An Coimisiún um Rialáil Fóntas
Commission for Regulation of Utilities

Household Electricity & Gas Prices – Ireland and EU Comparison

Information Note

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CRU Draft Strategic Plan 2022-24

Our Mission

- Protecting the public interest in water, energy, and energy safety.

Our Vision

- Safe, secure and sustainable supplies of energy and water, for the benefit of customer now and in the future

Our Strategic Priorities

- Ensure Security of Supply
- Drive a Low Carbon Future
- Empower and Protect Customers
- Enable our People and Organisational Capacity

Further information on the CRU's role and relevant legislation can be found on the CRU's website at www.cru.ie

Objectives of Information Paper

In the context of sustained high energy prices, the CRU is publishing this information note comparing Irish household electricity and gas prices to those being offered elsewhere in Europe. Since worldwide economies began to re-open in mid-2021, following the lifting of Covid restrictions, there has been increased volatility in wholesale electricity and gas markets, which was greatly exacerbated by the Russian invasion of Ukraine in February 2022 and the sanctions which followed. There are a number of methodologies used to compare European energy prices, which can sometimes lead to confusion. The CRU here outlines insights from these comparisons.

This information note follows on from the CRU Report on Retail Energy Markets published in September 2023, which outlined the key developments and trends in the Irish retail electricity and gas markets from 2021 onwards.

Executive Summary – Key Points

- Irish domestic electricity and gas prices took much longer to increase than in other European countries in the months following the Russian invasion of Ukraine, and never reached the peak seen in many other European countries.

- 'Fixed-price, fixed-term' contracts, where customers are locked into an agreed price for 12 months with their electricity or gas supplier, are far more commonplace in other European countries than in Ireland. This means customers in such countries would have been locked into higher prices than those paid by Irish customers throughout 2022 and 2023.

- Domestic electricity and gas prices began to rapidly increase in Ireland from autumn 2022 onwards, a period when prices for new tariff rates were falling in various other European countries. This is reflected in the Vaasa ETT Household Energy Price Index, which is detailed in this information note.

- Eurostat data, as the legally mandated and uniformly collected European statistical information body, has long been used by the CRU as the most accurate method of verifying prices in Ireland in comparison to other European countries. Eurostat data takes into account the provision of the Government Electricity Credits to domestic electricity customers in Ireland, and other supports to customers across the EU. Eurostat's most recent data shows domestic electricity prices in Ireland were the 9th most expensive in Europe, while Irish domestic gas prices were the 5th most expensive in Europe.

- Vaasa ETT data currently shows that Irish domestic electricity customers seeking a new tariff rate would pay the fourth highest rate among customers seeking new tariff rates in any other European country. However, this data does not take into account the impact of the Government Electricity Credits on customer bills and/or other supports to customers across the EU. It does, however, take into account the wholesale market interventions employed by other European Governments which reduce the price at the unit rate level rather than at the bottom line of a customer's bill.

- The hedging strategies employed by suppliers in Ireland delayed, and lessened, the impact on retail energy customers of the highest spikes seen in wholesale electricity and gas prices in 2022 but has also meant that the elevated retail prices have been more prolonged than in other European countries.

- Prudent hedging strategies employed by suppliers can protect Irish domestic electricity and gas customers from future spikes in wholesale electricity and gas prices, of which there is an increased

risk due to Europe's ongoing reliance on gas-powered electricity generation and ban on Russian imports. Hedging can also reduce the risk of suppliers going out of business, avoiding the consequential consumer impact and reduction in competition in the retail market.

- Domestic electricity and gas tariff reductions were announced by Irish suppliers in autumn 2023 and spring 2024, but prices are still approximately 70% higher in electricity and 100% higher in gas than they were pre-crisis.

- Given the trends in stabilising wholesale prices that have been observed throughout 2023 and into 2024, the CRU expects further price reductions from suppliers in the coming months.

- Although the CRU does not regulate the unit rates offered by suppliers, the CRU continues to assiduously monitor supplier practices to ensure customers are best protected and offers recourse to customers should suppliers fail to meet any of the conditions specified in the Electricity & Gas Suppliers' Handbook.

1. Price-tracking methodology

There are two primary entities which track household electricity and gas prices across Europe – Eurostat (the statistical office of the European Union) and VaasaETT (a Finnish-based energy consultancy firm that collaborates with Energie-Control Austria and the Hungarian Energy and Public Utility Regulatory Authority (MEKH)).

1.1. Eurostat Methodology

Eurostat collects price information via bi-annual surveys issued to the largest suppliers across each EU member-state. In the Irish market, the suppliers selected for Eurostat's surveys typically represent >95% of the household electricity and gas market shares. Eurostat's survey also collects consumption information from suppliers, from which Eurostat derive bands in which the average price of electricity/gas can be compared across member states. This allows for easier cross-country comparisons, e.g. households in other colder member states may spend more on energy but have a lower unit cost. The domestic electricity bands are:

- DA: customers consuming less than 1000 kWh.
- DB: customers consuming 1000 kWh or more but less than 2500 kWh.
- DC: customers consuming 2500 kWh or more but less than 5000 kWh.
- DD: customers consuming 5000 kWh or more but less than 15000 kWh.
- DE: customers consuming 15000 kWh or more.

The domestic gas bands are:

- D1: Customers consuming less than 20 GJ.
- D2: Customers consuming 20 GJ or more but less than 200 GJ.
- D3: Customers consuming 200 GJ or more.

In Ireland, the most common household electricity consumption band is DC, and in gas is D2.

1.2. VaasaETT Methodology

VaasaETT collaborates with Energie-Control Austria and the Hungarian Energy and Public Utility Regulatory Authority (MEKH) to publish a monthly Household Energy Price Index (HEPI) report showing household electricity and gas prices across 33 European countries. The HEPI report uses a different methodology than Eurostat for price collection – while Eurostat reports retrospectively on average prices being paid by customers in respective consumption bands over the previous six months, the HEPI report instead shows standard tariffs being offered to new customers by suppliers

on the 1st of each month. The prices shown in the HEPI report do not show prices being paid by customers on a fixed-price tariff that is no longer available. The approach of showing only new tariffs available from suppliers, and not including prices customers on fixed-term contracts are paying but are no longer available, creates some important distinctions between Ireland other EU member-states.

Firstly, fixed-term, fixed-price contracts are common in larger EU member states, such as France, the Netherlands and in Germany (where almost all household customers are on fixed-term, fixed-price contracts). By contrast fixed price contracts are uncommon in Ireland with most Irish customers on variable contracts, meaning a supplier can change the customer's unit rate or standing charge subject to a 30-day notice period. Therefore, although the HEPI report may show 'new' tariffs in Ireland as higher than other EU member states, it is worth noting that in member states where the report shows lower prices, a significant proportion of those member state customers are in fact paying higher than Irish customers as they may still be locked-in to a tariff that was agreed months previously, when 'new' tariffs in such member-states were at a higher level.

