

## Calculating Carbon Neutrality

As a general rule the Sustainability Statement proposes how, through energy saving measures, how they will make the development sustainable whereas the Carbon Neutrality report is based on what is expected/approved to be built and is qualified by the below.

The Carbon Neutrality Report must include calculations for energy demand from **regulated** and **unregulated** (cooking, office machinery, industrial machinery etc and other appliances) sources. It must include all fuels used for space heating, hot water, lights, cooking and other appliances. Energy use is defined as “**Delivered Energy**” i.e. quantity of energy in kWh that is measured at the incoming electricity and/or gas meter (or equivalent for other fuels). It must include all supporting information such as SAP calculations, SBEM and/or **BRUKL Reports**. **It needs to show exactly how it was calculated along with where any figures and factors used came from.**

### Calculation method:

1. Take the energy use figure (KWh/m<sup>2</sup>/yr), including any reduction due to renewables, and subdivide into different fuel sources e.g. gas, electricity.
2. Multiply the resulting figure for each fuel by the relevant conversion factor (from NCM guide) to give CO<sub>2</sub> emissions (Kg/ m<sup>2</sup>/yr).
3. Add each fuel figure to give combined CO<sub>2</sub> emissions (Kg/ m<sup>2</sup>/yr).
4. Multiply by total gross floor area to give total CO<sub>2</sub> emissions (tonnes/yr).
5. Multiply tonnes by £200 to calculate payment to the MK carbon offset

From **NCM Guide October 2016** from table 26 Non domestic buildings

Electricity factor .519

Gas factor .216

In short, the Report must include Regulated and Unregulated energy and show, fully, how it is being calculated along with supporting evidence.