

# Scottish and Southern Energy take a complete approach to carbon management

## The Challenge

Electricity generation, transmission and distribution activities are responsible for significant levels of carbon emissions in the UK.

As one of the UK's leading energy suppliers, Scottish and Southern Energy (SSE) has made it a priority to reduce emissions and work towards a lower carbon future by changing the way that electricity is generated, distributed and used.

SSE is taking a two-pronged approach towards reducing carbon emissions; measuring and reducing its own operational emissions as well as assisting its supply chain (both suppliers and customers) to make reductions.

## Priorities, Commitment and Targets

SSE is the broadest-based energy company in the UK. It is in a good position to help provide the services and infrastructure that energy customers will need and to help the UK de-carbonise its economy. To do this, the following priorities will feature in its business activities:

- **Generation:** developing new capacity to produce electricity in a sustainable way that supports the transition to a lower-carbon economy;
- **Supply:** helping to keep electricity and gas bills as affordable as possible by offering ways to enable and encourage customers to be more efficient in their use of energy;
- **Fuel Production and Storage:** securing gas supplies to meet future energy needs and helping maintain dependable supplies by providing more storage capacity for the UK, as imports of gas rise;
- **Networks:** ensuring the distribution of energy remains reliable through investment in networks, as sources and use of electricity and gas change;
- **Services:** meeting customers' requirements for energy products and services that are needed for the transition to a lower-carbon economy.

To ensure that the business is working towards its sustainability goals it has a Strategic Environmental Programme (SEP) which details the process by which the policy is implemented. The SEP includes a set of environmental targets which are reported against on a monthly basis and included in SSE's Annual Report.

The targets focus on four key areas; reducing greenhouse gases, facilitating customer carbon reductions, efficiently using resources, and avoiding pollution & improving environmental practice.

Targets specific to reducing greenhouse gas emissions include;

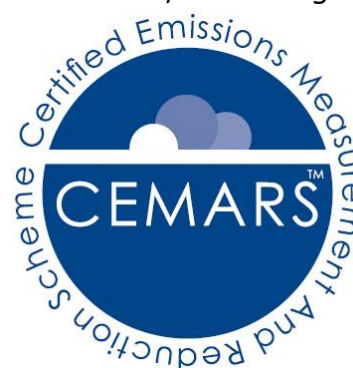
- Reduce carbon intensity (measured in kg/MWh) of the electricity generated by SSE by 50 percent by 2020 (against 2005/06 figures);
- Reduce average emissions of carbon dioxide by SSE cars to below 120 grams per km by 2016;
- Reduce the number of business flights by 10 percent;
- Reduce energy consumed per employee in the SSE six principal offices by four percent.

## Our Achievements

A key achievement for SSE has been the external verification of its operational carbon emissions. SSE (excluding joint ventures) has been awarded CEMARS certification and compliance to the international standard ISO 14064-1.

SSE has also achieved the CRC Early Action Metric with CEMARS, excluding its electricity generation business and joint ventures.

The footprint for SSE (excluding generation and joint ventures) has shown an absolute reduction in emissions of over 60,000 tonnes CO<sub>2</sub>e over three years, equating to a reduction of over 3 percent. The most significant reductions resulted from the Networks (Distribution) related emissions.



In order to achieve reductions in emissions from Distribution losses, SSE has been installing transformers which are at least 10% more efficient than the 40+ year old units that are being replaced. In the last 3 years over 2,000 ground mounted secondary transformers have been replaced with significant associated savings.

With sites scattered across the 4 corners of the UK, SSE employees regularly have to travel long distances for work purposes. Over the past few years SSE has been seeking to reduce business travel in general, with business flights one of the specific areas which has been targeted. Each year SSE has two “no fly months”, while it also promotes train travel over business flights throughout the year.

