

CARBON MANAGEMENT PLAN

35% reduction by 2020/21

CMP UPDATE 2014/15

The University of Leeds is committed to reducing its carbon emissions; we are working towards a 2020/21 reduction target of 35% against our 2005/6 baseline.

Our Carbon Management Plan sets out our vision to:

- Create a cultural change in use of space and resources.
- Minimise our impact upon the environment.
- Become a leader in carbon reduction and a low carbon institution.
- Increase opportunities in areas of sustainability and energy research.
- Reduce exposure to energy related costs.

HOW ARE WE DOING?

In 2014/15 we achieved a reduction in our Scope 1&2 emissions compared to 2013/14, with a total emissions figure of 52,664 tCO₂e. The Reduced Emissions Scenario (RES) Target was only missed by 68 tCO₂e (fig. 1), despite it being a slow year for completed carbon reduction projects. Total energy consumption decreased by 1% and carbon emissions decreased by 2.6% from the previous year.

The emissions for 2014/15 were 18% lower than the Business as Usual (BAU) projections for this year.

2014/15 saw significant cost savings compared to 2013/14, with a reduction in cost of 12.7%.

PROGRESS IN 2014/15

The Carbon Management Plan budget projects included:

- Fume cupboard review in the Worsley building (125 tCO₂e saved).
- Chiller replacement in the Engineering building (118 tCO₂e saved).
- Water pressure reduction on University Road to reduce leakages (15 tCO₂e saved).

Alongside the Capital Development programme, all new buildings are now expected to meet the requirements of the Sustainable Construction Standard.

Other non-CMP budget projects have been ongoing yet are harder to quantify, but include smaller projects and staff engagement initiatives.

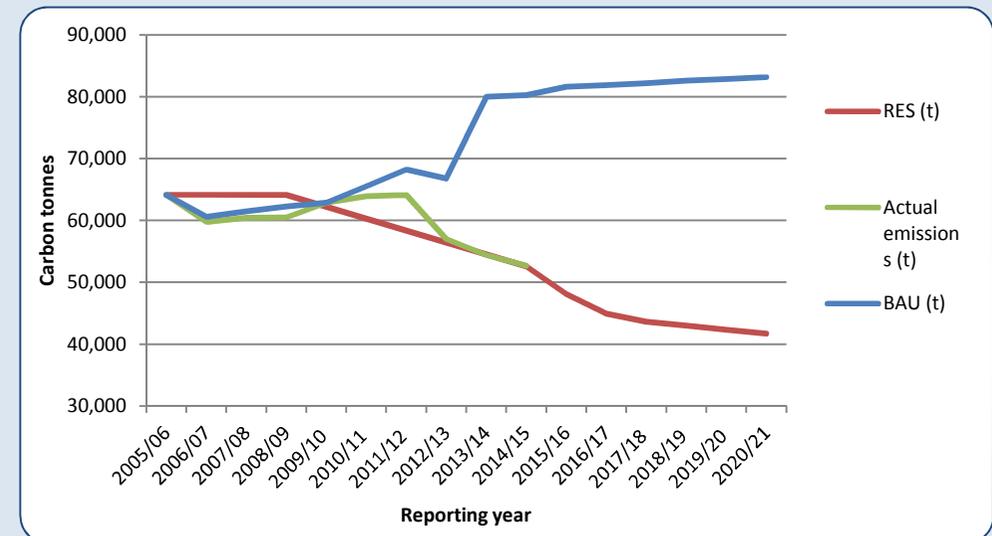


Figure 1: Emissions trends: Reduced Emissions Scenario, Business As Usual and Actual Emissions.

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OUR REPORT CARD

All buildings to have building level energy meters (electricity, and heat) by 2012. 

Behaviour change campaign to save 840 tonnes of carbon. 

Reduction in space heating level to 21°C on campus. 

Reduction in space heating level to 21 – 23°C in residences. 

Comfort cooling and air condition set to 24°C as a minimum. 

Invest in updated systems and renewable technology in GSC, saving 8,000t carbon p.a. 

Improve campus building management systems saving 3,000t carbon. 

Install variable speed drives on motors saving 485t carbon p.a. 

Improve use and control of fume cupboards saving 1,946t carbon by 2020/21. 

Release of surplus buildings releasing capital and providing annual carbon savings of 3,650t. 

Key:  Met target.  On track.  Still work to be done.

ARE WE ON TARGET?

The Reduced Emissions Scenario target was only missed by 68 tCO₂e this year, which was in a context of fewer CMP budget projects and the campus redevelopment. Over the coming three years there will be an increase in CMP funded projects, but the impact of these in reducing emissions must be balanced against the growth of the Estate. Approximately 15,000 tCO₂e of savings will need to be achieved by 2020/21, therefore in-house energy and carbon reductions will need to be increased every year.

LOOKING AHEAD

In the coming year we will:

- Begin replacement of the Building Management System, to assist with improved reporting and monitoring.
- Expand the installation of PIR and CO₂ detectors across campus to operate on a demand-based control model.
- Build on the success from 2014/15, and install fume cupboard controls in Engineering, LC Miall and Chemistry.
- Revolving Green Fund de-steaming of the North Precinct.
- Improve summer water heating through immersion heaters, to save approximately 350 tCO₂e per annum.

Due to the Capital Development programme, by 2020/21, an estimated additional 16,142 MWh of electricity will be required plus an increase in heat demand by 1.53% per year. Therefore emphasis must be placed on the expansion of carbon reduction measures in order to reach the 35% reduction target.

We aim to ensure that our energy and carbon savings are transparent by streamlining reporting and making data accessible to all staff and students. The data will be made available for student education and research.

Contact: For more information please visit our website sustainability.leeds.ac.uk or email sustainability@leeds.ac.uk