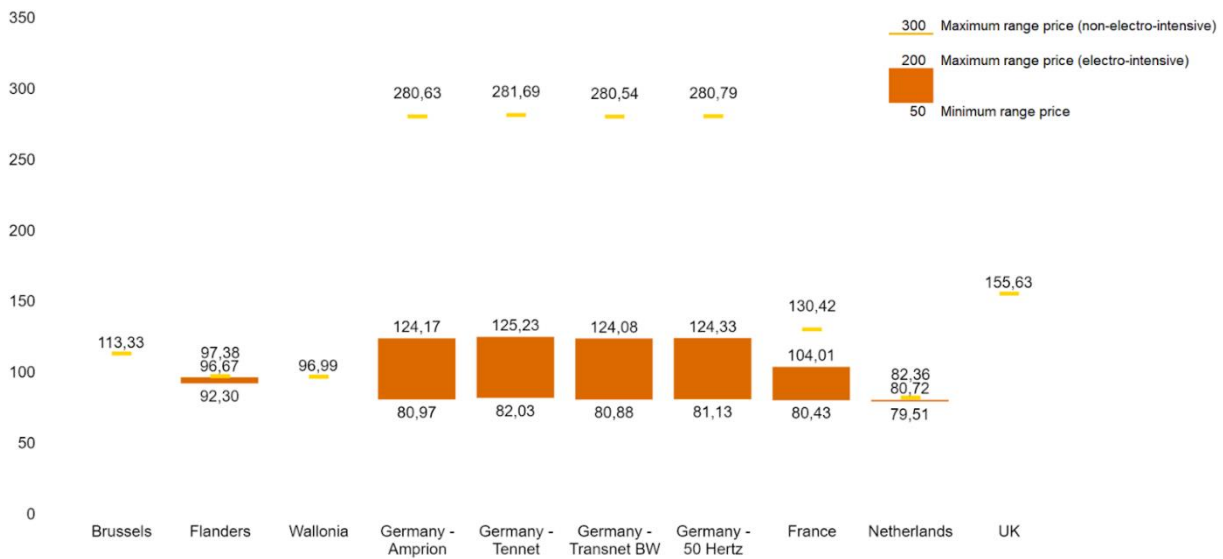


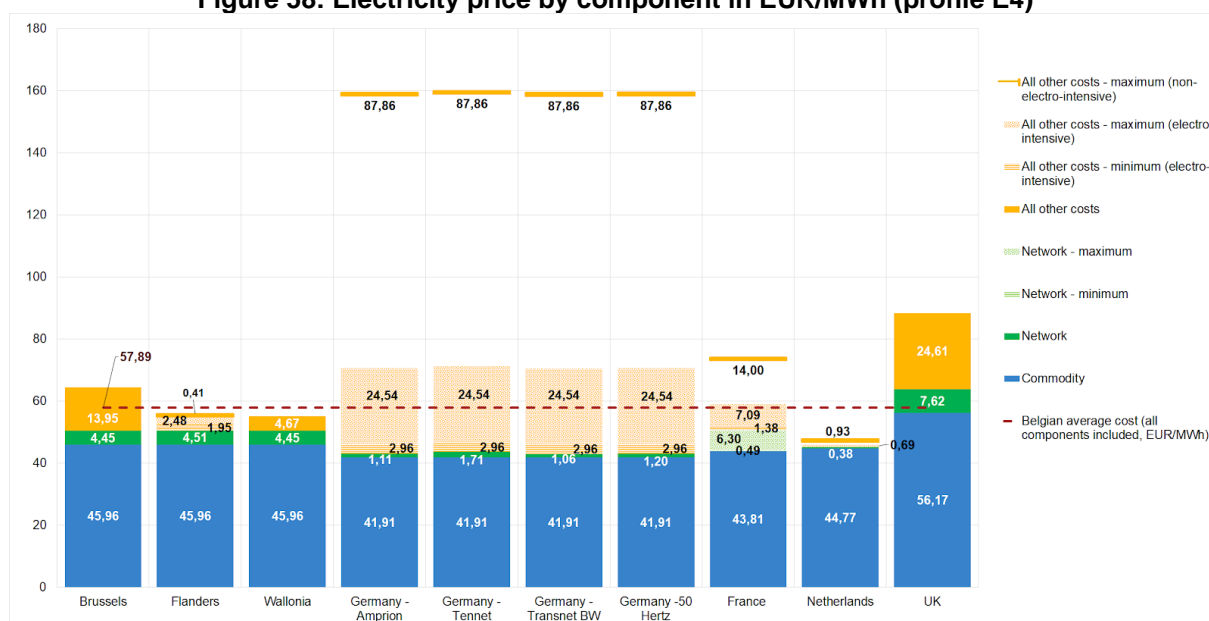
Figure 57: Total yearly invoice comparison in % (profile E4; Belgium Average 2020 = 100)



