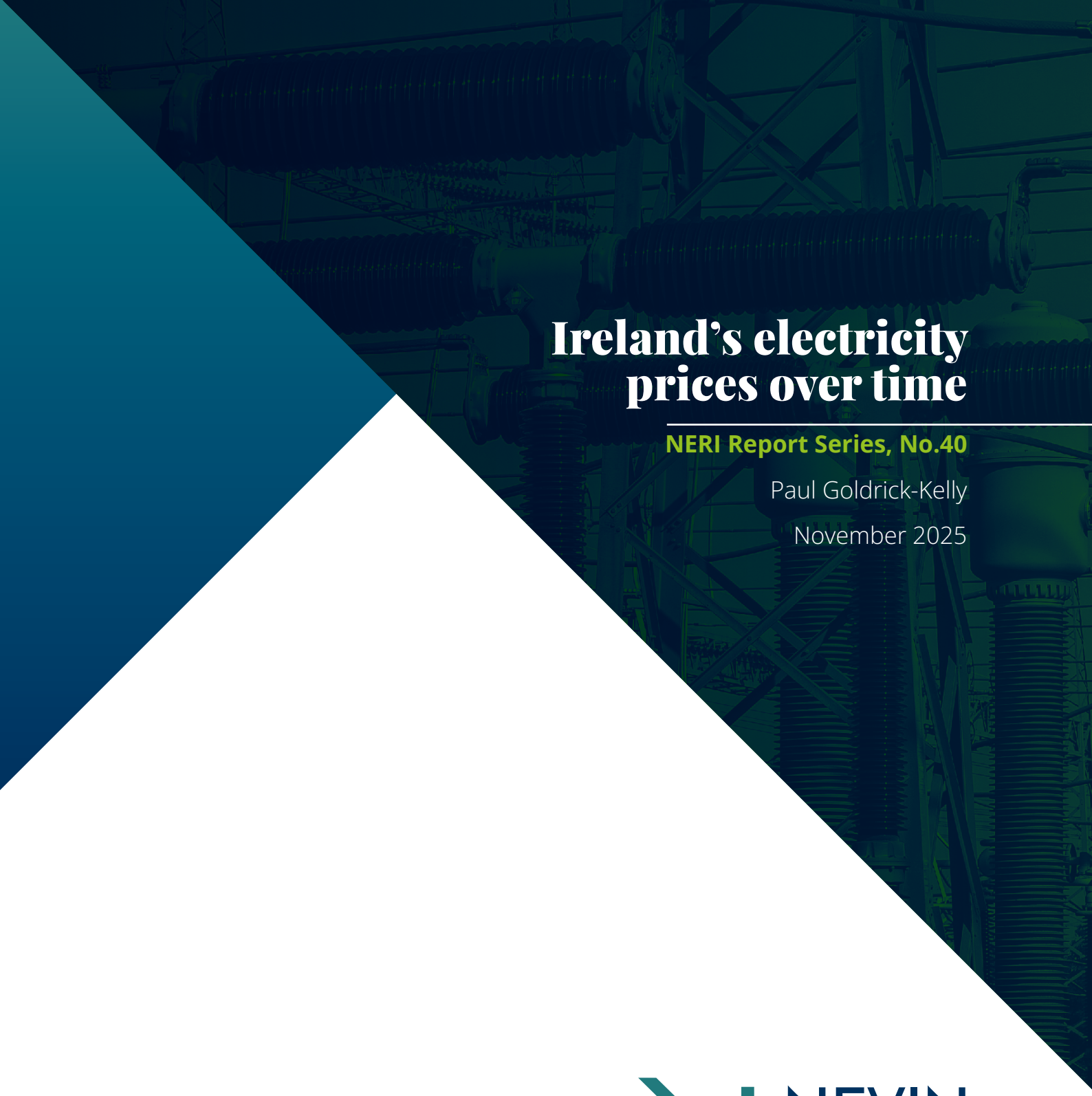


Ireland's electricity prices over time

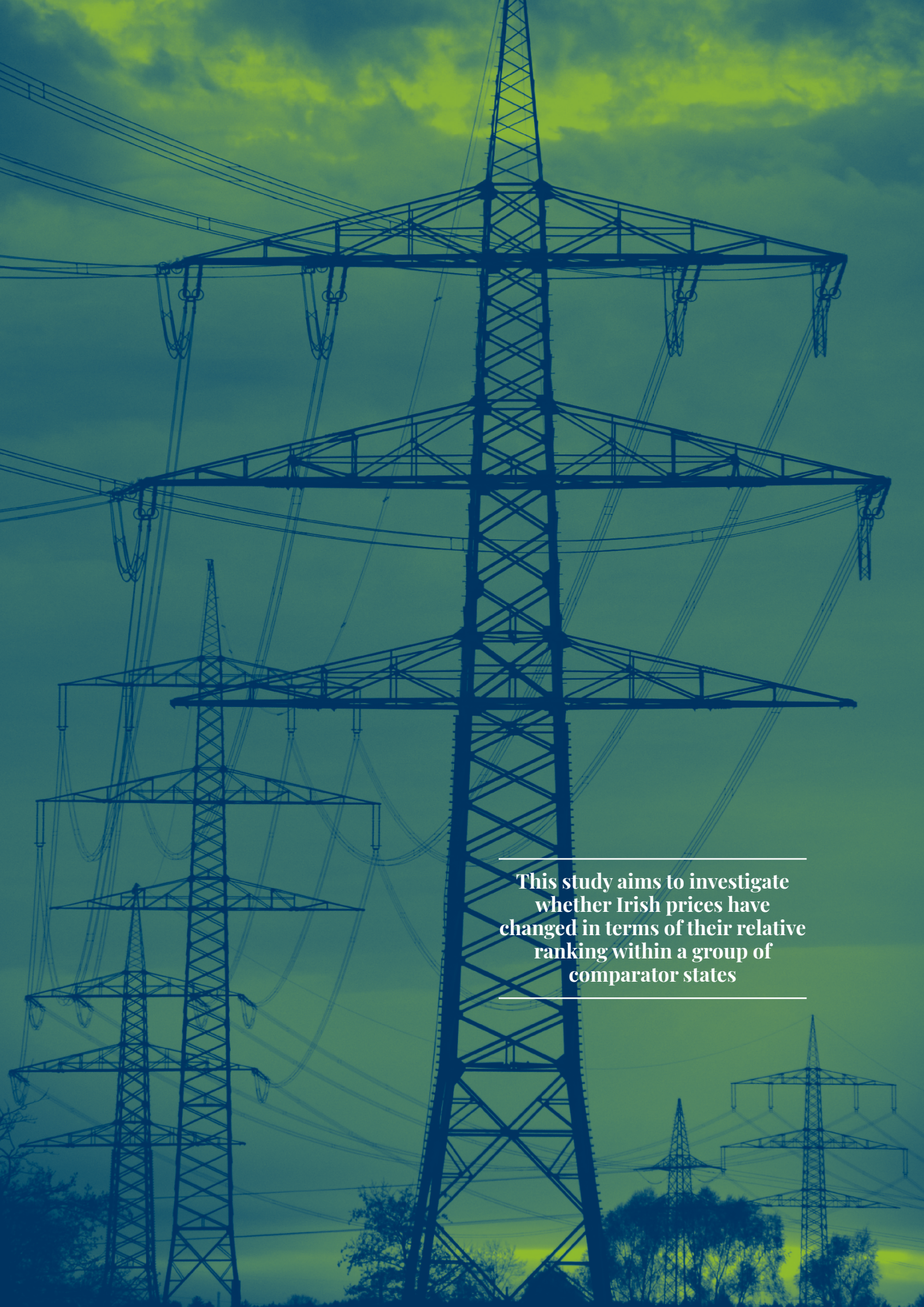
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This study aims to investigate whether Irish prices have changed in terms of their relative ranking within a group of comparator states

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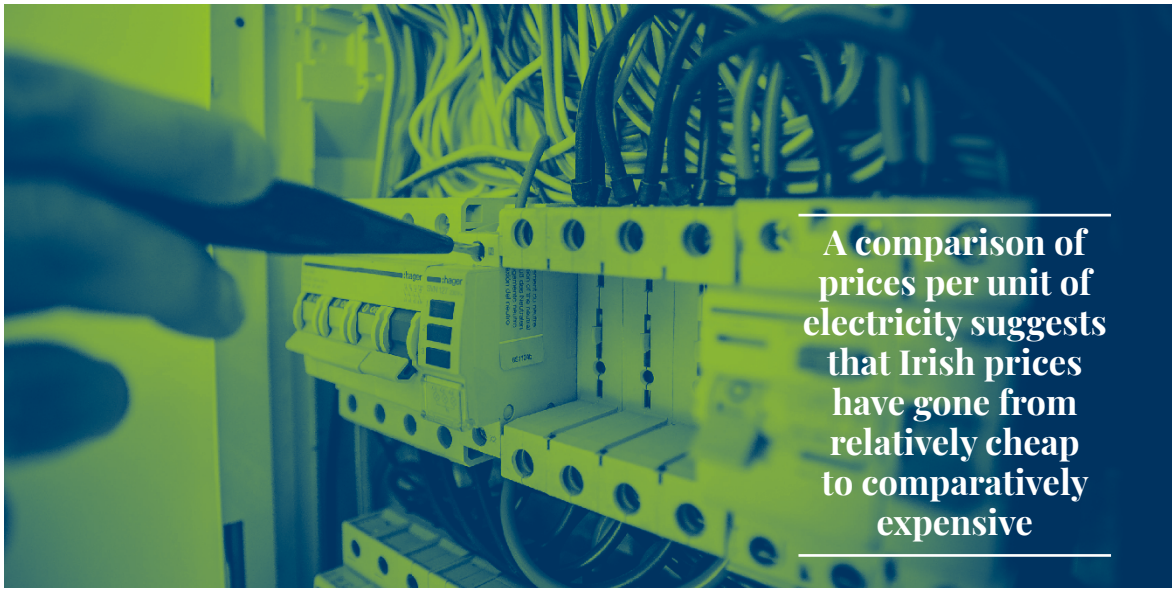
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Executive summary

Irish electricity prices have become the focus of a great deal of analysis and comment in light of recent increases in cost and their contribution to a general cost of living crisis. This study examines this trend and investigates the extent to which Irish electricity prices have increased over time relative to other states. This study also aims to investigate whether Irish prices have changed in terms of their relative ranking within a group of comparator states.

The analysis finds that electricity prices in Ireland have risen substantially from the mid 1990s, with the period from 2001 to 2007 showing particularly pronounced price growth. This price growth outstripped price increases in the economy as a whole (general inflation) in both Ireland and the Euro area. Irish electricity price growth from the 1990s is also dramatic compared to other EU states, showing much higher cumulative cost growth, notwithstanding short-term price shocks observed elsewhere. A comparison of prices per unit of electricity suggests that Irish prices have gone from relatively cheap to comparatively expensive for many consumption bands. This is particularly true of prices excluding taxes and levies, the latter price component representing a relatively minor element of prices in both absolute and proportional terms over time, and a net subsidy more recently.

A further analysis of these pre-tax and levy unit prices was performed on the energy and supply cost and network cost components that make up these unit costs in Ireland. The analysis suggests that, while there is evidence of elevated network costs in Ireland, recent price movements were largely related to energy and supply costs. These costs are influenced in large part by the significant role played by natural gas within our electricity system and current energy market design which translates into a close link between wholesale costs and natural gas prices. The report concludes with a brief analysis of other potential cost factors and possible policy remedies and avenues for further research.



A comparison of prices per unit of electricity suggests that Irish prices have gone from relatively cheap to comparatively expensive

Irish Electricity prices over time

Electricity price changes over time

How can we best understand and explain the trends in the Irish electricity market and electricity prices over the last few decades? To identify potentially sector unique factors driving electricity price developments in Ireland, we first need to compare changes in aggregate price levels over time. If we find that electricity prices follow a similar trajectory to the broader basket of goods and services used to construct an economy-wide inflation measure such as the Harmonised Index of Consumer Prices or HICP, then we can infer that price changes for electricity are driven by similar all economy elements. However, if they meaningfully differ from changes in the HICP then that implies that factors specific to electricity markets have been driving distinct price moves. Furthermore, if Irish electricity price movements diverge from electricity price changes elsewhere, we can infer that Ireland specific forces have been driving prices in Ireland.

