1. What makes up your Electricity Bill?

At a high level, the price of electricity in a customer's bill is made up of four key cost components:

- The cost of electricity **Generation** from power plants, which currently accounts for well over half of the price of a customer's bill;

- The cost of **Networks**, which involves sending the electricity from the generation plants through the Transmission and Distribution wires to customers' premises. This accounts for about one-third of the final price of electricity;

- The **Retail** activity and costs for a supplier include the cost of procuring energy and customer accounting;

- The **Public Service Obligation Levy** is a Government initiative related to purchasing certain required forms of electricity generation such as wind power or peat.

This price gap has been closing, to the benefit of the Irish economy and consumer.

This CER factsheet explains the key factors influencing the price of electricity in Ireland, particularly our:

- High dependence on imported fossil fuels;
- The need for essential network investment; and,
- Low population density.

![Breakdown of 2009/10 Regulated ESB Customer Supply Electricity Bills](chart)

Each of these cost components are discussed in more detail below.
**Generation**

**Where does our electricity come from?**
Ireland’s electricity comes from a variety of Generation plants consisting of coal, oil, gas, peat and, in recent years, an increasing amount of renewable generation mostly in the form of wind power. Gas is the dominant fuel in Ireland, with in the region of 60% of our electricity currently generated from imported natural gas. When compared to other European countries Ireland has close to the highest dependence on imported fossil fuels for electricity generation, as illustrated in the graph below.

![Gross Electricity Generation from Fossil Fuels in Eurozone](image)

**Gross Electricity Generation from Fossil Fuels in Eurozone**

Source: SEI, Understanding Electricity and Gas Prices in Ireland (Jan - June 2009)

**How does this fuel mix influence electricity prices?**
With about 80% of electricity Generation in Ireland coming from imported fossil fuels, international fuel prices are the key driver of Irish Generation costs and therefore electricity prices. The impact of this was seen during 2007 and 2008 when record-breaking world fossil fuel prices lead to higher electricity prices, while reductions in fossil fuel prices since then correspondingly resulted in reductions in prices for 2009 and 2010.

Ireland, unlike other European countries, does not have large amounts of electricity Generation such as hydro power in Scandinavia or nuclear power in the UK or France. In an era when fuel prices are relatively high this fundamental difference has contributed to our Generation costs being higher than the European average.

**Prices are generally higher in Ireland than other European countries as a direct result of our reliance on imported fossil fuels for electricity Generation.**

**What is being done to keep Generation costs down?**
The Single Electricity Market is the wholesale electricity market for the whole island of Ireland, regulated jointly by the CER and the Northern Ireland Authority for Utility Regulation. By combining what were two separate jurisdictional electricity markets, the Single Electricity Market is one of the first of its kind in Europe. This market is designed to run the most efficient source of Generation available, across the island of Ireland at all times, so that market prices track the trend in fossil fuel market prices. The market pays generators for their energy running costs and, through a capacity payment, for their minimum fixed costs. Overall the market provides for the running of the cheapest generators to meet demand across the island.

**2. Networks**

The electricity Network consists of the following:

**Transmission Network:** The transmission grid consists of the high voltage wires and pylons used to transmit the electricity in bulk form from large generator plants across the country to very large customers or the local distribution network (similar to motorways and dual carriageways on the road network). This network is operated by EirGrid.

**Distribution Network:** This consists of the low voltage wires used typically to distribute electricity from the transmission grid to small and medium customers’ premises (similar to regional/local roads on the road network). This network is operated by ESB Networks.

Generators and suppliers pay EirGrid and ESB Networks tariffs, to cover the cost of transporting and distributing electricity over the Networks. These Network tariffs are set by the CER.
What are the Networks Cost Drivers?

New investments in network lines and infrastructure are a key Networks cost driver. The CER has approved a €5 billion investment programme in Networks over the last 10 years and will also allow for further significant investment over the coming years. This investment is essential for maintaining Ireland’s high-quality electricity supply and in attracting new foreign direct investment (such as high-tech factories) and jobs into the regions. In addition, it is needed to meet Ireland’s ambitious target of dramatically increasing the proportion of our electricity consumption coming from renewable generation – mostly in the form of wind power – to 40% by 2020. Without new transmission and distribution lines this “greening” of our electricity industry, with all the opportunities for a new “green economy” that this brings, will not be possible.

