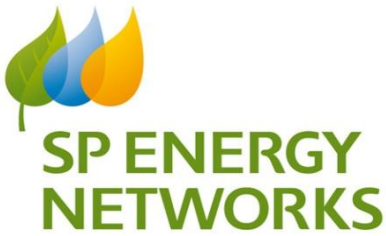

Business Carbon Footprint Statement for 2012
SP Distribution and SP Manweb

Business Carbon Footprint Statement 2012 SP Distribution and SP Manweb

Introduction

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This report sets out SP Energy Networks' Business Carbon Footprint statement for 2012 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.

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 Ltd
- SP Transmission Ltd

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

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 most 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 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. Accuracy is therefore limited to that of the source systems including any rounding and estimation techniques. In practice this excludes any minor ad-hoc purchases of fuels or energy supplies made via local suppliers on a cash or credit card basis.

Electricity and natural gas use for offices and depot buildings is based upon a composite calendar year statement built from 2011/12 and 2012/13 CRC statements. Our 2011 /12 CRC data submission was audited by SEPA at Scottish Power group level in 2012 resulting in a pass with no major issues.

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 – April 2012 Guidelines to Defra / DECC's Conversion Factors for Company Reporting. Generally unless stated where relevant Net CV (LHV) constants have been used. Where Net CV values are not appropriate or available the constant most appropriate to the available data unit of measure has been selected.

To deliver BCF reporting an internal carbon model delivered 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.

During 2012 we have invested in the development of Credit 360 Web based carbon reporting software. This will allow remote entry of data by contractors and suppliers so as to automate the carbon conversion, apportionment and output reporting processes in 2013 and beyond. The systems has undergone basic development but now requires further refinement and implementation to allow remote access reporting, and development of standard input formats to take place.

Third Party Audit

AMEC Environment Infrastructure UK has provided an independent third party audit, which was completed in July 2013.

Network Apportionment Factors

Rules of thumb for allocation of 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 identifying total SPEN staff numbers by geographic location.

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

Building Energy Usage – Offices & Depots

As an initial measure SP Power Systems has set a target of 15% reduction in buildings energy use. This is based upon a calendar year composite of submissions for annual CRC reporting supplied by Scottish Power Energy Retail based upon 2010 /11 & 2012/12 datasets for gas and electricity. This uses billing data and CRC statements for the year as a baseline. The full dataset includes distribution substation use and some radio base station use, use types have been separately classified for reporting. Apportionment has been made in line with staff geographic location and numbers.

Source	SP Distribution (Tonnes)	SP Manweb (Tonnes)
Electricity	3,411	3,545
Natural Gas	104.2	7.1

During 2013 we moved staff from our head office location from Bellshill to a new state of the art facility at High Blantyre. This has multiple energy saving features and will actively reduce our carbon footprint.

During 2013/14 we plan to enhance energy use measurement arrangements at our Bonnybridge, Currie and Galashiels depots by the installation of AMR meters.

Longer term our group estates and facilities management team will seek further opportunities to re locate from older less energy efficient sites to newer more efficient locations.

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 CRC statements 2011 / 2012 & 2012 / 2013 provided by SP Energy Retail. A small number of substation sites are independently metered and therefore based upon metered billing. No estimate of SP Transmission substations has been made and therefore this has not been included with the exception of one metered substation.

Source	SP Distribution (Tonnes)	SP Manweb (Tonnes)
Electricity	24,390	3,471.1

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 2010 / 2012 and 2012 / 2012 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	56.5	18.2

Business Transport

Air Travel: Data obtained from Travel & accommodation service provision contractor data - Air Travel Report spreadsheet via SP Corporate / Procurement.

Business Miles: Data sourced from SP Corporate internal business miles claims for managers and staff.

Rail Travel: For the first time this year we have provided rail travel data, this is sourced from an SP group wide travel and accommodation service providers report. We are working to make further enhancements in the data supply format for 2013 allowing SP business unit sort within the data simplifying the reporting process.

