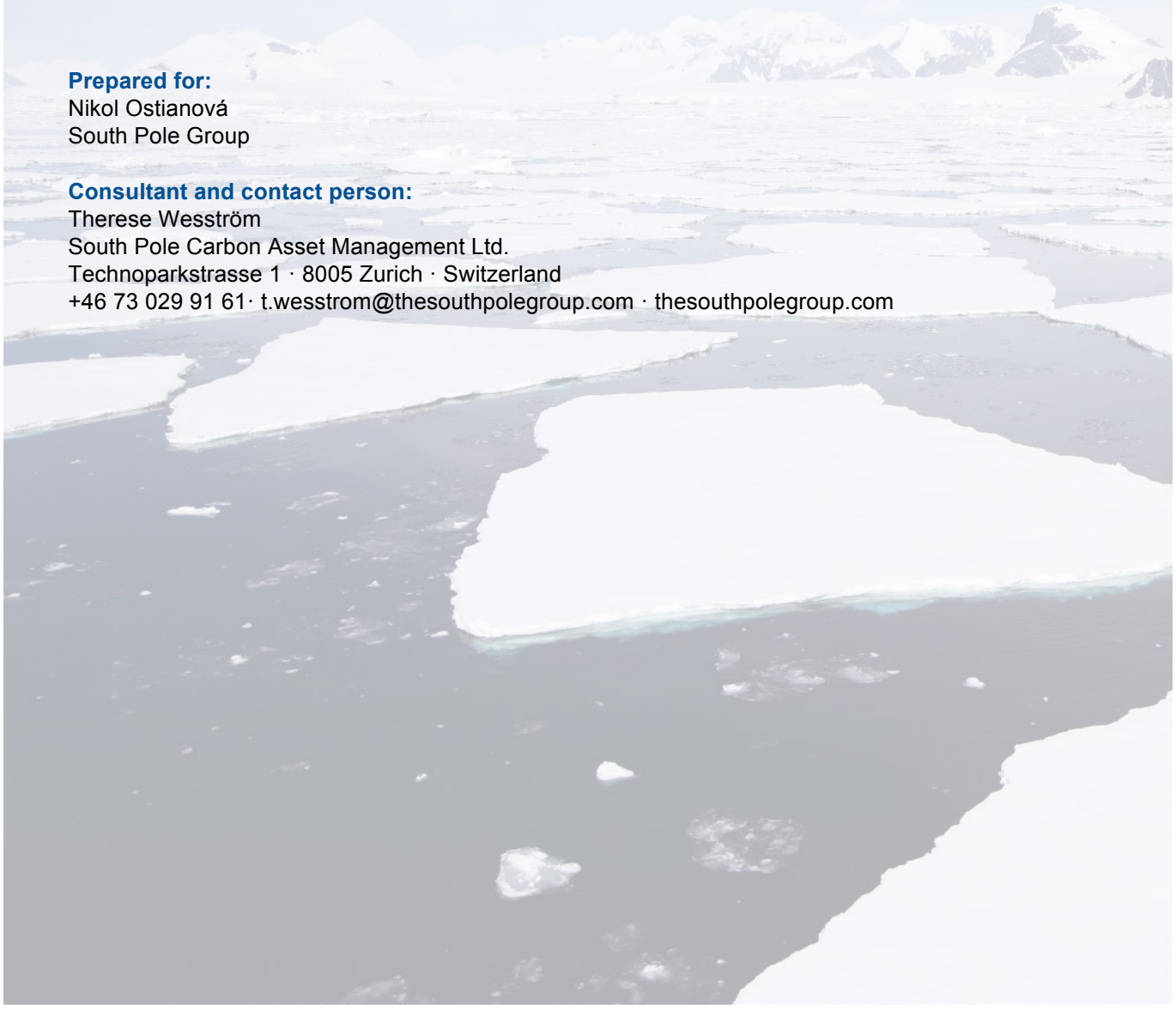
Greenhouse gas emissions report: South Pole Group

