

# Structure

An MPAN is commonly separated into two sections, the core and the supplementary data. The core is the final 13 digits and is the unique identifier. The supplementary data gives you information about the type of supply, and the power connection - line loss factor etc.

It is commonly depicted on electricity bills like this although the boxes on the top and bottom line are generally unaligned:

S	01	800	001			
	11	1626	8118	007		

## Number Key

S	Profile	Meter Time Switch	Line Loss Factor		
	Distributor ID	Unique Identifier	Unique Identifier	Check Digit	

The core data is on the second line, the supplementary data on the first.

## Profile Types

The first two digits of a full MPAN reflect its profile type. These range from 00 to 08 and are broadly separated into two categories, Half-Hourly (HH) and Non-Half-Hourly (NHH). These terms are a reference to the availability capacity of the supply in kVA. An 00 profile is half-hourly and this means that in a particular half-hour period it can use 100 kVa or more. The supply must consume more than 100kVa for at least half-hour in at least three quarters of a year. If the supply consecutively draws this much energy, the installation of a Half-Hourly meter is mandatory. All of this data is recorded by the meter and will be collected usually be either an onsite download, or via a telephone line. The other profiles are non-half-hourly and generally, though not always, use less than 100 kWh in a half-hour period. Domestic supplies will **always** be either 01 or 02 profile types.

- **00** - Half-hourly supply
- **01** - Domestic, Single rate
- **02** - Domestic, Day / Night (Economy 7)
- **03** - Commercial Unrestricted, Single rate
- **03** - Commercial Day / Evening & Weekend
- **04** - Commercial, Day / Night
- **04** - Commercial, Day / Night / Evening & Weekend
- **05** - Commercial Maximum Demand - Poor Load Factor (0-20% Load)
- **06** - Commercial Maximum Demand - Medium Load Factor (20-30% Load)
- **07** - Commercial Maximum Demand - Good Load Factor (30-40% Load)
- **08** - Commercial Maximum Demand - Excellent Load Factor (>40% Load)

The load factor refers to the percentage of the available capacity that the supply is importing through the meter.

## **Meter Time Switch Code (MTC)**

The Meter Time Switch Code indicates how many registers (set of meter reads or dials) your electricity meter has and what times they will operate during the day. The Meter Time Switch Code will show if your meter has two registers, one which records day consumption, the other night.

## **Line Loss Factor (LLF)**

The Line Loss Factor code stipulates the expected costs the distribution company will charge the supplier for using the cables and network in your region. This Line Loss Factor code will also indicate to the electricity supplier the potential charges incurred, due to loss of energy incurred whilst getting the electricity supplier to your meter.



## Distributor IDs

The whole of the UK is split up into many areas where one single company the Distribution Network Operator has the license to distribute electricity in that area. They effectively carry electricity from the National Grid to the exit point (each has a unique MPAN and a possibility of several meters) where the customers are. The owner of the distribution network charges electricity suppliers for carrying the electricity in their network. They regions are based geographically on the old, nationalised electricity board areas.

ID Name	Operator	Phone Number	MPAS Operator Identifier
10 Eastern England	EDF Energy	0870 196 3082	EELC
11 East Midlands Electricity	Central Networks	0845 603 0618	EMEB
12 London Electricity	EDF Energy	0845 600 0102	LOND
13 Northern Wales	Scottish Power	0845 270 9107	MANW
14 West Midlands	Central Networks	0845 603 0618	MIDE

<b>15</b>	North Eastern England	CE Electric	0845 330 0889	NEEB
<b>16</b>	North Western England	United Utilities	0870 751 0093	NORW
<b>17</b>	Northern Scotland	Scottish & Southern Energy	0845 744 4555	HYDE
<b>18</b>	Southern Scotland	ScottishPower	0845 270 9107	SPOW
<b>19</b>	South Eastern England	EDF Energy	0845 601 5467	SEEB
<b>20</b>	Southern England	Scottish & Southern Energy	0845 744 4555	SOUT
<b>21</b>	Southern Wales	Western Power Distribution	0845 601 5972	SWAE
<b>22</b>	South Western England	Western Power Distribution	0845 601 5972	SWEB
<b>23</b>	Yorkshire	CE Electric	0845 330 0889	YELG

In addition to the Distribution Network Operators noted above who are responsible for a specific geographic area we also have what are known as Independent Distribution Network Operators (IDNO). IDNOs will own and operate electricity distribution networks which will predominately be network extensions connected to the existing distribution network, e.g. to serve new housing developments.

<b>ID Name</b>	<b>Licensee</b>
<b>24</b> Energetics	Global Utilities Connections (Electric) Ltd
<b>25</b> Laing Energy	Laing Energy
<b>26</b> Envoy	Independent Power Networks
<b>27</b> GTC	The Electricity Network Company Ltd