Furthermore, the HEPI methodology, by its nature of focusing on new tariffs, does not take account of the impact of government rebates and its impact on end-user bills in Ireland, but does take account of the wholesale market interventions that were undertaken in various other European countries which impacted bills via the unit rate customers were paying, rather than their end bill. As such, the effective price reduction on a unit of electricity in Ireland as a result of the Government Emergency Electricity Credit Schemes has not been accounted for in the reports. Research from the Sustainable Energy Authority of Ireland (SEAI) has shown that the Irish Government Emergency Electricity Credits reduced the cost of a unit of electricity consumed in the Irish household in the first half of 2023 by 13.5 cents.[1]

Taking into consideration the above outlined points, the CRU therefore has always considered the Eurostat database, as the legally recognised EU body for harmonised data collection across the bloc, as the most holistic and accurate tool for comparing prices paid by Irish and European domestic electricity and gas customers. Its analysis is based on the price household customers pay for their energy usage (including any discount rates customers may have been paying, and any government rebates received), rather than based on a new electricity customer entering the market and placed only on a standard tariff rate. Since 2007, Eurostat data has been collected in a uniform manner across all the EU member-states, thus ensuring a consistency of data collection which allows for

[1] https://www.seai.ie/blog/stat-chat-credit-due/#:~:text=These%20will%20be%20applied%20to,relief%20from%20high%20energy%20prices.

trends and comparisons in price changes to be accurately identified. The following section provides details and trend analysis in this regard.

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2. Ireland's performance in comparison to EU

This section analyses the latest data collected by both Eurostat and VaasaETT, from which comparisons can be made with Irish prices to other EU member states.

2.1. Eurostat Analysis

Eurostat collect price information every six months, so the comparison trends are drawn half-yearly across member states. The latest Eurostat data encompasses prices in the first half of 2023, which importantly take into account the Government Electricity Credits that Irish customers received in that period it also considers any similar measures granted to customers in other EU member states. The difference made by the Government Electricity Credits in Ireland meant that in the first half of 2023 the prices paid by Irish domestic electricity customers were lower than on record going back to 2007 in four out of the five consumption bands which represent 92% of domestic electricity customers in Ireland:

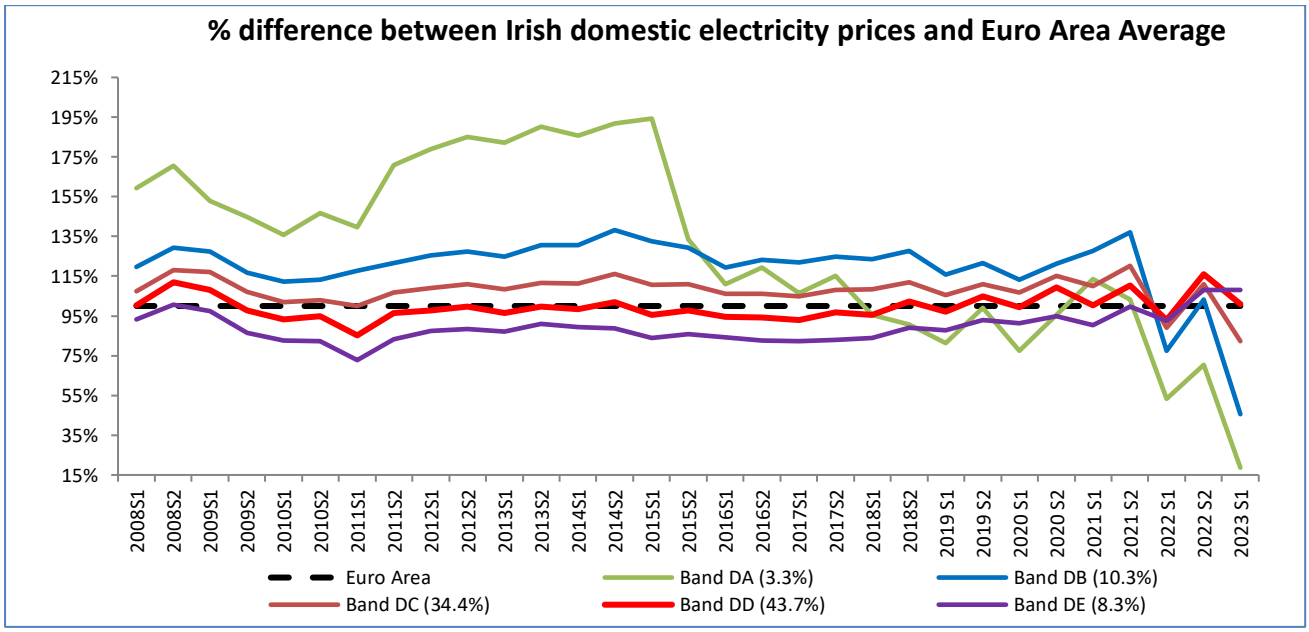

Figure 1: Irish domestic electricity prices across consumption bands, 2008-23.

The credits, and negative PSO levy, moved Ireland from being the third most expensive country in 2021 in its most common consumption band (DD – representing 41% of Irish domestic electricity customers) to being the 9th most expensive in the first half of 2023:

Electricity prices to households	Jan '20 - Jun '20	July '20 - Dec '20	Jan '21 - Jun '21	July '21 - Dec '21	Jan '22 - Jun '22	July '22 - Dec '22	Jan '23 - Jun '23
Band DA	14	7	3	8	21	18	26
Band DB	4	2	2	1	15	8	24
Band DC	4	4	4	4	9	8	13
Band DD	6	3	3	3	9	6	9
Band DE	11	7	8	8	11	9	9

Source: Eurostat and SEAI

Table 1: Irish domestic electricity prices by ranking across EU (1 being most expensive).

Regarding Irish household gas prices, Eurostat data shows Irish consumption occurs almost entirely in band D2. Irish prices in this band pre-crisis were normally below the Eurozone average price but rose sharply above it in 2022 before reducing again in the first half of 2023. The overall result of this is that Irish household gas prices have gone from being around the 8th-10th most expensive in 2021 in the EU, to being the 5th most expensive in the first half of 2023:

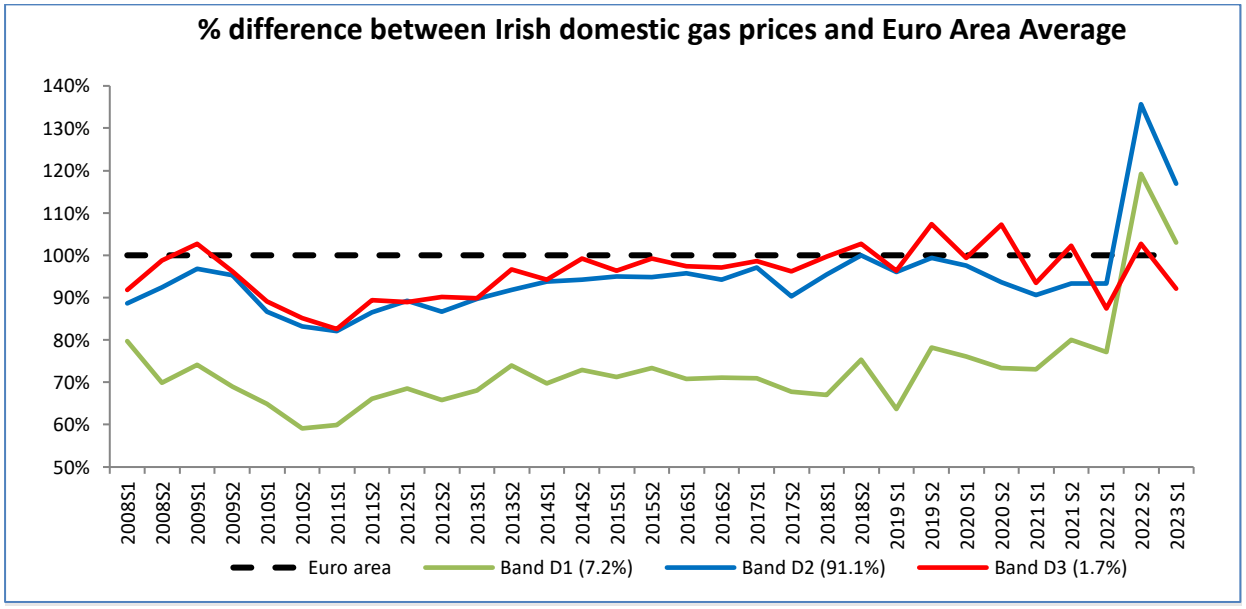

Figure 2: Irish domestic gas prices across consumption bands, 2008-23.

Gas prices to households	Jan '20 - Jun '20	July '20 - Dec '20	Jan '21 - Jun '21	July '21 - Dec '21	Jan '22 - Jun '22	July '22 - Dec '22	Jan '23 - Jun '23
Band D1	13	12	13	12	15	6	7
Band D2	8	8	10	8	10	6	5
Band D3	7	6	8	6	10	10	8
No. of Countries	26	25	25	25	25	25	25

Source: Eurostat and SEAI

Table 2: Irish domestic gas prices by ranking in EU (1 being most expensive)

Finally, it should be noted also that Ireland was not alone in using financial supports to help domestic customers – the EU Agency for the Cooperation of European Energy Regulators (ACER) recorded

439 crisis interventions by Governments across the EU in the September 2021 – March 2023 period.[2] Furthermore, research from the Bruegel think tank showed that the direct payments granted to Irish customers via the Government Electricity Credit Scheme proved to be a much more cost-effective method in helping customers respond to elevated prices when compared to the price caps introduced in the UK, France and Germany (even when adjusted per capita):[3]

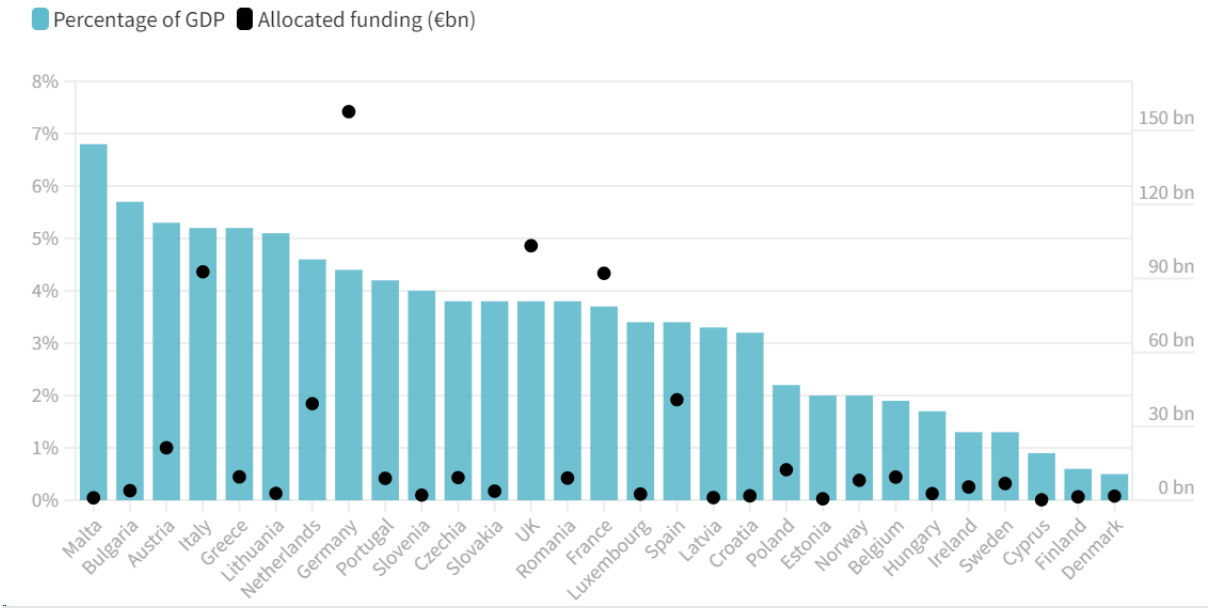

Figure 3: Allocated funding to shield households and firms from the energy crisis (Sep 2021 - Jan 2023), % GDP (Bruegel).

2.2. VaasaETT Analysis

Electricity

According to the HEPI as complied by VaasaETT, Ireland became the country with the highest household electricity prices in Europe in April 2023 (see Figure 4 below) and remained the leader until March 2024 when its ranking dropped to fourth place (see Figure 5 below).

[2] https://www.acer.europa.eu/sites/default/files/documents/Publications/Electricity_MMR_2022-Emergency_Measures.pdf
[3] https://www.bruegel.org/dataset/national-policies-shield-consumers-rising-energy-prices

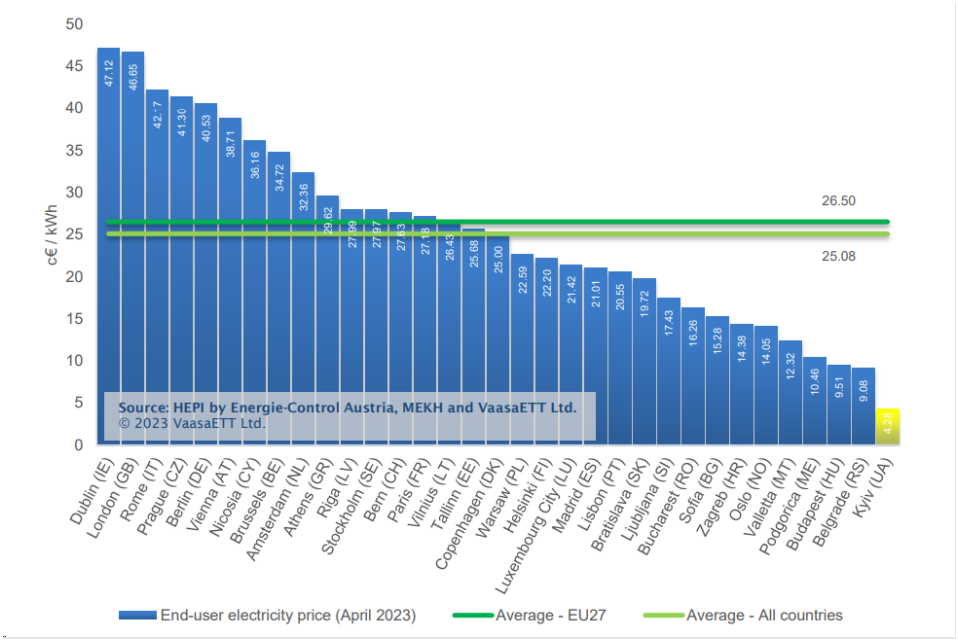

Figure 4: HEPI household electricity prices per unit, April 2023.