Interpretation of changes

The change in the minimum applicable prices in Germany led to lower minimum prices. Consequently, the price range in each German zone widened. As for Flanders, the maximum price for non-electro-intensive consumers raised as a result of the non-application of reductions on the first consumption threshold.

Figure 58: Electricity price by component in EUR/MWh (profile E4)



Interpretation of changes

The change in the minimum applicable prices in Germany led to lower minimum prices (i.e. all other costs - minimum (electro-intensive)). In Flanders, the maximum price for non-electro-intensive consumers raised as a result of the non-application of reductions on the first consumption threshold.

Competitiveness scorecards (p. 250, 251 and 252)

Figure 79: Competitiveness scorecard for industrial electricity consumers (profiles E0 – E4)

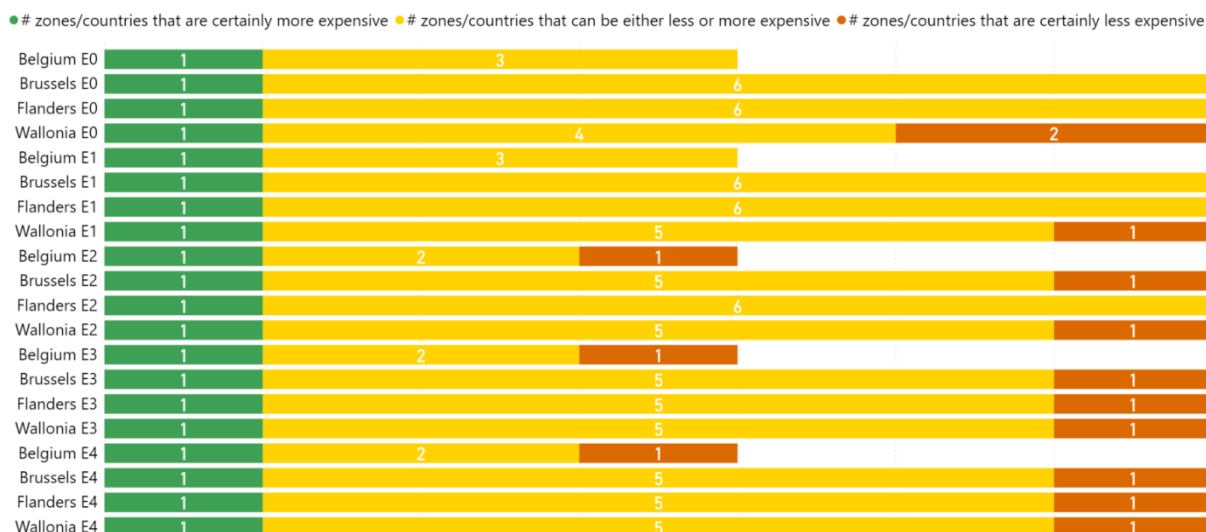


Figure 80: Competitiveness scorecard for industrial non-electro-intensive consumers (profiles E0 – E4)

