



# Electricity North West Information Sheet

July 2017

## Who's who in the electricity industry?

There are many different types of companies and organisations involved in supplying you with electricity:

- **The National Grid** is responsible for operating the most powerful power lines in the UK and transmitting electricity from power stations around the country closer to homes and businesses. The National Grid is a little like the UK's motorway network.
- **Distribution network operators (DNOs)** maintain many of the UK's electricity power lines, cables and equipment up to 132,000 volts. There are 14 licensed DNOs in Britain and each is responsible for a regional distribution area. The 14 DNOs are owned by six different operators. Electricity North West is the DNO for North West England. The DNOs connect the National Grid's network to individual properties and private networks, a little like the UK's 'A' and 'B' roads.
- **Suppliers** are the final step in the process and send out bills for your electricity usage. These companies include EON, British Gas, EDF and Npower. A proportion of your bill is passed to DNOs to cover their distribution costs.



## What does Electricity North West do?

- Electricity North West owns, manages and maintains the electricity distribution network in North West England.
- The network consists of overhead lines, underground cables, substations, transformers and other equipment.
- We are responsible for connecting homes and businesses to the electricity network, conducting repairs when things go wrong and investing to replace worn out or old equipment.
- Electricity North West's network is 99.99% reliable. A property in the North West will typically experience a power cut once every three years and, on average, is without power for about an hour. These figures are averages – some properties will experience problems more often and others will never have problems with their power supply.
- Electricity North West was formerly part of United Utilities and before that we were known as Norweb.



### Investing in the North West

Electricity North West owns and operates the network in the North West of England. Any money we invest goes right back into the North West region.

**We are responsible for planning for the future and making sure the network can cope with any changes in how electricity is used.**

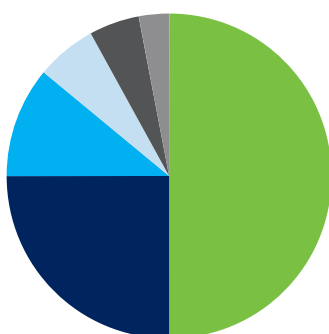
## Why have I never heard of Electricity North West?

In many ways, Electricity North West is a 'behind the scenes' company. We don't send you a bill for our services. Instead, your supplier passes on part of what you pay them to us.

**2.4 million**

We connect 2.4 million households (5 million people) to the National Grid.

### How a typical electricity bill is made up



<span style="color: green;">■</span> Cost of buying electricity	50%
<span style="color: darkblue;">■</span> Delivering electricity to your home (Electricity North West charge)	25%
<span style="color: lightblue;">■</span> Government environmental and social schemes	11%
<span style="color: grey;">■</span> Billing, customer service and IT systems	6%
<span style="color: black;">■</span> VAT	5%
<span style="color: lightgrey;">■</span> Supplier-pre tax business profit	3%

# Substations

## Why do we need substations?

- Electricity North West is responsible for transforming high voltage electricity to much lower voltages, enabling it to be safely distributed to the 2.4 million homes and businesses in our region
- Substations form an integral part of the distribution network and it's the equipment at these sites that's responsible for stepping down the voltage, to ensure customers receive a safe and reliable electricity supply.

## Where are substations?

- Electricity North West has approximately 33,000 local distribution substations and the size and appearance of these can vary.
- Local distribution substations are placed in strategic locations. This is largely dependent on factors such as the type, number and location of the properties they serve.
- Large industrial and commercial customers, such as factories, educational institutions and hospitals often have at least one of their own substations

## What do substations look like?

- In a typical urban area substation equipment is often contained within brick built buildings or a metal/plastic structure, usually green or grey in colour. Sometimes equipment is visible within a fenced enclosure.
- Rural areas may be served by smaller substations that are attached to wooden poles; these are referred to as pole mounted transformers and resemble a grey metal box.
- In a commercial setting, substations may be located within the building.
- All substations will have an identifying nameplate, with the name of the operator along with a 'Danger of Death' signage