Source	SP Distribution (Tonnes)	SP Manweb (Tonnes)
Air Travel	98.9	84.9
Rail Travel	7.9	6.8
Road Travel	1,397	1,207

Fugitive Emissions

Emissions due to SF6 losses are based on internal estimates. The SPD or SPM population volumes have been multiplied by a 0.5% loss assumption to provide the amount of SF6 leakage.

As last year for SPM and SPD we have added data re SF6 not recovered post disposal by our contractor provided end of year disposal report. This is based upon measured recovery data and assumes volumes less than the nominal population for that type have been emitted pre disposal and not recovered pre disposal. This volume will include some data from equipment subject to disruptive failure and containment leakage indicating zero residual volume.

Source	SP Distribution (Tonnes)	SP Manweb (Tonnes)
SF6 Gas	1,458	2,939

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.

Source	SP Distribution (Tonnes)	SP Manweb (Tonnes)
Red Diesel	**157.4**	**157.4**

Losses

System Losses Methodology

Distribution losses data represents the last publicly available dataset, relating to the year 2009/10. No subsequent data is available at present following the decision by Ofgem not to activate the losses price control mechanism for the DPCR5 period (April 2010 to March 2015).

Source	SP Distribution (Tonnes)	SP Manweb (Tonnes)
Electricity	53,500	44,512

Contractors

We have included our second group of contractor data supplied by our cable laying contractors in the SP Manweb area. They have reported in terms of total carbon emissions by activity and emission source. This data will consist of mixed operational and business transport, office electricity and gas and on site fuel use for generators and pumps etc.

We have in 2012 provided a workshop to our SP Manweb cable contractors on this issue and begun inclusion of the data into the wider scope of BCF reporting arrangements and have begun to deliver wider implementation. Reporting returns are calculated either;

- On a contract specific basis where this can be separately measured and reported. OR;
- As a contract apportioned element of business wide carbon reporting activity.

The cable contract commenced in August 2012 data relates to the period from August to December 2012.

Two contactors requested to supply data have failed to do so within the required timescales.

Source	SP Distribution Contractors (Tonnes)	SP Manweb Contractors (Tonnes)
Buildings Energy Use Electricity	No Data	15
Buildings Energy Use Natural Gas	No Data	4.5
Operational Transport	No Data	452.1
Fuel Combustion Red Diesel	No Data	82.7
Fuel Combustion LPG	No Data	107.5
Fuel Combustion Petrol	No Data	0.9
Total	0	662.7

Business Carbon Footprint - Data Tables

SPD	2013								
			2010	2011	2012	2013	2014	2015	Total
Emission		Units	DPCR4	DPCR5					DPCR5
Buildings energy usage	Buildings - Electricity	tCO2e	-	4,388	2,941	3,411.40			10,740.63
	Buildings - Other fuels	tCO2e	-	133	57	104.20			294.19
	Substation Electricity	tCO2e	-	25,508	25,451	24,390.00			75,348.74
	Contractors other fuels		-	22	83	56.50			160.99
			-	-	-	-			-
	Total	**tCO2e**	**-**	**30,051**	**28,531**	**27,962.10**	**-**	**-**	**86,544.55**
Operational Transport	Road	tCO2e	-	968	3,477	3,948.30			8,392.82
	Rail	tCO2e	-	-	-	-			-
	Sea	tCO2e	-	-	-	-			-
	Air	tCO2e	-	-	-	-			-
			-	-	-	-			-
	Total	**tCO2e**	**-**	**968**	**3,477**	**3,948.30**	**-**	**-**	**8,392.82**
Business Transport	Road	tCO2e	-	1,818	1,562	1,397.10			4,777.68
	Rail	tCO2e	-	-	6	7.90			14.23
	Sea	tCO2e	-	-	-	-			-
	Air	tCO2e	-	43	187	98.90			329.39
			-	-	-	-			-
	Total	**tCO2e**	**-**	**1,861**	**1,756**	**1,503.90**	**-**	**-**	**5,121.30**
Fugitive Emissions	SF6	tCO2e	-	1,315	1,639	1,458.04			4,411.36
	Gases Other	tCO2e	-	-	-	-			-
			-	-	-	-			-
	Total	**tCO2e**	**-**	**1,315**	**1,639**	**1,458.04**	**-**	**-**	**4,411.36**
Fuel Combustion	Diesel	tCO2e	-	33	-	157.40			189.94
	Gas Natural	tCO2e	-	-	-	-			-
	Fuels Other	tCO2e	-	5	193	-			198.75
			-	-	-	-			-
	Total	**tCO2e**	**-**	**38**	**193**	**157.40**	**-**	**-**	**388.69**
Total BCF (excl. losses)		**tCO2e**	**-**	**34,233**	**35,596**	**35,029.74**	**-**	**-**	**104,858.72**

