

# Corporate Social Responsibility

## Ashton Hayes – Village Going Carbon Neutral



Ashton Hayes is a rural community of approximately 1000 residents in Cheshire which has a vision to become England's first carbon neutral village. We are working with the local community to deliver this vision building on a strong relationship that has been developed over the last few years. We have installed network monitoring equipment which will allow us to understand the network capability to accept planned low carbon technologies including micro-generation and electric vehicles.

## Glasgow London Road – City Smart Grid Project

The communities in the East end of Glasgow were once an integral part of the shipbuilding, textile and heavy engineering industries that made Glasgow and the Clyde famous the world over. However, over the past 50 years, almost all of those industries have disappeared and the population living in the area has fallen. The Clyde Gateway regeneration programme will bring new offices, workspaces, jobs, houses and, over time, will reverse the decline in population.



We have worked closely with the various stakeholders to establish long-term energy requirements and develop/ deploy innovative solutions to meet their requirements. Part of these energy requirements is to ensure the electricity infrastructure is in place for Glasgow hosting the 2014 Commonwealth Games.

SP Energy Networks has established a smart grid trial at a new Industrial and Commercial development site, on London Road in the East end of Glasgow, which is within the Clyde Gateway area of regeneration. The smart grid trial will demonstrate the advantages of the latest smart grid technology as an extension to an established electrical distribution network. The fully integrated solution will be applied to a distribution system supplying factory units, offices and commercial buildings, catering for a demand of around 2MW, that will have the capability to accommodate various sources of generation and energy storage.

This trial will provide real-time supervision, control, automation and intelligent reconfiguration of the high voltage and low voltage distribution system, accommodation of multiple generation sources and interaction with customer electricity demand. The site will be a showcase of what can be achieved using the very latest technology.

## Real-Time Dynamic Circuit Ratings – Increasing Renewables Capacity in North Wales

We have developed and currently have on field trial an innovative technique which exploits the cooling effect of wind on overhead lines to increase the capacity of electricity networks to accept low carbon wind farm generation. We form part of a consortium comprising: Parsons Brinckerhoff; Alstom Grid; Durham University; Imass and ourselves, SP Energy Networks, that was awarded the 2010 Power / Energy Innovation award by the IET (Institution of Engineering and Technology). The judging panel commented, "This submission is innovative, timely and well supported by the evidence of its success."

## Replication Potential

A major driver in our decision to develop these projects was replication potential. The future network projects are on a typical rural and urban distribution circuits of which there will be many tens of thousands in the UK. We will share this learning with other DNOs who will face similar network challenges as the UK moves towards a low carbon economy stimulated through incentives such as Feed-In Tariffs and regulatory frameworks progress to incentivise energy sustainability measures. We believe that the integrated solution models developed can be applied on existing legacy networks. It is our intention to use the learning outcomes from these trials to develop our thinking on wider application and, in particular, smart grids and share these with the industry and other stakeholders to promote and contribute to a knowledge transfer network for the UK.

## Engaging all generations



### Supporting innovation

The **Energy Innovation Centre** is dedicated to turning new ideas into commercially successful technologies and businesses. These will bring tangible benefits to companies operating in the energy sector, the wider economy, consumers and the environment.

We confirmed backing with the North West Development Agency (NWDA) and other UK electricity companies for a new Energy Innovation Centre (EIC) at Capenhurst. The EIC is a world-class incubation unit for bringing new energy ideas and businesses to market. Britain's brightest sparks are invited to pitch their ideas for developing new energy technologies and products to a Dragon's Den style committee.

### STEM

A core component of doing the right thing both professionally and personally is engaging with our local communities. We continue to build on our relationship with a large number of schools in our regions, with particular focus on developing employability skills and supporting the STEM (Science, Technology, Engineering & Maths Network) agenda, giving young people work related experiences that support their academic studies.

In December over 200 pupils took part in a ScottishPower sponsored Master Class to gain exposure to real life employment opportunities and develop skills employers are looking for. The two-day course gave pupils a chance to build their self esteem and confidence. 12 Science teachers from Rhosnesni School will be in Prenton to gain exposure to the Global Energy Company, Iberdrola, and SP Energy Networks, as future employers for their pupils.

Over 1700 Primary 7 (10/11 yr old) children from 53 local schools were invited to take part in an exciting and unique event. **My Future's in Falkirk** economic development initiative encourages children to consider job roles in science and engineering to fill the future skills shortage in this area. The fair is supported by INEOS, Global Science, Scottish Government and Falkirk Council.

To further promote the sector's attractiveness in terms of career prospects, 61 employees have been trained as STEM ambassadors. These employees attend career fairs and give pupils an insight into the world of work.



## Community

### Liaison with other Agencies

The emergency services play a key role in responding to incidents which may occur on our sites, and we have built close working relationships with each of the response services delivering bespoke training events and distributing informative bulletins to ensure that fire-fighters, paramedics, and police officers are aware of potential dangers and have the knowledge essential to stay safe.

Graffiti, fly-tipping and general anti-social behaviours at or near substations are issues of concern, particularly in respect of public safety so we work in partnership with Councils, local police and other agencies, to reduce incidents of graffiti, where possible.

### The Duke of Edinburgh's Award

In 2010 ScottishPower embarked on a new partnership with the Duke of Edinburgh's Award. The focus of this partnership is to ensure that all young people no matter what background they come from have the opportunity to undertake the award to develop skills and confidence for their future. In the first year Glasgow was identified as the key area that required support as it had the lowest take up and completion rate in Scotland. As a result of the partnership 168 young people commenced the award and approximately 70% are due to complete in June 2011 (previous completion rate 23%).

ScottishPower also designed an online module, **Skills in Energy**, to support the Skills section of the award- providing the opportunity for young people to learn more about the industry and potential careers. This was enhanced for a group of Commonwealth Apprentices in Glasgow who also received practical introductory electrical engineering training and got to demonstrate their new skills to HRH the Earl of Wessex.

ScottishPower staff, have engaged in the partnership through volunteering and fundraising, and in September 2010 42 staff from around the business including SP Energy Networks took part in the Peaks challenge raising £12,500 for the charity.

In 2011 ScottishPower will continue to develop the relationship by helping increase the number of schools and community groups that take part in Glasgow as well as expanding this to our Liverpool region.

