



# **Household Energy Price Index for Europe**

April 28, 2023

# **April Prices Just Released**

The most up-to-date picture of European household electricity and gas prices: VaasaETT and two leading European energy market authorities collaborate to track monthly energy prices in 33 European countries.

Energie-Control Austria, the Hungarian Energy and Public Utility Regulatory Authority (MEKH) and VaasaETT are delighted to publish the results of our study of residential electricity and gas prices covering 33 European countries. Our price survey now includes every EU Member State in addition to selected members of the European Energy Community (Montenegro, Norway, Serbia and Ukraine), plus Great Britain and Switzerland.

We would like to use this opportunity to thank the energy market authorities, energy suppliers and distributors for their time and cooperation to ensure the quality of our data.

If you would like to know more about the latest developments in residential energy prices, visit our project webpage at <u>www.energypriceindex.com</u> and subscribe to the free monthly update of the HEPI index for Europe.

# IN THIS MONTH'S EDITION

Significant electricity price increase in Vienna

Electricity price increases in Oslo, Paris, Rome and Tallinn

Significant electricity price decreases in Copenhagen and Helsinki

Electricity price decreases in Amsterdam, Athens, Berlin, Brussels, Lisbon, London, Madrid, Nicosia, Prague, Stockholm and Vilnius

Natural gas price increase in Rome

Significant natural gas price decreases in Athens, Berlin, Brussels, Madrid, Paris and Vienna

Natural gas price decreases in Amsterdam, Copenhagen, Lisbon, London, Prague, Riga, Sofia and Tallinn

Fixed vs variable tariff analysis: fixed prices are typically higher than variable

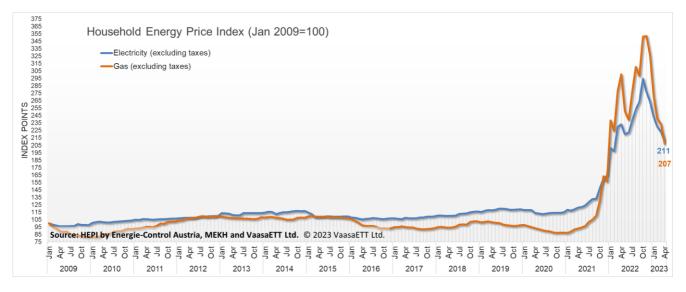
# **European Energy Price Development**

Figure 1 shows the evolution of residential energy and distribution prices excluding taxes between January 2009 and April 2023 in 15 European capital cities. The index is calculated by weighing prices in each of the capital cities by the respective national electricity or gas residential consumption.

Residential electricity prices steadily decreased over the first half of 2009 and reached a trough at 96 index points in June 2009 as the economic crisis took its toll on demand and wholesale prices plummeted. Prices started to recover in the second half of 2009 together with (temporary) green shoots in economic activity and a general feeling that the worst of the crisis was behind us. They have been on an upward trend since then. The index for electricity reached as high as 116 index points in October 2014. Since then, it faltered and remained around 108 index points in 2016 and 2017. During 2019, the index was fluctuating around 115 and 119 points. However, the recent developments on the wholesale markets due to COVID-19 restrictions dropped the index rate down to 112 points in 2020. During 2021, the index followed an increasing trend as people and businesses were resuming their activities, hence there was higher demand, and the energy crisis was gradually developing. The extraordinary weather conditions, the record high wholesale natural gas prices and the lack of storage materials to cover demand led to repetitive record high prices in most of the European capitals by the end of 2021. The increasing trend became more extreme during the second half of the year, reaching 170 points in December 2021. After climbing the sharpest step in its historical data in January 2022 and its largest peak in October 2022, the HEPI electricity index currently stands at 211 points (EUR-15).

The economic downturn which impacted energy demand and wholesale prices in 2009 is much more visible in the development of residential gas prices. The gas price index dropped significantly in 2009 and reached its lowest value only in February 2010 at 81 index points (nine months after the lowest value in the electricity price index). Retail prices started to recover in the winter of 2010 when a cold wave hit many parts of Europe. The index steadily increased until the beginning of 2013. It remained between 105 and 110 index points ever since despite a significant drop in natural gas prices on international markets during the year 2015. In 2016 however, gas prices plummeted reaching a 6-year low in September 2016 at 93 points. After a small hike up to 96 points in March 2017, a bigger one followed to 103 points in November 2018. There was a decreasing trend for two years, up until the gas price index started increasing, surpassing November 2018 levels for the first time in August 2021. The ongoing energy crisis greatly affected the gas price index, which was almost doubled within 2021, going from 87 points in January 2021 to 163 points; it currently stands at 207 index points.