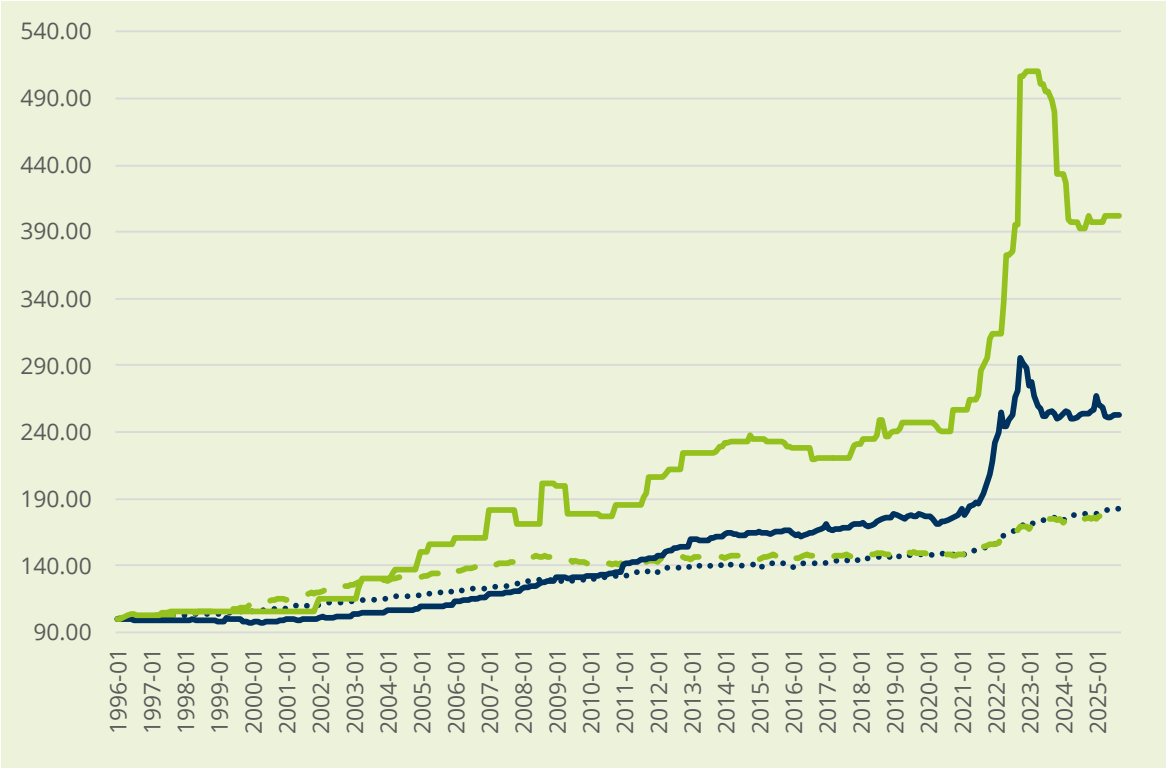
Chart 1 displays data from the Harmonised Index of Consumer Prices or HICP for Ireland and the weighted average for the Euro area, which is comprised of the countries which use the Euro. This group varies over time.[1] We set January 1996 values at 100 to better enable comparison.[2] The dashed lines represent aggregate price changes. We can see that price level changes for this aggregate basket of goods and services are similar in Ireland to the Euro area as a whole over the period, with the exception of most of the 2000s. General Irish price levels increased significantly relative to Euro area averages between 1996 and the 2008 financial crisis. This was a period of very fast growth in aggregate demand in Ireland.

However, the economic crash saw Irish prices fall in its immediate aftermath and cumulative price increases converge with Euro area values through a relative moderation in price growth over the course of the following decade. Thereafter, the Irish series moves in relative lock-step with the Euro area, implying broadly that common factors were at work in Ireland and the Euro area, with both experiencing the general inflation of the last several years in similar ways. By September 2025, Irish prices generally were about 79.9 per cent above their January 1996 values, slightly less than the cumulative average inflation of 82.4 per cent for the eurozone country group.

1 This eurozone has expanded eight times between 2001 and 2023, growing from 11 to 20 members. Unfortunately, data are not available across the time series for a consistent group which represented the Euro area at a given time. Eurostat use chain linking to avoid breaks in the series as the country group changes. In any case, available data suggest that the new members have tended to push up the HICP and its electricity component. However, country weights – which are weighted according to each state's contribution to Euro Area household expenditure – also suggest these effects are relatively small.

2 January 1996 represents the beginning of the HICP data series, which is designed for cross country comparisons.

Chart 1: Harmonised Index of Consumer Prices (HCIP) and Electricity subcomponent trend relative to January 1990 (Jan 1996=100), January 1996 to September 2025



Source: HICP - monthly data (index), Author calculations
Note: Monthly index data which index 1996=100 are rebased so that January 1996=100

By contrast, Chart 1 shows a very different trend for electricity prices in Ireland and the eurozone. Initially, electricity price trends for both comparators are similar. In both cases, initial price movements in electricity are smaller than those for their respective wider economies – implying lower inflation for this good than for many other goods and services - though this is true for a longer period for the Euro area. Later in the series, electricity price growth outpaces increases in the HICP for all consumer goods and services. By April 2003 in Ireland, and November 2008 for the wider Euro Area, cumulative price increases for electricity had exceeded those for the wider basket of household goods and services. Thus, by this point, inflation adjusted electricity prices had gone up relative to January 1996. This tendency continues for both comparators, leading to a situation where electricity prices have grown considerably in HICP inflation adjusted terms relative to 1996 levels by the end of the series in late 2025. Thus, we can conclude that electricity prices in both cases have been led by unique factors, rather than the general movement of prices in the economy.

However, Irish electricity price data begin to show a wide divergence between Ireland and the other displayed data from late 2001. Over the course of the 2000s, a series of significant electricity price increases occur in Ireland that are not paralleled elsewhere.

Total electricity price increases in Ireland converged with cumulative economy wide inflation by the second step increase in prices in early 2003, and from that point on electricity price increases significantly diverge from and exceed those for the all-item Irish HICP. By late 2008, the pre-crisis peak in the cumulative HICP series, general prices had increased by around 47 per cent over January 1996 levels, while electricity prices more than doubled over the same period. The immediate post-crash period saw declines in prices for both electricity and the HICP, but from late 2010 we see consistent increases in electricity prices for most of the rest of the series.

The electricity price changes in Ireland over the course of the 2000s are also not reflected in the data for the Euro area as a whole, and contribute a great deal of the cumulative gap between the comparators. Where Irish electricity prices doubled, those for the eurozone increased by just over 37 per cent.

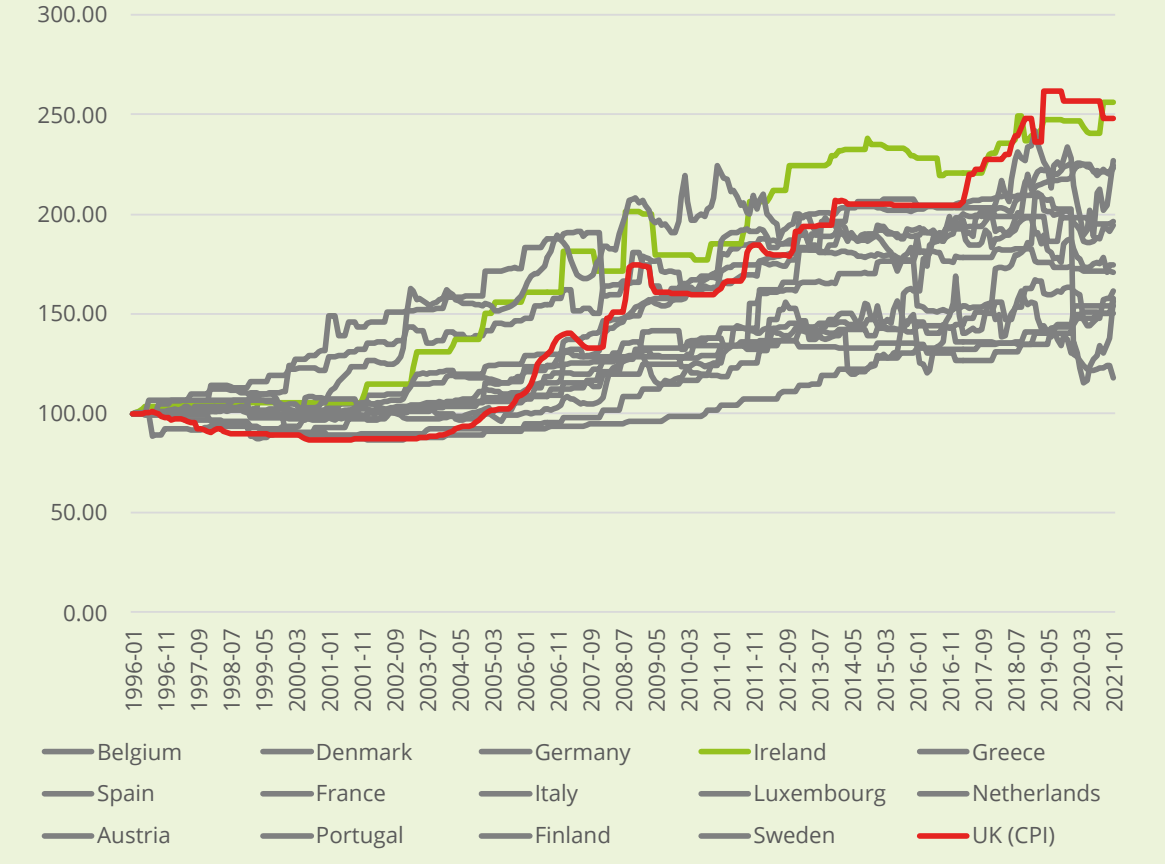
A further relative shift occurs in late 2022, when electricity prices in Ireland increased much more rapidly than they did in the Euro area. There were also rising prices in the Euro area as a whole, but the relative increases are far smaller. In October 2022, Irish prices increased by 28.1 per cent month on month, relative to an 8.9 per cent increase for the Euro area as a whole.

The trend in electricity prices relative to those other states that were EU members prior to 2004, typically known as the EU15, are shown in Chart 2 and Chart 3. Comparison with individual states allows us to see price movements in individual countries that are obscured in the average, and offers more insight into Irish specific dynamics.

Chart 2 displays the electricity cost growth that took place between January 1996 and January 2021, prior to the cost shocks of the 2021-2022 period. The series shows Ireland beginning to diverge from typical values from around 2002, with a series of step increases in price subsequently taking place. By late 2008, prices had more than doubled relative to January 1996 levels, leaving Ireland ranked 1st or 2nd in terms of aggregate relative cost growth. While electricity prices experienced deflation (price declines) between mid-2009 and late 2010, cumulative Irish electricity price growth remained high relative to the rest of the EU15 (only exceeded by Sweden), and cost growth soon resumed from October 2010. By late 2011, Irish electricity prices had recovered and exceeded their late 2008 highs, and by March 2012 Irish cumulative cost growth relative to January 1996 levels exceeded all others in the comparator group, with a pronounced gap evident until the fast price growth in the UK meant that that country had by mid-2017 caught up with post 1996 aggregate price growth in Ireland. We can see that Ireland and the UK were very much cost growth outliers in the EU15 context prior to the inflationary period beginning in 2021.[3]

3 UK data here refer to national CPI for data completeness up to the present. Over the 15 years for which we have HICP data, the CPI data match very closely.

