

# NI Electricity Prices: Data and Comparisons

**Information Paper** 

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### 1. Foreword

Energy prices are the subject of much debate in NI and indeed throughout Europe. This is understandable, as these prices impact on important social and economic issues within every jurisdiction, for example on fuel poverty and industrial competitiveness.

Energy policy for Northern Ireland is set out in the Strategic Energy Framework (SEF), published by the Department of Enterprise, Trade and Investment (DETI) in 2010 and endorsed by the Assembly Executive. The key goals within this framework are: building competitive markets; ensuring security of supply; enhancing sustainability; and developing our energy infrastructure. In regard to energy costs, the SEF recognises the importance of energy costs in NI, and highlights that:

"It is imperative that any policy decisions made now are assessed for their impact on energy costs", and

"It is also important to ensure that policy changes which could impact on energy costs do not have an adverse effect on business competitiveness", and

"As Northern Ireland has the highest levels of fuel poverty in the United Kingdom we must ensure that our desire to develop a more sustainable and secure energy supply is not detrimental to energy consumers"

Clearly therefore, the SEF always intended that the energy policy goals for Northern Ireland must be pursued with due consideration to the cost impact on present and future consumers. This is a helpful and important strategic context to this paper.

Energy policy is also reflected in the statutory duties of both the Utility Regulator (UR) and DETI. The principal objective for both bodies is the protection of consumers, and clearly such protection must include due regard for the impact of our decisions on fuel poverty and business competitiveness. We must also ensure however not only that the lights stay on, but also that Northern Ireland continues to attract efficient infrastructure investment.

Several stakeholders have been asking us for some time now how electricity prices in Northern Ireland compare with other European regions. It was a clear data gap for Northern Ireland. This report presents pricing data across domestic consumers and, for the very first time, pricing data across EU-standardised six groups of industrial consumers.

We have used published data by the European Commission for 15 Member States for comparison. With the help of our electricity suppliers and the Department for Energy and Climate Change (DECC), we have also been able to identify and collate equivalent data for Northern Ireland. This report shows comparative prices for 2011 and we are currently assessing the data for 2012. It is our intention to continue to update this data, and to publish it on an ongoing basis with our regular UR Quarterly Transparency Report (QTR).

There are two notable findings in the data. First, for domestic and very small Industrial and Commercial (I&C) customers (which represent around 70% of all I&C consumers), prices in

Northern Ireland in 2011 were around the European average. Customers in this category are able to avail of a regulated tariff. Whilst not stating a causal link at this stage, this is a fact, and an issue to be returned to in follow up thinking. We welcome views on this as part of general feedback. However, for the remaining 30% of I&C consumers, prices in 2011 were amongst the highest in Europe.

Fully understanding energy price patterns can be complex, especially when seeking to compare across jurisdictions. Much more work is needed in this regard. Initially, we suggest that there may be several main drivers of regional price variances: market size/economy of scale issues; fuel mix at the wholesale level; and energy policy (including taxation) and regulation. This paper presents the end-price data results, and we intend it to be a transparent and useful vehicle to stimulate debate on the results and main drivers. At this stage, we do not attempt to explain the results for 2011 in any detail. Our objective for now is to provide the transparency for interested parties, to invite feedback on how we might improve our presentation format and future data analysis, and to facilitate debate amongst stakeholders on this very important aspect of our energy policy and regulation.

We would very much welcome the opportunity to continue to engage with stakeholders on the above questions. Contributions to this debate would be welcome from the key stakeholders who have responsibility in one way or another, including the Utility Regulator, policy makers, consumer representatives and the electricity industry. The Utility Regulator for its part is working on or planning a number of relevant projects, including: a review of the effectiveness of competition in the I&C market; the transition of the Single Electricity Market (SEM) to a larger regional European market; continued scrutiny of monopoly price controls, whilst ensuring that efficient companies can finance; and a possible further review of cost allocations across regulated network tariffs.

In seeking to improve our current relative position, and to enable next steps, we must first of all better understand the reasons for this position. We cannot change the past and it would be wrong to interfere with legitimate investor expectations for investments that have already been made. We can however influence the future. In particular, it is imperative, as set out in the SEF, that all future policy and regulatory decisions are transparently assessed for their impact on consumers.

Shane Lynch

CEO, Utility Regulator

Share Luck

26 March 2013

# 2. Executive Summary

Several stakeholders have been asking us for some time now how electricity prices in Northern Ireland compare with other European regions. It was a clear data gap for Northern Ireland. This paper presents electricity price data for NI domestic and industrial and commercial (I&C) consumers. Domestic level price comparisons for NI have been widely available for some time. However, this is the first time that NI electricity non-domestic prices have been systematically collected, presented and compared with other countries. The I&C consumers are split into several EU-standard bands according to their volume of usage.

We hope that the data will be of interest to energy industry stakeholders, consumer representatives and policy makers. We welcome comment and further debate on the data patterns.

For domestic consumers, regulatory scrutiny has been retained through price controls and the availability of tariffs approved by us. The extent of regulatory scrutiny of the larger I&C market has been progressively reduced since 1999 (i.e. this market is not subject to regulatory price controls).

Key findings are as follows:

- Domestic prices are around the EU average for the period Jan-Jun 2012. These
  customers can avail of regulated tariffs. Whilst not stating a causal link at this stage, this
  is a fact, and an issue to be returned to in follow up thinking. We welcome views on this
  as part of general feedback.
- Electricity prices for very small I&C customers (with annual consumption below 20 MWh), were also around the EU average over 2011. These customers account for approximately 70% of all non-domestic customers in NI, and are also able to avail of regulated tariffs.
- For all other I&C customers (with annual consumption larger than 20 MWh) electricity
  prices were among the highest in Europe. These customers represent 30% of the nondomestic customers in NI. Within this size band, currently those customers consuming
  up to 150MWh (per annum) can avail of regulated tariffs, whereas those customers
  using more than 150 MWh (per annum) are no longer able to avail of a regulated tariff.

Energy price drivers are a complex area and we see this transparency as a vital first step to a shared better understanding. To help frame the debate, we suggest that there may be three main groups of drivers of price variances across the different regions: market size/economy of scale issues; fuel mix at the wholesale level; and the impact of energy policy (including taxation) and regulation.

In terms of next steps, the UR have identified three priority key work areas for 2013/14 that will directly impact the issues:

1. A review of the effectiveness of competition in the I&C market;

- 2. Continue to robustly scrutinise network price control proposals (whilst allowing companies to finance); and
- 3. Efficient integration of wholesale market with Western Europe (including interconnector arrangements).

We intend this paper to be a catalyst for further debate on the drivers behind electricity costs. We welcome that debate, and see this paper as a start of a process that will help to inform policy and regulatory decisions.

We would like to receive feedback from stakeholders on a number of issues set out in the paper. Whilst continuing to collect the associated key data sets and present publically, we are also already planning some follow up work to this initial paper. For example further work will include projects such as disaggregation of the components of the final price (obtaining split between I&C wholesale costs, network costs and supply costs in NI, and comparing them to other EU countries), review the allocation of costs across regulated network tariffs, etc. Our clear view is that regulators, policy makers, the electricity industry itself and consumers all have responsibility to contribute to a better understanding and discussion of these issues going forward. By doing this we can better inform the policy debate in key areas such as dealing with fuel poverty, and trying to improve international competitiveness for I&C customers.

### 3. Introduction

### 3.1. Purpose of the paper

The objective of this paper is to report on, and seek to begin a constructive debate about electricity prices<sup>1</sup> in Northern Ireland, how those prices sit relative to other regions, the reasons for those observed patterns and the potential for policy or regulatory interventions to better NI's position. The paper does not attempt to answer all of the above – rather to stimulate better-informed thinking and debate.

We fully appreciate that energy pricing is a complicated area. More analysis would be required, as identified at various stages of the paper, to better understand the matters introduced here. We welcome that dialogue going forward. We also recognise that we have presented a static picture on prices – absolute and relative price patterns can and will change over time. We intend to continue to collect and analyse this information to gather a better picture over time of price patterns and changes.

As stated in the Government's Principles for Economic Regulation<sup>2</sup>, "decision-making powers of regulators should be, within the constraints imposed by the need to preserve commercial confidentiality, exercised transparently". It is essential that we build a stable and transparent regulatory environment. For this reason, we believe in the importance of transparency in terms of data, particularly where there are major customer impacts, and as a basic requirement for regulatory and government evidence-based policy making. This paper is part of a genuine interaction with stakeholders to increase transparency and begin a debate about the important issue of electricity prices in NI.