When examining the averages of the end-user prices for both electricity and gas, the following changes can be observed; from a year ago, April 2022, the electricity bills in all EU capitals have decreased by 2% while the gas bills have decreased by 9%.



#### Figure 1: Evolution of residential energy and distribution prices excluding taxes in the EUR-15

#### Figure 2: Evolution of residential energy and distribution prices excluding taxes in the EU1



<sup>1</sup> EU-28 values were used between July 2015 - January 2020. EU-27 values are used from February 2020 onwards.

# **Residential Electricity Prices**

Figure 3 shows the end-user price of electricity in the 33 European capital cities as of April 3rd, 2023. It shows that depending on where a customer lives in Europe, the electricity price can vary by a ratio of over 5. If we include Kyiv, the price varies by a ratio of 11. Dublin and London are the most expensive cities for household customers in Europe, followed by Rome, Prague and Berlin.

Kyiv<sup>1</sup> appears to have the least expensive electricity price, followed by Belgrade, Budapest and Podgorica. In nominal terms, prices in the capital cities of Central and Eastern Europe (CEE) tend to be lower than average; Prague, Riga and Vilnius are the only capital cities among the CEE countries in which the price of electricity is above the European average.

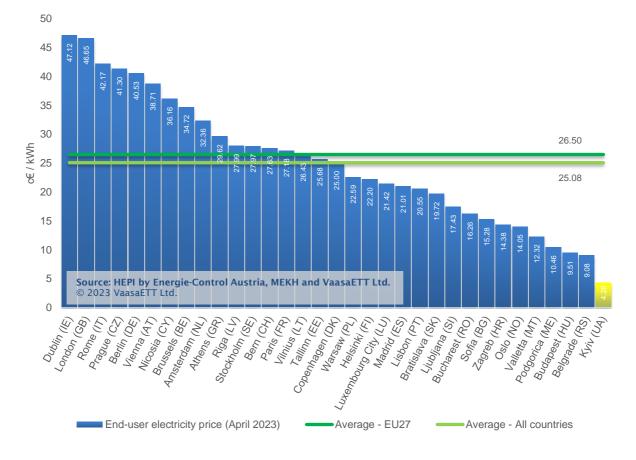


Figure 3: Residential electricity prices including taxes

<sup>&</sup>lt;sup>1</sup> As long as the Ukrainian crisis continues, the price of Kyiv will be kept stable and will be represented in different colour in the HEPI graphs.

The most significant changes that took place in the electricity market this month were as follows<sup>2</sup>:

- A 17% price increase in Vienna, due to increases in the energy and energy taxes components;
- A 6% price increase in Oslo, due to an increase in the energy taxes;
- A 2% price increase in Rome, due to an increase in the energy taxes component;
- A 2% price increase in Tallinn, due to an increase in the energy component, after the end of the government price compensation;
- A 1% price increase in Paris, due to an increase in the energy component;
- A 35% price decrease in Copenhagen, due to decreases in the energy and distribution components;
- A 24% price decrease in Helsinki, due to a decrease in the energy component;
- An 8% price decrease in Berlin, due to a decrease in the energy component;
- An 8% price decrease in Madrid;
- A 5% price decrease in Nicosia and Stockholm, due to a decrease in the energy component;
- A 4% price decrease in Vilnius, due to a decrease in the energy component;
- A 3% price decrease in Amsterdam and Lisbon, due to a decrease in the energy component;
- A 3% price decrease in Athens, due to decreases in the energy and energy taxes components;
- A 2% price decrease in Brussels, due to a decrease in the energy component;
- A 2% price decrease in London;
- A 1% price decrease in Prague, due to a decrease in the energy component.

In April, a descending trend was observed in the retail electricity market. It is the sixth successive month that an overall reduction in prices takes place, following the considerable and continuous increases that occurred from March to October 2022. Vienna was the only capital city that viewed a marked rise in retail prices, while Oslo, Rome, Tallinn and Paris also observed slight increases. In about half of the capital cities, prices remained at similar levels to the previous month, whilst the rest faced a decline on their retail electricity prices, with the most significant being in Copenhagen and Helsinki. In most cases, the decrease can mainly be imputed to the suppliers' decision to issue new, lower tariffs, as a reflection of the overall drop in the wholesale market. Reasons again vary, ranging from the mild weather conditions to the increased energy output, due to the commissioning of new nuclear power units, but also higher output of wind energy. Finally, an important reason is the resumption of the support measures that European governments have put into place, with the objective of countervailing for the impact of the energy crisis on retail prices and household bills.

<sup>&</sup>lt;sup>2</sup> The change in each capital city is calculated using the prices in their local currency to exclude the impact of exchange rate fluctuations.

Some temporary measures that have been initially announced to expire during Spring, have been further extended, while it is interesting to observe the governments' approach on that matter during the summer months.