The dispersed nature of our population also contributes to Networks costs as it means that more wires per customer are needed than in other countries, as illustrated:

<table>
<thead>
<tr>
<th>Population Density</th>
<th>Ireland</th>
<th>Britain</th>
</tr>
</thead>
<tbody>
<tr>
<td>60 persons/sqkm</td>
<td></td>
<td>244 persons/sqkm</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Length of Distribution line</th>
<th>Ireland</th>
<th>Average of 75 other countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>84 m/customer</td>
<td></td>
<td>49 m/customer</td>
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</tbody>
</table>

3. Retail and Customer Prices

Retail costs include the cost for an electricity supplier in procuring energy, administrative, customer accounting and service costs.

ESB Customer Supply’s regulated electricity prices cover its efficient costs of Generation, Networks and Retail. In determining ESB Customer Supply’s Retail cost the CER assesses costs with reference to best international practice allowing only legitimate, efficient and transparent costs to be paid by customers.

The CER is progressively removing price regulation from the electricity retail market. It has defined a “Roadmap” setting out the milestones that will enable all suppliers set their own prices and compete directly in all market segments. This should improve the choice and quality of tariff products on offer, increase pressure to reduce prices and stimulate innovation in the electricity retail market.

The next stage in the de-regulation process is to remove price regulation from all business markets. The CER will continue to regulate electricity prices charged by ESB Customer Supply to domestic customers until the market is deemed ready for de-regulation.

4. Public Service Obligation Levy

The Government has placed specific obligations on electricity market participants to purchase electricity from sustainable, renewable, and indigenous sources such as wind power or peat. The levy is designed to recoup the additional costs incurred in meeting these obligations. The levy, which has been in place since 2003, applies to all consumers of electricity regardless of supplier, and appears as a separate item on a customer’s electricity bill. The levy is currently at zero; however this is likely to increase over the next few years.
5. Customer Choice

Below are some other issues relevant to keeping electricity prices as low as possible and to the CER’s regulation of prices:

**Customer Switching:** The CER has put in place a very straight-forward and free of charge process for customers to switch electricity supplier - see the CER’s energycustomers.ie website for advice on how to switch supplier as well as a range of energy-related information. The domestic market has seen a dramatic surge in customer switching since Airtricity and Bord Gáis’s entry into the market in early 2009. Overall, 400,000 domestic customers had switched supplier by end 2009, about 1 in 5 of all Irish domestic customers. This is a very welcome development for the CER in facilitating customer choice and improving competition in the electricity market.

**Roadmap to Deregulation:** The CER has published a “Roadmap”, for ending the regulation of prices charged by ESB Customer Supply. This plan will in time enable ESB Customer Supply to set its own prices and compete directly with independent suppliers in all market segments, assuming it meets certain criteria. This has the potential to bring real benefits to all customers through improved choice of tariff products and may over time, result in lower prices through vigorous competition.

**Energy Efficiency:** Small behavioural changes such as turning off appliances, using timers, lowering thermostats and regularly servicing boilers can all result in a noticeable drop in energy costs. The Sustainable Energy Authority of Ireland offers grants to customers who are looking to improve the energy efficiency of their homes. Also talk to your supplier about managing your energy costs (demand side management) and becoming more energy efficient.

6. Summary

To summarise, the key factors behind the price of electricity in Ireland are:

- The cost of *Generation*, which is driven by the cost of imported fossil fuels and over which Ireland has no control; and,

- The cost of *Networks*, given the need to ensure necessary investment, and, our low population density. The CER is working to ensure that Networks costs are reasonable and provide value for money.

The CER is promoting competition, choice and value for money for all electricity customers. Our aim is to deliver Government environmental targets (such as the 40% renewable target for 2020) in a way that keeps electricity prices at a fair and reasonable level.

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