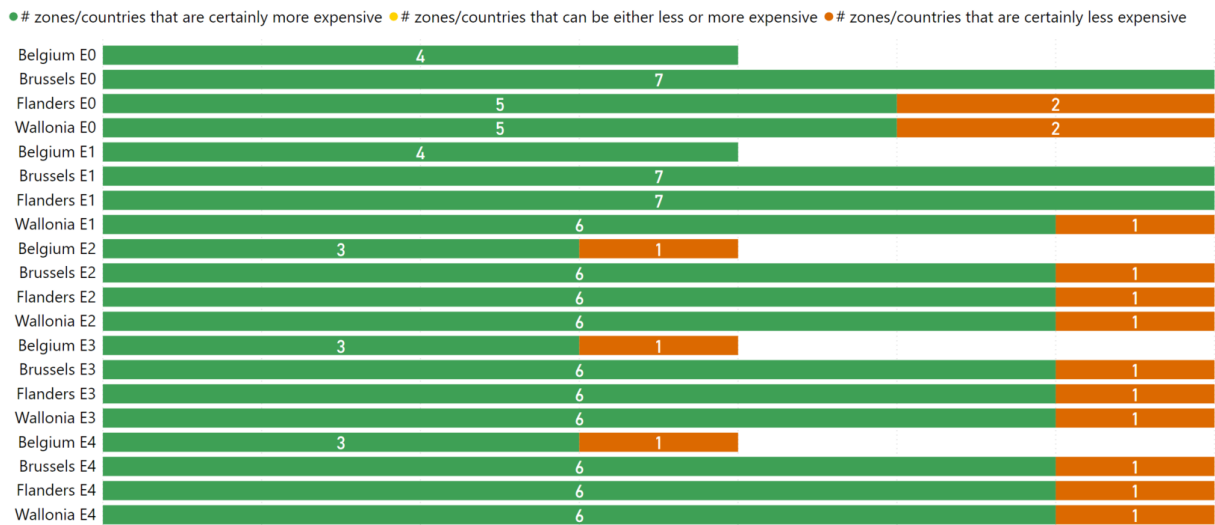


Figure 81: Competitiveness scorecard for industrial electro-intensive consumers (profiles E0 – E4)



Interpretation of changes

As a result of lower minimum prices for German electro-intensive consumers, Belgian E0 and E1 consumers' competitiveness (at regional and national level) deteriorated. These players used to be cheaper than their German counterparts who are now considered as zones that can be "either less or more expensive" than Belgian regions. For instance, when looking at figure 79, each Belgian region was originally presented as being cheaper than 5 other regions/countries with regards to profile E0. As all 4 German regions are now "either less or more expensive" than each Belgian region, only the UK remains as certainly more expensive than each Belgian region. A similar observation holds for profile E1 even though the new number of German regions considered as "either less or more expensive" depends on the Belgian region. Profiles E2 to E4 do not face competitiveness changes. Given that these competitiveness changes appeared due to a lower minimum price for electro-intensive consumers, these changes can also be observed on figure 80 (only profile E0 in Flanders) and 81 for profiles E0 and E1 (all Belgian regions).

2. Competitiveness

The analysis of competitiveness, which is here concerned, is detailed in chapter 9, under two sections: “Sector- and region-specific electricity and natural gas prices” and “Weighted energy cost differences”, more specifically from p.287. Then, pages that are subject to modifications due to a change of sectoral electricity consumption to each profile are: pp.287, 289 – 290, 297 – 300.

Modification:

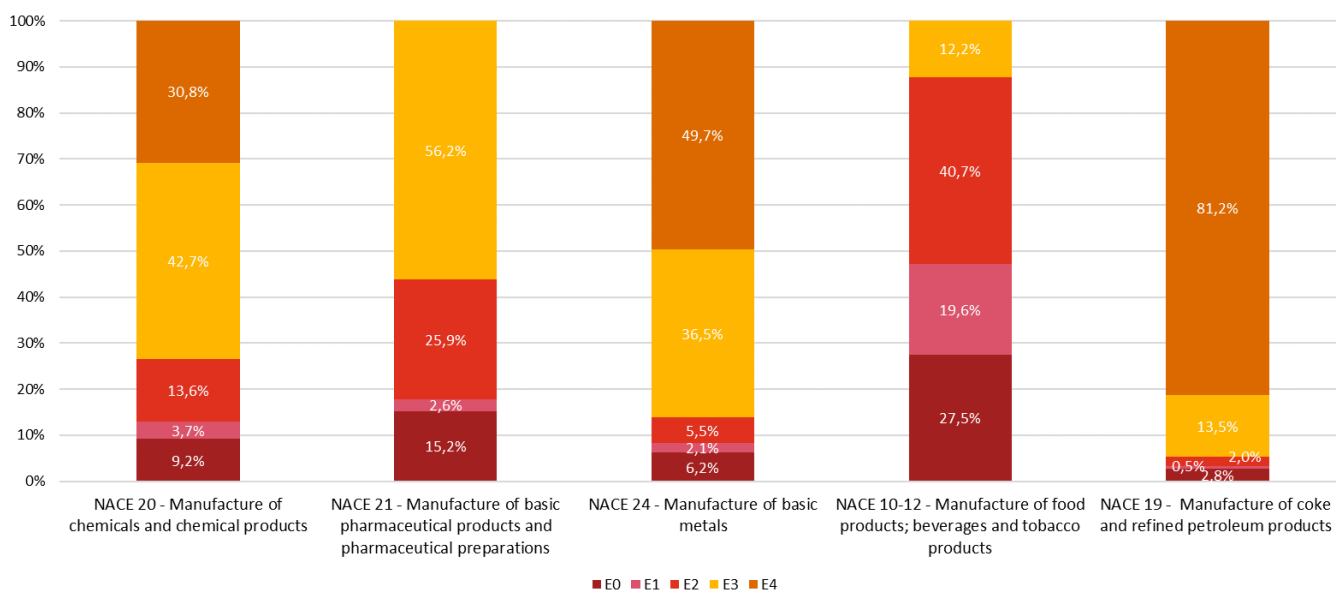
- *Profile distribution* (p.287): an error was made in the count of enterprises under each consumption profile to define profile's representativeness in a given sector, leading to the emergence of profile E2 for the NACE 10-12 sector (Food & Beverages). E3 and/or E4 profiles remain the most predominant ones for the other sectors. The share of sectoral natural gas consumption has not been impacted.
- *Sectoral energy cost differences* (p.289-300): because of the emergence of profile E2 and the change in profiles' share in general, weighted energy cost is affected, more precisely impacting the Belgian competitive position to some extent. Besides, changes that have occurred in German prices can also explain costs differences.