In Vienna, households saw an increase in their electricity bills, predominantly due to the fact that the largest energy supplier, Wien Energie, raised its electricity tariffs in April. The main reason for this is the financial issues that the energy supplier is still facing, caused by the energy crisis and the sharp increase in prices during 2022<sup>3</sup>.

In Oslo, the increase in electricity household bills is due to the slight rise that was observed in the Nord Pool wholesale market, chiefly because of the cold weather in the largest part of the country, in combination with the reduced wind production<sup>4</sup>.

On the other hand, households in Copenhagen benefitted from a substantial decrease in retail electricity prices. This can mainly be attributed to the implementation of Tariff Model 3.0, a new electricity pricing model that considers load peaks, enabling lower prices during off-peak hours. The vast majority of electricity suppliers adopted this model since the start of the year and decided to significantly adjust its price downwards in April, due to the upcoming summer season, which is reflected on this month's retail price<sup>5</sup>.

In Helsinki, the continuous downward trend of retail prices can be accredited to a fall on the Nordpool wholesale market, which is due to the mild and windy weather conditions, reducing the demand while increasing supply of electricity. Furthermore, the increasing production due to the trial operation of Olkiluoto-3 unit and the restrictions on industrial consumption<sup>6</sup>, have further affected prices towards that direction.

In Berlin, retail electricity prices continued to fall, primarily because of the reduction in tariffs of several electricity suppliers, which can be deemed as a reflection of the drop in prices in the wholesale electricity market<sup>7</sup>. Most electricity tariffs from the 3 largest suppliers are currently offered at prices slightly below the price brake threshold.

Finally, in Nicosia, household electricity bills were reduced mostly because of the drop in fuel prices over the past month, according to the Electricity Authority of Cyprus<sup>8</sup>.

<sup>&</sup>lt;sup>3</sup> Vindobona: "<u>EU Approves 2 billion Euros in state aid for Wien Energie</u>". 05.04.23

<sup>&</sup>lt;sup>4</sup> TV2.no: " <u>I dag har strømprisen blitt 20 ganger høyere</u>". 15.03.23

<sup>&</sup>lt;sup>5</sup> Green Power Denmark : "<u>Elnetselskaber sænker deres tariffer op mod sommersæsonen</u>". 30.03.23

<sup>&</sup>lt;sup>6</sup> Sijoitaaja.fi: "Sähkön hinta pysytellyt matalalla". 06.04.23

<sup>&</sup>lt;sup>7</sup> Morgen Post: "<u>Stormpreis am 8. April: Wie viel eine kWh Strom heute kostet</u>".08.04.23

<sup>&</sup>lt;sup>8</sup> Cyprus Mail: "<u>EAC: Electricity bills will be lower in April</u>".05.04.23

In an effort to shield consumers from continuous soaring energy prices, European governments have adopted multiple measures during the energy crisis, which are incorporated in the prices shown in the HEPI methodology. Nevertheless, in some cases, occasional or seasonal energy schemes are introduced to end users as one-time refunds and compensations, that in fact correspond to a longer period of consecutive high prices. The impact of such measures is compared separately, in Figure 4.

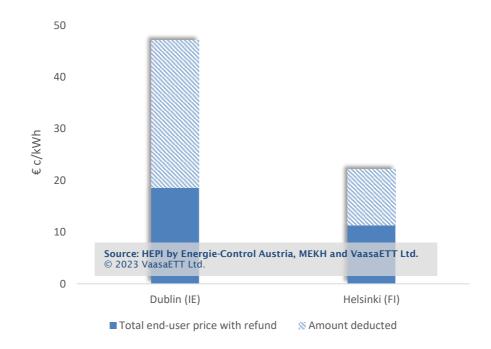


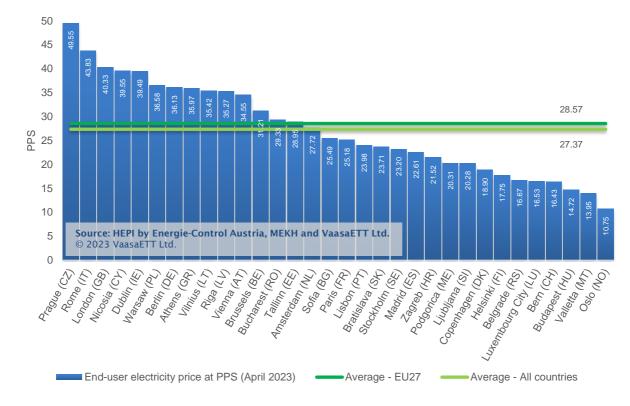
Figure 4: Comparison of electricity end-user price with and without energy refund incorporated.