The paper includes data and comment on both household and I&C prices. Given high levels of fuel poverty in NI, household energy price data as well as I&C prices is rightly an area worthy of scrutiny by industry stakeholders and Government.

In relation to I&C prices, we are not aware of any previous I&C price data being systematically available for NI. In that vein, this paper should be of interest to energy stakeholders, particularly the industry and potential new investors in NI, and should also inform debate and energy policy analysis going forward.

In that context then, the paper is structured as follows:

- The remainder of section 3 explains the background to the UR project on gathering price data and the information we are presenting.
- Section 4 sets out data approach and methodology.
- Section 5 presents the key information and results.
- Section 6 identifies and discusses, deliberately at a very high level for now, the key electricity price drivers.

<sup>&</sup>lt;sup>1</sup> We use the term "prices" in the text – the data used and underlying methodology are described in section 4.

<sup>&</sup>lt;sup>2</sup> http://www.bis.gov.uk/assets/biscore/better-regulation/docs/p/11-795-principles-for-economic-regulation.pdf

• Section 7 seeks comments and views about the information: how might the information be improved or added to, and possible next steps.

### 3.2. Background

The principal statutory objective regarding electricity, of both the Utility Regulator and DETI, is to protect the interests of consumers (both domestic and non-domestic) by promoting effective competition wherever appropriate. **Prices are clearly central to the consumer interest.** In pursuit of this objective, we presently control the prices that the former incumbent supplier, (Power NI) can charge domestic and smaller I&C consumers. Larger I&C customer sectors rely on the effectiveness of competition to provide downward pressure on costs and prices.

In relation to <u>household</u> (domestic) prices, comparative information is relatively easy to obtain and publish. NI domestic unit prices can be compared to those in GB, RoI and the rest of Europe through DECCs reports (based on Eurostat statistics). DECC is the UK Department in charge of publishing official statistics relating to energy, climate change, energy efficiency, etc. We regularly report on domestic energy prices comparison via our annual<sup>3</sup> and quarterly<sup>4</sup> retail monitoring reports.

Up to this point however, concrete information on I&C prices has not been available for NI itself; nor to allow comparisons of NI with other territories.

Apart from the main driver of discharging our statutory duties for developing this project, there are a number of external factors that also encourage us to develop better retail market monitoring capability, including in the I&C customer sectors:

• The Third Energy Package requires that National Regulatory Authorities (NRAs) monitor the efficient functioning of the competitive market. NRAs should promote effective competition and help ensure consumer protection. The Third Package establishes some requirements on retail market monitoring, which the UR needs to comply with. These requirements impact directly on our statutory duties and functions, increasing the monitoring tasks we should be undertaking in the UR. In particular, Article 37 (j) of the Directive 2009/72/EC concerning common rules for the internal market in electricity, and Article 41 (j) of the Directive 2009/73/EC concerning common rules for the internal market in natural gas, establish that:

"One of the duties of the regulatory authority is monitoring the level and effectiveness of market opening and competition at wholesale and retail levels, including on electricity and natural gas exchanges, prices for household customers including prepayment systems, switching rates, disconnection rates, charges for and the execution of maintenance services and complaints by household customers, as well as any distortion or restriction of competition, including providing any relevant information, and bringing any relevant cases to the relevant competition authorities."

 <u>Directive 2008/92/EC</u> set up a requirement to improve the transparency of gas and electricity prices charged to industrial end-users. Although DECC fulfils the function for the

4 http://www.uregni.gov.uk/publications/view/utility regulator publishes retail energy market monitoring report/

<sup>&</sup>lt;sup>3</sup> http://www.uregni.gov.uk/publications/view/utility\_regulators\_annual\_energy\_retail\_reports/

UK as a whole, no information is available for NI in isolation. This legislation establishes an obligation for Member States to communicate to Eurostat the following information:

- prices and terms of sale of gas and electricity to industrial end-users;
- price systems in use; and
- breakdown of consumers and the corresponding volumes by category of consumption to ensure the representativeness of these categories at national level.

This directive also sets up the gas and electricity prices categories of industrial end-user that has been used on this UR project.

- In November 2009, our electricity directorate conducted an inquiry into the electricity business tariffs in Northern Ireland. The inquiry had a series of outcomes; one of which was the future monitoring of the main indicators of competitiveness in the market for business customers and ongoing review of electricity prices to better understand their drivers. We take this opportunity to flag that this is a work area that we will be returning to later in 2013/14; and is already noted in our 2013/14 FWP<sup>5</sup>.
- Finally, we also need to keep our stakeholders and any other interested party informed by providing them with the necessary figures and comparisons to GB, Rol and the rest of Europe. We often receive queries and information requests on I&C prices. These requests come from many different sources, for example, we have received queries from the media, from DETI, the Enterprise, Trade & Investment (ETI) Committee, from Invest NI and from bodies such as Confederation of British Industry (CBI), Manufacturing Northern Ireland (MNI), Major Energy Utility Council (MEUC) etc. Many stakeholders pointed out to us in the past that information on I&C prices was a clear and obvious gap in knowledge for NI energy stakeholders and policy makers.

# 3.3. UR's Market Monitoring Role and Future Plans

### **Current Market Monitoring**

As stated above, we believe that monitoring the market is key in fulfilling our statutory duty to protect consumers by promoting effective competition wherever appropriate. We have already put in place mechanisms to collect information on key basic data (market shares, market activity, number of competing suppliers and domestic price/tariffs and their comparisons to EU) for the electricity and gas retail sectors. This information has been released quarterly through the QTR's since February 2011 and has been well received by stakeholders. From inception, this series of reports has evolved progressively by, for example, including more information on the gas side and further price comparisons to EU. We intend to build further on that during 2013/14 and beyond.

### **Future Plans**

<sup>&</sup>lt;sup>5</sup> http://www.uregni.gov.uk/news/draft forward work plan 2013 14 published for consultation

To effectively monitor the retail energy sector, a general <u>wider retail market monitoring</u> <u>framework</u> needs to be drafted, decided upon and implemented. This more comprehensive framework would help us to continue to understand if the market is working, if it is working for all consumers sectors/size bands, if competition is being supported, etc. We plan to commence this work in 13/14.

We will take on board EU best-practice in this work. The European Regulators' Group for Electricity and Gas (ERGEG), published the *Guidelines of Good Practice on Indicators for Retail Market Monitoring*<sup>6</sup>. This paper suggests 18 indicators that can provide an informed basis for NRAs to initially evaluate the development of their retail energy markets. There are also other indicators that we might consider introducing in this wider framework. For example, we believe we should monitor the fulfillment of the obligations contained in the Suppliers Codes of Practice and other customer facing licence conditions.

We recognise that when developing this wider framework, it is key that we continue to consider the principles for economic regulation, mainly taking into account how we will:

- collect information and how this affects the relevant companies;
- use the information;
- maintain proportionality;
- decide on what indicators/aspects to cover; and
- internally resource the collection of the data, subsequent analysis, etc.

However, due to the immediate necessity and demand to have some essential information on the I&C market, we have prioritised and implemented what we consider the first key actions on market monitoring. These include requesting price-related data from suppliers and comparing the data to other EU jurisdictions.

# 3.4. The I&C prices 'Data Gap'

As discussed above, we already report on domestic prices, and they are also available from other data sources such as DECC statistical publications. The situation for <u>non-domestic</u> electricity prices is very different, as we understand that information on I&C prices has not been collected and published in NI before. There is a substantial data gap here that we need to fill in order to cover both internal and external/EU monitoring requirements. We have also discussed this several times in the past with stakeholders, and agreed that this represents a significant data gap which needed to be addressed.

<sup>6</sup> http://www.energyregulators.eu/portal/page/portal/EER\_HOME/EER\_CONSULT/CLOSED%20PUBLIC%20CONSULTATIONS/CUSTO MERS/GGP%20retail%20market%20monitoring/CD

# 4. Methodology

# 4.1. Methodology and sources on domestic prices

Domestic prices are published in our QTR. The main data sources for domestic electricity data are as follows:

- Market shares are provided by the network company (NIE).
- Electricity switching analysis has been undertaken with inputs from NIE.
- EU domestic prices are from DECC<sup>7</sup> and Eurostat. NI domestic prices are represented through the Power NI regulated tariff (applicable to c80% of the domestic electricity customers in NI)<sup>8</sup>.

