BUSINESS CARBON

FOOTPRINT

Annual Report for 2014/15

SP Distribution and SP Manweb

Business Carbon Footprint Report 2014/15 SP Distribution and SP Manweb

Introduction

This report sets out SP Energy Networks' Business Carbon Footprint statement for 2014/15 for the two electricity distribution licensees - SP Distribution and SP Manweb - in accordance with Ofgem's guidelines.

In 2010 Scottish Power set out a framework for forward environmental targets, this sets out a 20% target for reduction of carbon emissions in coming years. Looking ahead to the next regulatory period we plan to reduce our Business Carbon Footprint (BCF) for scope 1 and 2 emissions by 15% against a 2013 baseline. Details of this are set out in our RIIO ED1 business plan.

Group Structure and Commitments

SP Energy Networks is the ScottishPower organisation responsible for the licensed Transmission and Distribution networks in Central and Southern Scotland, Merseyside and North Wales. The network licensees involved are;

SP Manweb plc

SP Distribution plc

SP Transmission plc

All of the above companies are members of the Scottish Power group which in turn is part of the Iberdrola SA group of companies.

SP Energy Networks adopts ScottishPower's environmental policy and environmental management system which are integrated into those of the Iberdrola Group. In addition to this, the companies have adopted the Iberdrola Group's Environmental Policy, Policy against Climate Change and Biodiversity Policy. These define specific guidelines we must follow in terms of our strategy, investments, operations and control of environmental risks.

The policies place a requirement on all of our businesses to foster innovation and eco-efficiency, and strive to achieve a progressive reduction in the environmental impacts of their activities.

Our activities are governed by an Environmental Management System (EMS) that covers the entire Iberdrola Group. This is supported by comprehensive systems at business and site level that are certified under various standards, such as ISO14001, Eco Management and Audit Scheme (EMAS) and ISO14064, which contribute to reducing environmental risk.

The main operating elements in our Group Environmental Management System are as follows:

Environmental guideline areas: Preserving Biodiversity, Pollution Prevention, Achieving Operational Excellence, Optimising Waste Management and Engaging with Stakeholders

Global performance indicators: Global Reporting Initiative (GRI) methodology indicators that provide an overall classification of each guideline area Environmental goals and plans: with targets, these drive actions for each guideline area within each business

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Key environmental risks: identification and management through mitigation and control measures, where appropriate

Economic summary of environmental expenses and investments: Emissions Treatment, Waste Treatment, Environmental Impact Remediation, Environmental Prevention and Environmental Management.

Our businesses operates EMS based on UNE-EN-ISO 14001:2004 linking, where appropriate, to our Corporate EMS. EMS structures are embedded within an Integrated Management System (IMS).

General Methodology – for reporting carbon emissions

Scottish Power Group has reported carbon emissions at group level for many years and SP Energy Networks has contributed data to that commitment. For that reason many of the datasets used are sourced from the SP Group annual Corporate Social Responsibility report submission and co aligned to calendar year scope. The data sources are verified annually via corporate audit arrangements. General methodologies are in line with internal corporate procedures for environmental reporting which in turn align with the Greenhouse Gas Protocol and Defra Guidelines.

Source data acquisition relies upon a number of mainly supplier and contractor related bulk contract reports principally for air travel, electricity supply, and road transport fuel. Internal activity reports are sourced for other smaller scale or specialist activity measures such as red diesel use, SF6 emissions, business miles driven and network losses. Minor ad-hoc purchases of fuels or energy supplies made via local suppliers on a cash or credit card basis are not included.

Electricity and natural gas use for offices and depot buildings is based upon a composite calendar year statement built from 2014/15 CRC statement. In line with normal billing practice values are either on a read or estimated basis and subject to later settlement adjustment.

Several of the datasets are supplied with business unit / location source data allowing alignment to the license where this is the case these have been directly allocated. Where business unit allocation is not pre indicated apportionment factors have been used to subdivide the whole based upon relevant operational profiles.

Emissions for SP Transmission operations have been apportioned from the overall business total and will be reported separately via RIIO T1 requirements, in line with developing BCF requirements for transmission.

Carbon conversion constants are stated in Defra / DECC Document – Guidelines to Defra / DECC's Conversion Factors for Company Reporting July 2014.

To deliver BCF reporting an internal carbon model Excel spreadsheet has been developed. This provides for;

- Input and classification of the base data sets
- GHG Protocol Scope Classification
- Ofgem BCF table classification
- General type classification
- Unit of measure classification
- Data source classification
- Input of the appropriate conversion constant
- Carbon calculation in kg and Tonnes
- Licence / business unit allocation.
- Pivot table analysis outputs by Ofgem table classification.

Contractor Data

Scope 3 contractor data is shown separately from direct operations impacts for SP Manweb and SP Distribution in the final table.

Third Party Review

AMEC Environment Infrastructure UK have been engaged to provide an independent third party verification which is ongoing at time of writing.

Network Apportionment Factors

Allocation methods for company-wide emissions data to licensee where not pre-segregated are generally based upon a geographic profile and staff numbers in line with the proportions below. This is based upon a Human Resources supplied dataset which has been held constant through the review period. This has been rebased for the RIIO ED1 period.