In Ireland, residential consumers are eligible for a  $\leq 600$  credit<sup>9</sup>, applied in 3 instalments of  $\leq 200$ , starting from November 2022. The credit will be transferred directly through suppliers to their customers' electricity bill.

Similarly, households in Helsinki<sup>10</sup> will automatically receive a credit on their April electricity bills, compensating retrospectively for their high winter bills. Specifically, the first instalment of the credit (up to  $700 \notin$  per month) will compensate for 50% of the November and December part of the bill that exceeds  $90 \notin$ . A second instalment is expected on consumers' next bill, based on January consumption.

<sup>&</sup>lt;sup>9</sup> Citizens Information: "Electricity account credit", 21.10.2022

<sup>&</sup>lt;sup>10</sup> Valtioneuvosto: "Energiatilanne ja sähkötuet", 2023



#### Figure 5: Residential electricity prices including taxes at PPS

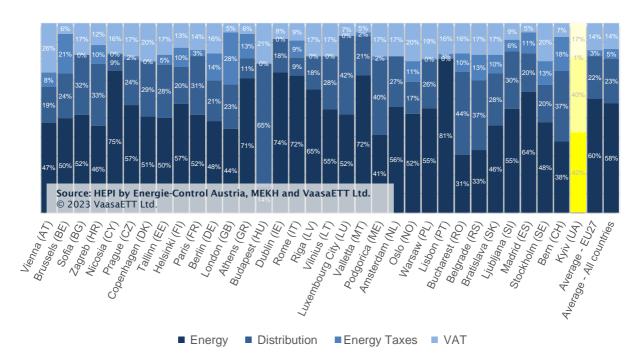
When adjusted to purchasing power standards (PPS) in each country, the picture changes dramatically. PPS is an artificial common reference currency that eliminates general price level differences between countries<sup>11</sup>. When expressed in PPS, energy prices are thus shown in relation to the cost of other goods and services. The lowest adjusted household electricity prices are found in Oslo, Valletta, Budapest and Bern, while the highest are currently in Prague, Rome and London. Most of the CEE countries usually end up with electricity prices which are relatively low compared to the general level of prices in the country and below the European average (Figure 5). However this is not the case in April; Bucharest, Prague, Riga, Tallinn, Vilnius and Warsaw are the capital cities among the CEE countries in which the price of electricity is above the European average.

Figure 6 shows the breakdown of the electricity price in the 33 analysed capitals, into energy, distribution, energy taxes<sup>12</sup> and VAT. Our survey shows that on average, energy (the contestable component of the price) represents 60% of the end-user price of electricity bill, distribution 22%, energy taxes 3% and VAT 14% for the European capitals.

<sup>&</sup>lt;sup>11</sup> Eurostat: <u>Purchasing power parities - Overview</u>

<sup>&</sup>lt;sup>12</sup> Energy taxes component is the sum of all the taxes, fees and levies.

If we focus on the cost of energy as a commodity, in Budapest it currently represents just 14% of the end-user electricity price, which is the lowest among all surveyed cities. On the contrary, Lisbon has the greatest energy percentage, reaching 81% of the end-user price in April 2023.





Additionally, starting from January 2020, a typical consumer in Amsterdam pays zero energy tax due to the increased amount of tax credit, which exceeds the indicated energy tax amount. On the contrary, they receive a refund on the exceeding tax credit amount. The aim of this refund is to encourage consumers towards electrification and switching away from gas heating and appliances.