Reporting period: 01/01/2014-12/31/2014

Stockholm, 09/09/2015



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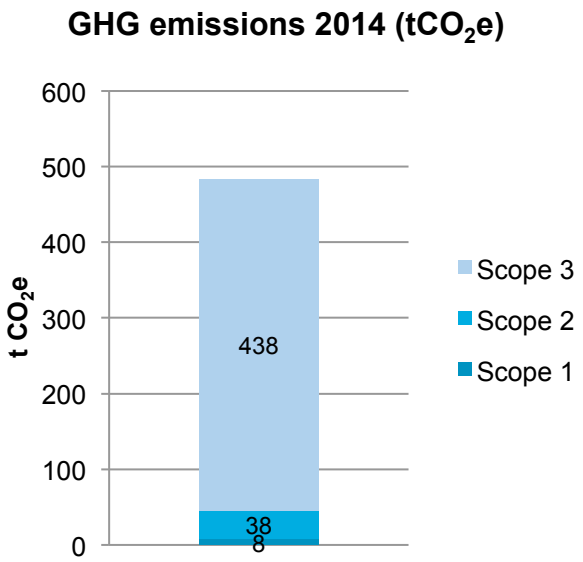
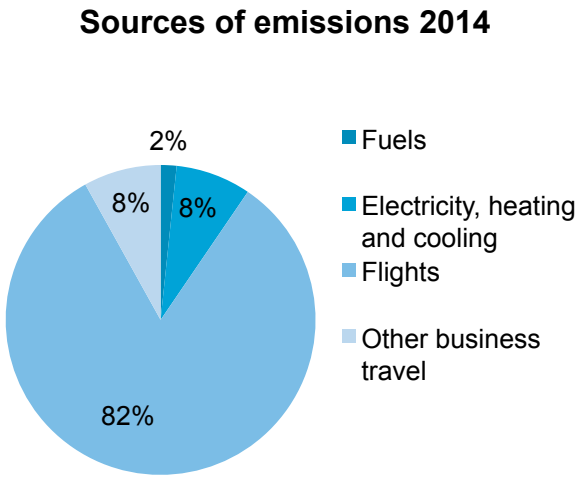
Acronyms and Abbreviations

CH_4	Methane
CO_2	Carbon dioxide
CO_2e	Carbon dioxide equivalent
GHG	Greenhouse gases
GJ	Giga joule
HFCs	Hydrofluorocarbons
Kg	Kilogram
MWh	Megawatt hour
N_2O	Nitrous oxide
t	tonne
UNFCCC	United Nations Framework Convention on Climate Change

1 Summary





1.1 About South Pole Group

South Pole Group (SPG) is a leading sustainability solution provider. Initially focused on the development of premium carbon emission reduction projects, the company now offers a wide spectrum of sustainability services, including climate policy and strategy advisory. Its expertise covers the areas of climate change, forests and land use, water, sustainable cities and buildings, as well as renewable energy and energy efficiency. The company is determined to help its clients grow their business with ground breaking solutions, which positively impact the environment and the needs of society.

1.2 Company information

Table 1. Company information	
Website:	www.thesouthpolegroup.com
Business area:	Consultancy services
Reporting period:	2014
Contact person:	Nikol Ostianová
Employees:	107

1.3 Climate Impact Inventory 2014

System boundaries

System boundaries were defined by the control approach, i.e. covering all entities where SPG has operational control. The 2014 accounting included the offices in Bangkok, Beijing, Medellin, Addis Ababa, Hong Kong, New Delhi, Jakarta, Mexico City, Zurich, Melbourne, Sydney and Stockholm.[1]

Data inventory

The data inventory, emission factors and emission estimations are based on the Greenhouse Gas Protocol, an international standard for calculating and reporting climate impact from business activities (www.ghgprotocol.org).

The GHG accounting covers direct emissions from mobile and stationary combustion (Scope 1), indirect emissions from purchased electricity, heating and cooling (Scope 2) and other indirect emissions from business travel (Scope 3).

SPG's regional offices have provided specific data regarding electricity, fuels, district heating and other business travels. Information regarding flights was derived from the accounting department at the SPG head office in Zurich. For business travels, assumptions have been made regarding fuels and travel routes.

Unless other is specified all emissions in this report are given in tonnes.

[1] The office in Hanoi was not included.