Chart 2 HICP for electricity subcomponent (Jan 1996=100), EU15, January 1996 - January 2021



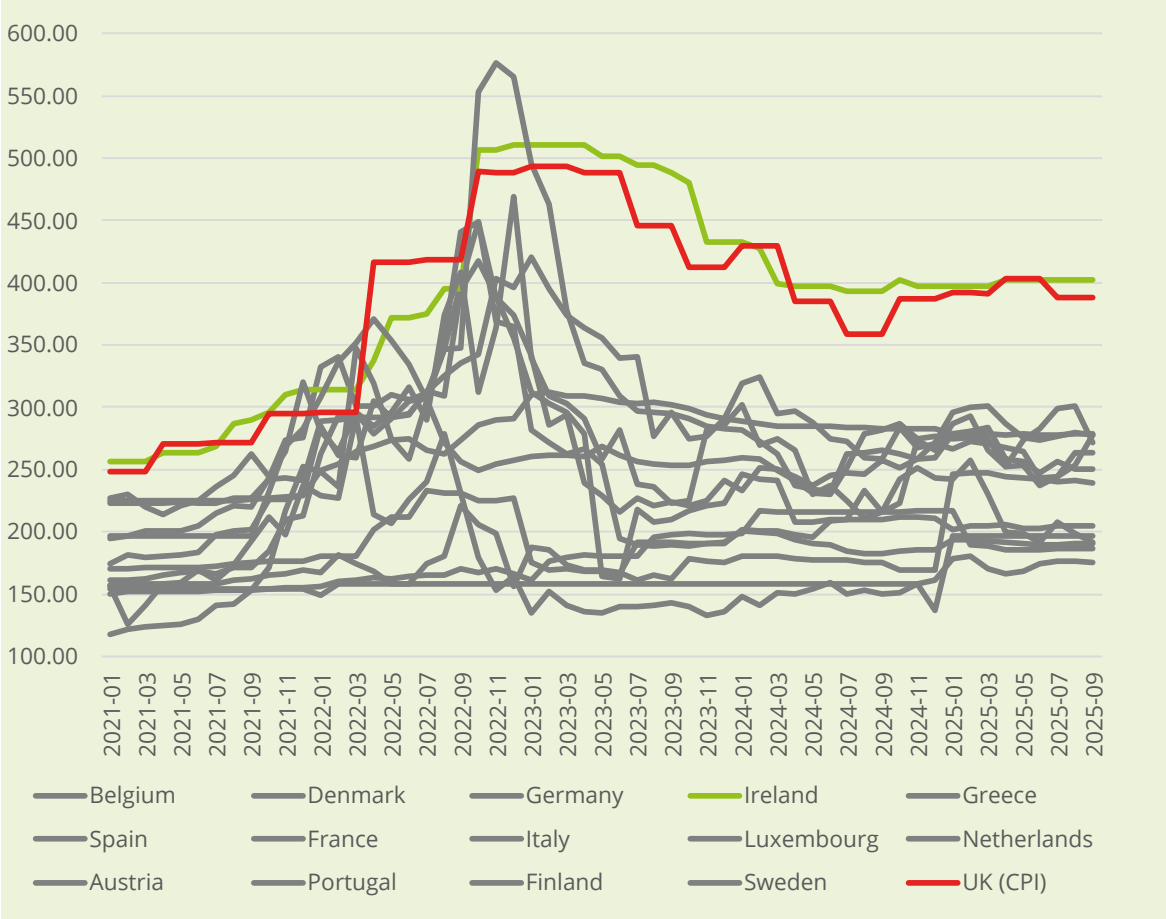
Source: HICP - monthly data (index); CPI INDEX 04.5.1 : ELECTRICITY 2015=100; author calculations

Note: UK data use national CPI data since the HICP series ends with the UK's exit from the European Union. Data have been rescaled so January 1996=100.

Chart 3 displays cost growth patterns for the more recent 2021 to 2025 period. This period was characterised by the ending of the Covid lockdown and release of pent-up demand in the economy followed by the Russian invasion of Ukraine and subsequent energy supply shock. As a consequence, it was a period of major energy (and broader) inflation beginning in late 2021 and then accelerating sharply in 2022. While Ireland (and the UK) retain their top (highest) status in terms of cumulative cost growth for much of the period from January 2021 to September 2025, their energy systems also experienced their major month on month price movements later than did many other countries in the series, with the sharp increase occurring in early 2022, rather than in early to mid-2021 as in other states.

...was a period of major energy (and broader) inflation beginning in late 2021 and then accelerating sharply in 2022

Chart 3 HICP for electricity subcomponent (Jan 1996=100), EU15, January 2021 - September 2025



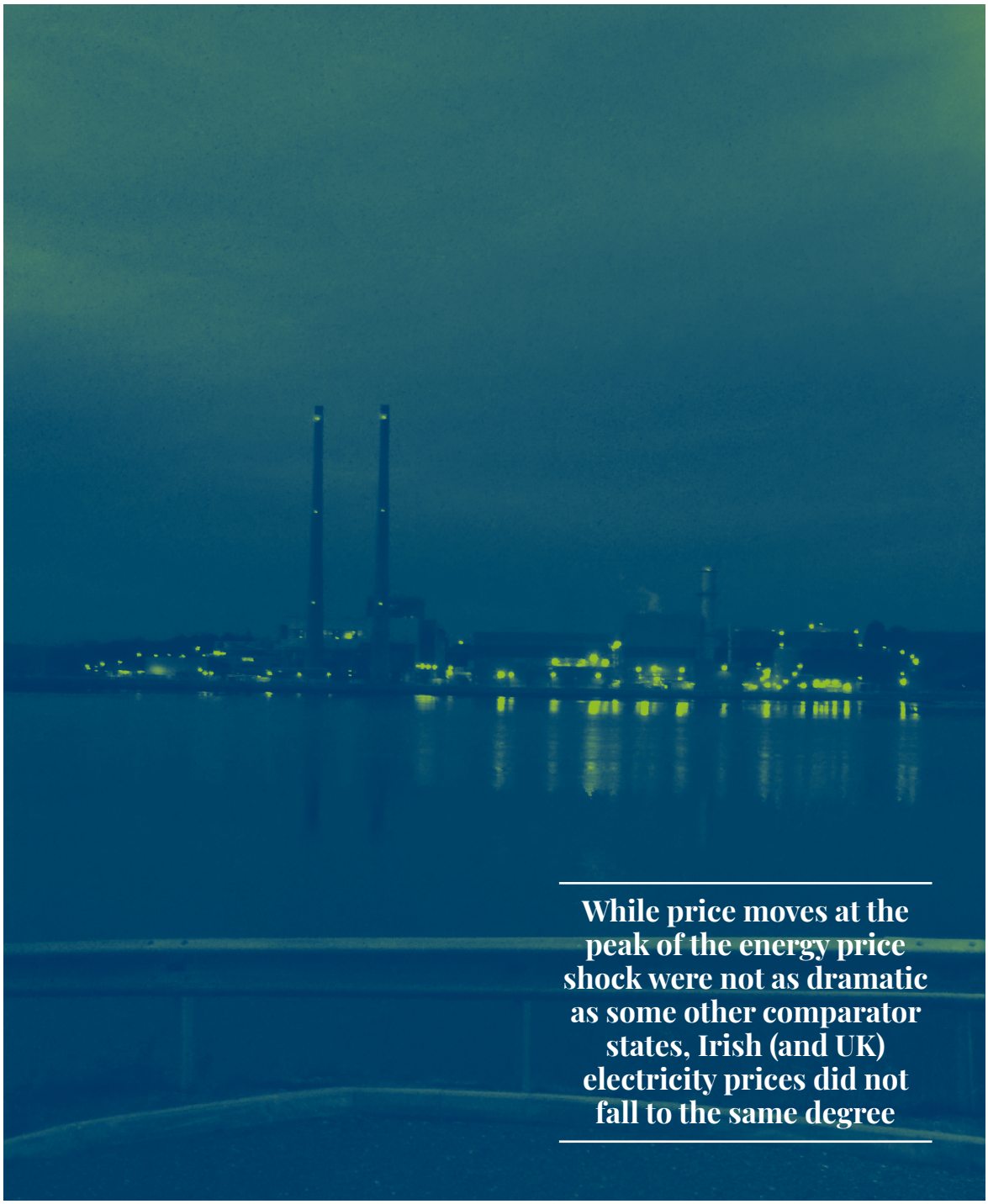
Source: HICP - monthly data (index); CPI INDEX 04.5.1 : ELECTRICITY 2015=100; author calculations

Note: UK data use national CPI data since the HICP series ends with the UK's exit from the European Union. Data have been rescaled so January 1996=100.

While some states in the series converge upon – and at times exceed – cumulative price growth in Ireland and the UK in late 2022 and early 2023, many other comparators experienced a more rapid decline in prices from their peak. We can see that while prices in both the UK and Ireland dropped from their peaks by the end of the series late 2025, cumulative prices between January 1996 and September 2025 showed the greatest increases in these two States. Prices by the end of the series were more than four times (4.02) their January 1996 levels in Ireland, just edging out UK increases – 3.88 times January 1996 prices - over the same period. No other state in the EU15 group exceeded increases of 200 per cent.

In summary, electricity prices in both Ireland and the Euro area show distinct dynamics relative to price changes for the economy at large. This implies sector specific factors are at work driving price changes. However, electricity prices in Ireland rise sharply in the 2000s relative to the Euro area as a whole. Dynamics are similar following the 2000s,

although Irish prices show an extreme spike relative to the Euro area average at the end of 2022. Ireland also shows the highest increase in electricity prices among the EU15 country group between January 1996 and September 2025 with prices increasing more than 4 times compared to 1.8 times for general prices. While price moves at the peak of the energy price shock were not as dramatic as some other comparator states, Irish (and UK) electricity prices did not fall to the same degree. The UK appears to experience similar price dynamics across the series beginning in the late 2000s, pointing to potential similarities in electricity cost drivers over this period.



While price moves at the peak of the energy price shock were not as dramatic as some other comparator states, Irish (and UK) electricity prices did not fall to the same degree

Comparing absolute electricity prices over time

While this inflationary series shows that electricity prices in Ireland have shown considerable cost growth, this does not provide a sense of experienced costs in Ireland. The aggregate series in Chart 1 also fails to differentiate between the differing prices faced by various types of consumer. This section addresses the actual relative price – adjusted for national price levels differences - faced by types of consumers. This is best conveyed using price per unit of electricity for various levels of consumption for both domestic and non-domestic electricity users.

These prices are shown in Purchasing Power Standards, or PPS terms before and after taxes and levies are applied for domestic consumers as this conveys relative costs adjusted for national price level differences, and points to potential cost drivers which will be explored in the following section.[4] Non-domestic consumer prices are displayed in Euro and PPS before taxes and levies are applied and for prices excluding VAT and other recoverable taxes, levies and fees, reflecting non-fiscal cost drivers and real business costs. Euro costs, and costs excluding VAT are particularly important for industry, as relative competitiveness is sensitive to euro price, and firms are usually able to recover VAT and some other charges.[5]

Domestic Consumers

Table 1 displays electricity prices per unit – per kilowatt hour - before and after taxes and levies adjusted for relative price levels for a representative consumption band.[6] Electricity prices before taxes and levies are applied includes the costs of production, margins for electricity suppliers and providers, as well as the costs of upkeep for network infrastructure among other elements. Prices after taxes and levies are applied represents the price faced by the end electricity customer, which can include additional charges or subsidies. We see in 1980, that electricity prices for this representative consumption band, notwithstanding data gaps, were among the cheapest in the EU15 comparator group. In 1980, only Greek prices were lower than those seen in Ireland, with Ireland 8th of 9 states (2nd cheapest). This carries on into the year 1990, where things remain similar, with Ireland ranking 12th (cheapest) in adjusted price per unit among the 12 states with available data.

Although prices remain comparatively low, by 2000, we are now starting to see a relative shift with two countries having lower total prices, and 4 countries having lower prices before taxes and levies are applied. Ireland's relative position deteriorates further by the year 2007, with 5 countries now showing lower total prices than Ireland (Ireland ranks 10th of 15) and Ireland now falling into the top (more expensive) half of the group in terms of pre-tax prices.