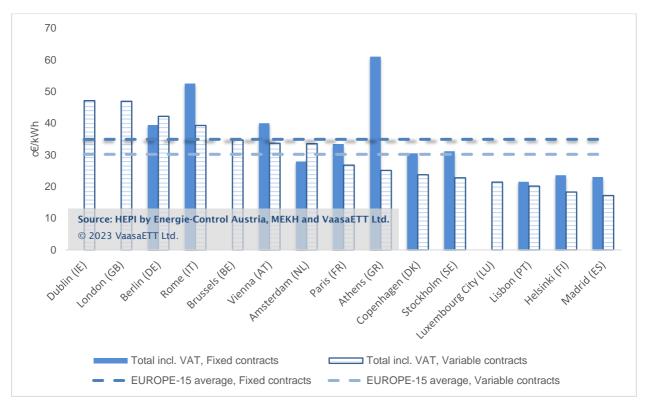
<sup>&</sup>lt;sup>13</sup> Please note that proportions appearing in the graph are rounded, and due to this may not add up to 100%. Additionally, for Amsterdam (NL), the typical household considered in HEPI research receives a tax refund on their energy tax. When considering this, the end-consumer's bill breakdown is as follows: Energy component 67%, distribution 32%, energy taxes -17%, and VAT 17%. For Vilnius (LT), the typical household considered in HEPI research receives a tax refund on their energy tax. When considering this, the end-consumer's bill breakdown is as follows: Energy component 57%, distribution 29%, energy taxes -3%, and VAT 17%. For Luxembourg City (LU), the typical household considered in HEPI research receives a tax refund on their energy tax. When considering this, the end-consumer's bill breakdown is as follows: Energy component 81%, distribution 65%, energy taxes -53%, and VAT 7%. For Lisbon (PT) the typical household considered in HEPI research receives a refund for the use of energy infrastructure, following the reduction in network access tariffs. When considering this, the end-consumer's bill breakdown is as follows: Energy component 120%, distribution -40%, energy taxes 4%, and VAT 16%. For Dublin (IE), the typical household considered in HEPI research receives a tax refund on their energy tax. When considering this, the end-consumer's bill breakdown is as follows: Energy component 120%, distribution -40%, energy taxes 4%, and VAT 16%. For Dublin (IE), the typical household considered in HEPI research receives a tax refund on their energy tax. When considering this, the end-consumer's bill breakdown is as follows: Energy component 120%, distribution -40%, energy taxes 4%, and VAT 16%. For Dublin (IE), the typical household considered in HEPI research receives a tax refund on their energy tax. When considering this, the end-consumer's bill breakdown is as follows: Energy component 78%, distribution 19%, energy taxes -5%, and VAT 8%.

In the same manner, in Luxemburg City<sup>14</sup>, the typical customer is paying negative energy taxes as a result of the compensation mechanism that is currently in force, intended to offset the increase in the energy component and stabilise prices to 2022 levels.

Likewise, in Vilnius, starting from January 2023, a typical customer appears to receive compensation through the energy taxes, to partly offset the increase, since the State Regulatory Authority set a higher minimum limit above which prices are being compensated.

Moreover, starting also from January 2023, a typical consumer in Lisbon<sup>15</sup> will be paid for using the electricity infrastructure, following a noticeable reduction in network access tariffs, which aims at eliminating the significant energy component increases.

Finally, starting from March 2023, a typical customer in Dublin<sup>16</sup> is paying negative energy taxes, due to the increased amount of tax credit (PSO Payments), which will come as an additional relief to the electricity customers.





<sup>&</sup>lt;sup>14</sup> ILR: "<u>Règlement ILR/E22/58 du 28 décembre 2022 fixant la contribution au mécanisme de compensation de</u> la catégorie A pour l'année 2023 - Secteur Électricité.", 28.12.2022

<sup>&</sup>lt;sup>15</sup> Echoboomer: "<u>O que muda na fatura da energia em 2023</u>", 31.12.2022

<sup>&</sup>lt;sup>16</sup> CRU: <u>"Direct PSO Payments Mechanism"</u> /

Before the energy crisis fixed (price and term) and variable prices were relatively similar. A fixed price was often cheaper since it afforded the supplier lower loyalty and procurement risk. Though customers essentially gambled a little on the direction of the market, it was not a particularly significant choice for most customers. In the more mature markets at least, active customers nevertheless tended to choose fixed prices. Since the crisis, the situation has mostly reversed. Fixed prices, where available (in some markets they have been unavailable since early or mid crisis), now tend to be higher than variable prices, in some cases by a very large margin.

Figure 7 and Figure 8 show the situation as of April 2023 for a selection of markets, the EUR-15 markets. Across all the markets shown, the average price for fixed prices was 34.93 c/kwh. For variable prices it was 30.19 c/kWh. Naturally, for those markets where fixed prices are both available and very different from variable prices, the average of the two is less representative than in other markets. This is especially the case in Athens where most customers have variable contracts and therefore the variable price is more representative of the typical price paid.

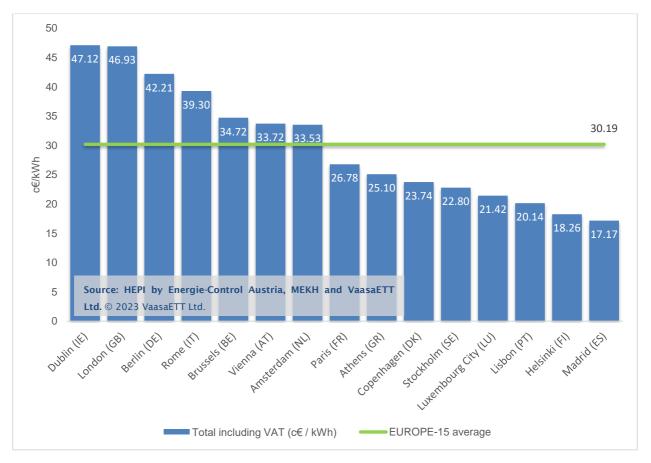


Figure 8: All-in electricity end-user price including VAT (c€/kWh) for EUR-15, variable contracts only

If we adjust the variable prices for purchasing parity (Figure 9), we arguably gain a clearer picture of the relative significance of the most popular prices in April 2023.