SSE's approach to reducing energy consumption in its buildings is two-fold. Firstly, it has a buildings investment programme through which it aims to improve energy efficiency by fitting more efficient technologies. Over the past few years Solar (PV and thermal), low energy motion sensitive lighting systems, flat screen monitors, and low energy Dyson Airblade hand-driers have been fitted at a number of sites. Secondly, SSE aims to encourage behaviour change. Throughout each year numerous sustainability related campaigns are run, often focussing on energy efficiency, in order to encourage employees to switch off equipment when it's not in use.

## Supply Chain

A key focus of SSE's carbon reduction activities has been to engage with its supply chain to measure and reduce indirect (scope 3) emissions. SSE has adopted a collaborative approach with seven other UK Utilities through Achilles' carbonReduction programme.

The two key objectives of the carbonReduction programme are to;

- Independently verify tonnes of CO<sub>2</sub>e emitted by suppliers; and
- Assist suppliers to focus on energy efficiency gains and emissions reduction

SSE has included its supply chain as a key target in its own carbon management and reduction plan stating that it will assess the carbon emissions of key suppliers via Achilles' carbonReduction programme and ensure that each supplier with a material emissions issue has in place an emissions reduction programme. Further work includes training the buyers and procurement teams on greenhouse gases and climate change and the benefits that assessing and reducing supply chain emissions can bring to wider supply chain management.

Sandy Biggar, Director of Procurement, SSE and Chairman of the carbonReduction programme believes "Achilles' carbonReduction programme provides a credible and effective way for us to engage with our suppliers on the important issue of carbon reduction. By working with other leading Utilities, we ensure that we are removing duplication for our suppliers and adopting a consistent approach to carbon measurement. SSE is proud to be CEMARS certified and set a positive example for our suppliers".



## Q & A with Gareth Edwards, Property Group, SSE

### *Why did you choose the CEMARS standard?*

*For many years we have gathered various pieces of data relating to our carbon emissions, but felt that bringing it all together under an internationally recognised standard of accreditation, such as CEMARS, would be invaluable. The fact that CEMARS is also recognised as an equivalent to the Carbon Trust Standard was extremely beneficial to us in achieving the CRC Early Action Metric.*

### *What did you learn from working to achieve CEMARS certification?*

*Bringing together carbon emissions data from every part of our extremely diverse business, in an orderly manner, was particularly valuable as it allowed us to identify the areas where we have done well, and other areas where there are still opportunities to achieve reductions.*

### *What work is SSE undertaking to engage with customers and facilitate customer carbon reductions?*

*Over recent years we've been involved in a tremendous amount of work, developing new customer tariffs and creating new product and service offerings to aid customers in reducing their energy consumption. One example is our Better Plan tariff, launched in 2007, which provides the customer with a free energy monitor, financially rewards them for reducing their annual energy consumption and incentivises further energy reduction measures. Our recently launched iPlan tariff, which allows customers to analyse their energy consumption in numerous ways on their own home computer, is the next step in engaging with our customers to help them to understand and reduce their energy use.*

### *What advice do you have for other organisations working to measure their carbon footprint and make a reduction in emissions?*

*Keep going, don't give up! It can be a long and difficult process pulling together emissions data from various aspects of your business, and it's easy to get frustrated when information isn't easily accessible at first, but in the end it is worthwhile. It's the only way in which you can accurately assess opportunities to make reductions and the savings, in carbon and in pounds, will more than repay the time spent gathering the data.*

CEMARS (Certified Emissions Measurement And Reduction Scheme) recognises organisations for credible carbon measurement, management and reduction. An organisation must measure their carbon emissions across Scope 1, 2 and 3 as well as develop a detailed reduction plan with targets and key initiatives outlined. An organisation has five years from the base year to demonstrate either an absolute or relative reduction in carbon emissions. Organisations affected by the CRC Energy Efficiency Scheme may also use CEMARS to demonstrate carbon reductions achieved over the last three years. CEMARS is the only standard in the UK accredited to ISO 14065, the recognised international standard for greenhouse gas validation and verification bodies.