# 4.2. Methodology and sources on I&C prices

Given a lack of systematic official data relating to I&C prices in NI, active electricity suppliers in NI are the optimum and most accurate source of obtaining information on non-domestic prices. As the forerunner to this report, we have been collecting data from NI electricity suppliers since October 2011 and currently hold data for 2011 and 2012 (the latter set is currently being checked and corroborated).

For obvious reasons, supply prices in this sector are commercially confidential, especially in the larger end of the non-domestic market. In this part of the market where there are a smaller number of active suppliers, prices are linked to supplier selling/marketing activities and the very individual contracts they have with each customer in this sector. We have statutory duties regarding the protection of commercially sensitive information. Therefore we have confirmed to individual suppliers that the data they send to us remains confidential: and prices therefore will be aggregated and published in the form of 'averages' for the total of NI (per customer size bands), with no individual supplier detail.

The active electricity suppliers<sup>9</sup> currently providing returns to us are as follows:

- Power NI
- Energia
- Firmus energy
- Electric Ireland

<sup>&</sup>lt;sup>7</sup> http://www.decc.gov.uk/en/content/cms/statistics/publications/prices/prices.aspx

<sup>&</sup>lt;sup>8</sup> We note that other suppliers may offer discounts to these regulated tariffs in NI.

<sup>&</sup>lt;sup>9</sup> Quinn Energy were an active supplier in NI in 2011, however as they were self supplying we did not ask them to provide a return due to materiality. Note: Quinn have now transferred all of their customers to other suppliers as they decided not to go through re-certification for the Enduring Solution. Lissan Coal Company (LCC) entered the non-domestic electricity market in April 2012.

- Airtricity
- Budget Energy
- Lissan Coal Company (LCC)

As one of the main objectives of the project is to obtain data that is comparable to areas outside NI, we have explicitly followed DECC's format and methodology when gathering and analysing I&C prices. This way, we can easily compare NI prices to those published in DECC's Quarterly Energy Prices reports<sup>10</sup>. In turn, this data is also comparable to the same information supplied to Eurostat<sup>11</sup> by Member States – thus allowing international comparisons for NI for the first time.

For each quarter we request from suppliers the following:

- volume of electricity sold to non-domestic consumers;
- the **revenue** gained from the sale (in three categories: excluding all taxes; excluding VAT; and including all taxes); and
- the number of I&C customers they supply in that particular size category.

The returns are required from suppliers in the first week of the second month after each calendar quarter.

We have also requested from suppliers that all this information is split into the size bands set up in Directive 2008/92/EC, which are based on the annual electricity consumption of the customer. Collecting and analysing the data per these EU size bands allows the data to be directly comparable with Member States.

The volume (MWh) and value (£'000) amounts from all the suppliers' returns are then used to calculate a NI quarterly volume and revenue/value gained per size band. Subsequently, we calculate quarterly average revenue per unit per size band (which we will refer to in this paper as prices). We have not received from suppliers the <u>actual price paid</u> by customers across each size band in terms of a survey-based approach. Instead we have used the volume and value/revenue to calculate the <u>revenue collected per unit</u> in that particular size category. This is the equivalent to "average price" and referred to throughout this paper as prices. We understand this is also the methodology for the UK as a whole and for the Eurostat data.

We then average the two relevant quarters to obtain six-month period figures, which is the same way data is collected and published in the Eurostat database (and enables comparison).

In the graphs shown throughout this paper, we have used unit prices which include Climate Change Levy (CCL)<sup>12</sup> but exclude VAT. As VAT is a refundable expense for many businesses, excluding VAT means that the values are more representative of the actual business customer costs. For comparison however, we have also included prices in the Annex that reflect (i) unit

<sup>&</sup>lt;sup>10</sup> https://www.gov.uk/gove<u>rnment/publications/quarterly-energy-prices-december-2012</u>

http://epp.eurostat.ec.europa.eu/portal/page/portal/energy/data/database

<sup>&</sup>lt;sup>12</sup> The Climate Change Levy (CCL), is a tax on electricity, gas and solid fuels delivered to non-domestic consumers. Its objective is to encourage businesses to reduce their energy consumption or use energy from renewable sources. The rate changes every year. From 1 April 2012, it is 0.509p/kWh.

prices excluding taxes and VAT and (ii) final unit prices that include VAT and all taxes. Again, this is comparable to other sources. DECC and Eurostat also publish these three approaches on electricity prices: excluding all taxes, including taxes apart from VAT, and including all taxes.

This methodology therefore:

- avoids any confidentiality issue, as we aggregate the figures to produce one
  price per size band, and as a result suppliers' individual data is anonymised;
  and
- produces Northern Ireland I&C electricity prices that are directly comparable to EU prices.

Due to the confidentiality issues discussed earlier and the very small number of actual NI customers and suppliers involved, with regard to the large consumers (with annual consumption of between 20,000 and 69,999 MWh) and very large customers (annual consumption between 70,000 and 150,000 MWh), we have amalgamated the results of these to form one category. The objective of this is to avoid any impact on confidentiality.

### 4.3. Accuracy of the information and methodology

One of the key concerns when designing/implementing this project was the quality and accuracy of the information received from suppliers. To ensure the information received from suppliers was accurate, we corroborated the information on their returns and performed audit/cross checks of the data. Throughout the process, we also had to ensure we were always comparing like with like and therefore had to ensure our methodology was consistent with DECC. We had several communications with DECC to ensure this was the case.

We would like to thank suppliers for their effort in providing this information, and remind them that it is important to be aware that the figures submitted for these purposes should be accurate and sent in a timely fashion.

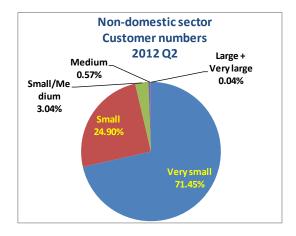
At this stage, we have done all we can to make sure the data is robust, clear and correct. However we have depended on information provided to us. We are very willing to receive suggestions as to how this data source or methodology can be improved if stakeholders feel this is possible.

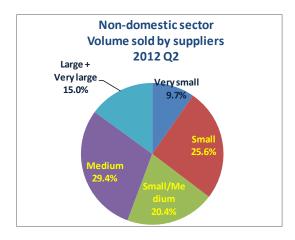
### 4.4. Customer numbers by consumption

The most up to date figures show that NI's <u>non-domestic</u> customers are very heavily grouped in the EU-standardised smallest size band ('very small'), as shown in figure 1 below .Currently 71% of the I&C customers in NI consume less than 20 MWh per annum, and 96% in aggregate of customers consume less than 499 MWh per annum – see figure 2 for further breakdown. There were 782,953 <u>domestic</u> customers in NI at the end of 2012 Q2. While the domestic sector represents more than 90% of the total customers in NI, their consumption only represents approximately 40% of the total NI electricity consumption. The I&C sector has much lower customer numbers but represents the majority of NI electricity consumption (60%).

Figure 1: Consumption size bands for NI non-domestic customers as at 2012 Q2

	Annual	Number of customers at Q2 2012		
Size of consumer	consumption			
	(MWh)			
Very small	0 - 20	44,118		
Small	20 - 499	15,376		
Small/Medium	500 - 1,999	1,878		
Medium	2,000 - 19,999	352		
Large + Very Large	20,000 - 150,000	22		
Extra large	>150,000	-		
TOTAL I&C	61,746			
Domestic customers	782,953			
TOTAL NI	844,699			





Source: NI electricity suppliers and NIE<sup>13</sup>

<sup>&</sup>lt;sup>13</sup> Please note that any differences in customer numbers published here and to the latest QTR are attributable to data sources used and timing differences.

The largest percentage of business customers are in the very small and small categories in NI, which in aggregate, makes up 96.35% of the total non-domestic customers. The remaining 3.65% of the customers belong to the small/medium band, medium band and large/very large. There are no extra large customers (those consuming more than 150,000 MWh/annum) in NI.

### 5. Results

Once we have reflected on the feedback to this paper, we intend to publish some elements of this new information as part of our future regular QTR series. At this point, we have not decided on exactly the information or format that we will issue; but will decide in light of stakeholders' views on this paper, the relevance of the data to market monitoring and to regulatory and public policy development.

