Web platform API

# Carbon factors

1 tonnes of oil = 11.63 MWh

From Table 5.1. Fuel Used in electricity generation and electricity supplied (<https://www.gov.uk/government/statistics/electricity-section-5-energy-trends#history>)

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **2016** | **Coal** | **Oil** | **OCGT** | **CCGT** | **Nuclear** | **Renewables** | **Other** | **Total** |
| **Emissions intensity of fuel [kgCO2e/kWh]** | 0.326 | 0.285 | 0.204 | 0.204 | 0.000 | 0.000 | 0.013 |  |
| **fuel/energy use in power station used [MWh]** | 87,669 | 6,790 | 34 | 298,043 | 179,263 | 90,369 | 25,319 | 687,488 |
| **Gross electricity supplied [MWh]** | 29,138 | 1,669 | 14 | 140,749 | 65,149 | 26,151 | 5,176 | 268,045 |
| **Efficiency [%]** | 33.24% | 24.58% | 40% | 47.22% | 36.34% | 28.94% | 20.44% | 38.99% |
| **Emissions per technology [kgCO2e/kWh]** | 0.981 | 1.159 | 0.511 | 0.433 | 0.000 | 0.000 | 0.064 | 0.000 |

Create link to a database or being able to mimic a database

Dashboard information

Tool for the electrification of heat

To display:

**Dashboard 1:**

1. Live generation
2. Share of renewable electricity
3. Current MEF

**Dashboard 2 (electrification of heat):**

**Aim: Inform public about the electrification of heat, the importance of timing demand and to know where the electricity is produced**

1. Current average temperature (get Out-turn temperature from Elexon website)

https://www.elexon.co.uk/wp-content/uploads/2017/06/bmrs\_api\_data\_push\_user\_guide\_v1.1.pdf

1. Current MEF based on temperature
2. Table of MEF and linked to temperature (based on the last year of data)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Temperature range | 0-5C | 5-10 | 10-15 | 15-20 | 25+ |  |
| MEF |  |  |  |  |  |  |

1. Predicted profile from heat-pumps based on temperature data (and ability to download)