Charts update

This section gathers all updated charts labelled according to their figure number in the original report.

Share of sectoral electricity consumption (Figure 95; p. 287)

Figure 95: Share of sectoral electricity consumption attributed to each consumer profile



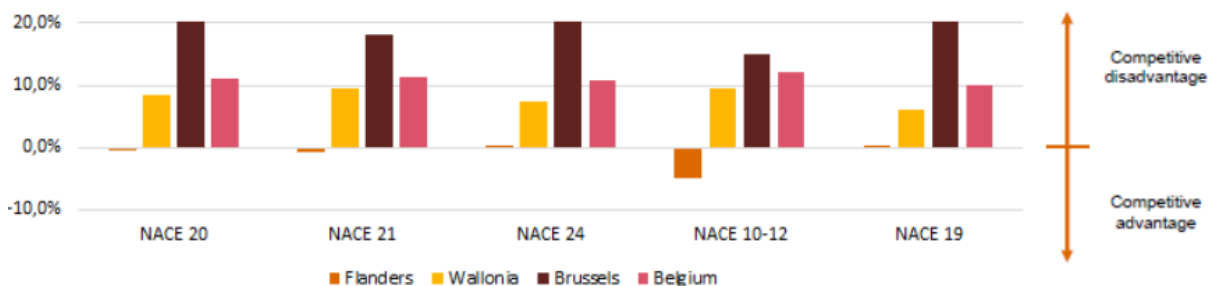
Interpretation of changes

The food and beverages sector (NACE 10-12) is mostly impacted as the predominant consumption is now being represented by the E2 profile. The other sectors are mostly represented by E3 and E4 profiles – except for profile 21 who does not count any E4-like consumers. The manufacture of coke and refined petroleum products sector (NACE 19) sees E4 consumers becoming the largest share instead of E3 consumers.

Competitiveness has been slightly impacted consequently.

Electricity price differences for electro-intensive and non-electro-intensive consumers (Figures 97 and 98; pp. 289-290)

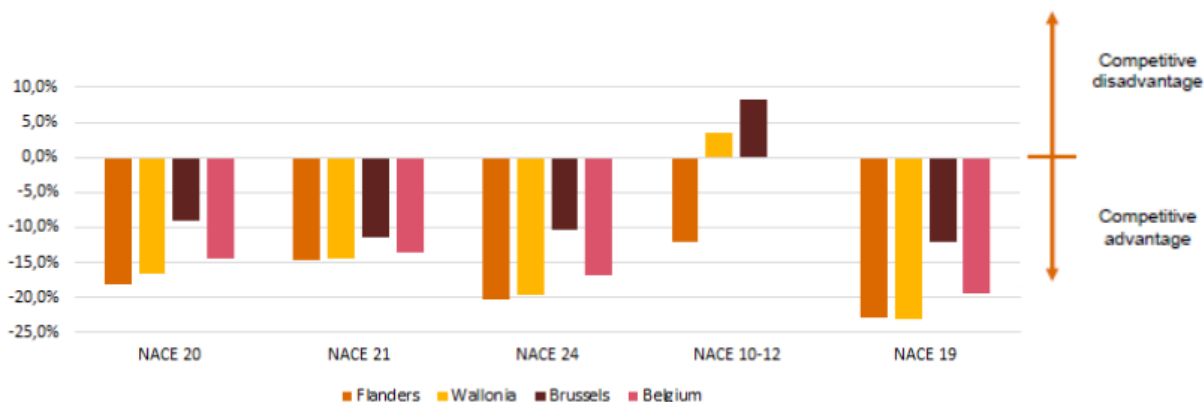
Figure 97: Electricity price differences for electro-intensive consumers compared with the average in the neighbouring countries (p.289)