# 5.1. Active suppliers

### **Domestic**

There are currently **five** active domestic electricity suppliers. Power NI are formerly the incumbent supplier, and competition in this segment effectively started in June 2010 when Airtricity entered the domestic credit segment. In October 2010 firmus energy started supplying Ulster Farmers Union members and then in May 2011, Airtricity entered the domestic keypad market. In 2011 two further suppliers entered the market with Budget Energy in June and ESB/Electric Ireland in October.

### **I&C** sector

I&C electricity customers became eligible to change supplier from 1999 and from 2005, small and medium businesses also became eligible to switch. There are currently eight active I&C suppliers (two of which entered in 2012) as follows:

- Power NI
- Firmus energy
- Energia
- Electric Ireland
- Budget Energy
- Airtricity
- VAYU (entered the non-domestic market in Feb 2012)
- LCC (entered the non-domestic market in April 2012)

### 5.2. Market shares

### **Domestic market shares**

There are around 786,000 domestic households in NI. The split by payment type in Q4 of 2012 is shown in figure 2. Currently, 493,000 (63%) customers pay by credit and 293,000 (37%) have a keypad meter.

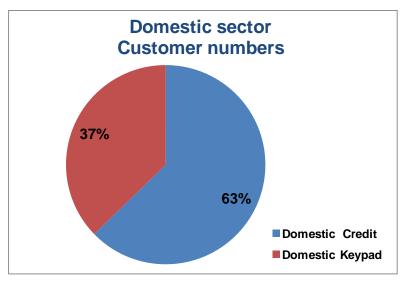


Figure 2 Payment type in the domestic sector. 2012 Q4

Source: NIE

Market shares by active supplier for household customers in the fourth quarter of 2012 are given in figure 3. The former incumbent, Power NI, has 78.6% of the market, and the remaining 21.4% is shared between Airtricity, Budget Energy, Electric Ireland and firmus energy, with Airtricity enjoying the largest share out of these.

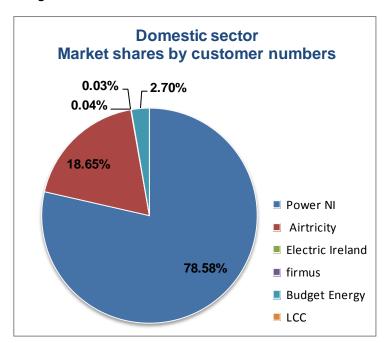


Figure 3 Market shares in the domestic sector. 2012 Q4

### **I&C** market shares

Figure 4 shows the percentage of non-domestic electricity consumption for each quarter of 2011 and 2012, by each of the eight electricity suppliers, to highlight their % market shares. (Note that the size bandings used are those on which we currently collect market share data, rather than the price data. This is deliberate. We may seek to align the two going forward).

The total consumption in 2011 was 8,085.49GWh. The total consumption in NI in 2012 was 8,215.20 GWh.

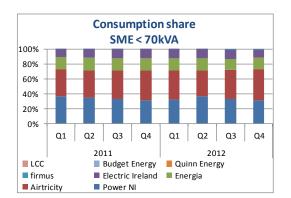
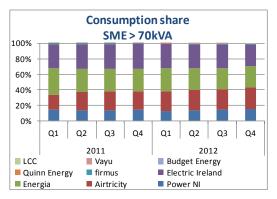
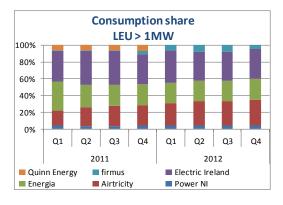


Figure 4 I&C market shares by volume in %, per size band





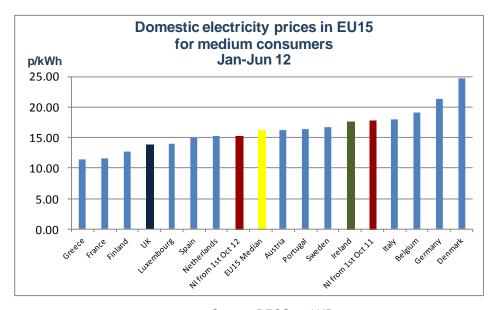
Source: NIE

## 5.3. EU Price Comparisons

### **Domestic sector**

Figure 5 shows the comparison between domestic electricity prices in the 15 European countries (EU15) for medium usage domestic customers (inc taxes). The graph refers to the first half of 2012, as these are the most recent figures DECC have published on EU prices. Data for NI corresponds to the current standard regulated tariff (before any discounts are given), applying from 1 October 2011, for a domestic customer consuming in this usage band. To give a complete picture, the NI tariff for 1 October 2012 has also been included for reference (though we note this is a different time period than the comparative prices).

These prices include taxes and VAT, as VAT is a real cost (non-refundable) for domestic customers. We use the regulated tariff in NI for comparison purposes. It is important to note that Power NI has around 79% of the domestic customers and that other domestic suppliers in NI may offer discounted tariffs below the regulated tariff.



**Figure 5** Domestic electricity prices in the EU15 for medium customers (consuming 2,500-4,999 kWh), inc taxes

Source: DECC and UR

### Non-domestic sector

Figure 5 shows I&C electricity prices, per size band, in the EU15 countries, in comparison with NI prices. As explained earlier, we have merged the two largest categories of customers (large and very large) to avoid confidentiality issues in NI.

We have used figures published by Eurostat for the two time periods: January-June 2011 and July-December 2011. We have presented the 2011 NI I&C prices to match to each applicable six-month period prices published by Eurostat. To convert euros into pounds (as Eurostat publish unit prices per country in euros and in each national currency) we have used the annual conversion rate<sup>14</sup> into pounds for 2011 from Eurostat.

The charts in the figure below exclude VAT, as VAT is a refundable cost for non-domestic customers, but include other taxes related to energy consumption. We have used this approach in the main body of this paper to represent the actual energy costs paid by I&C customers.

For comparison, further graphs are included in Annex 2 which show the prices including taxes and including VAT, and also excluding both. In summary, we use:

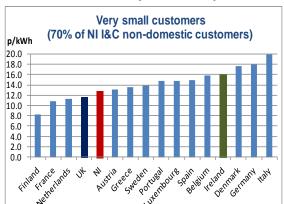
- In the body of the paper: unit prices that <u>include</u> non-refundable taxes (i.e. CCL in the UK, PSO levy in Ireland) but <u>exclude</u> refundable taxes (VAT). This represents the average unit price that a non-domestic electricity consumer would actually pay.
- In Annex II: unit prices that <u>do not include any taxes</u> (refundable or non-refundable). This approach would present the unit price that is exclusively related to electricity, without including any type of energy consumption or value added taxes.
- Also in Annex II: unit prices <u>that include all taxes</u> (refundable and non-refundable). This approach would present the unit price that is initially paid by the I&C (before the VAT element is refunded).

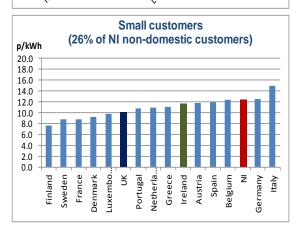
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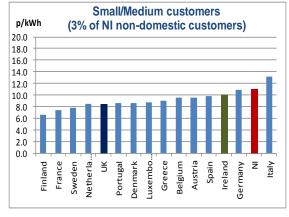
http://appsso.eurostat.ec.europa.eu/nui/setupModifyTableLayout.do

Figure 6: NI and EU 15 non domestic electricity unit prices. Including taxes and excluding VAT

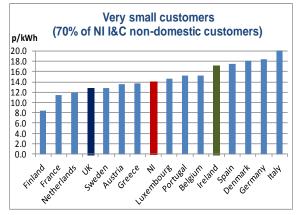
# 2011 (Jan-Jun)

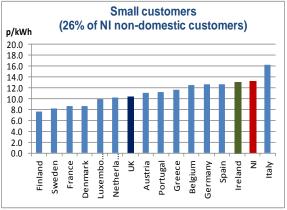






# 2011 (Jul-Dec)





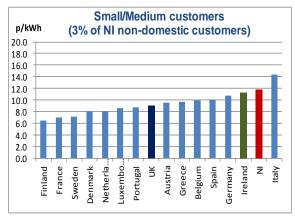
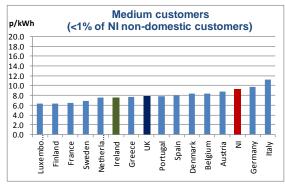
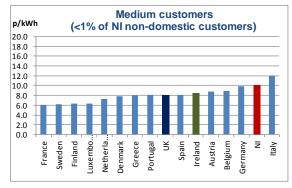


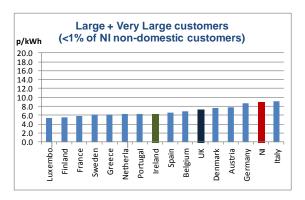
Figure 6: NI and EU 15 non domestic electricity unit prices.
Including taxes and excluding VAT

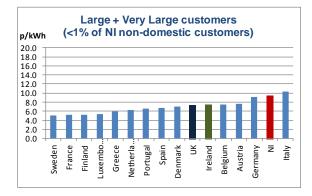
# 2011 (Jan-Jun)

# 2011 (Jul-Dec)









Source: NI electricity suppliers and Eurostat

During 2011, NI I&C prices were in the high side of the interval for the EU15 range, except for the very small customers (with consumption less than 20 MWh per annum).