4 Purchasing power standards or PPS, is an artificial currency which adjusts for differences in price levels between countries. In theory, one PPS unit can buy the same amount of goods and services in each comparator state.
5 See Methodology section on Eurostat's statistics explained for their electricity price data.
6 This consumption band, as well as representing a typical consumer, also has the most complete data, facilitating comparisons.

Unfortunately, 2007 represents a break in the data series, with price data now presented for differing bands of usage. Charts 4 and 5 display data for these different bands as a ratio of Irish prices to those of the Eurozone as a whole before and after taxes and levies are applied.[7] [8]

Table 1: Current PPS, 1980-2007, Domestic Annual consumption 3,500 kWh

Year	1980	1990	2000	2007				
	PPS Price	PPS Price	PPS Price	PPS Price				
Measure	Without Tax	Total	Without Tax	Total	Without Tax	Total	Without Tax	Total
Belgium	6.55	7.59	10.86	12.70	11.17	13.68	11.97	15.40
Denmark			5.34	10.48	5.59	15.31	8.63	19.03
Germany	5.97	7.08	10.68	13.55	10.67	13.67	13.92	18.94
Ireland	4.98	4.98	8.26	8.68	7.33	8.25	12.10	13.73
Greece	4.49	4.84	8.27	9.59	7.03	7.60	7.81	8.51
Spain			11.28	12.63	10.60	12.93	10.79	13.16
France	5.64	7.23	8.99	11.26	8.92	11.33	8.59	11.29
Italy					16.33	21.78	16.22	22.78
Luxembourg	5.60	5.87	9.56	10.13	9.40	9.97	13.05	14.56
Netherlands	5.58	6.59	8.39	9.95	8.93	13.70	13.46	20.96
Austria					9.13	11.80	10.28	15.12
Portugal	7.99	8.02	15.46	16.72	16.14	16.98	16.70	17.64
Finland					5.79	7.84	7.69	10.17
Sweden					5.24	8.39	9.01	14.18
United Kingdom	5.79	5.79	9.55	9.55	9.08	9.52	11.21	11.76

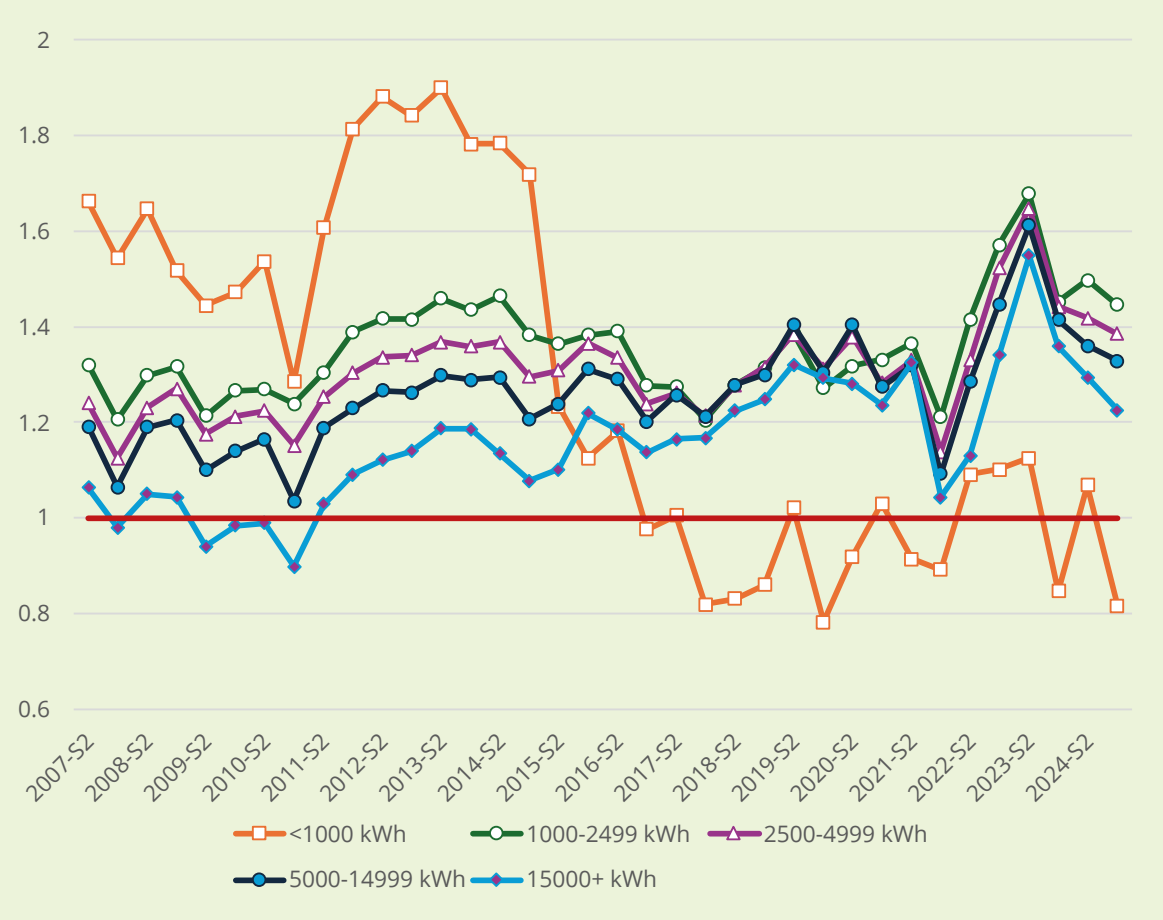
Sources: Electricity prices for domestic consumers - bi-annual data (until 2007); Energy Prices 1980-1995
Note: Numbers in red are less than Irish values.

Across most of the series, from the latter half of 2007 to the first half of 2025, Irish prices before taxes and levies are applied are above the Euro area average in PPS terms (Chart 4), often significantly, with the exception of the lowest consumption band (less than 1000 kWh annually) for much of the period post-2017. Pre-tax/levy price ratios vary widely within the lowest consumption band, reaching a maximum of over 90 per cent above Euro area averages in the latter half of 2013 and a minimum of nearly 22 per cent below the Euro area average in early 2020.

7 These levies can be negative, implying a subsidy for the final consumer.
8 These data also reflect a changing eurozone group, which varies in composition over the course of the series. While this may present some comparability issues, newer states are relatively minor contributors to wider aggregates. As a result, any potential bias is likely small.

Price levels for the other bands track more closely together across the series. From early 2021 Ireland's relative position within these consumption bands significantly deteriorates, reaching a relative maximum in all bands above 1000 kWh in the second half of 2023. The price spike is most severe among the lower consumption bands of 1000 to 2499 kWh and 2499 to 4999 kWh annually, with prices in late 2023 over 60 per cent above the Euro area average for their respective bands for the same period. The higher consumption bands also experience a relative price jump, reaching nearly 1.61 and 1.55 times their respective Euro area averages for the 5,000-14,999 kWh and 15,000+ kWh consumer groups respectively.

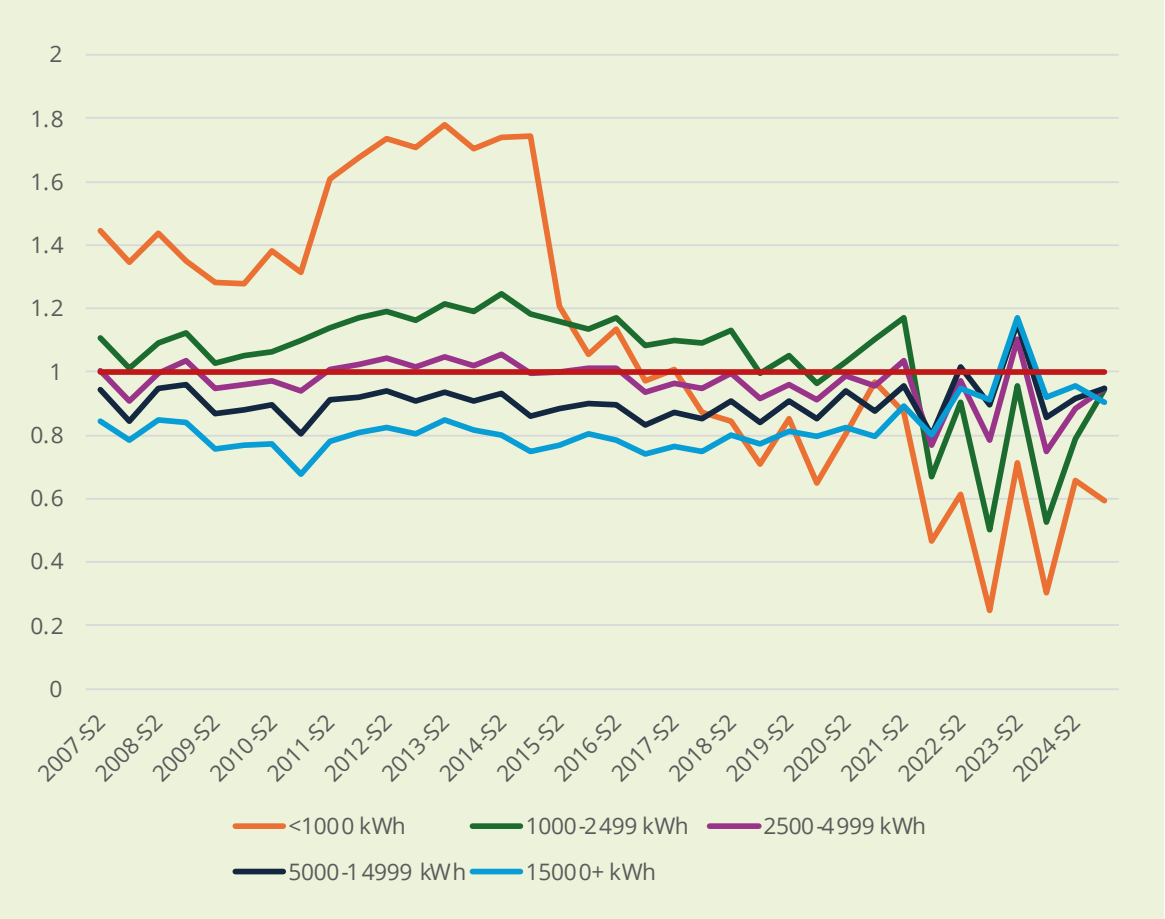
Chart 4: Ratio of Irish to Euro Area Prices (Before taxes and levies) by Domestic consumption band July to December 2007 – January to June 2025 PPS



Source: Electricity prices for household consumers - bi-annual data (from 2007 onwards), Author calculations
Note: Numbers above 1 indicate an Irish price above EA averages

While Ireland's relative prices tended to fall from that point, the latest available data for the first half of 2025 show pre-tax and levy prices which are above Euro area averages all but the lowest consumption band, ranging from 22.5 per cent higher for the over 15,000 kWh consumption group to nearly 44.5 per cent higher for the 1000-2499 kWh group. Examining the subgroup of 14 EU states which were members before the 2004 expansion – excluding the UK – we observe that across most bands apart from the lowest and highest groups (with ranks of 10th and 3rd respectively), Ireland ranks as the most expensive country in the first half of 2025.

Chart 5: Ratio of Irish to Euro Area End user prices by Domestic consumption band July to December 2007 – January to June 2025 PPS



Source: Electricity prices for household consumers - bi-annual data (from 2007 onwards), Author calculations
Note: Numbers above 1 indicate an Irish price above EA averages

Prices facing domestic customers tell a different story (Chart 5) due to the different taxes and levies applied in different countries. At the highest two bands, 5000 to 14999 KWh and over 15000 kWh, final Irish prices are consistently lower than Euro area levels in price adjusted terms. By contrast, the second lowest band 1000-2499 kWh shows above average prices for most of the series, apart from the period between 2022 and the end of the series, though the latest available data appear to show the band reconverging on typical EA prices. The 2500-4999 kWh band hovers around the eurozone average for much of the series. Despite the peak in relative pre-tax and levy prices across many bands in later 2023, final prices actually reach relative lows in most cases the first half of that year, driven by a large effective subsidy, reducing final prices relative to their pre-levy values. However, the subsequent reduction in these negative levies has led to relative increases in price, with prices moving back towards the EA average. A continued reduction in electricity subsidies will likely, failing significant price increases elsewhere, lead to Irish prices meeting or exceeding Euro area values in price adjusted terms.