Interpretation of changes

Brussels and Wallonia observe an increase in the competitive disadvantage they face for each sector for electricity. For instance, sector NACE 19 now counts a +20% electricity price difference (instead of +15% previously). In Flanders, sectors NACE 19 and NACE 24 now face competitive disadvantages due to the loss of former competitive advantages. This can be explained by the global reduction of German prices as a result of changes detailed in section 1 of this document. The other three sectors observe a reduction in their competitive advantages.

Figure 98: Electricity price differences for non-electro-intensive consumers compared with the average in the neighbouring countries (p.290)

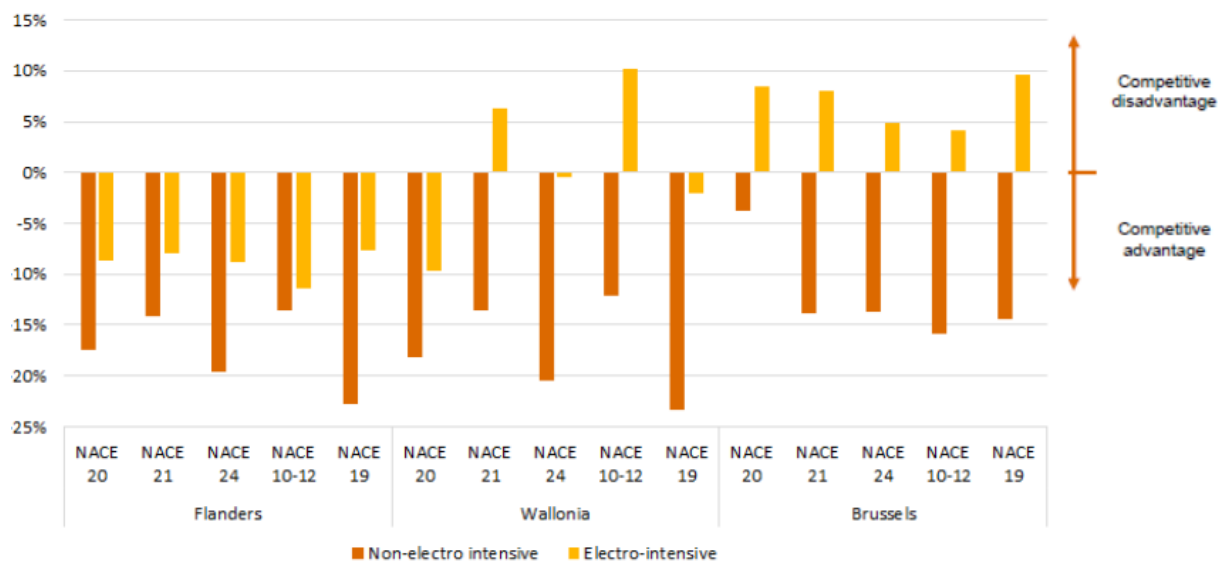


Interpretation of changes

While most sectors are not particularly highly impacted, sector 10-12 (food and beverages) is affected. For this sector, Flanders' competitive advantage for electricity is halved whereas Brussels and Wallonia now face a competitive disadvantage (respectively 8% and 3%) for non-electro-intensive consumers. This can be explained by the larger proportion of E2 profiles, benefiting from less reductions (compared to E4) in Belgium. This can also be explained by the global reduction of German prices as a result of changes detailed in section 1 of this document. NACE 19 and 24 remain the most competitive sectors for Wallonia and Flanders.