1.4 Key figures according to the Global Reporting Initiative (G4)

Table 2. Key figures according to the Global Reporting Initiative, GRI (G4)		
EN3	Direct energy consumption by primary source (GJ)	**118**
	Diesel	118
EN3	Indirect energy consumption by primary sources (GJ)	**364**
	Unspecified electricity	258
	Renewable electricity	12
	District heating	94
EN15	Direct greenhouse gas emissions (Scope 1) (tCO_2e)	**8**
EN16	Indirect greenhouse gas emissions (Scope 2) (tCO_2e)	**38**
EN17	Other indirect greenhouse gas emissions (Scope 3) (tCO_2e)	**438**
EN18	Greenhouse gas emissions per full-time employee (tCO_2e per employee)	**4.5**

1.5 South Pole Group: GHG emissions 2014: by scope in tCO_2e

Table 3. South Pole Group: GHG emissions 2014 by scope tCO_2e		
	tCO_2e	**Percentage**
Scope 1 Direct GHG emissions	8	2%
Scope 2 Indirect GHG emissions from purchased electricity, heat and cooling	38	8%
Scope 3 Other indirect GHG emissions	438	90%
Total GHG emissions	**483**	**100%**

1.6 South Pole Group GHG emissions 2014 by scope in tCO_2e

Table 4. South Pole Group: GHG emissions 2014 by scope tCO_2e		
	tCO_2e	**Percentage**
Scope 1 Direct GHG emissions	**8.0**	**1.6%**
Diesel	8.0	1.6%
Scope 2 Indirect GHG emissions from purchased electricity, heat and cooling	**37.7**	**7.8%**
Unspecified Electricity	36.1	7.5%
Renewable Electricity	0	0.0%
District Heating[2]	1.6	0.3%
Scope 3 Other indirect GHG emissions	**437.9**	**90.6%**
Business travel	437.9	90.6%
Air	398.5	82.4%
<450 km	15.0	3.1%
450-1600 km	90.6	18.7%
>1600 km	252.6	52.2%
Directly reported[3]	40.3	8.3%
Car[4]	38.7	8.0%
Train	0.5	0.1%
Bus	0.1	0%
Boat	0.1	0%
Total GHG emissions	483	

[1] 0.135 t CO_2e are offset by the district heating provider Fortum. Total net emissions are 1.465 t CO_2e.
[3] Directly reported emissions via the Cornercard Climate Credit Card. All emissions of 40.3 t CO_2e are offset by the credit card provider. Total net emissions from air travel are 358.2 t CO_2e.
[4] Directly reported emissions of 0.177 t CO_2e via the Cornercard Climate Credit Card. All emissions are offset by the credit card provider.Total net emissions are 38.5 t CO_2e.

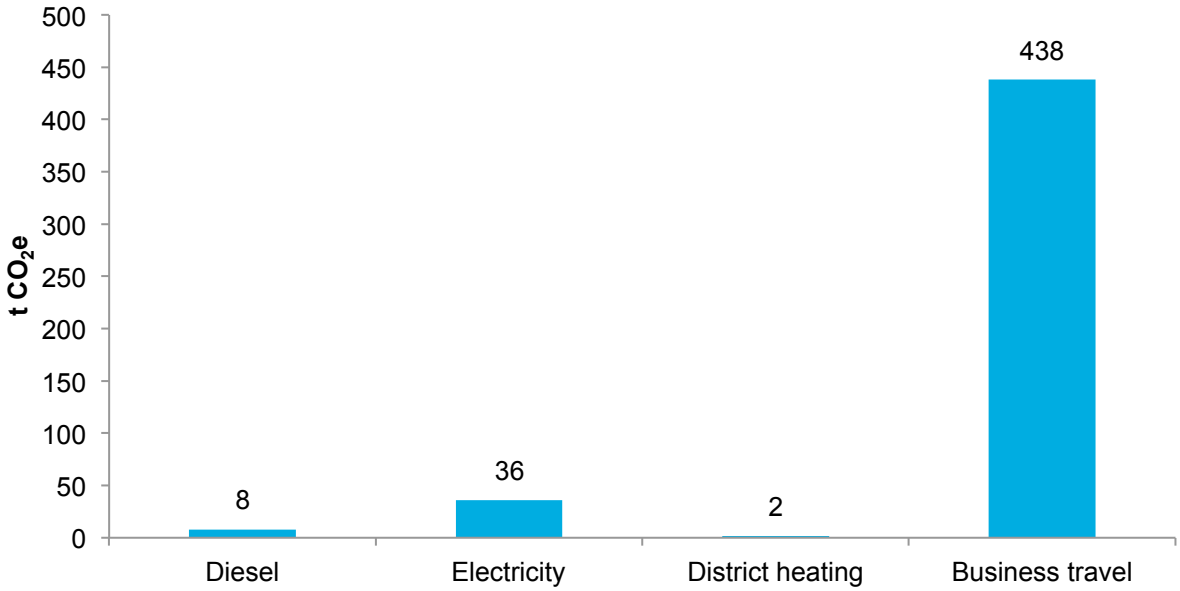
1.7 South Pole Group GHG emissions 2014 per office in tCO_2e