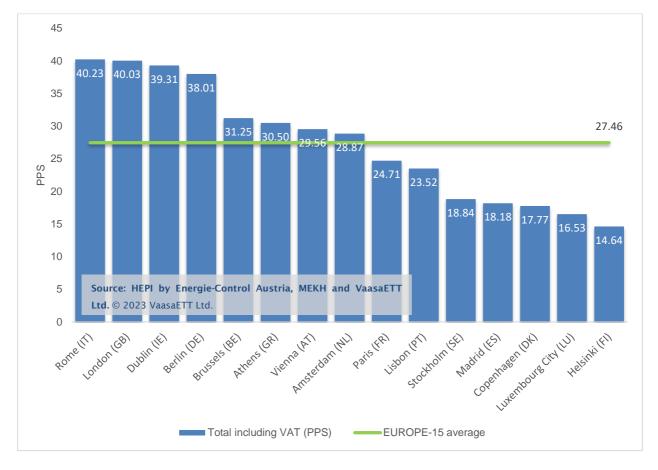


Figure 9: All-in electricity end-user price including VAT (PPS) for EUR-15, variable contracts only

# **Residential Gas Prices**

Figure 10 shows the price of natural gas paid typically by residential customers in 28 European capital cities as of April 3rd, 2023<sup>17</sup>. The highest price is paid by inhabitants of Stockholm who pay over 2 times the European average end-user price, followed by Amsterdam, which is the second most expensive capital city. This can be explained by the nature of the Swedish gas market; the small size of only 92,000 household gas customers in the whole of Sweden of which 58,000 in the isolated gas network in Stockholm.<sup>18</sup> Dublin is currently the third most expensive capital city.

The price in Stockholm is over 11 times as high as in Budapest, which is the cheapest city for gas in EU, and almost 15 times as high if we include Kyiv<sup>19</sup>. Household natural gas is usually cheaper in the CEE countries; Prague is the only capital city among the CEE countries in which the price of natural gas is above the European average.





<sup>18</sup> The Swedish electricity and natural gas market 2021 Ei (Ei R2022:07)

<sup>19</sup> As long as the Ukrainian crisis continues, the price of Kyiv will be kept stable and will be represented in different colour in the HEPI graphs.

<sup>&</sup>lt;sup>17</sup> Please note that Helsinki, Nicosia, Oslo, Podgorica and Valletta have been left out of this analysis on gas prices as there is virtually no residential gas market in these cities.

The most significant changes that took place in the natural gas market this month were as follows <sup>20</sup>:

- A 7% price increase in Rome, due to an increase in the energy taxes components;
- A 41% price decrease in Brussels, due to a decrease in the energy component;
- A 34% price decrease in Vienna, due to a decrease in the energy component;
- A 16% price decrease in Madrid;
- A 15% price decrease in Berlin, due to a decrease in the energy component;
- A 12% price decrease in Athens, due to decreases in the energy, energy taxes and distribution components;
- A 10% price decrease in Paris, due to a decrease in the energy component;
- A 6% price decrease in Copenhagen and Lisbon, due to a decrease in the energy component;
- A 5% price decrease in Sofia, due to a decrease in the energy component;
- A 4% price decrease in Prague, due to a decrease in the energy component;
- A 3% price decrease in Tallinn, due to a decrease in the energy component;
- A 2% price decrease in Riga, due to a decrease in the energy component;
- A 1% price decrease in Amsterdam, due to a decrease in the energy component;
- A 1% price decrease in London.

Household natural gas prices continued their downward trend, carrying on to the overall reduction that has been observed on the market since last October. Rome was the only capital city where an increase in retail gas prices was reported, while half of them saw their retail prices dropping. The primary reason for this has been the remarkable price decrease in the wholesale gas market, which has dropped even below the  $40 \notin /MWh$  mark, for the first time since summer 2021, at the TTF natural gas hub. This resulted in a descent in retail gas prices to the levels that were observed before the war in Ukraine broke out, which was one of the main reasons that the energy crisis commenced in Europe.

In Rome, households viewed a rise on their gas bills, which can primarily be attributed to the reintroduction of systems charges on gas consumption<sup>21</sup>. Until March, this charge has been temporarily negative, meaning that gas consumers were compensated through taxes. The decision to stop this type of support was a result of the significant decrease of the gas retail price to the levels of prior to the war in Ukraine.