Sectoral weighted energy cost differences (Figures 104 and 105; pp. 297-300)

Figure 104: Sectoral weighted energy cost differences (electricity and natural gas) between the Belgian regions and the average of 4 European countries (Germany, France, the Netherlands and the United Kingdom) for electro-intensive and non-electro-intensive consumers (p.297)



Interpretation of changes

Electro-intensive consumers:

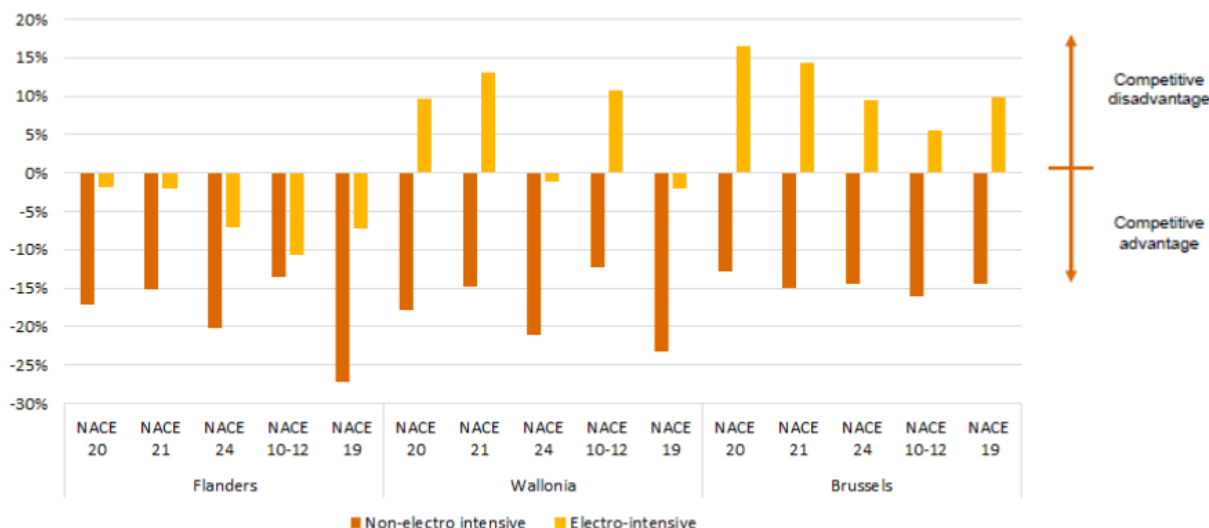
- In Flanders, if sectors NACE 20 (chemicals) and 21 (pharmaceuticals) have faced 2-3% reduction of their competitive advantage, sectors NACE 24 (basic metals manufacturing) and NACE 10-12 (food and beverages) have remained similar whereas NACE 19 (petroleum products) has reinforced its competitive position by about 3%;
- Wallonia's sector NACE 10-12 has switched from a competitive advantage to a competitive disadvantage (10%). The other sectors remained relatively stable although NACE 21 faced an increase in its competitive disadvantage;
- Brussels displays in general increase in competitive disadvantages for each sector but sector NACE 19 whose competitive disadvantage was nearly halved by two.

Non-electro-intensive consumers:

- All regions still face positive competitive advantages;
- Flanders experiences smaller competitive advantages for all sectors but NACE 24 and 19, the latter having increased;
- NACE 19 and 24 (basic metals) in Wallonia have strengthened their competitive advantages whereas NACE 10-12's competitive position has deteriorated. NACE 20 and 21 remain steady;
- In Brussels, only sectors NACE 10-12 and 19 have faced an increase in their competitive advantages.

Changes encountered are the result of changes in German prices and sector's profiles composition.

Figure 105: Sectoral weighted energy costs differences (electricity and natural gas) between the Belgian regions and the average of 3 European countries (Germany, France, and the Netherlands excluding the United Kingdom for electro-intensive and non-electro-intensive consumers (p.300)



Interpretation of changes

Electro-intensive consumers

- If Flanders still enjoys a competitive position for all its sectors, NACE 19 has observed a significant increase (about 7%) in competitive advantage;
- Wallonia's main change comes from sectors NACE 19 and NACE 24 which used to face competitive disadvantages for electro-intensive consumers and now observe competitive advantages (1 to 2%);
- Brussels' sectors' competitive positions remain stable although NACE 20 and 21 have larger competitive disadvantages (about +2%).

Non-electro-intensive consumers

- In Flanders, competitive positions have weakened for sectors NACE 10-12, 20 and 21. Conversely, NACE 24 maintained its position and NACE 19 reinforced its competitive advantage;
- In Wallonia, sectors NACE 19, 21 and 24 strengthened their competitive advantages;
- Brussels observes an increase in competitive advantages for all sectors but NACE 20.

Changes encountered are the result of changes in German prices and sector's profiles composition.