Losses		**tCO2e**	-	57,613	61,296	53,500.00			**172,408.12**
TOTAL BCF (incl. losses)		**tCO2e**	**-**	**91,846**	**96,892**	**88,529.74**	**-**	**-**	**277,266.84**

SPMW	**2013**								
			2010	**2011**	**2012**	**2013**	**2014**	**2015**	Total
Emission		Units	DPCR4	DPCR5					DPCR5
Buildings energy usage	Buildings - Electricity	tCO2e	-	4,271	3,852	3,545.90			**11,668.72**
	Buildings - Other fuels	tCO2e	-	60	4	7.10			**71.16**
	Substation Electricity	tCO2e	-	3,547	3,656	3,471.00			**10,673.87**
	Radio Base Stations	tCO2e	-	65	21	18.20			**104.19**
	Contractors Other Fuels	tCO2e	-	-	-	19.50			**19.50**
	Total	**tCO2e**	**-**	**7,942**	**7,534**	**7,061.70**	**-**	**-**	**22,537.44**
Operational Transport	Road	tCO2e	-	3,602	3,199	3,388.70			**10,189.84**
	Rail	tCO2e	-	-	-	-			**-**
	Sea	tCO2e	-	-	-	-			**-**
	Air	tCO2e	-	-	-	-			**-**
	Contractors Road	tCO2e	-	-	-	452.10			**452.10**
			-	-	-				**-**
	Total	**tCO2e**	**-**	**3,602**	**3,199**	**3,840.80**	**-**	**-**	**10,641.94**
Business Transport	Road	tCO2e	-	1,577	1,341	1,199.10			**4,116.88**
	Rail	tCO2e	-	-	5	6.80			**12.24**
	Sea	tCO2e	-	-	-	-			**-**
	Air	tCO2e	-	37	161	84.90			**283.11**
	Contractors Road	tCO2e	-	-	-	51.80			**51.80**
			-	-	-				**-**
	Total	**tCO2e**	**-**	**1,614**	**1,507**	**1,342.60**	**-**	**-**	**4,464.03**
Fugitive Emissions	SF6	tCO2e	-	2,486	2,845	2,939.70			**8,270.36**
	Gases Other	tCO2e	-	-	-				**-**
			-	-	-				**-**
			-	-	-				**-**
	Total	**tCO2e**	**-**	**2,486**	**2,845**	**2,939.70**	**-**	**-**	**8,270.36**
Fuel Combustion	Diesel	tCO2e	-	50	-	157.40			**207.43**

SPMW	**2013**								
			2010	**2011**	**2012**	**2013**	**2014**	**2015**	Total
	Gas Natural	tCO2e	-	-	-	-			**-**
	Fuels Other	tCO2e	-	5	193	-			**198.75**
	Contractors - Diesel & LPG	tCO2e	-	-	-	191.10			**191.10**
			-	-	-	-			**-**
	Total	**tCO2e**	**-**	**55**	**193**	**348.50**	**-**	**-**	**597.28**
Total BCF (excl. losses)		**tCO2e**	**-**	**15,700**	**15,278**	**15,533.30**	**-**	**-**	**46,511.05**
Losses		**tCO2e**	-	47,934	48,185	44,512.00			**140,630.27**
TOTAL BCF (incl. losses)		**tCO2e**	**-**	**63,633**	**63,463**	**60,045.30**	**-**	**-**	**187,141.32**