<sup>&</sup>lt;sup>20</sup> The change in each capital city is calculated using the prices in their local currency to exclude the impact of exchange rate fluctuations.

<sup>&</sup>lt;sup>21</sup> Verita & Affari: "<u>Da aprile prezzo di gas ed elettricità in discesa, ma le bollette saranno più care con il taglio</u> <u>dei sostegni</u>". 30.03.23

In Brussels, the steep decline of retail gas prices is due to the considerable drop in variable quarterly gas tariffs, offered by suppliers in April. These types of contracts are, by definition, being revised every quarter and in this case, they depict the massive fall of gas prices during the past three months<sup>22</sup>. Thus, the retail price of gas in Brussels currently stands at levels last seen in summer 2021, when the first signs of the upcoming energy crisis started appearing.

In Vienna, the fall in retail gas prices is mostly due to the significant reduction that was seen within the past month on the wholesale market. More specifically, gas wholesale prices fell more than 30% over the past month and this reflected on the retail market as well<sup>23</sup>.

In Madrid, the decline of prices on the retail gas market is the result of the sharp drop of the regulated gas tariffs, which came amidst the overall substantial reduction of prices in the wholesale gas market and the government financing to suppliers that offer the regulated tariff, to enable this reduction on consumers' bills<sup>24</sup>.

In Berlin, correspondingly, retail gas prices saw a decrease as well, and this happened predominantly because of the sharp reduction in prices on the wholesale market, which resulted in contracts for new customers that offer substantially lower prices than last month<sup>25</sup>.

Similarly, households in Athens benefitted from lower retail gas prices in April, which can be deemed as mirroring to the fall in the national and European wholesale markets<sup>26</sup>.

In Lisbon, finally, households enjoyed slightly lower gas bills, as the country's main suppliers implemented further reductions on their tariffs<sup>2728</sup>.

In the same vein as for electricity, gas prices at PPS have a very different outcome from the actual prices. This month, Budapest, Brussels and Belgrade were the cheapest cities when adjusted to PPS (Figure 11).

<sup>&</sup>lt;sup>22</sup> RTBF.be: <u>Indexation des contrats d'énergie au 1er avril : des baisses de 60 à 65% à prévoir sur les variables</u> <u>trimestriels, la fin de la crise ?</u>. 01.04.23

<sup>&</sup>lt;sup>23</sup> HLK: "<u>Gaspreise fallen im April weiter</u>".28.03.23

<sup>&</sup>lt;sup>24</sup> El Pais: "<u>La tarifa regulada del gas baja un 30% a partir de abril por la fuerte caída del mercado</u> mayorista".30.03.23

<sup>&</sup>lt;sup>25</sup> Agrarheute<u>: "Gaspreise fallen auf 10 Cent für Neukunden – Grundversorger zu teuer</u>". 05.04.23

<sup>&</sup>lt;sup>26</sup> Capital.gr: "<u>Νέα μείωση της τιμής του φυσικού αερίου</u>". 21.04.23

<sup>&</sup>lt;sup>27</sup> SAPO.pt: "<u>GALP baixa precos do gas e electricidade</u>".28.03.23

<sup>&</sup>lt;sup>28</sup> Publico.pt: "EDP desce preços do gás entre quatro e 33 euros a partir de Abril". 29.03.23

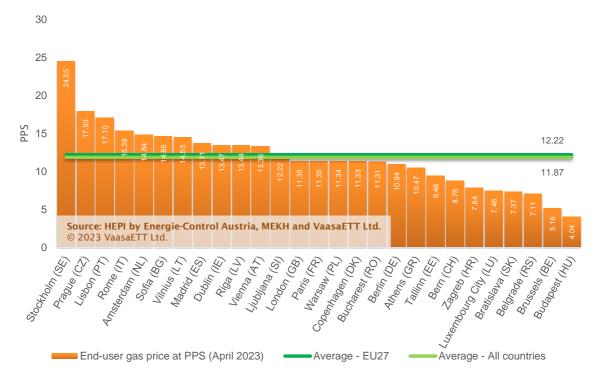
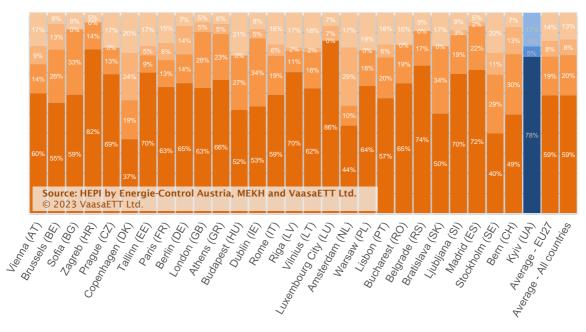


Figure 11: Residential gas prices including taxes at PPS





Energy Distribution Energy Taxes VAT

Our survey shows that on average, energy (the contestable component of the price) represents 59% of the end-user price of natural gas, distribution 19%, energy taxes 8% and VAT 14% for the European capitals. In the Netherlands, energy taxes are used for nudging the consumers' behaviour and energy use. Even more so starting from January 2020, the energy tax for residential natural gas user is typically 29%. The aim is to encourage the use of electric heating and appliances instead of gas.