In the very small size band, NI I&C prices are around mid-Europe (in the fifth position from the lowest side of the range for the first half of the year, and in the eighth position for the second half of the year). As mentioned previously, this category of customers account for 70% of all I&C customers in NI. We note at this point, that in NI, all of the very small customers are able to obtain their electricity from a regulated tariff<sup>15</sup>. We return to this point in the following section.

<sup>&</sup>lt;sup>15</sup> As at Q2 2012 there were 36,760 customers in the 0-20MWh category consuming 225,587MWh annually. Of these 21,921 (c.60%) availed of the regulated tariff and therefore 112,777MWh (c.50%) of the units in this category were sold at the regulated price.

### 5.4. Further Data Context

We discuss and present in figure 7 some further information which will help to put the prices data into some context. It will also help frame the discussion in the next section on starting to better understand why these price data patterns are emerging.

### EU price dispersions in relative terms across customer groups

Another useful way to look at this data is to examine how the prices are spread between different customer groups for each jurisdiction. One interesting way to do this is to look at the relationship between domestic prices and the various I&C size categories in <u>relative</u> terms for each territory. The analysis in figure 7 presents this information by simply putting the domestic to an index of 100, and showing each I&C category price relative to that for each jurisdiction.

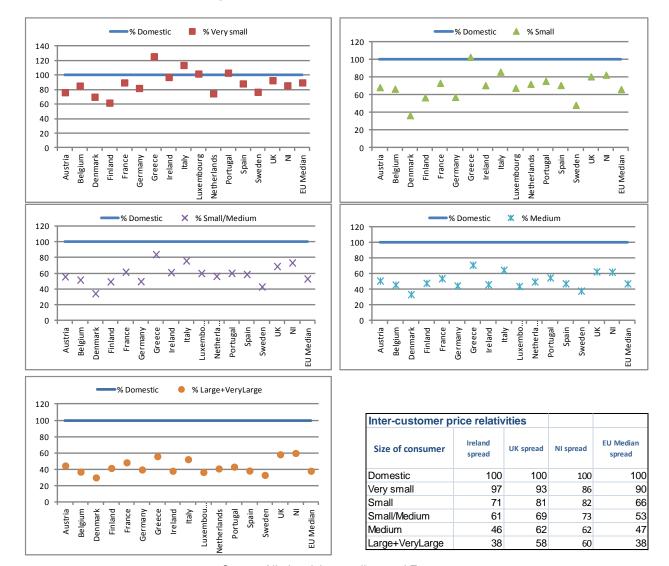


Figure 7 EU price dispersions (Jan-June 2011)<sup>16</sup>

Source: NI electricity suppliers and Eurostat

Figure 7 shows an interesting spread of prices across customer groups throughout Europe. Some countries have significant differences between domestic and I&C prices, particularly the larger I&C customers. Whereas in other countries the difference, whilst still large, is less significant. As an example, we have included a table in figure 7 that shows the spread for Rol, UK, NI and the EU median. The spreads for Rol and EU median are very similar, whereas UK/NI are less dispersed. Some of the reasons behind these types of relative price patterns, like the factors that drive absolute price patterns shown in the previous section, are discussed further in section 6.

<sup>&</sup>lt;sup>16</sup> For this analysis in order to reflect the end user prices - domestic prices include VAT whilst I&C prices exclude VAT (as VAT is a recoverable expense for I&C customers).

### EU final prices disaggregated

We know that final prices are a composite of individual elements of the cost chain and can disaggregate final end-prices into wholesale, networks and retail elements. For example, it is relatively easy in NI to split the typical regulated electricity domestic tariff. In NI, the majority of the tariff is made up of wholesale costs, followed by network and then retail costs (supplier operating costs and margin).

Utilising this type of cost chain approach to understanding the background to end prices is very useful. It can allow a more educated dialogue about various aspects of the end-price that may warrant further data exploration in the future. For this reason, the rest of this section references back to disaggregation into those components.

Some European data<sup>17</sup> that is currently available separates the network element, taxes and levies, but groups the wholesale and retail costs together. Figure 8 shows this data in absolute (p/kWh) and relative (percentage) - split into the components of the cost chain, for the domestic and the non-domestic electricity sectors.

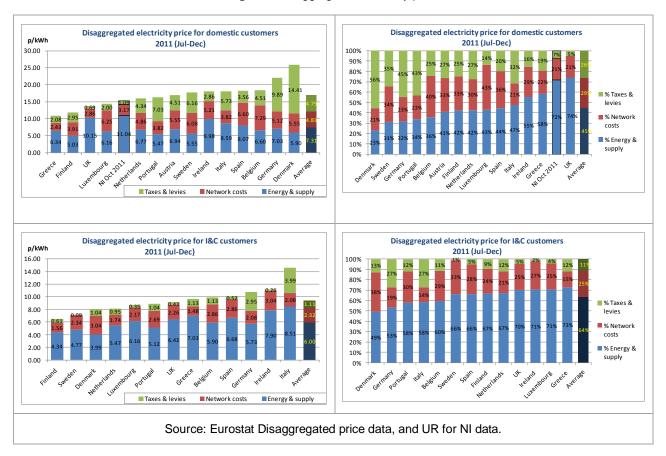
In order to be able to compare these elements with the data provided for the EU countries, we have included an estimated split of the final electricity domestic price in NI for 2011 into the three components mentioned above.. We have obtained NI split of the domestic price by grouping the different components of the Power NI regulated tariff (i.e. wholesale costs, SSS charges, PSO levy, Use of Systems, correction factors, etc) into:

- Energy and supply costs;
- Network costs; and
- Taxes and levies.

We have then applied this percentage to the average standard domestic regulated tariff.

<sup>17</sup> http://epp.eurostat.ec.europa.eu/statistics\_explained/index.php/Electricity\_and\_natural\_gas\_price\_statistics

Figure 8 Disaggregated electricity price



In some member states the network element is considerably more than others, whilst in others the wholesale and supply costs are greater. Other countries are in between the two extremes. It would appear that GB, NI and RoI have quite high relative proportions of their cost chain accounted for by wholesale energy and supply activities.

# 6. Preliminary high level discussion

### 6.1. Data context to prices

Section 5 shows price data available for Northern Ireland for domestic customers, and for the first time also for various I&C sectors on a comparable basis to other EU territories. The data will be of interest, both in terms of the absolute level of NI prices and those absolute levels relative to elsewhere, but also in relation to the relative pattern of prices between the size-bands and comparing those relativities to elsewhere. As more data becomes available it will also be interesting (and very useful) to consider trends over time.

Trying to fully quantify and explain absolute price levels and relativities/comparisons is a complex task. While we, and other regulators, have access to data that can be used to quantify and explain some of the elements of the cost chain (typically regulated or published data), we are unlikely to have access to all the necessary detailed data across the various parts of the sector, across time, and across disaggregated customer categories. In particular, regulators may not have access to suppliers' generation/hedging costs, suppliers cost allocations across customer types, and margins earned in each customer category. Moreover, the data complexities are multiplied when trying to find and analyse comparable data at international or even national level.

To reiterate from the introduction, **the objective of this paper is to report on, and seek to begin a constructive debate about electricity prices**<sup>18</sup> in Northern Ireland, how those prices sit relative to other regions, the reasons for those observed patterns and the potential for policy or regulatory interventions to better NI's position. The paper does not attempt to give definitive reasons for all of the above – rather to stimulate better-informed thinking and debate.