SP Transmission	SP Manweb	SP Distribution
3.89%	44.39%	51.72%

Building Energy Usage – Offices & Depots

We have installed AMR meters at our Bonnybridge depot and are progressing similar installations at Currie and Galashiels.

During 2013, we contributed to Institute of Environmental Management and Assessment (IEMA) / Department of Energy and Climate Change (DECC) sponsored workshops shaping the new Energy Saving Opportunities Scheme (ESOS). In 2014, we developed energy audit proposals to meet the new regulatory requirements for ESOS. Implementation of this scheme is in progress via a Scottish Power group wide formal energy audit programme visiting SPD & SPM operational substations depots, offices and other sites. Outputs from this process will be delivered in 2015 providing a further insight into energy efficiency and reduction opportunities.

Longer term we will seek further opportunities to re locate from older less energy efficient sites to newer more efficient locations. These measures will provide for continued improvements in energy efficiency and associated reductions in carbon into the RIIO ED1 period.

Substation Energy Use Methodology

Assessment was made in 2010/11 of substation classification, substation numbers, and use type to produce an estimate of energy used, leading to single supply agreements for the bulk of substations. Data has been sourced via our CRC statement for 2014/15 by SP Energy Retail. A small number of substation sites are independently metered and therefore based upon metered billing. Usage for SPM and SPD substations has been reassessed by our commercial team and apportioned values amended accordingly.

Source	SP Distribution (Tonnes)	SP Manweb (Tonnes)
Electricity	10,072	11,901

Radio Base Station Use Methodology

The company owns or leases a number of radio base station sites for provision of communications and control equipment using electricity as a primary fuel. A few of these sites are metered and usage sourced via CRC Statement Datasets.

For the remaining unmetered sites use has been estimated for each site at 3,500 units per annum based upon estimated MPAN data supplied by SP Energy Retail.

During 2011 our Group Facilities Management team undertook site visits to most of the unmetered sites and identified several that were out of use or had only third party operators resident. Where this is the case these have been removed from the estimation process.

Source	SP Distribution (Tonnes)	SP Manweb (Tonnes)
Electricity	190	56

Operational Transport

Data is obtained from Shell UK / SP Procurement team derived fuel use report for petrol, diesel and LPG. The data currently excludes air, rail and sea freight data. Air travel is excluded as Helicopter line patrol travel data has not yet been developed. Rail and sea - freight are generally not used.

Source	SP Distribution (Tonnes)	SP Manweb (Tonnes)
Petrol / Diesel / LPG	3,599	3,089

Business Transport

- **Air Travel**

  Data obtained from Travel & accommodation service provision contractor data - Air Travel Report spreadsheet via SP Corporate / Procurement. Conversion factors include an 8% uplift for flights using indirect routes, this is included in the factors used. The guidelines also indicate an option of inclusion of 90% uplift for "Radiative Forcing" this has not been included to maintain closer baseline parity with previous years.

- **Business Miles**

  Data sourced from SP Corporate internal business miles claims for managers and staff. This year our SP group environment team have acquired an additional dataset relating to car hire. This is typically related to car hire by staff whilst working away from their normal location or where company provision is not available.

- **Rail Travel**

This is sourced from an SP group wide travel and accommodation service providers report.

Source	SP Distribution (Tonnes)	SP Manweb (Tonnes)
Air Travel	220	189
Rail Travel	11	9
Road Travel	1,456	1,004

Fugitive Emissions

Emissions due to SF6 losses for SPD are based on internal estimates. The SPD population volumes have been multiplied by a 0.5% loss. SPM data is based upon available top up data plus end of lifecycle non-recovery from our preferred equipment disposal contractor.

Source	SP Distribution (Tonnes)	SP Manweb (Tonnes)
SF6 Gas	1,446	856

Fuel combustion

This consists of red diesel only as non-road LPG data has not been provided by operations. The data relates to Red Diesel volumes issued via in house stock control systems.

Internal LPG plant use data is not included due to purchase via multiple local purchase systems, this is thought to be insignificant in scope due to continued move away from “hot working” methods.

Source	SP Distribution (Tonnes)	SP Manweb (Tonnes)
Red Diesel	45	45

Losses

- System Losses Methodology

Distribution losses data represents the last publicly available dataset - 2009/10. No subsequent data is available following the decision by Ofgem not to activate the losses price control mechanism for the DPCR5 period (April 2010 to March 2015). This data also includes the network losses element of our internal energy use.

Source	SP Distribution (Tonnes)	SP Manweb (Tonnes)
Electricity	54,025	44,949

Contractors

These are scope 3 category emissions created by our contractors undertaking activities that we would otherwise have to undertake directly via our own resources. This includes reporting in terms of total carbon emissions by activity and emission source. This data consists of mixed operational and business transport, office electricity and gas and on site fuel use for generators and pumps etc.

We have carried out further development of our cable laying contractor datasets seeking standardisation of format and data supply routes. Following reorganisation our SP Manweb and SP Distribution cable laying contractor data is now supplied on a quarterly basis in a standardised format.

Source	SP Distribution Contractors (Tonnes)	SP Manweb Contractors (Tonnes)
Buildings Energy Use Electricity	166	113
Buildings Energy Use Other Fuels	21	7
Operational Transport	3,121	3245
Business Transport	53	34
Fuel Combustion	699	190