

-- EMBARGOED UNTIL 9AM FRIDAY 17th JULY 2009 --

How clean is your electricity right now?

New cross-industry team introduces a completely new way to be green

<http://www.RealtimeCarbon.org>

An innovative new service providing a live update on just how polluting or "carbon intense" UK electricity is **at any given moment** is launching today. It enables everyone to choose to avoid the times when power is at its dirtiest.

As climate change concerns grow, more and more people want to know what they can do about it. Providing more accurate information about the impact of **when** electricity is used makes it easier to be green.

The amount of carbon pollution associated with our use of electricity changes all the time because of the continually changing mix of renewables, nuclear and fossil-fuel generation on the system. Changing the timing of **when** electricity is used is therefore a new way to reduce emissions: factories, offices and homes can vary their usage to avoid the times when the dirtiest power is being generated. And in future as we get more renewable energy on the system we can choose to use power more when the wind is blowing or the sun is shining.

This kind of demand management is exactly what the Government is hoping will happen when the roll out of smart metering is completed, but there is no need to wait until 2020 - using this information everyone can start now.

RealtimeCarbon.org calculates the carbon intensity of the grid every 5-minutes[1].

The new site has been developed as a collaboration between [Dynamic Demand](#), [AMEE](#) and [Demand Logic](#).

It enables any organisation or individual to understand the impact of their energy consumption at the precise time that they use it. As well as a clear display for people, the website also offers a live data feed that can be read by machines. The RealtimeCarbon.org team hopes this will be used in the near future to help to engineer appliances and buildings to use electricity when it is less polluting.

The project intends to show how a better understanding of the underlying causes of emissions can help to embed environmental intelligence in our patterns of energy use. RealtimeCarbon.org is a first step in providing greater accuracy in electricity carbon footprinting[2]. The aim is to kick-start the debate about how information like this can be used to inform decision making across the whole spectrum of personal energy use, business practice, and - crucially - Government policy.

For example, emerging policies such as the UK Carbon Reduction Commitment (CRC) request that electricity use is monitored for every half hour, but only use a rolling 5-year average for the conversion of electricity into its carbon equivalent[3]. The policy could be tuned to reward companies for using power when emissions are at their lowest levels and this would make a substantial impact on the emissions savings businesses can make, and help to reduce costs under the scheme.

Joe Short, Director of Dynamic Demand, comments:

"There are lots of appliances that could be designed to time their electricity use for when the national grid

is less polluting. Washing machines, air conditioners, refrigerators, heating, industrial pumps and much more. As a not-for-profit organisation campaigning for a lower carbon grid, Dynamic Demand is delighted to be part of the RealtimeCarbon.org project, providing grid carbon intensity information via a web-based data feed. This is an excellent way to stimulate innovation and create a new market for 'grid-smart' electrical devices."

Gavin Starks, Founder and CEO of AMEE added,

"We believe that this form of intervention can help drive Britain to a low-carbon economy. Understanding our carbon impact is crucial if we are to address the business-case for change. As businesses and individuals look to engage, access to information and data in a usable form are increasingly essential. Today this understanding has taken a huge step forward by demonstrating that this information both exists and can be brought to market. Helping organisations on their low-carbon journey will rely on trusted, authoritative and up-to-date data. Policy instruments and carbon accounting systems who fail to address this market dynamic are not representing the true impact and are missing out on an opportunity to drive change."

Dan Mauger, Chief Information Officer at Demand Logic Limited, said:

"Demand Logic is developing new technology that will help office buildings to reduce their carbon emissions and costs. A key part of our offering will be orchestrating heavy plant to avoid times of high carbon intensity and also contribute to grid stability. We are therefore delighted to have contributed on the technical and design aspects of the RealtimeCarbon.org project and are especially keen to build partnerships with other organisations looking to help us innovate in this vital area."



RealtimeCarbon.org is a joint project by AMEE and Demand Logic, sponsored by a charitable grant from Dynamic Demand.

Join the debate at

<http://www.realtimecarbon.org>

Twitter: @RealtimeCarbon (or use tag #rtCO2)

NOTES TO EDITOR:

1. The data behind the real time feed comes directly from the computer systems that manage the UK's electricity trading market. This data tells RealtimeCarbon.org how much electricity each type of power generator (e.g. coal power stations or wind farms) are currently producing during any particular 5-minute interval.

2. We have used a simple methodology to convert this information into a real time carbon number for emissions per kilowatt hour. In reality there are complexities involved in this calculation and the Realtime Carbon project is seeking to kick off the debate about how this methodology can be made more accurate and more useful.

3. See page 132 of the latest [Government consultation on the CRC](#)

ABOUT THE PROJECT TEAM:



[Dynamic Demand](#) is a not-for-profit organisation that has championed the idea of demand response in the UK. It aims to reduce carbon emissions and help prepare the grid for the changing nature of generation towards renewables. It's campaigns have resulted in cross-party political, Governmental and industry support



The transition to a low-carbon economy requires action from everyone from business and governments to individuals. To enable this, AMEE is lowering the barriers-to-engagement for everyone.

AMEE's aim is to map, measure and track all the energy and carbon data on Earth: the AMEE Platform helps track any activity or consumption data, including fuel, water, waste and other factors and convert them into carbon/GHG figures. Its web-services combines measurement, calculation, modelling, profiling and transactional services to power branded applications. Business, Consumer and Government applications are "Powered by AMEE" to ensure compliance with authoritative international standards.



[Demand Logic](#) brings the benefits of demand response to UK companies. Demand response is the term given to orchestrating demand for electricity in response to signals. An example would be real time price signals from utility companies. It can also include signals regarding the balance between supply and demand on the grid. Now the signals include the CO₂ resulting from generation of electricity. Demand Logic will enable commercial buildings to reduce demand not only to when there is too little supply available, but also to time consumption with periods of lower CO₂ arising.

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