We fully appreciate that energy pricing is a complicated area. More analysis would be required, as identified at various stages of the paper, to better understand the matters introduced here. We welcome that dialogue going forward. To facilitate this debate we do however suggest below some initial high level price drivers. This paper is part of a genuine interaction with stakeholders to increase transparency and begin a debate about the important issue of electricity prices in NI.

# 6.2. Factors that can influence end-prices

To stimulate debate, we set out below some basic ideas on factors affecting end-price drivers that we would wish to develop further through ongoing dialogue and data investigation. We are very interested to hear views from stakeholders and in particular to hear about relevant data/analysis sources, as to:

- What factors are relatively more important than others in the NI context;
- What factors need to be added to those mentioned:

<sup>&</sup>lt;sup>18</sup> We use the term prices in the text. The data used and underlying methodology are described in section 4.

- The importance of these (or other) factors in influencing absolute price level comparisons; and
- The importance of these (or other) factors in influencing relative price levels in NI between different territories and customer sectors.

As part of the debate about the potential factors explaining price patterns, it would also be useful in policy terms to begin to identify other metrics associated with those factors. These other metrics help to determine the priority and appropriateness of policy interventions, for example:

- Factors that regulators, industry, Government can or can't influence;
- Factors that have a major or minor impact on prices; and
- Factors with a short or long term (or both) impact on prices.

### 6.3. Main Drivers

We keep the following high level for now – deliberately so. We wish to hear feedback and the views of others on the key drivers. However we recognise we also need to provide a catalyst for discussion. Therefore to stimulate a framework for debate, we suggest that there may be three main drivers of regional price variances: (1) market size/economy of scale issues; (2) fuel mix at the wholesale level; and (3) impact of energy policy (including taxation) and regulation.

# 1. Market size/scale, isolation and consumer dispersion

It is likely that scale considerations affect final end user prices, in more than one respect.

The scale impact may be felt on the wholesale part of the market, for example through wholesale energy purchasing efficiency; efficiency of use of power generation plant; need for higher generation security margin due to small market size; and limited interconnection.

Scale issues will also affect network and retail elements, for example through costs of system factors; efficiency of operating cost models; and geographical/rural spread of population.

Market isolation and limited connection factors may affect the relative cost structures of the industry, for example through extra system costs and fuel transport costs.

## 2. Wholesale energy costs and fuel mix

Clearly wholesale costs significantly affect end-user prices. Wholesale energy prices are largely determined on world markets. To that extent, cost impacts will be felt in all countries and influence absolute rather than relative price levels and trends. However some differential impact will be felt depending on the importance of wholesale costs in the overall, cost chain.

However an important factor will also be the generation mix available in a given territory. Cost shocks impacting on fossil fuels for example, may be felt less in areas where nuclear or renewable energy make up significant elements of generation costs and hence final prices.

Some studies have shown that the differences in wholesale prices between SEM and the British Electricity Trading and Transmission Arrangements (BETTA) forward spark trends estimated SEM to be higher than BETTA for 2009/10. As a result electricity wholesale prices could be explained largely by (90% of the difference) generation portfolio and market size (deemed as semi-permanent factors as they would be very difficult to change in the short term). For example, BETTA has a substantially different portfolio mix compared to SEM, with a greater share of generation derived from coal and nuclear which will tend to reduce the wholesale price as they are cheaper than gas and oil.

Note that these wholesale and fuel mix impacts will be exacerbated to the extent that wholesale costs make up an increased proportion of end-prices. This factor needs to be considered in two ways:

- in terms of the relative importance of wholesale aspects within the overall industrywide cost chain in a given territory (refer to figure 8 for the European average);
- and importantly also in terms of individual customer sectors cost chains. For example, wholesale costs are likely to be more significant drivers of larger I&C prices, than they are of domestic prices (albeit that they are still very significant even to domestics).

## 3. Energy Policy, taxation and Regulation

Energy policy, taxation regimes and the mode/effectiveness of regulation will have impacts on prices. Again, to help stimulate debate, it might be useful to distinguish three sub-categories:

- I. Policies aimed at delivering efficiency and protecting customers within the electricity cost-chain:
  - a) <u>Design of wholesale market</u> across territories (e.g. with capacity payment; transparency of contracts; liquidity and risk mitigation; dealing with dominance issues at the wholesale level).

Absolute levels of generator profitability will clearly impact end-price. Generator profitability will be inextricably linked to the wholesale trading arrangements in place in given territories and the extent of effective competition, as well as to the regulatory and policy regime in which generators operate (including regulation to address market power). These factors will vary significantly between territories – even between NI/RoI and GB. We note that the SEM Committee will shortly be releasing a report on generator profitability within the SEM.

b) At the network level, the effectiveness of regulation of the natural monopolistic characteristics of the network businesses will impact on costs and prices. Policy/strategic decisions may also be relevant in relation to investment requirements and public policy imperatives decided at the political level but then grounded in the regulated network cost base (e.g. security of supply requirements and renewable impacts).

c) <u>Market dominance mitigation, the effectiveness of regulation, competition at the retail end of the market, together with policies to promote effective retail competition, will impact end-user prices.</u>

The contestability and effectiveness of competition and/or regulation at the retail level will affect both absolute and relative price patterns and differentials (e.g. the levels of profit taken over different customer groups depending on the restrictions placed by effective competition or robust regulation). In NI we currently retain regulated supply costs and tariffs on the former incumbent supplier in those markets sectors where they remain dominant (domestic and smaller I&C <150MWh annual consumption). This, to some degree, also places a "cap" on what the new competing suppliers can charge in those markets if they are to successfully grow market share. We understand the derivation of these final regulated tariffs and their cost-reflectivity – from wholesale, through to networks to final supply costs/profit elements. See for example our report on the last Power NI tariff review which was published in 2012 <sup>19</sup>. NI regulated tariffs currently sit broadly on a par with UK and around mid-Europe as set out in Section 5.

However, price controls and regulated tariffs are no longer in place in NI in the larger I&C customer categories. Suppliers set these prices based on individual contracts with customers, and thus only suppliers have full access to the transparency of price components for their customer sectors. This situation is also the case in GB, RoI and to some extent across Europe. Though recent information<sup>20</sup> from the EU indicates that regulated end-user prices still are retained in around half of EU countries, albeit at the domestic level more so than I&C. This situation results from previous national and EU-wide policies on de-regulation and retail competition promotion. For our part, we intend to commence work later in 2013/14 on a project to assess the degree to which competition is effective in these I&C sectors to adequately protect those customers. We have noted concerns that have been raised, for example in the much larger GB supply markets, in terms of prices/profits, and we will be taking that into account in framing our future project.

### II. Relative policies towards renewables.

a) Direct and indirect subsidies. Across Europe there is a drive to foster greater sustainability by promoting higher levels of renewable power generation and usage from renewable and low carbon sources. This paper makes no comment on that as a policy objective – it's beyond the scope. However, the extent to which this policy desire is reflected into energy tax/incentive regimes and/or cross-subsidies will affect both absolute and relative price patterns over time across jurisdictions. Direct subsidies to renewables

20 http://www.energy-

<sup>&</sup>lt;sup>19</sup> http://www.uregni.gov.uk/uploads/publications/October\_2012\_Draft\_Retail\_Tariff\_Background\_Briefing.pdf.

regulators.eu/portal/page/portal/EER HOME/EER PUBLICATIONS/CEER PAPERS/Customers/Tab3/C12-RMF-46-03 RMI-SR 03-Sep-2012.pdf and

 $<sup>\</sup>underline{http://www.acer.europa.eu/Official\_documents/Publications/Documents/ACER\%20Market\%20Monitoring\%20Report.}\\ \underline{pdf}$ 

are an obvious example, but also indirect subsidies, in the form of shallow connection charging policies, will also have an impact. Over the medium/long-term, the impact on costs may be significant.

b) The extent of renewable generation, especially wind, in the generation mix of a given jurisdiction also impacts less overtly on overall system running costs, grid control, curtailment and balancing, and indeed even more widely on the extent and cost of back-up generation requirements.