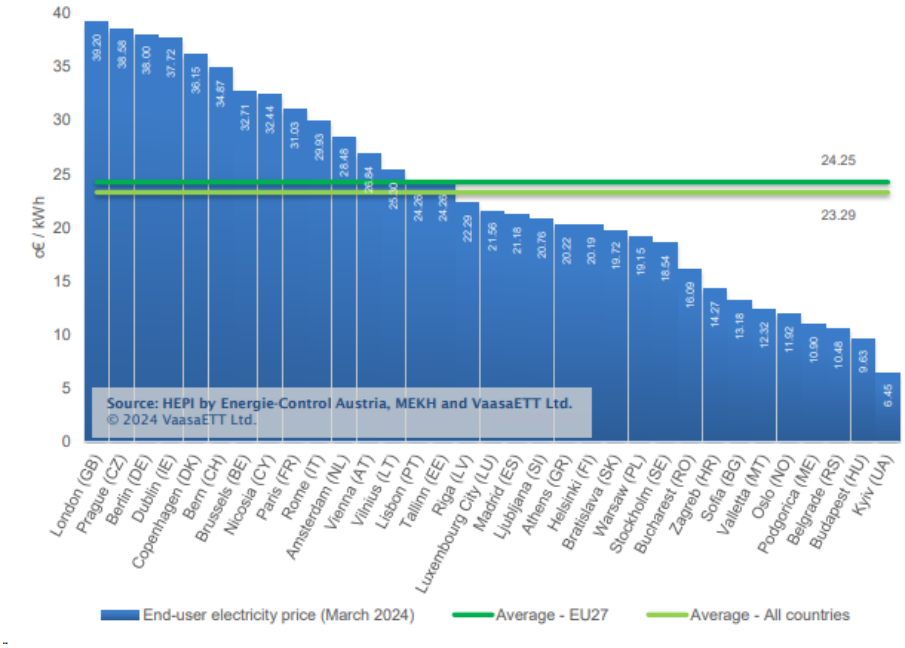

Figure 5: HEPI household electricity prices per unit, March 2024

Importantly, as mentioned above, the HEPI takes into account only new offers available to customers, and does not factor into its analysis the prices experienced or paid by customers on fixed-price contracts (fixed-price contracts are common in other European countries).

When analysing the 'new' tariff offers available in Europe at the peak of wholesale electricity prices in 2022, customers in various countries around Europe were being 'locked' into prices/unit rates which were more expensive than those for Irish customers for the 12 months which would follow.

The figures below show that European customers on fixed-price contracts would have been paying more than Irish customers for large periods throughout 2022 and 2023, even without taking into account the relief provided to Irish domestic electricity customers via the Government Electricity Credits. It is noted however, that whilst household retail electricity prices rose slower in Ireland immediately post-Ukraine than in other European countries, with the extreme volatility witnessed in wholesale prices, they have been slower to come down than in other European countries.

Figure 7 below shows domestic electricity prices for new tariffs across Europe in June 2022 as the immediate post-Ukraine price increases were seen in other European countries. Irish prices were €0.3358/kWh and the 8th most expensive in Europe, almost €0.20/kWh lower than the most expensive countries (Italy and the UK).

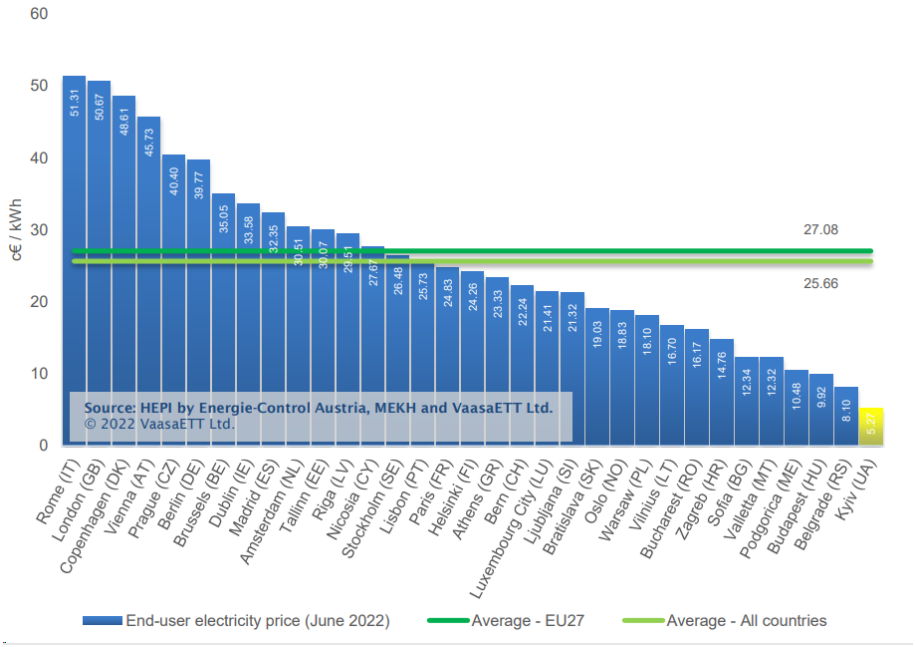

Figure 5: HEPI household electricity prices per unit, June 2022

Figure 8 below shows that while domestic electricity prices in Ireland in September 2022 had increased to €0.3478/kWh, they had risen far more significantly in other European countries with new tariff unit rates almost twice Ireland's price in The Netherlands and Denmark. Customers on 'fixed-term, fixed-price' contracts in these countries were now locked into those rates for the next 12 months (not just customers out of contract, but also customers who had seen their supplier go out of business due to the wholesale price volatility). In this month, Irish prices were the 13th most expensive in Europe according to Vaasa ETT's methodology.

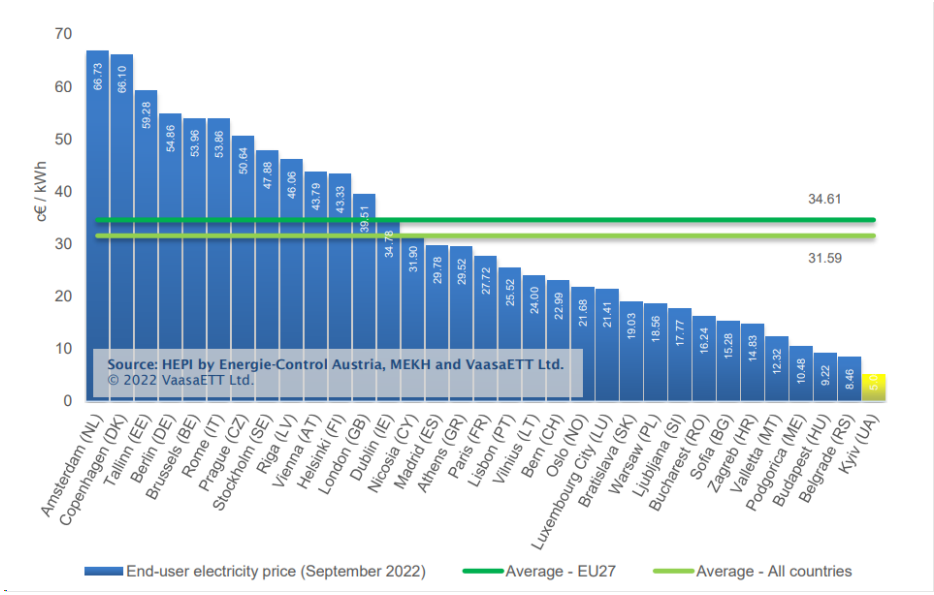

Figure 6: HEPI household electricity prices per unit (September 2022).