Table 5. South Pole Group: GHG emissions 2014 per office tCO_2e

	Bangkok	Beijing	Medellin	Addis Ababa	Hong Kong	New Delhi	Jakarta	Mexico City	Zurich	Sydney & Melbourne	Stockholm
Scope 1	**8.0**										
Diesel	8.0										
Scope 2	**11.0**	**3.4**	**0**	**0**	**0.8**	**5.0**	**6.0**	**0.5**	**1.9**	**8.7**	**0.5**
Unspecified Electricity	11.0	3.4		0	0.8	5.0	6.0	0.5	0.6	8.7	0.25
Renewable Electricity			0								0
District heating									1.3		0.25
Scope 3	**36.7**	**19.5**	**41.6**	**5.3**	**8.0**	**39.5**	**57.2**	**3.5**	**94.4**	**126.5**	**5.7**
Air	36.7	18.4	41.2	5.3	8.0	37.6	45.2	3.5	92.5	104.5	5.6
Train			0						0.3	0.2	
Bus									0.1	0.1	
Car	0	1.1	0.4	0		2.0	12	0	1.5	22	0
Boat											0.1
Total GHG emissions	**55.7**	**22.9**	**41.6**	**5.3**	**8.8**	**44.5**	**63.2**	**4.0**	**96.3**	**135.2**	**6.2**

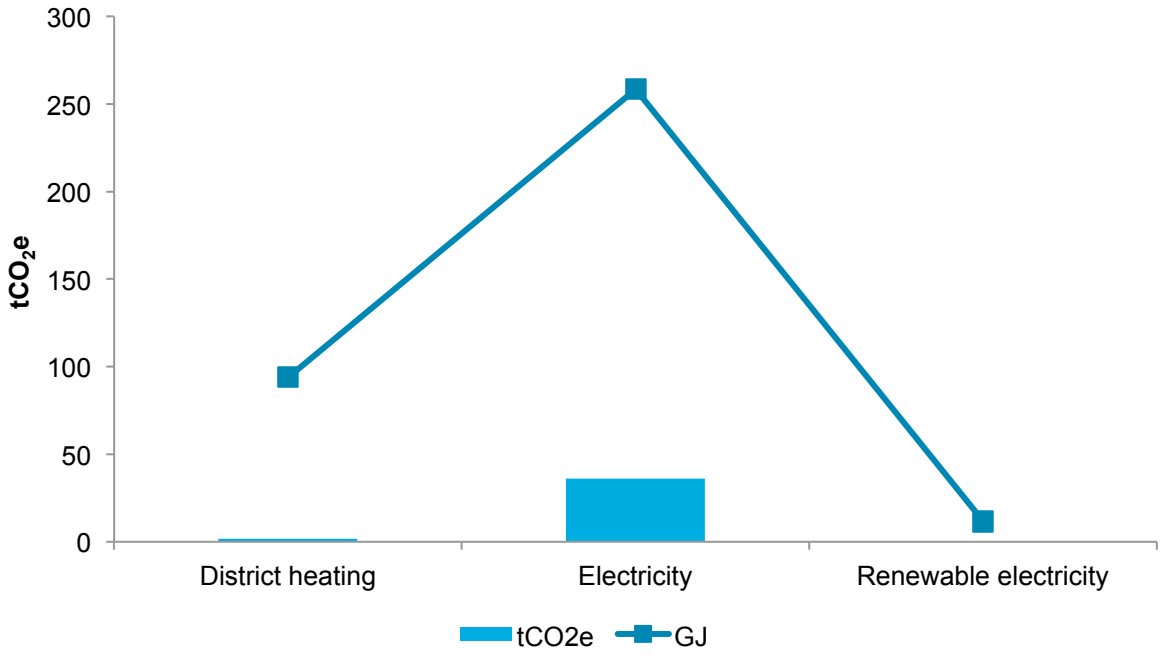
1.8 Sources of GHG emissions (tCO_2e) 2014