In Table 2 we break out the latest available data for the first half of 2025, displaying euro and PPS prices by band. Again, we note that the Irish price levels are relatively high before taxes and levies are applied, showing the highest price levels (top 5) in both Euro and PPS terms among the EU27 for all but the lowest consumption band, and for total average prices. However, low levels of taxes and levies change Ireland's relative position in PPS terms where final prices are concerned. While in most cases, unadjusted euro prices are still high – within the top 6 for all but the lowest consumer band – Ireland appears to be much less of an outlier in PPS terms. Irish prices are 11th of 27 countries overall, ranging from 9th for consumers in the DB band to 22nd in the highest consumption band DE.

Table 2: Irish Domestic electricity prices per 100 kWh and EU ranking January to June 2025

Consumption Band (kWh annually)	Share of market	Excluding taxes and levies	Total						
		€/100 kWh	EU27 Euro Ranking	PPS/100 kWh	EU27 PPS Ranking	€/100 kWh	EU27 Euro Ranking	PPS/100 kWh	EU27 PPS Ranking
DA: Less than 1000	8.6%	36.62	10	30.93	14	33.54	15	28.33	22
DB: 1000-2499	10.8%	42.71	1	36.08	2	36.54	6	30.86	9
DC: 2500-4999	33.6%	34.92	1	29.50	2	32.60	5	27.54	12
DD: 5000-14999	39.4%	29.90	1	25.26	2	30.01	4	25.35	12
DE: 15000+	7.5%	26.28	2	22.20	5	27.69	6	23.39	16
Total	100%	33.25	1*	28.09	3*	31.69	4*	26.76	11*

Source: Electricity prices for household consumers - bi-annual data (from 2007 onwards), SEAI summary of Irish Electricity and Gas Prices (Eurostat EPR Update), Author calculations
Note: Rankings are from highest to lowest, i.e. a rank of 1st means prices are highest in Ireland among EU states. Total prices are imputed from SEAI data regarding share of market to generate a weighted average. Data were unavailable for total price (*) for Latvia, Luxembourg, Malta and Poland at time of writing, so these rankings are of 23 EU members.

Industrial/Non-domestic Consumers

Similar to the above, we can compare price level adjusted data for Industrial users between 1990 and 2003 for the 2-Gigawatt hours of annual consumption group. These data show that electricity costs for this consumer group were relatively low in 1990 and 1995, for both total costs and costs excluding VAT in Euro and PPS units. However, by 2003, costs faced by firms had increased significantly relative to other EU15 states. In 1995, Ireland was 9th highest of 14 comparators for which data was available excluding VAT, and 11th of 14 in total cost when prices were measured in euro. PPS adjustment changed Ireland's rank somewhat that year, but prices were middling before and after VAT. By 2003, however, Irish prices climbed to 3rd in the peer group before VAT and 5th in total euro costs.

Table 3: Non-domestic prices per 100 kWh Euro and PPS 2GWh

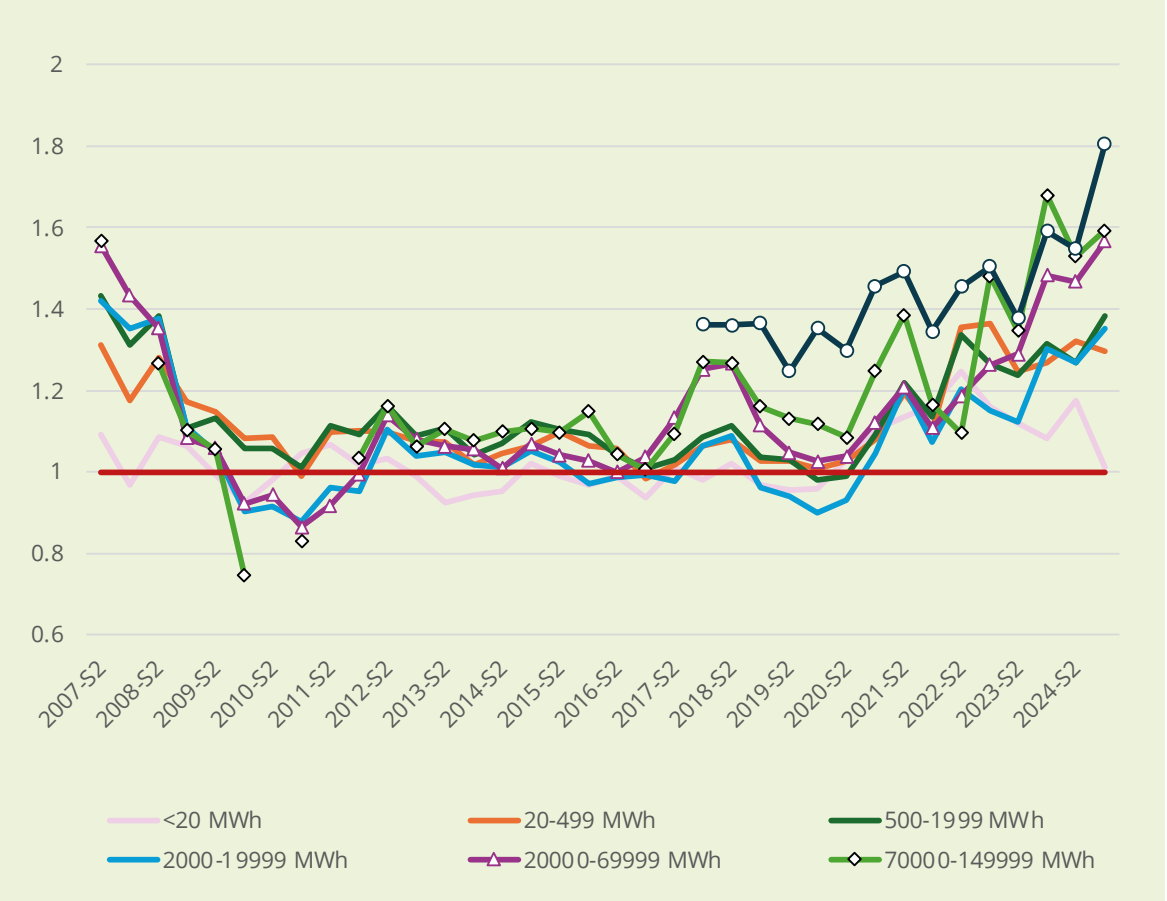
EU state	Jan 1990				Jan 1995				Jan 2003			
	Exc VAT Euro	Total Euro	Exc VAT PPS	Total PPS	Exc VAT Euro	Total Euro	Exc VAT PPS	Total PPS	Exc VAT Euro	Total Euro	Exc VAT PPS	Total PPS
Belgium	6.99	8.17	7.13	8.33	7.77	9.35	7.54	9.07	7.68	9.29	7.68	9.29
Denmark	4.75	6.72	3.75	5.31	4.99	7.51	4.03	6.07	7.64	11.62	5.88	8.94
Germany	10.07	11.49	9.18	10.47	11.18	12.87	9.59	11.04	9.02	10.46	8.43	9.78
Greece	6.28	7.28	8.47	9.81	5.47	6.46	7.57	8.94	6.14	6.63	7.22	7.8
Spain	8.33	9.32	9.54	10.67	7.38	8.56	9.04	10.49	5.55	6.44	6.24	7.24
France	5.86	6.94	5.75	6.81	6.52	7.73	6.04	7.16	5.62	6.49	5.46	6.3
Ireland	6.57	6.89	6.57	6.89	6.31	7.09	7.32	8.23	7.76	8.81	6.81	7.73
Italy	-	-	-	-	8.64	9.43	10.47	11.42	10.78	11.86	11.98	13.18
Luxembourg	7.38	7.83	7.31	7.75	7.65	8.11	7	7.42	7.35	7.79	6.62	7.02
Netherlands	-	-	-	-	6.01	7.06	5.6	6.58	-	-	-	-
Austria	-	-	-	-	8.09	9.74	7.27	8.75	-	-	-	-
Portugal	7.02	7.58	12.5	13.5	8.06	8.46	12.41	13.03	6.73	7.06	8.86	9.29
Finland	-	-	-	-	4.53	5.53	4	4.88	6.11	7.45	5.46	6.65
Sweden	-	-	-	-	-	-	-	-	6.66	8.33	5.56	6.96
UK	-	-	-	-	6.13	7.21	6.93	8.14	5.69	6.69	5.21	6.13
Ireland rank	6th	8th	7th	7th	9th	11th	7th	8th	3rd	5th	6th	7th

Sources: Electricity prices: Data 1990-2003
Note: Numbers in red are less than Irish values. Values displayed refer to certain cities within each state

Again, the year 2007 represents a break in the dataset, with more complete data offered for a range of consumption bands. Chart 6 displays relative euro price ratios relative to the Euro area average over time. We can see that relative Irish prices fell for all groups after 2007, though prices recovered and, in most cases, exceeded eurozone values from 2012 onwards. 2017 saw a notable spike in relative prices among the higher consumption bands. Most notably, from 2020, prices tend to increase relative to eurozone averages, with prices particularly elevated among the highest 3 consumption bands towards the end of the series. Prices exceed Euro area averages for all groups in the first half of 2025, from just over 1 per cent above Euro area averages for the lowest consumption group, to 80.4 per cent above profile for the 150,000 MWh and above group.



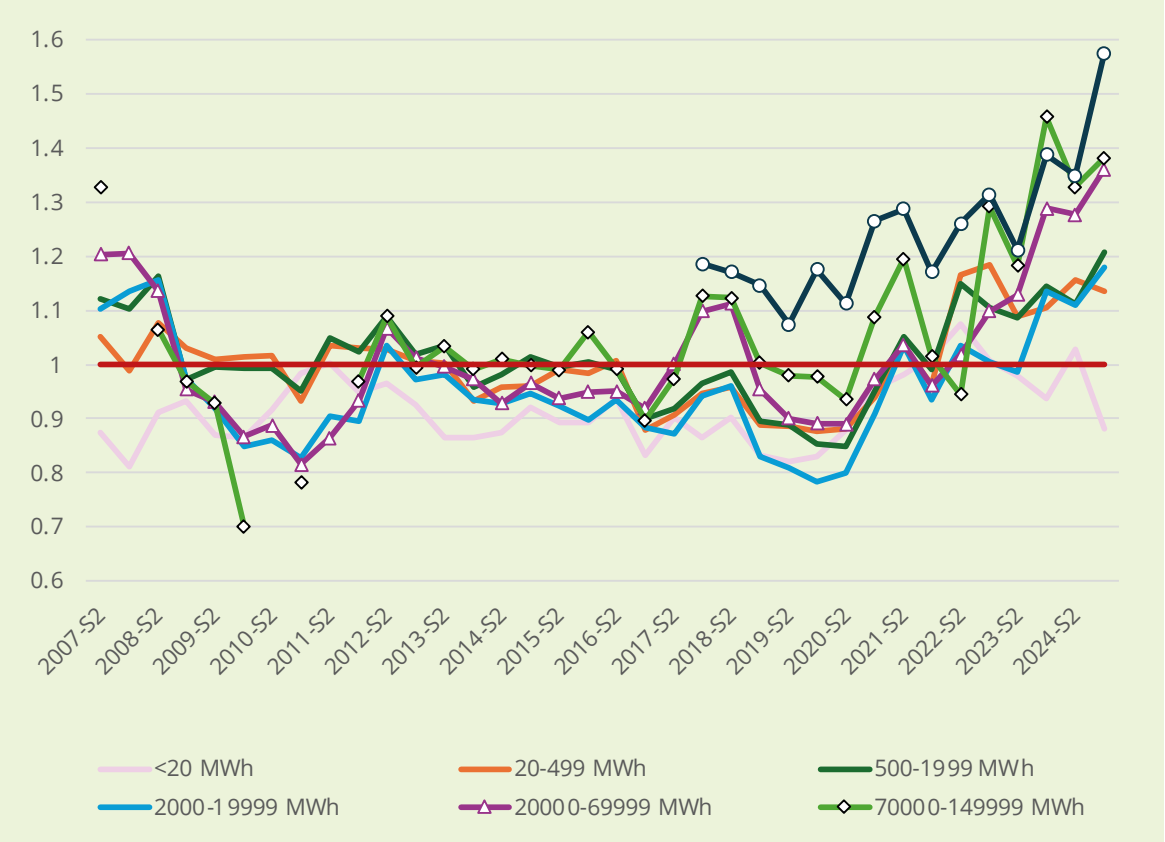
Chart 6 Ratio of Irish to Euro Area excluding VAT and other recoverable taxes and levies by non-domestic consumption band July to December 2007 – January to June 2025 Euro



Source: Electricity prices for non-household consumers – bi-annual data (from 2007 onwards), Author calculations

Adjustment for prices moderates the extent of Ireland's outlier status. When price levels are accounted for, the Irish series shows relatively typical, in many cases below profile, electricity prices for much of the 2010s. However, in a similar way to the euro data, this series shows Ireland's prices rising relative to Euro area levels from 2020, with most consumption bands showing above average prices over this period. Despite some fluctuations, these data have generally trended upwards from that point. For all but the less than 20 MWh band (at approximately 88 per cent of EA prices), prices are significantly above Eurozone averages, ranging from 113.5 per cent of the wider average for the second lowest group to 157.6 per cent for the 150,000 MWh and above band.