Figure 9 below shows, in December 2022, following the stabilisation in wholesale prices from September to December 2022, new tariff rates began to fall very quickly in other European countries but were increasing in Ireland. For example, from September 2022 the new tariff rates in The Netherlands had dropped by over €0.15/kWh, in Estonia by €0.22/kWh, and in Denmark by €0.13/kWh. However, Irish prices had increased by nearly €0.16/kWh in the same period as per Vaasa ETT's methodology, meaning Ireland had climbed from 13th most expensive to 7th most expensive for new domestic electricity tariff rates in Europe.

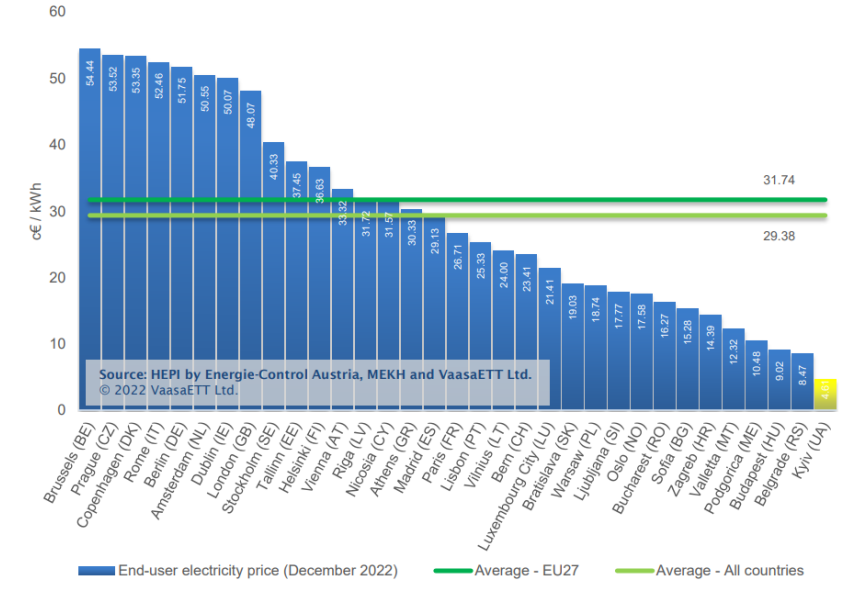

Figure 7: HEPI household electricity prices per unit (December 2022).

Figure 10 below illustrates how prices in other EU countries reached a much higher peak than Ireland, and earlier in the crisis, but then fell much more quickly than in Ireland. This graph does not however consider the 'fixed-term, fixed-price' customers in other EU countries who would have been locked into elevated tariffs in 2022 for the following twelve months.

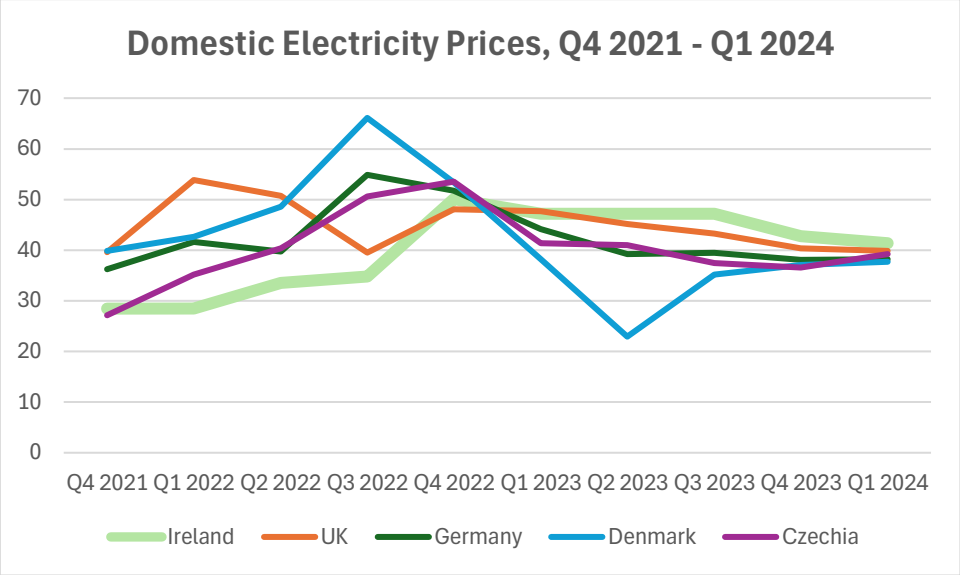

Figure 8: Domestic electricity prices, Ireland and other comparable European countries (HEPI).

Gas

With regards to gas prices, the HEPI shows Ireland's prices more aligned with the data of Eurostat, as Ireland is ranked 6th in Europe for household gas prices in March 2024:

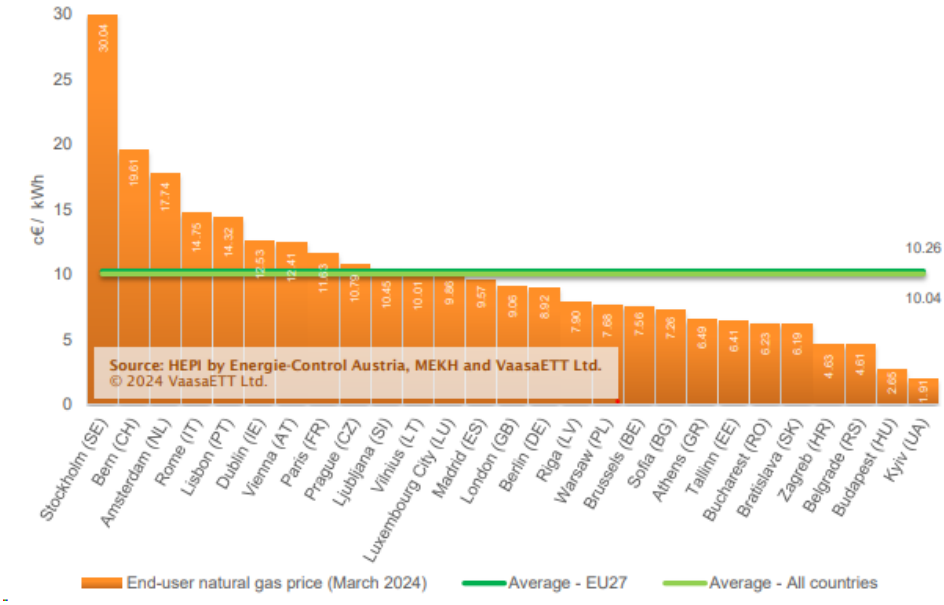

Figure 9: HEPI household gas prices per unit (March 2024).