Figure 4. Sources of GHG emissions (tCO_2e) 2014



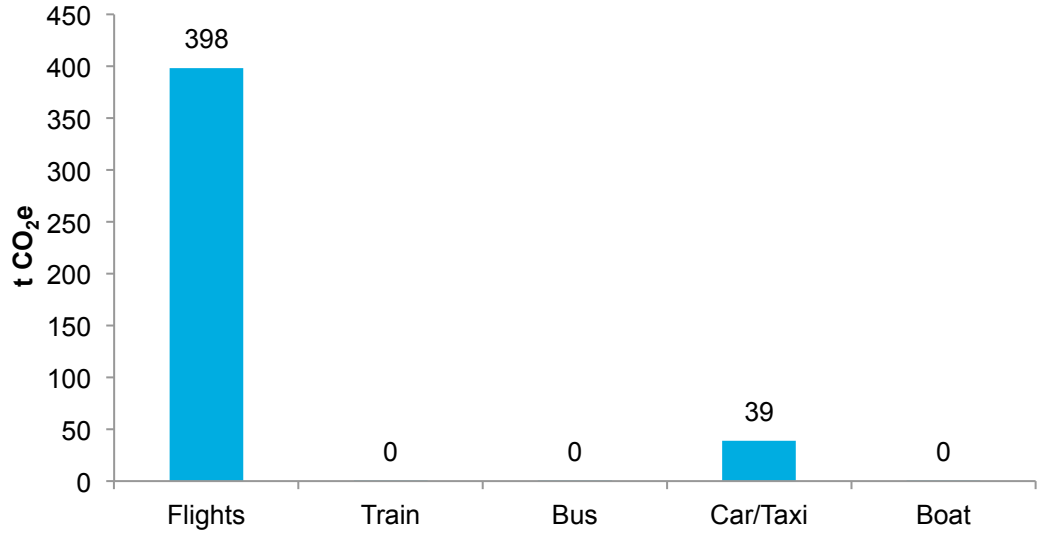
1.9 Sources of GHG emissions Scope 2 (tCO_2e) 2014

Figure 5. Sources of GHG emissions Scope 2 (tCO_2e) and energy use (GJ)



1.10 Sources of GHG emissions Scope 3 (tCO_2e) 2014

Figure 6. Sources of GHG emissions Scope 3 (tCO_2e) 2014



1.11 Applied global warming potentials, IPCC fourth Assessment Report (2007)

Table 6. Applied global warming potentials, IPCC Fourth Assessment Report (2007)

GHG	GWP (100-yr)
CO_2	1
CH_4	25
N_2O	298

2 Information on emissions

The calculation and reporting procedure is based on the Greenhouse Gas Protocol (GHG Protocol) Corporate Standard revised edition, the most widely used international accounting tool for government and business leaders to understand, quantify, and manage greenhouse gas emissions. The standard was developed by the World Resources Institute and the World Business Council for Sustainable Development.

Direct and indirect emissions

Emissions are divided into direct and indirect emissions. Direct emissions are emissions from sources that are owned or controlled by the reporting entity. Indirect emissions are generated as a consequence of the reporting entity's activities, yet they occur at sources owned or controlled by another entity. The direct and indirect emissions are divided into three Scopes:

- Scope 1: All direct greenhouse gas emissions (owned vehicles, burned fuel etc.)
- Scope 2: Indirect greenhouse gas emissions from consumption of purchased electricity heat or steam
- Scope 3: Other indirect emissions, such as the extraction and production of purchased materials and fuels, vehicles not owned or controlled by the reporting entity, outsourced activities, waste disposal, etc.

3 Accounting principles

According to the GHG Protocol accounting and reporting should be based on principles listed below:

- Relevance: Appropriate inventory boundary that reflects the greenhouse gas emissions of the company and serves decision-making needs of users.
- Completeness: Accounting all emission sources, any specific exclusion is disclosed and specified.
- Consistency: Meaningful comparison of information over time, transparently documented changes to the data.
- Transparency: Data inventory sufficiency and clarity, relevant issues are addressed in a coherent manner.
- Accuracy: Minimized uncertainty, avoided systematic over or under quantification of greenhouse gas emissions.

Appendix

Emission factors

Source of emission	Emission factor reference[5]
Fuel	Department for Environment, Food & Rural Affairs in the UK (DEFRA)
Electricity	DEFRA, Vattenfall, International Energy Agency, Swedish Energy Markets Inspectorate
Heating	Swedish District Heating Association, Fernvärme Zurich
Air travel	Swedish Transport Administration, IPCC
Other travel	DEFRA, International Energy Agency, Taxi Stockholm, Destination Gotland, Zero Carbon Australia – High Speed Rail

[5] South Pole Group derives its emission factors from reliable and credible sources. South Pole Group is not responsible for inaccuracies in emission factors provided by third parties.