Chart 7 Ratio of Irish to Euro Area prices excluding VAT and other recoverable taxes and levies by non-domestic consumption band July to December 2007 – January to June 2025 PPS



Source: Electricity prices for non-household consumers – bi-annual data (from 2007 onwards)
Note: Numbers above 1 indicate an Irish price above EA averages

Table 4 delves further into the latest available data. We can see that, in euro terms, average weighted electricity prices were among the highest in the EU27 in early 2025, ranking second in prices excluding recoverable taxes and levies, and third for total prices. Ireland is the most expensive country in the EU27 in a number of consumption bands. However, PPS data change the picture, with Irish prices appearing more moderate, moving closer to mid-table in EU terms. Even so, while PPS offer a picture of relative living standards by adjusting for price levels between states, euro prices are more relevant where competitiveness is concerned, since businesses face nominal rather than price adjusted costs. Thus, Ireland's poor placing implies electricity prices are a drag on competitiveness relative to other EU member states, particularly where electricity serves as an input into eventually exported goods and services.

Table 4: Irish Non-Domestic electricity prices per 100 kWh and EU ranking January to June 2025

Consumption Band (MWh annually)	Share of market	Excluding VAT and other recoverable taxes and levies				Total			
		€/100 kWh	EU27 Euro Ranking	PPS/100 kWh	EU27 PPS Ranking	€/100 kWh	EU27 Euro Ranking	PPS/100 kWh	EU27 PPS Ranking
IA: <20	6.40%	31.31	6	26.45	17	34.08	8	28.79	18
IB: 20-499	19.4%	30.73	1	25.96	10	33.41	1	28.22	11
IC: 500-1,999	10.3%	27.26	1	23.02	9	29.55	1	24.96	10
ID: 2,000-19,999	24.5%	22.83	1	19.29	11	24.36	3	20.58	14
IE: 20,000-69,999	9.5%	21.74	2	18.36	10	22.97	3	19.40	11
IF: 70,000-149,999	6.4%	19.71	1*	16.65	8*	20.97	2*	17.71	10*
IG: 150,000+	23.6%	19.47	2**	16.45	7**	20.75	4**	17.53	8**
Total	100%	23.80	2***	20.11	9***	25.55	3***	21.58	11***

Source: Electricity prices for non-household consumers – bi-annual data (from 2007 onwards) , SEAI summary of Irish Electricity and Gas Prices (Eurostat EPR Update), Author calculations

Note: Rankings are from highest to lowest, i.e. a rank of 1st means prices are highest in Ireland among EU states.
* Indicates ranking based on missing data. For the 70,000-149,999 MWh band, data are missing for Croatia and Luxembourg, indicating a ranking within 25 EU members. The 150,000+ MWh band does not include values for Czechia, Latvia, Luxembourg, Malta, Slovenia or Finland, resulting in a ranking within a comparator group of 19 EU states.



What explains Ireland's relatively high prices?

In the previous section, analysis determined that Irish electricity prices have undergone significant price growth relative to their levels in the mid 1990s. This growth has outstripped increases experienced in other European comparators, and unit cost data imply that, in many cases, this was sufficient to change Ireland's cost ranking in relation to comparators.

This section explores explanations often offered to explain electricity price growth generally and in Ireland specifically. As an initial step, the analysis picks up where the prior unit cost analysis left off, and decomposes electricity unit costs before taxes and levies are applied since the applications of these levies tends to moderate Ireland's position. Given the significance of the Energy and Supply component in Irish electricity prices, this section continues with an examination of the energy supply mix and its consequent implications for wholesale prices given the design of electricity markets in Ireland and elsewhere. The section concludes with other factors that may have contributed to price rises and or/Ireland's comparative price level.

Decomposing electricity prices

Eurostat offer a breakdown of unit electricity prices for both domestic and non-domestic consumers into a number of components from 2017 onwards. These components include numerous factors such as levies and capacity payments which can be aggregated into larger subcomponents. Given the finding in section 1 above that taxes and levies contribute are a relatively small component of unit costs over time we exclude these components to focus on pre-tax prices. These prices can be decomposed into two category components of unit electricity prices: Energy and Supply and Network cost. The former includes elements such as short-term generation costs, markups for energy generators and hedging costs.[9] Network costs refer to the expense associated with transmitting electricity over distance and distributing electricity to consumers which include investment in electricity networks, operations and maintenance costs and system services such as grid balancing of supply and demand.[10]

Charts 8 and 9 show the results of this decomposition over time as a weighted average of all consumption bands for both domestic and non-domestic consumers. In most cases, we do observe some elevation within the Irish series – relative to Eurozone averages – in the area of network costs. For domestic consumers, PPS network costs per unit range from 4.8 per cent to 23.4 percent above Euro area values in 2019 and 2022 respectively, though values drop in both absolute and relative terms in 2023 and 2024 in Ireland, falling to 12.4 and 21.7 per cent below the comparator average.[11]

9 Heussaff (2024) Decarbonising for competitiveness: four ways to reduce European energy prices
10 Directorate-General for Energy (European Commission) Trinomics (2020) Final Report Network Costs: Energy costs, taxes and the impact of government interventions on investments
11 This network costs gap is larger when measured in adjusted euro terms for domestic consumers, ranging from 15.9 per cent in 2017 (20.4 per cent in 2019) and 39.9 per cent in 2022. Prices similar fall below eurozone averages in 2023 and 2024. For energy and supply, the range is between 29.7 per cent in 2021 and 103.1 per cent in 2023.

In euro terms, a similar trend arises for non-domestic consumers. Network costs are elevated across most of the truncated (i.e. from 2019) sample, showing elevated prices of 5 to 42 per cent above the eurozone average in 2023 and 2019 respectively. 2024 sees values fall to 7.6 per cent below the Euro area.[12]

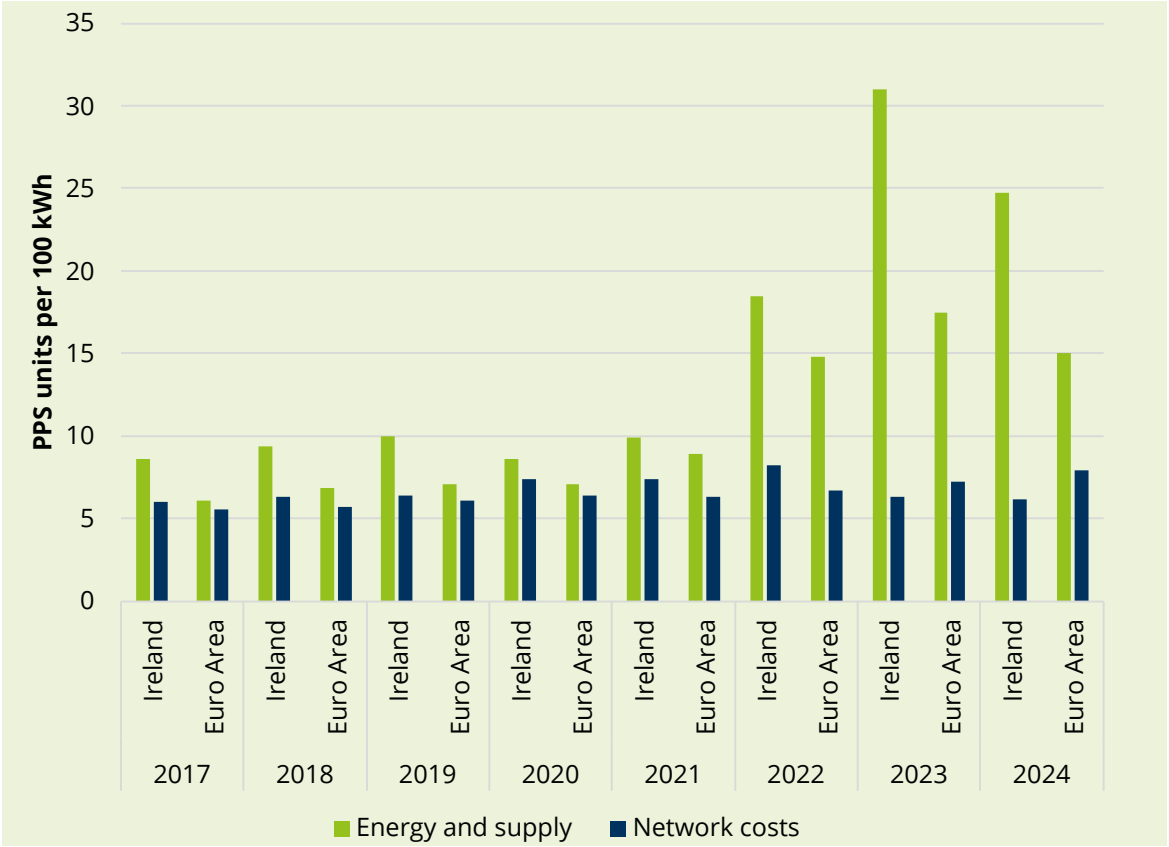
These data are consistent with Electric Ireland analysis which indicates that Ireland faces higher costs associated with a more decentralised and dispersed population than other European states, evidenced by greater lengths of distribution and transmission writing per customer.[13]

The extent of these charges may also reflect a pattern of limited investment in the Irish network infrastructure. The Commission for Regulation of Utilities (CRU) – Ireland's energy regulator – then known as the Commission for Energy Regulation (CER) noted in a 2005 submission to the European Commission the need to "undertake significant investment in networks to cope with historic underinvestment".[14] Similarly, the IEA cited "record investment in networks" to address these historic shortfalls as a contributor to price rises in their review of energy policy in Ireland in 2007.[15] This underinvestment remains an issue in more recent publications from the CRU such as its latest price review, and a recent Irish Fiscal Advisory Council (IFAC) report concerning infrastructure deficits in Ireland.[16] [17]

Ireland faces higher costs associated with a more decentralised and dispersed population than other European states