This ranking is a drop from the most expensive household gas ranking for Ireland, at 3rd in Europe, between April and June 2023:

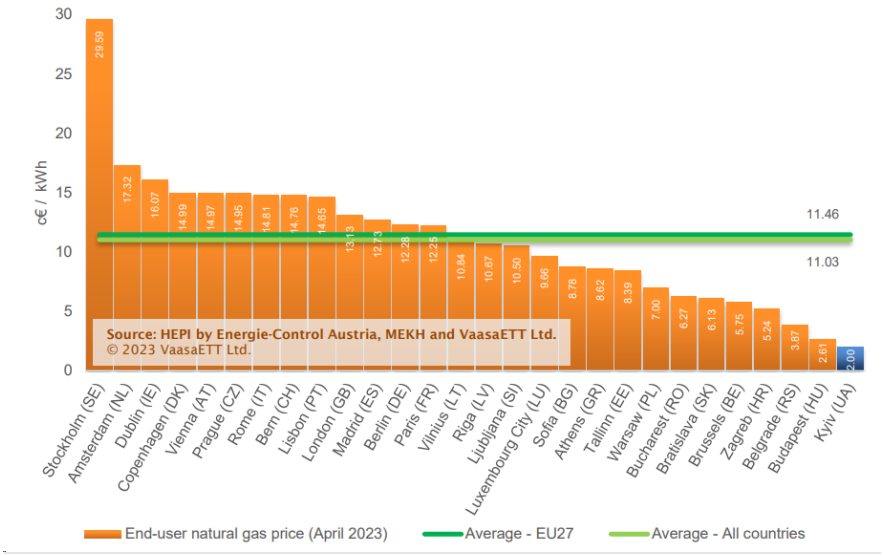

Figure 10: HEPI household gas prices per unit (April 2023).

When looking at household gas prices during the peak of the wholesale volatility in 2022, it can be seen that, in parallel to domestic electricity prices, Irish household gas prices were much slower to rise, and never reached near the peak of prices in other European countries (where customers, similar

to the electricity market, were 'locked' into more expensive gas prices than Irish customers for 12 months).

Customers in EU countries more dependent on Russian gas imports saw their new tariff gas prices escalate in the months following the sanctions forbidding Russian gas imports, as shown in Figure 13 below when prices in June 2022 ranked Ireland as 17th most expensive in Europe:

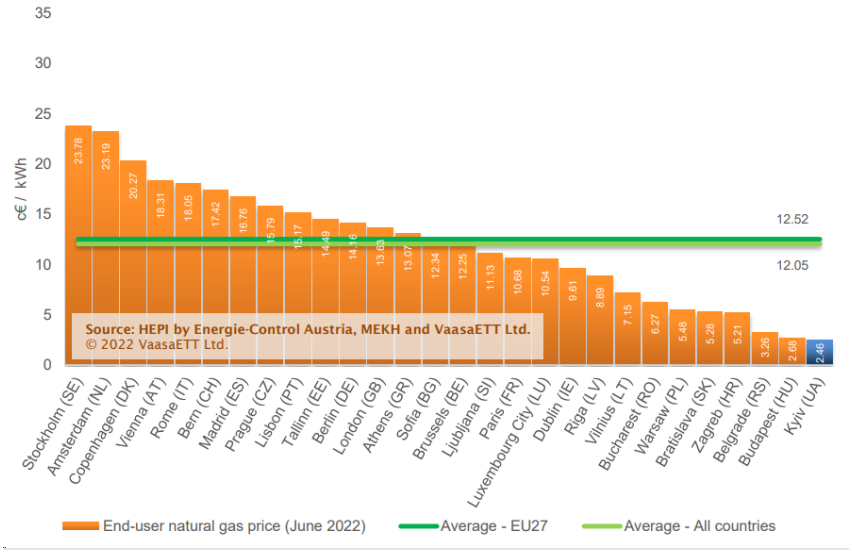

Figure 11: HEPI household gas prices per unit (June 2022).

By December 2022, domestic gas prices in Ireland had increased by over 50% from their September 2022 level according to Vaasa ETT's methodology, but were already coming down in other countries like Estonia and Greece. Irish prices had moved up to 11th in the European ranking, and would continue to climb as other countries with 'fixed-term, fixed-price' contracts introduced lower new tariff offers to their gas customers. However, it must be highlighted that while new tariffs became less expensive for customers in other EU countries, it again does not take account of the 'fixed-term, fixed-price' customers who were locked into expensive prices for the following twelve months. Figure 14 below illustrates how some European countries with domestic gas prices lower than Irish rates currently, has prices throughout 2022 that were around double (or more) than Irish rates at the time which customers in those countries were then paying well into 2023.

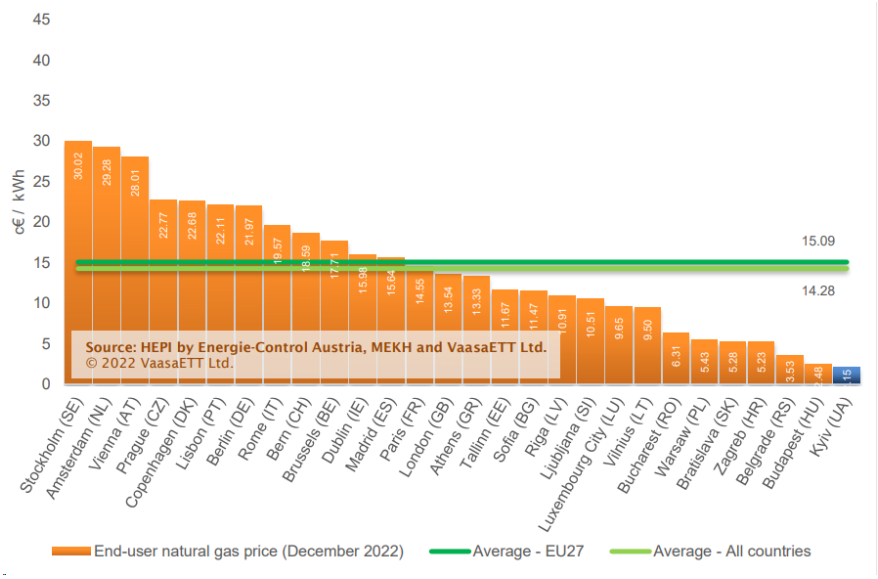

Figure 12: HEPI household gas prices per unit (December 2022).