### III. Taxation; Supplier obligations

- a) We have not provided a full analysis of taxation impacts on price patterns, due to a desire to keep this paper high level and digestible. But even a cursory look at figure 8, and some of the differences in the price patterns seen between the "with all tax" and "without all tax" price results in the Annexes to this paper, reveal that taxation plays a large part in influencing overall absolute and relative price patterns. For example, for domestic customers in Denmark, taxation makes up some 56% of the final bill, whereas the equivalent figure in Greece is 19%. However, the underlying costs driven within industry are actually not all that different. We note that much more work/analysis can be done in this area and we welcome views as to how that best might be pursued; and with what priority.
- b) Across jurisdictions, public policy, to varying degrees, may seek to directly or indirectly place social or environmental requirements on companies operating in the energy sector. Various forms of this for example have been seen across GB in recent years. This may not be a large factor, but again the degree to which these requirements vary across jurisdictions or customer groups will influence (assuming they are paid for by final customers in some manner) absolute and relative end-user price levels

To conclude in this section, we have noted that the above is not an attempt to give specific reasons for the price patterns presented in earlier sections. The issues are complex. To try to help frame a coherent debate, we have tried to set out a short framework for thought and for respondents to highlight their views. We are particularly interested in views as to the degree to which stakeholders and industry believe the above factors each impact on the NI price patterns, in both absolute and relative terms, and their relativities to other jurisdictions. We note that this sphere of debate should be where the work following on from this report should be focused.

# 7. Next Steps

### 7.1. UR relevant work areas

We have identified three priority key work areas for 2013/14 that will directly impact the issues presented in this paper:

- 1. A review of the effectiveness of competition in the I&C market;
- 2. Continue to robustly scrutinise network price control proposals (whilst allowing companies to finance); and
- Efficient integration of wholesale market with Western Europe (including Interconnector arrangements).

We intend this paper to be a catalyst for further debate on the drivers behind electricity costs. We welcome that debate, and see this paper as a start of a process that will help to inform policy and regulatory decisions.

We would like to receive feedback from stakeholders on a number of issues set out in the paper. Whilst continuing to collect the associated key data sets and present publically, we are also already planning some follow up work to this initial paper. For example further work will include projects such as disaggregation of the components of the final price (obtaining split between I&C wholesale costs, network costs and supply costs in NI, and comparing them to other EU countries) and review the allocation of costs across regulated network tariffs.

Our clear view is that regulators, policy makers, the electricity industry itself and consumers all have responsibility to contribute to a better understanding and discussion of these issues going forward. By doing this we can better inform the policy debate in key areas such as dealing with fuel poverty, and trying to improve international competitiveness for I&C customers.

### 7.2. Feedback

We wish to note that this is not a formal UR consultation; however we have been clear throughout that we do see it as a transparent and useful catalyst for ongoing debate – that is very much the intent.

We intend to undertake some follow up work to this paper, and as noted earlier, we will continue to collect and present publically the associated key data sets.

We have not attempted to ask specific questions in this paper – the issues are too wide-ranging. But it would be very helpful to receive stakeholder input and we would appreciate your responses to the following (please group your responses into the following 7 sections):

- 1. any of the issues raised in this paper;
- 2. best future follow up work areas;
- 3. the priority of future related work areas;
- 4. new or untapped data sources and sets that may be of use;
- 5. aspects we have got wrong or could improve on;
- 6. important issues we may have missed; and
- 7. any other useful and constructive contributions.

Please send your response to Elena Ardines by 5.00pm 24 May 2013, by email to <u>Elena.Ardines@uregni.gov.uk</u> or by post to:

**Utility Regulator** 

Queens House

14 Queen Street

Belfast

BT1 6ED

# Annex I.DECC data on I&C prices in the EU for medium consumers

# **DECC Quarterly Energy Prices. December 2012**

Table 5.4.2 Industrial electricity prices in the EU for medium consumers<sup>(1)</sup> (Excluding taxes)

						Pence	er kWh <sup>(2)</sup>
_							
	Jan 09 -	July 09 -	Jan 10 -	July 10 -	Jan 11 -	July 11 -	Jan 12 -
_	June 09	Dec 09	June 10	Dec 10	June 11	Dec 11	June 12
Austria	8.13	8.03	7.34	7.17	7.14	7.10	6.62
Belgium <sup>(7)</sup>	8.30	8.01	7.28	7.07	7.47	7.80	7.28
Denmark	6.48	7.04	7.33	7.29	7.55	6.98	6.77
Finland	5.64	5.66	5.68	5.42	5.76	5.66	5.34
France	5.54	4.90	5.52	4.80	5.66	5.13	5.78
Germany	7.54	7.39	6.96	6.69	6.87	6.97	6.46
Greece	7.41	6.49	6.41	6.34	6.62	6.91	7.01
Ireland	9.56	8.57	7.25	7.28	7.45	8.21	8.35
Italy <sup>(7)</sup>	+	+	+	8.84	8.74	9.00	9.87
Luxembourg	8.05	8.15	6.62	6.50	6.16	6.17	5.90
Netherlands	7.87	7.75	6.89	6.53	6.41	6.50	5.89
Portugal	7.42	7.30	6.60	6.44	7.30	7.19	8.15
Spain	8.11	7.89	7.67	7.22	7.57	7.73	7.93
Sweden	5.25	5.29	6.20	6.18	6.80	6.10	5.81
UK	8.81	7.69	7.30	7.22	7.43	7.72	8.14
EU 15 Median <sup>(4)</sup>	7.87	7.69	6.96	6.69	7.14	6.98	6.77
UK relative to:							
EU 15 Median(%)	+12.0	0.0	+4.9	+8.0	+4.0	+10.6	+20.1
EU 15 Rank	13	8	11	11	10	11	12
Bulgaria	5.26	5.13	4.94	4.98	4.98	5.05	5.13
Cyprus	9.48	11.89	11.99	13.09	12.54	16.52	16.65
Czech Republic	8.30	8.58	8.08	8.10	8.54	8.29	7.88
Estonia	4.53	4.45	4.75	5.11	5.35	5.48	5.26
Hungary	9.68	9.99	8.00	7.78	7.96	7.58	7.74
Latvia	7.59	7.41	7.19	7.19	7.86	8.58	8.14
Lithuania	6.98	5.91	7.93	8.13	8.83	8.87	8.81
Malta	11.00	7.63	13.92	13.54	13.89	13.88	13.15
Poland	6.80	7.05	6.99	6.85	7.04	6.44	6.31
Romania	6.56	6.34	6.23	5.87	6.10	6.10	6.00
Slovakia	11.29	11.15	9.09	9.08	9.66	9.83	9.66
Slovenia	6.91	6.75	6.70	6.47	6.55	6.69	6.31
EU 27 Median <sup>(4)</sup>	7.59	7.41	7.19	7.07	7.30	7.10	7.01
UK relative to:							
EU 27 Median(%)	+16.1	+3.7	+1.6	+2.0	+1.8	+8.7	+16.1
EU 27 Rank	21	16	17	17	15	17	19

Source: Eurostat Statistics in Focus

Medium consumers: consuming 2,000 - 19,999 MWh per annum for periods January - June and July - December each year

<sup>(2)</sup> Prices converted to sterling using exchange rates in the appropriate period.

<sup>(3)</sup> See paragraphs A38 to A45 in the Technical notes for an explanation of the estimating methodology.

<sup>(4)</sup> Median price is based upon the available data, including those cases where DECC have estimated the position of prices relative to the EU median.

<sup>(5)</sup> Prices include all taxes where not refundable on purchase.

<sup>(6)</sup> There is no tax.

<sup>(7)</sup> Some ex-tax data is missing

Table 5.4.2 Industrial electricity prices in the EU for medium consumers<sup>(1)</sup> (Including taxes)<sup>(5)</sup>