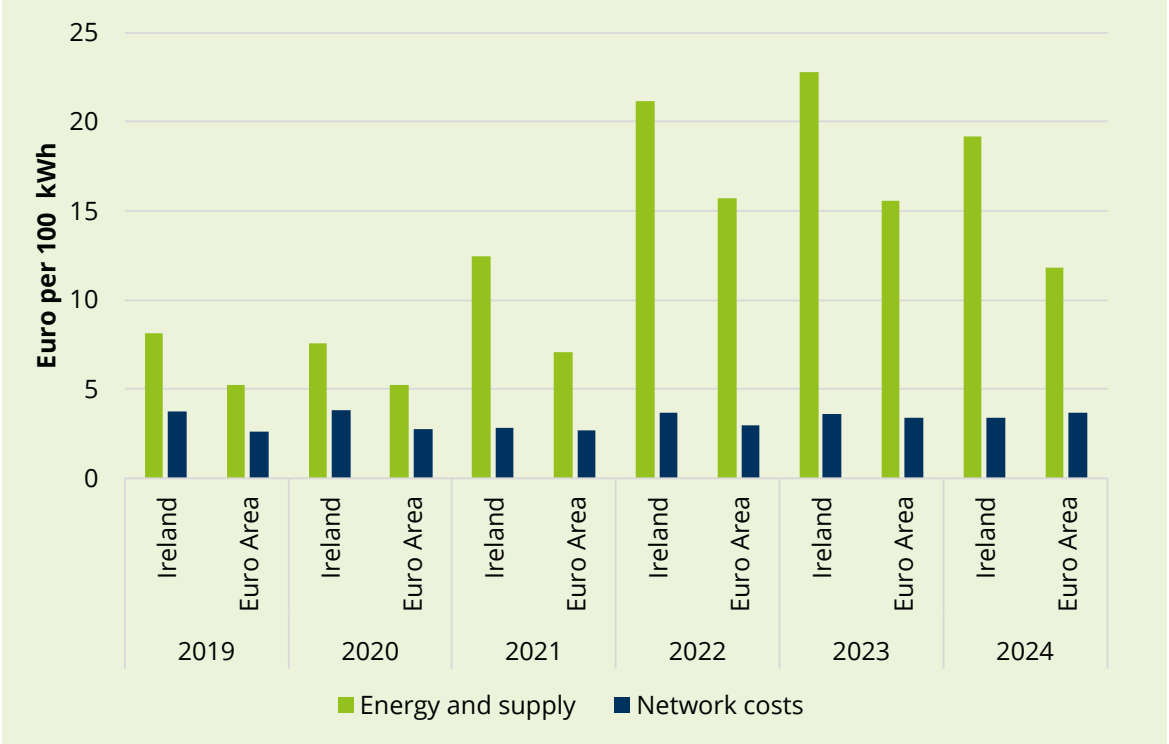
12 Adjusting for relatively high prices in Ireland through use of PPS data moderates these values, though PPS comparisons are less relevant where businesses are concerned as noted above.
13 Electricity Ireland 2024 Electric Ireland update on drivers of retail prices in Ireland and a comparison with other European markets
14 CER 2005 Regulators' Annual Report to the European Commission: CER – Ireland Summary
15 IEA 2007 International Energy Agency Energy Policies of IEA countries: Ireland 2007 review
16 CRU 2025 Commission for Regulation of Utilities Price Review Six: Investing in Ireland's energy future
17 Conroy and Timoney 2024 Ireland's infrastructure demands

Chart 8: Main components of domestic electricity PPS cost (all bands) 2017-2024



Source: Electricity prices components for household consumers - annual data (from 2007 onwards)

Chart 9: Main components of non-domestic electricity euro cost (all bands) 2019-2024



Source: Electricity prices components for non-household consumers - annual data (from 2007 onwards)

However, these charts show that price differences are most notable where energy and supply are concerned. Price adjusted PPS data for domestic consumers shows these costs elevated by minimum of 10.8 per cent in 2021, with these costs reaching a relative peak in 2023 of 77.5 per cent above eurozone values. Irish energy and supply prices remained nearly two thirds above the Euro area average in 2024. The difference between energy and supply costs accounts for the majority of the gap between total pre-tax prices per unit in Ireland and the Euro area – making up more than the total gap given the drop in Irish network costs in 2023 and 2024 – with the exception of 2021. Between 2019 and 2024, Non-domestic energy and supply prices across all bands were up to 62.5 per cent higher (in 2024) than the euro area average, never falling below a third over comparator values (in 2022). The difference between Energy and Supply always accounted for at least 70 per cent of the gap between Ireland and the eurozone average between 2019 and 2024.

Fuel mix in electricity generation

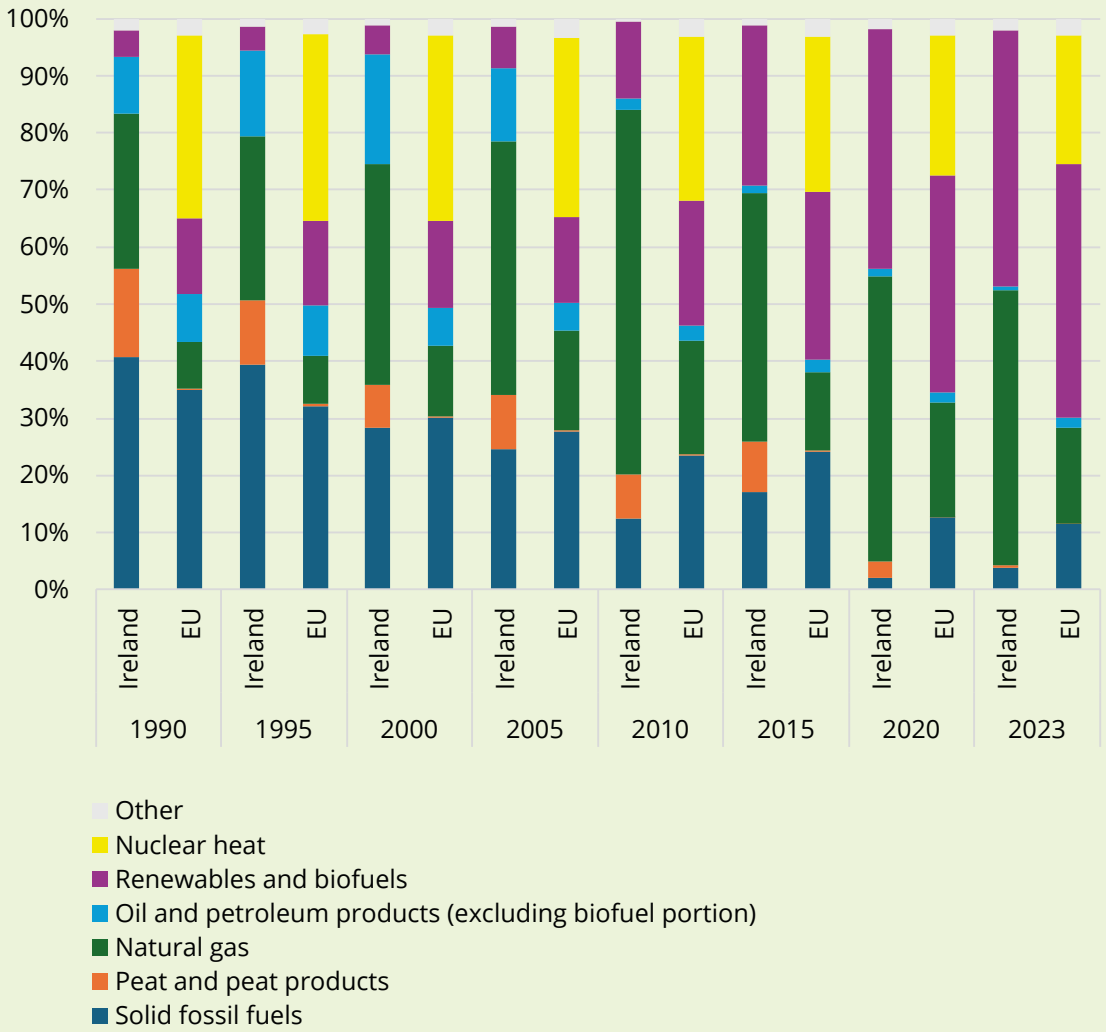
Energy and supply costs are themselves, made up of various components. A significant portion of these costs refer to generation costs. These costs vary according to the source of generation with fossil fuels experiencing different price dynamics to renewable generation.

Chart 10 shows the energy mix in gross electricity generation over time by fuel type in Ireland and in the EU27 as a whole.[18] Ireland's mix is distinctive from that of the wider EU in several respects. Before 2000, Ireland is notable for the preponderance of solid fossil fuels – namely coal – in its electricity mix relative to the EU as whole, hovering around 40 per cent of the fuel mix in 1990 and 1995, relative to between 34.9 and 32.2 per cent over the same span in the EU.

Thereafter, solid fossil fuels decline significantly in both Ireland and the EU, though this fall is particularly stark in the Irish electricity mix, falling to 3.8 per cent of gross generation in 2023 versus 11.6 per cent for the EU. Ireland is also notable for the presence of significant peat and peat products generation until relatively late in the series, with peat generation representing a relatively minor element of the wider European fuel mix. Irish renewable generation is relatively small relative to EU levels until 2015/2020, when Irish values converge upon, and eventually overtake EU levels. Ireland notably also does not have nuclear heat within its energy mix, whereas this fuel source represents a significant, if declining, element of generation in the European Union as a whole.

18 This EU27 series is consistent over time, representing data for the current 27 members of the EU at the time of writing.

Chart 10: Electricity generation fuel mix 1990-2023



Source: Complete energy balances; author's calculations

More significantly for price purposes, particularly recent movements, is the significant role of natural gas in Irish electricity generation. Already in 1990, natural gas represented a significant portion of the energy mix, providing 27.2 per cent of gross electricity, relative to 8.2 per cent in the EU case. This role expands over time, reaching a peak in 2010, where close to two thirds of generation (63.8 per cent) is attributable to natural gas, relative to 19.7 per cent for the EU as a whole. Natural gas has declined from that peak, but still accounts for nearly half of generation in 2023 (48.2 per cent) relative to about 16.7 per cent for the EU as a whole.

This weight within Irish generation capacity is particularly notable given the design of European electricity markets. In many European systems – include the Irish Integrated Single Electricity Market or I-SEM – electricity producers meet electricity buyers who subsequently supply electricity to final consumers in a series of markets which trade across differing time frames including longer term forward markets to hedge against

price movements and shorter term intraday and balancing markets which allow for adjustment ahead of power delivery. Particularly significant within these systems is the Day-Ahead market.[19]

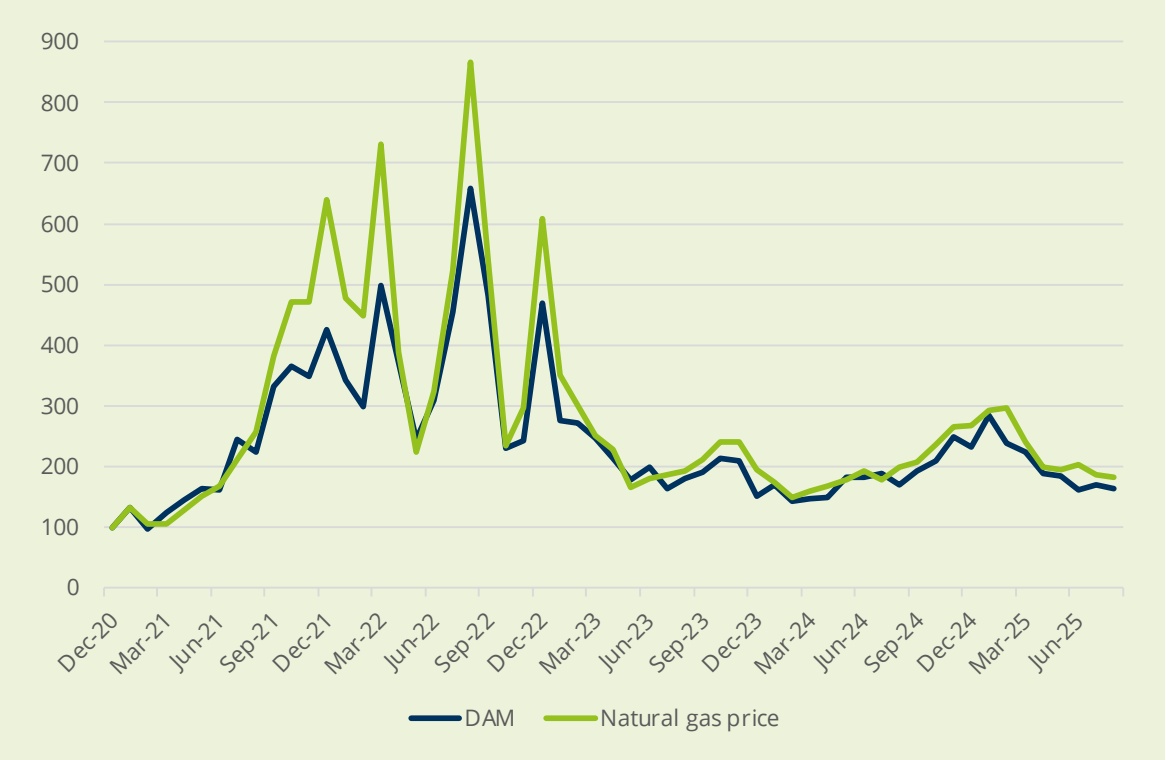
Within this market, generators offer to sell power at varying prices which are influenced by generation costs. These offers are matched by the market operator with demand bids from electricity purchasers (mostly energy suppliers who sell to end use customers). The generator bids are aggregated and ranked from the cheapest to the most expensive generator to form the "merit order" curve.[20] The point at which purchaser demand intersects this merit order curve sets the clearing price, which all generators needed to meet demand receive. Generators received this clearing price regardless of their generation bid, generating inframarginal rents for producers lower down the merit order – typically renewable producers with low marginal costs.[21]