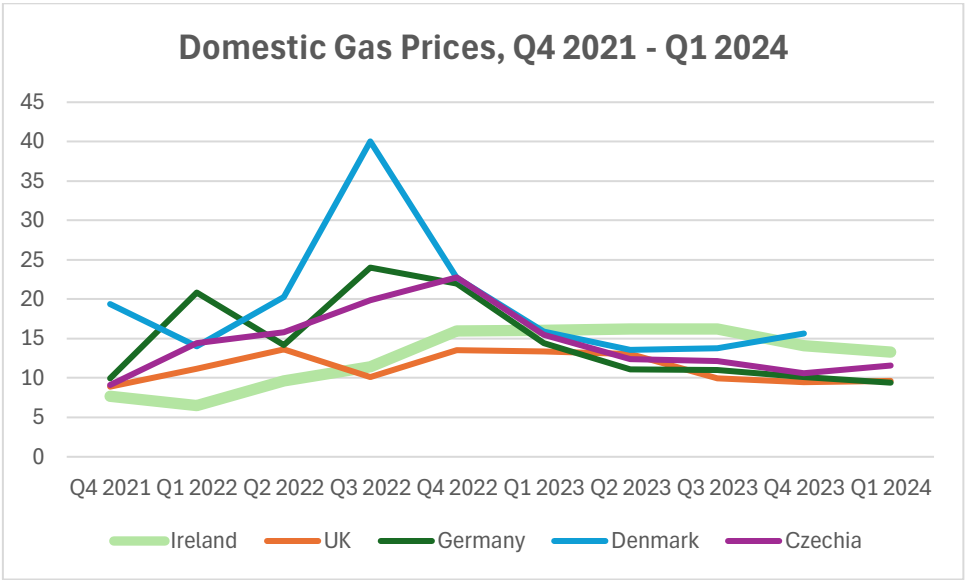

Figure 13: Domestic gas prices, Ireland and other comparable European countries.

3. Ireland - Correlation of Wholesale Electricity & Gas Prices with Retail Prices

As can be seen in the analysis in section 2, Irish retail prices were slower to rise in 2022 than in other European countries after the invasion by Russia of Ukraine. However, on the contrary, prices have been slower to decrease since wholesale prices began to stabilise in early 2023. This section illustrates how this 'lag' of increases or decreases in wholesale prices leads to corresponding increases or decreases in retail prices at a later point. The hedging strategies employed by suppliers can be an effective method of providing a certain level of price stability over a period of time when there are sharp rises in commodity prices, such as wholesale gas, which is the main component in the generation of electricity in the Irish market. These hedging strategies can protect customers from the worst impacts of wholesale price increases but can also lead to elevated retail prices at times when the wholesale price decreases rapidly. Hedging can also reduce the risk of suppliers going out of business, avoiding the consequential consumer impact and reduction in competition in the retail market. Suppliers can hedge up to 24 months in advance, meaning that it is highly likely that much of the energy being consumed in Ireland currently was purchased at a time when the wholesale price was higher than it has been in recent months.

3.1. Correlation of Single Electricity Market (SEM) Price vs. Retail Electricity Price

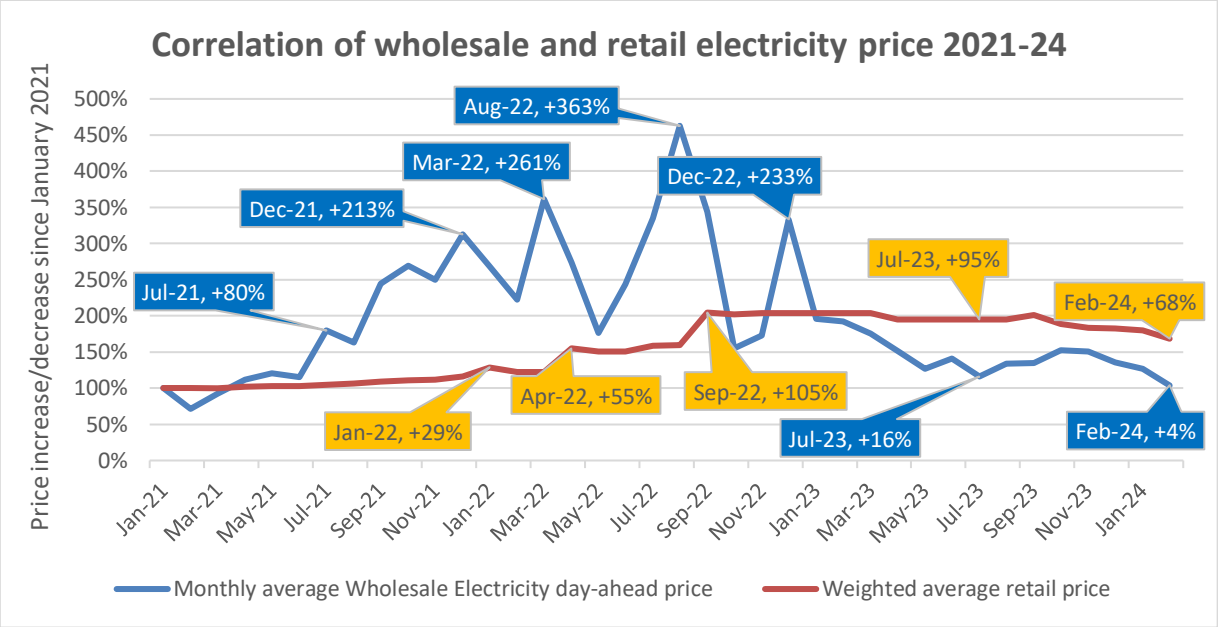

Figure 14: SEMOpx monthly average vs. Weighted average Irish household electricity price.

Using January 2021 as a baseline 'pre-crisis' month, the Figure 17 above tracks the increases in wholesale and retail electricity prices. It can be seen that, although the highest monthly average wholesale electricity price observed in August 2022 was 363% of that in January 2021, the retail price never reached this level. Conversely, while wholesale prices dropped and remained relatively stable since May 2023, retail prices are sustained at an elevated level (albeit still not near the comparative wholesale peak). Furthermore, it can also be seen that retail prices have been tracking at a continued considerably higher level than wholesale prices since the beginning of 2023. It was only in the autumn of 2023 that this decrease began to feed through to retail prices.

Most recently, in February 2024, the monthly average wholesale electricity price was 4% higher than its January 2021 price, but the weighted average retail price across the Irish market was 68% higher in the same month. It should also be noted that an increase in electricity network charges on suppliers, which are then incorporated in the standing charge of customers' bills, would have added to the increased retail price seen in this period.[4]

[4] https://www.cru.ie/about-us/news/cru-announces-network-charges-for-electricity-customers/