Pence per kWh<sup>(2)</sup>

						i choc j	JEI KVVII
	Jan 09 -	July 09 -	Jan 10 -	July 10 -	Jan 11 -	July 11 -	Jan 12 -
	June 09	Dec 09	June 10	Dec 10	June 11	Dec 11	June 12
Austria	9.69	9.57	8.94	8.70	8.72	8.71	8.02
Belgium	9.02	8.77	8.19	7.95	8.43	8.85	8.22
Denmark	7.56	7.99	8.07	8.01	8.39	7.83	7.74
Finland	5.87	5.89	5.91	5.65	6.36	6.27	5.92
France	6.13	5.43	6.06	5.30	6.44	6.06	6.74
Germany	8.96	8.94	8.64	8.95	9.73	9.88	9.41
Greece	7.41	7.20	7.18	7.57	7.68	7.98	8.40
Ireland	9.56	8.62	7.29	7.33	7.58	8.48	8.53
Italy	11.92	10.86	10.52	10.98	11.24	12.08	13.59
Luxembourg	8.36	8.31	6.79	6.73	6.35	6.35	6.03
Netherlands	9.12	8.95	8.08	7.35	7.48	7.30	6.94
Portugal	7.54	7.34	6.97	6.81	7.84	8.04	8.67
Spain	8.52	8.29	8.07	7.59	7.95	8.13	8.34
Sweden	5.28	5.33	6.25	6.23	6.85	6.14	5.86
UK	9.10	7.99	7.60	7.51	7.75	8.07	8.49
EU 15 Median <sup>(4)</sup>	8.52	8.29	7.60	7.51	7.75	8.04	8.22
UK relative to:							
EU 15 Median(%)	+6.8	-3.6	0.0	0.0	0.0	+0.3	+3.3
EU 15 Rank	11	6	8	8	8	9	11
Bulgaria	5.35	5.17	5.03	5.06	5.07	5.14	5.21
Cyprus	9.68	12.09	12.18	13.71	13.15	17.12	17.22
Czech Republic	8.40	8.68	8.18	8.20	8.65	8.39	7.97
Estonia	5.03	5.08	5.81	6.11	6.23	6.31	6.33
Hungary	9.86	10.17	8.20	7.97	8.14	8.11	8.22
Latvia <sup>(6)</sup>	7.59	7.41	7.19	7.19	7.86	8.58	8.14
Lithuania	6.98	5.91	7.98	8.66	8.86	8.90	8.84
Malta <sup>(6)</sup>	11.00	7.63	13.92	13.54	13.89	13.88	13.15
Poland	7.20	7.47	7.42	7.27	7.48	6.84	6.69
Romania <sup>(6)</sup>	6.56	6.34	6.23	5.87	6.10	6.10	6.00
Slovakia	11.35	11.21	9.20	9.19	10.04	10.20	10.01
Slovenia	7.24	7.08	7.36	7.32	7.37	7.32	6.91
EU 27 Median <sup>(4)</sup>	8.36	7.99	7.60	7.51	7.84	8.07	8.14
UK relative to:							
EU 27 Median(%)	+8.9	0.0	0.0	0.0	-1.1	0.0	+4.3
EU 27 Rank	19	14	14	14	13	14	19

Source: Eurostat Statistics in Focus

### Missing data estimation

The relevant median is the EU15 median for EU15 data and the EU27 median for accession countries.

<sup>+</sup> DECC estimates that the price is likely to exceed the relevant median.

<sup>+/-</sup> DECC estimates that the price is likely to be around the relevant median

<sup>-</sup> DECC estimates that the price is likely to be below the relevant median

# Annex II.NI and EU I&C prices comparisons

Sweden

Belgium

. Spain

# Non domestic electricity prices **Excluding taxes and VAT**

# 2011 S1 (Jan-Jun)

# Very small customers p/kWh Prices exc all taxes 20.0 15.0 10.0

Geece

5.0

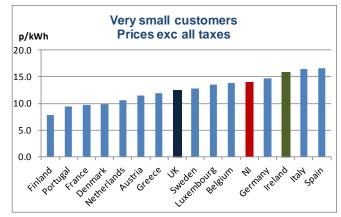
0.0

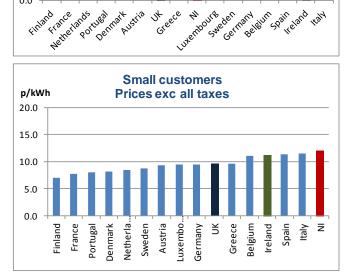
Portugal

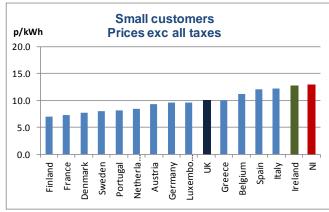
France

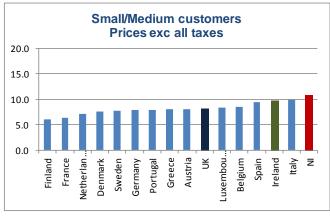
Austria

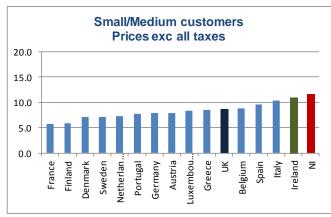
# 2011 S2 (Jul-Dec)







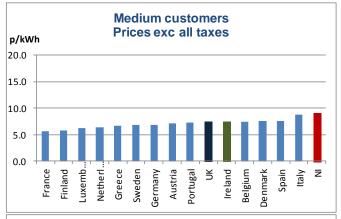


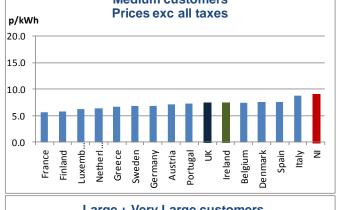


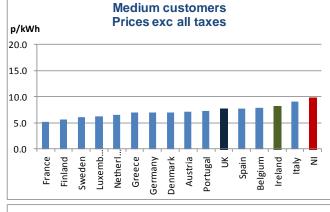
# Non domestic electricity prices **Excluding taxes and VAT**

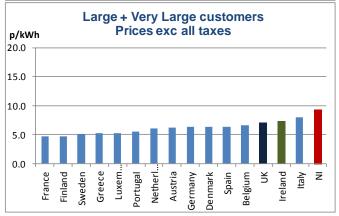
# 2011 S1 (Jan-Jun)

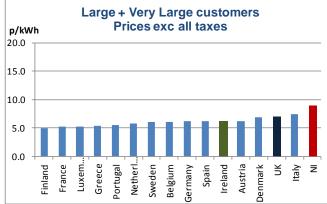
# 2011 S2 (Jul-Dec)









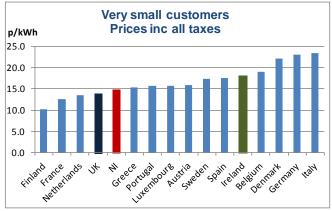


Source: NI electricity suppliers and Eurostat

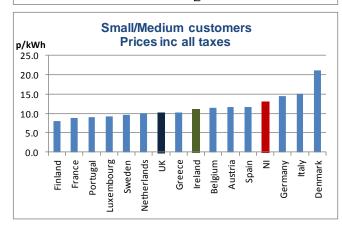
# Non domestic electricity prices Including taxes and VAT

# 2011 S1 (Jan-Jun)

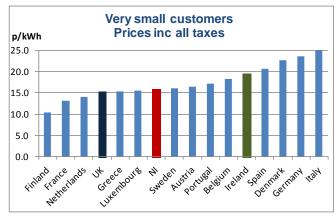


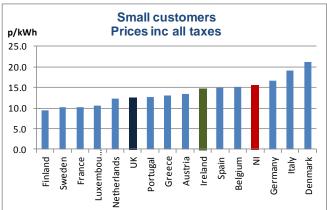


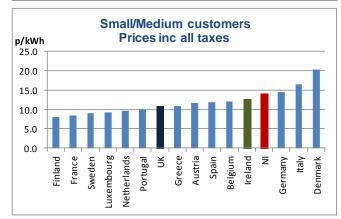
### **Small customers** Prices inc all taxes p/kWh 25.0 20.0 15.0 10.0 5.0 0.0 Netherlands z Belgium Germany Italy



# 2011 S2 (Jul-Dec)



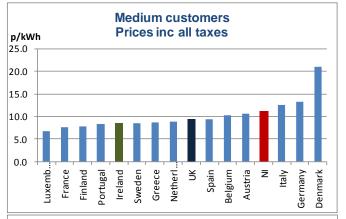


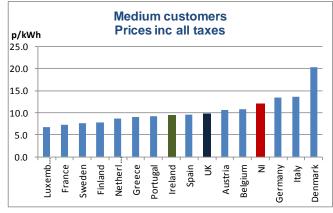


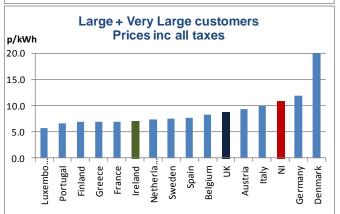
# Non domestic electricity prices Including taxes and VAT

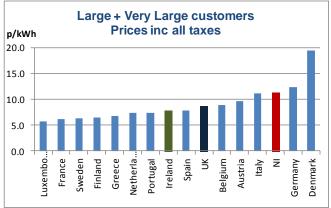
# 2011 S1 (Jan-Jun)

# 2011 S2 (Jul-Dec)









Source: NI electricity suppliers and Eurostat