Overall, results show that market forces represent about 60% of the end-user price both for electricity and gas, whereas national fiscal and regulatory elements are responsible for the remaining 40% through distribution tariffs, energy taxes and VAT. The current energy crisis has led to significant increase of the average energy component in EU capitals. The energy share of end-user price of electricity used to be 41% back in April 2021, then climbed at 61% a year later and is currently standing at 60%. Likewise, in the natural gas market, the energy percentage of the end-user price used to be 42% back in April 2021 before reaching 63% in April 2022 and 59% this month. In places where the energy component is lower, so is the incentive for customers to look for more competitive offers<sup>29</sup>.

<sup>&</sup>lt;sup>29</sup> Latest utility customer switching data can be accessed in the most recent version of Capgemini's <u>World</u> <u>Energy Markets Observatory</u>, created with partnership with VaasaETT, De Pardieu Brocas Maffei and Enerdata. VaasaETT contributes with data on the retail markets sections.

# **HEPI Data Attributes**

All prices and other statistics relate to:

- The prices being offered to customers actively searching for an offer at the time of data collection
- The first day of the month
- Residential customers with a typical consumption for the national capital city
- Standing fees are added to the price per kWh so that the entire end-user cost is taken into account.
- In case of spot-based tariffs the previous month's average price is considered in the calculations to smooth day-to-day extreme changes

HEPI prices do not relate to:

- The prices paid by customers on fixed price contracts agreed prior to the time of data collection
- The price paid by customers on tariff contracts set at a level no longer available at the time of data collection
- Sign in and other temporary bonuses and other forms of non-monetary benefits are not taken into account since they can distort the overall tariff offered, especially in cases where they are offered on a "one-off" basis
- Contracts with extra services (e.g. insurance, maintenance, etc.) and prepaid contracts are also omitted from the analysis.

### Note on retrospective price adjustments:

In cases of retrospective adjustments to previous months' price (i.e. application of support measures or review of regulated price where applicable) changes are integrated retrospectively in the prices of the month(s) for which the adjustments apply. This might create a difference between the HEPI price and the actual bill amount for a given month.

Visit our project webpage at <u>http://www.energypriceindex.com</u> and subscribe to the free monthly update of the HEPI index for Europe.

# **For More Information**



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#### **Energie-Control Austria**

Energie-Control Austria was set up by the legislator on the basis of the new Energy Liberalisation Act and commenced operation on 1 March 2001. Energie-Control is headed by Mr. Wolfgang Urbantschitsch and Mr. Andreas Eigenbaueras managing

directors and is entrusted with monitoring, supporting and, where necessary, regulating the implementation of the liberalisation of the Austrian electricity and natural gas markets.

More at: <u>www.e-control.at</u>



# The Hungarian Energy and Public Utility Regulatory Authority

The main responsibilities of the Hungarian Energy and Public Utility Regulatory Authority are consumer protection, providing regulated access to networks and systems, carrying out regulatory competencies in order to maintain security of supply and fostering competition. The scope of the infrastructures, which have to be overseen by the Hungarian Energy and Public Utility Regulatory Authority, has been extended in 2011 with the complete regulation of district heating and in 2012 with the water public utilities. As market progresses are becoming more widespread, we put emphasis on our market monitoring task and we pay specific attention to regional market integration both in electricity and natural gas. **More at:** <u>www.mekh.hu</u>

# vaasa ETT

#### VaasaETT

VaasaETT is a research and advisory consultancy dedicated to customer related issues in the energy industry. VaasaETT

advises its clients based on empirical evidence brought about from extensive research in the area of customer behaviour and competitive market behaviour (including smart energy offerings, demand response, energy efficiency, smart home, smart grid). VaasaETT's unique collaborative approach enables it to draw on an extensive network of several thousand energy practitioners around the world who can contribute to its research activities or take part in industry events it organises allowing VaasaETT to integrate global knowledge and global best practice into its areas of expertise. VaasaETT's truly global focus is reflected by research and strategic support having been provided to a diverse array of organisations on 5 continents including for instance 28 of the Fortune Global 500 companies, the European Commission, Government and public research bodies in Europe, Japan, the UAE, the Middle East and Australia. **More at:** <u>www.vaasaett.com</u>