3.2. Correlation of NBP Price vs. Retail Gas Price

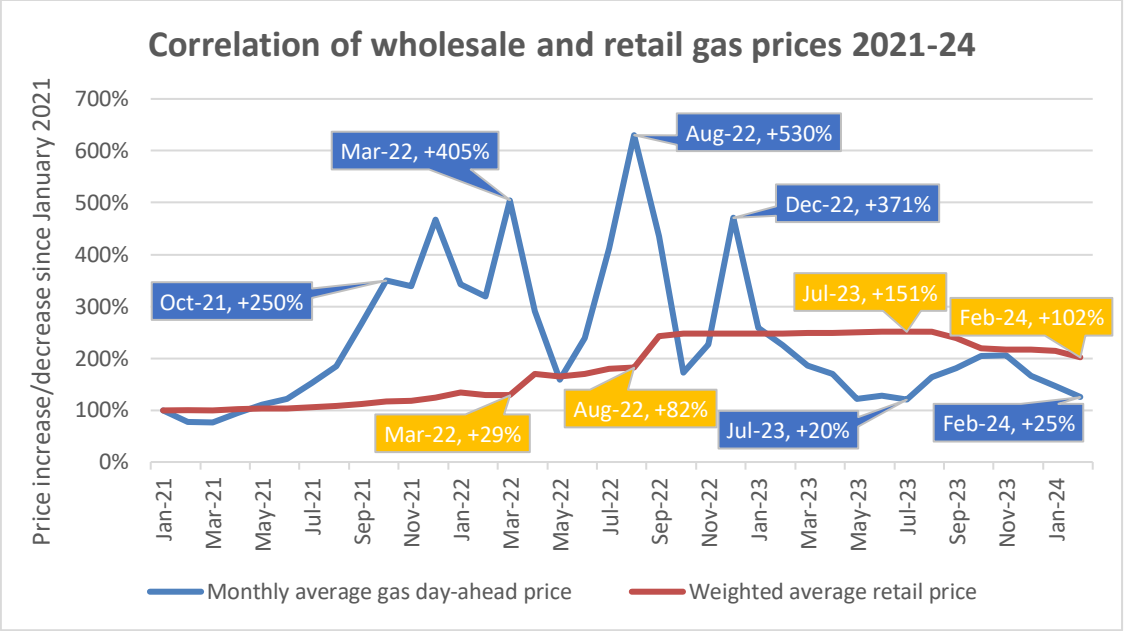

Figure 15: NBP DA monthly average price vs. weighted average Irish household gas price

Again using January 2021 as a baseline 'pre-crisis' month, it can be seen that retail gas prices did not come near the peaks observed in the wholesale market (with the monthly average August 2022 price reaching 530% higher than its corresponding January 2021 figure); but, similar to the electricity market, the increase in gas retail prices took place over a longer period, with price decreases not seen until autumn 2023.

In February 2024, the monthly average wholesale gas price was 25% higher than in January 2021, but the retail price for the corresponding period was 102% higher. The delayed impact of this significantly reduced wholesale price can be attributed to suppliers' hedges. Suppliers can purchase energy up to 24 months in advance, meaning that the expensive energy purchased at the peak of wholesale market volatility may have still yet to fully unwind.

From the above analysis, it is evident that there is a lag between increasing/decreasing wholesale prices and increasing/decreasing retail prices. However, given that wholesale prices have generally been stable for the past year (in comparison to the extreme volatility observed in 2022), it would be reasonable to expect that further retail price reductions will be announced by suppliers in the coming months. Nonetheless, wholesale prices are still continually running at levels higher than in 2021, so a return to retail prices similar to those in 2021 is not expected.

3.3. Gas in the Electricity Generation Mix – Ireland and EU comparison

One key reason which causes Irish electricity to be more expensive than in other European countries is the reliance on imported gas. Ireland imports roughly three-quarters of its total natural gas supply from the UK.[5] While indigenous, renewable sources of energy are increasingly forming a greater share of Ireland's electricity generation requirements, natural gas was still the generation fuel for 50% of Ireland's electricity in 2023 as the below graph shows:[6]

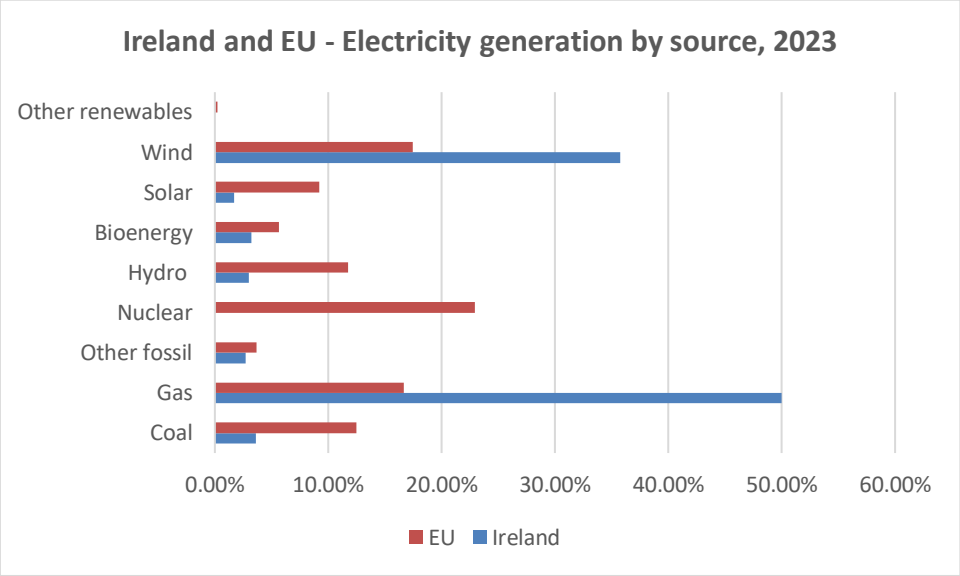

Figure 16: Electricity Generation Mix 2023, Ireland and EU comparison (Ember)

3.4. Hedging and Energy Price Stability

As outlined earlier in this section, supplier hedging provided retail price stability at times when wholesale prices were spiking in a volatile manner. While the corollary of this can currently be observed in Ireland, with retail prices remaining disproportionately higher than wholesale prices, it must be noted that such market volatility as observed in 2021 and particularly in 2022 may be seen again in the future. This is largely due to a continuing European-wide reliance on gas imports for energy generation, and the 'hole' left due to sanctions on Russian imports. While this gap in Europe's energy needs has largely been filled since 2022 by imports of Liquified Natural Gas from other countries, such as the US and Qatar, such imports are more sensitive to supply issues and price fluctuations due to geopolitical reasons.

[5] https://www.seai.ie/data-and-insights/seai-statistics/monthly-energy-data/gas/
[6] Electricity Data Explorer | Open Source Global Electricity Data | Ember (ember-climate.org)

There is a myriad of other issues that can contribute to wholesale spikes again in the future, such as generation plant issues, low wind generation, and extended cold weather spells. It remains important that suppliers continue hedging in prudent fashion to prevent such volatility in wholesale markets being reflected in an equal measure in retail markets.

4. CRU's role in Retail Market Regulation

Since April 2011, the Irish energy market has been free of supplier unit price regulation, meaning suppliers can set their own tariffs based on the costs faced by their own businesses. The CRU only regulates the network tariffs faced by suppliers for their use of the electricity and gas networks in Ireland. This means customers are free to choose their supplier in this open and competitive energy market. The CRU has a legislative remit to provide for protections for customers which it does in a number of ways, including via the Electricity & Gas Suppliers' Handbook (the Handbook), with which the suppliers must comply. The Handbook includes comprehensive requirements relating to a broad range of areas from how suppliers communicate with their customers to their terms and conditions of supply. The CRU also provides a dedicated Customer Care Team for complaints which are escalated by customers regarding their supplier, as well as a Compliance & Enforcement Team who can investigate any compliance issues and supplier practices. More recently, since 2022, the CRU also put in place a comprehensive set of Enhanced Customer Protection Measures to help customers through the worst of the price crisis.

The CRU also publishes annual, half-yearly, quarterly and monthly retail reports covering areas such as supplier's prices, customer switches and arrears levels including market trends in those areas. A detailed report outlining how trends in these areas have been affected by increasing energy prices since 2021 was published by CRU in September 2023.[7]

The CRU will continue to closely monitor retail market developments and keep customers best informed during what continues to be a prolonged difficult period for customers in the electricity and gas retail markets.

[7] https://www.cru.ie/publications/27671/