This system means that the price of the last generating unit required to meet demand sets the Day Ahead Price, significantly influencing wholesale electricity costs, and subsequent prices faced by consumers. The preponderance of natural gas within the Irish system, which typically faces higher marginal costs than other generator types resulting in it being higher in the merit order, makes it likely that natural gas sets these prices given market design when demand is significant. Movements in natural gas have, therefore, had disproportionate impact within the pricing system.

Chart 11 demonstrates this, comparing the monthly average Day Ahead Price in the Irish I-SEM to natural gas prices between December 2020 and January 2025. Across this series, the comparison shows a close relationship between natural gas prices and average Day Ahead prices. This is particularly notable at the price peaks occuring between late 2021 and the end of 2022, with peaks in average monthly Day Ahead Prices occuring contemporaneously. Declines also followed the natural gas price, with recent price movements occuring in lock-step with these changes.

19 SEM committee 2025 How the SEM works
20 This is a supply curve in standard economic analysis.
21 Next 2025 What is the merit order curve in the power system?

Chart 11: Monthly average Day ahead Price (DAM) and natural gas price for the SEM December 2020 to January 2025 (December 2020=100)



Source: Utility Regulator MMU dashboard archive, Euro/ECU exchange rates - monthly data, Author calculations

Note: From May 2022, natural price data is priced in pence. Eurostat monthly exchange rate data are used to convert these values to euro for continuity between the beginning and end of the series.

Potential explanations for differences in electricity prices between Ireland and other states

In a recent report, Electric Ireland point to a number of structural factors which drive relatively high prices in Ireland.[22] These factors include:

1. High reliance on natural gas within Ireland's generation mix;
2. High network costs – related to electricity transmission over large distances and distribution to end consumers – costs from a dispersed population;
3. High fixed costs arising from a small, isolated electricity system.

As already noted, given Ireland's marginal pricing model where the final additional unit of electricity supply required sets wholesale electricity prices, natural gas tends to set prices, despite the presence of other, lower cost generation options. Similarly, there is some evidence that network costs tend to be high in the Irish case.

22 Electricity Ireland 2024 Electric Ireland update on drivers of retail prices in Ireland and a comparison with other European markets

Ireland's small and relatively isolated electricity system has implications for price through various channels. A relatively small system limits the potential for economies of scale, and constraints on generator size imply fixed costs need to be recovered over less generation. Significantly, the relative absence of interconnections within the Irish system imply that cost setting and subsequent balancing tend to occur from sources within the Irish system, which may have to be met by relatively high cost sources, rather than potentially cheap imported electricity.[23] [24]

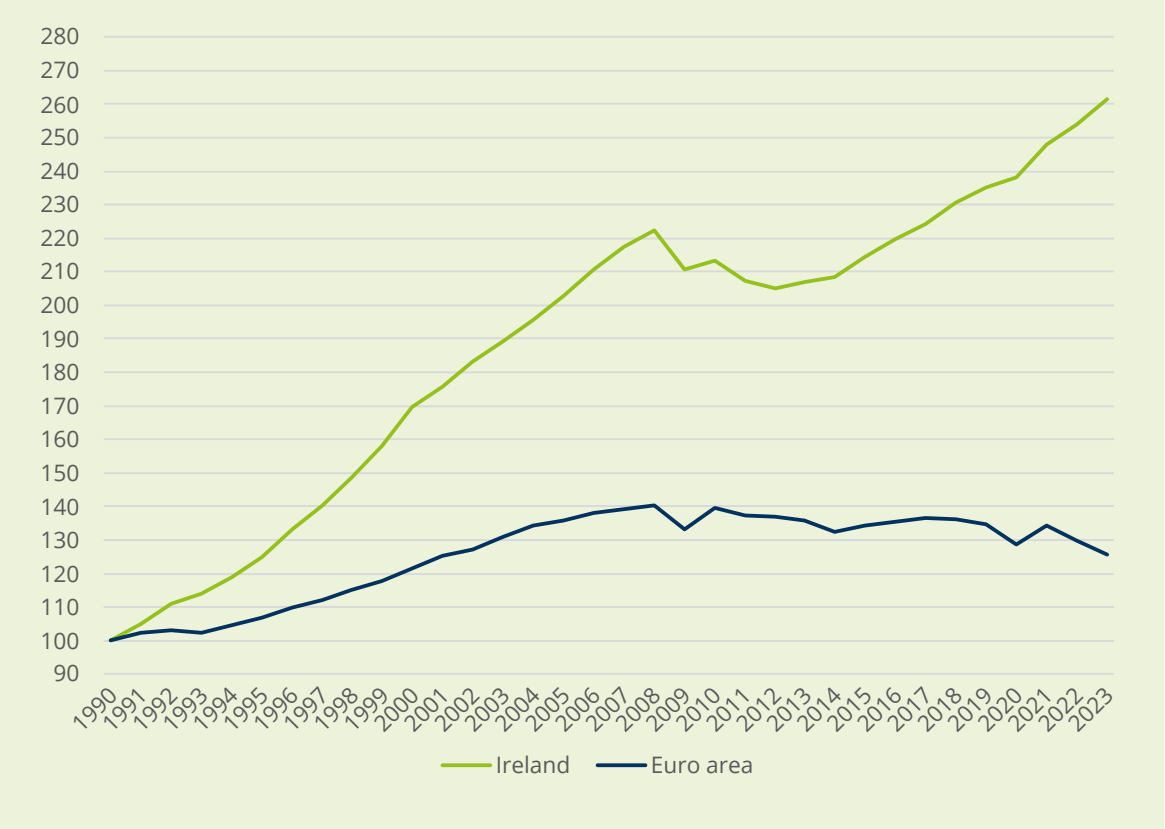
These system constraints also relate to issues of curtailment – that is where the supply of electricity for a given source exceeds the grids capacity to utilise it. This is particularly significant for renewable energy, with Ireland showing relatively high curtailment rates relative to other states.[25] This constraint limits the ability of cheaper renewable energy sources to influence price setting, since higher marginal cost sources are required to meet demand if renewable energy isn't usable within the grid.

High Irish prices have also been attributed to generally high cost levels in Ireland.[26] Ireland had the second highest price level for final household expenditure in the EU according to Eurostat.[27] While this factor appears to influence prices – as evidenced by the effect of PPS in changing Ireland's relative price ranking in section 1 – it does not explain the entire gap. As noted in the price change analysis in section 1, electricity price changes far outstripped general price inflation in the Irish case, which largely matched cumulative Euro area inflation from 1996, and electricity price inflation in the wider euro area market. This implies idiosyncrasies within the Irish electricity sector.



23 ibid
24 Government of Ireland (2023) National Policy Statement Electricity Interconnection
25 Laimon 2025 Renewable energy curtailment: a problem or an opportunity?
26 Ireland 2050 Understanding our Energy Choices: What makes our electricity prices high?
27 Eurostat 2025 Comparative price levels of consumer goods and services

Chart 12: Electricity Available for Final Consumption Trend



Source:, Supply, transformation and consumption of electricity; author calculations

A final structural feature which can explain both price growth and Ireland's relative price position related to growth in electricity demand. As Chart 12 demonstrates, electricity consumption has grown dramatically in Ireland relative to comparators.

By 2008, consumption more than doubled in Ireland, relative to 40.1 per cent for the Euro area as a whole. By 2023, electricity consumption had grown by more than 2.6 times relative to 1990 levels, and continued to grow, while Euro area consumption has tended to fall over time, falling back to some 25.8 per cent above 1990 values from peak values in the late 2000s.

This is partly explained by population growth in Ireland, which exceeds that for the wider Euro area. It is also explained by Ireland catching up with and eventually surpassing Euro area average electricity consumption per person in the last few years. This growth in overall consumption, alongside the historic underinvestment in network infrastructure noted earlier has and will continue to place high demands on the electricity system, with implications for prices.

Conclusion

This study has found that Ireland experienced atypical cost inflation from the mid 1990s within electricity markets, which both outstripped wider price movements in Ireland and elsewhere, but also price increases in the electricity markets of other developed European states. This is corroborated in an analysis of comparative unit price data over time, notwithstanding gaps in the older data series. These data suggest that Irish prices were relatively low among the limited group of states which provide these data for both domestic and non-domestic consumers, and that Ireland's relative position has declined over time – with Ireland becoming relatively expensive from the mid to late 2000s onwards. The most recent price movements which have affected prices around the EU appear to have had a disproportionate effect in Ireland, with Irish prices in many cases – reflecting differing consumption levels – rising to near the most expensive in Europe. This is particularly notable before taxes and levies are applied, since these rates are relatively low compared to European norms.

As an initial step, this study then examines pre-tax prices, which are decomposed into energy and supply and network costs for recent unit cost data. These data support Ireland facing relatively high network costs, but decomposition implies that most of the recent gap is accounted for by energy and supply costs. These costs are likely tied to the role of expensive natural gas in the electricity generation mix, which has a strong influence on wholesale electricity prices faced by the energy companies which supply to electricity users given the design of electricity markets.

Several factors are pointed to which have affected price movements in the past and present, including market constraints, generally high costs in Ireland and electricity demand growth. Possible solutions in the medium term include policy to limit our reliance on natural gas in price setting and fully utilise relatively low cost renewable resources such as increased interconnection with the wider European grid and continued investment to upgrade the grid. IFAC for example point to grid improvements of approximately €7 billion which could reduce renewable curtailment, thereby influencing price and aiding Irish climate goals.[28] The influence on natural gas could also be limited by a reformulation of energy system design. Greenpeace for example, in a recent report concerning the British electricity market, propose bringing natural gas generation into a strategic reserve at an agreed price to meet demand where needed which they conclude would lower prices.[29] Research should be undertaken to examine a similar model in the Irish context.

28 IFAC 2024 A colossal missed opportunity: Ireland climate action and the potential costs of missing targets
29 Greenpeace 2025 Power Shift: How the Labor government can bring down bills and bolster net zero by curtailing the power of gas.

These data, however, don't entirely explain the relative shift in Ireland's electricity price position within its comparator group between the early and late 2000s. The inflation series points to a series of step changes in price from late 2001 onwards, which significantly shifted Ireland's position. This historical period saw significant institutional changes within the Irish system. This period of change, and subsequent institutional design, could be the subject of further research.

In any case, these recent data suggest that measures to reduce the role of natural gas within the Irish generation system – and subsequently reduce its likely influence on prices in the merit order – could reduce prices in the medium term.

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