

# *SSE's Economic Contribution to the UK*

May 2014





# Contents

---

Foreword by SSE	4
Executive summary	5
<b>1</b> Introduction	7
<b>2</b> SSE's contribution to GDP and employment	11
<b>3</b> SSE's contribution to capital expenditure	21
<b>4</b> SSE's contribution to tax revenue	30
<b>5</b> Concluding remarks	37
Appendices	39

---

---

## ***Foreword***

### **Alistair Phillips-Davies, CEO, SSE plc**

SSE is involved in a business that really matters. Delivering energy to people's homes, making sure families are warm and powering Britain's businesses matters to everyone in the UK so we must do it responsibly.

SSE is a British and Irish company. It is headquartered in Scotland, is listed on the London Stock Exchange and invests and operates only in the Irish and GB energy markets. It has over 9 million customers, generates 10% of Britain's energy – and is Britain's largest producer of renewable energy.

While I have long known that SSE makes an important contribution to the GB and Irish economies – we have never asked – how much?

SSE often reports what it is doing, for example, that it invests around £1.5bn a year in essential energy infrastructure or that it takes steps to help local supply chains. But what impact do all those steps actually make? A responsible company should ask that question – not simply because the answer is interesting but because the answer may be instructive too.

That is why SSE has asked PwC to undertake this Economic Impact Study. So we can properly understand the contribution SSE makes to the British economy. If we understand the contribution then we might be in a better position to enhance it – not just by the fact that we invest in people and assets – but the way we invest in them too.

The report by PwC tells us that SSE contributed £9.1bn to the UK economy in 2012/13, that for every one person SSE employs, almost 5 other jobs are supported in the UK economy. We also know that the productivity of SSE's employees is two-and-a-half times the national average. These are significant economic impacts and important to the UK economy as a whole.

I am also very clear, that SSE's impacts are not simply about the creation of wealth and jobs. There are very many other impacts that are just as important, although, perhaps less easy to quantify.

This report is a first step of a plan for SSE to be increasingly transparent and open about the sustainability impact of its activities. We aim to be responsible in all that we do – being transparent means we are serious about it.



# Executive summary

## Purpose

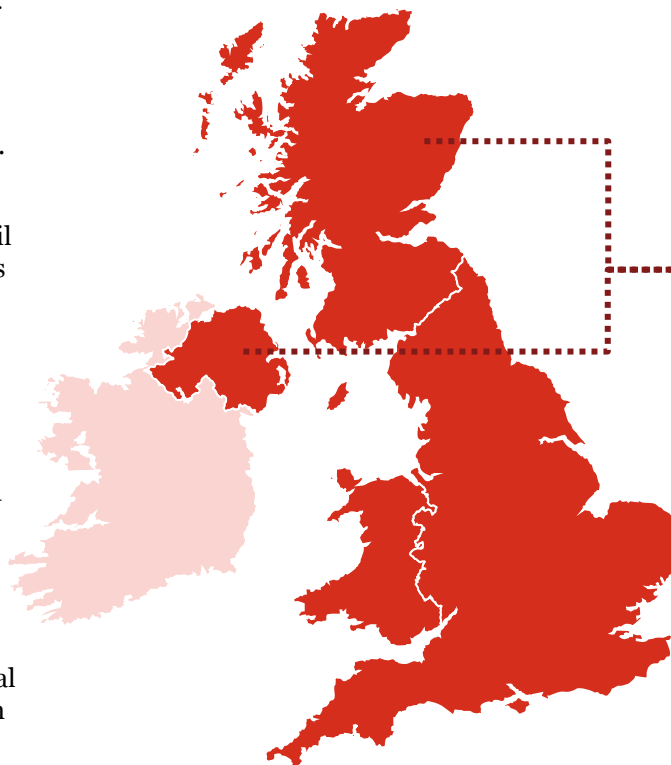
This is a PwC study commissioned by SSE plc, a major energy company operating in the UK and Republic of Ireland. This study explores the size and significance of the economic and tax contributions of SSE in the UK. The purpose of this report is to support both SSE and its stakeholders in furthering their understanding of the economic value that the company brings to society so that it can be enhanced.

## Scope of analysis

This study covers the Networks, Wholesale and Retail business units of SSE. The four main value indicators that we estimated through this study are SSE's contribution in FY12 and FY13 to Gross Domestic Product (GDP), employment, capital expenditure and tax revenue in the UK. The economic contribution is then broken down for Scotland and Northern Ireland. These indicators are measured in gross terms and do not take into account what would have happened in the absence of SSE. Other economic, social and environmental impacts are outside of the scope of the study.

## Methodology

We applied Input-Output modelling to SSE's financial and procurement data to estimate SSE's contribution to GDP and jobs in the UK. PwC's Total Tax Contribution methodology was used to measure all taxes borne and collected by the company in the UK.



## Key findings – in FY13 SSE:

### GDP and employment contributions

- Contributed **£9.10 bn to UK GDP** (equivalent to 0.7% of total GDP).
- Supported **112,200 jobs in the UK** (equivalent to 0.4% of total UK employment).

- SSE's average employee productivity of £121,500 is **2.6 times** the national average.
- For every SSE employee, another **4.8** people are employed elsewhere in the UK.
- SSE contributed **£1,400m to Scottish GDP** and supported a total of **16,900 jobs**.
- SSE contributed **£300m to the GDP of Northern Ireland** and supported **3,750 jobs**.

### Capital expenditure

- Invested **£1.5bn in fixed capital assets** (equivalent to just under 0.7% of total UK capital expenditure in 2012 and 9.2% of capital expenditure by the *electricity, gas and water* sector in the same year).

### Total Tax Contribution

- Contributed **£536m to tax revenue** as cash payments for taxes borne and collected.
- SSE ranked **22<sup>nd</sup> among 100 Group companies** in terms of taxes borne.



Source: SSE



# *Introduction*

## **This section covers:**

- Purpose of the study
- Scope of analysis
- About SSE

# *1*

## ***Purpose of the study***

SSE operates in a regulated industry that has the task of balancing long-term energy security, affordability and decarbonisation in the UK. In the face of increasing energy prices, long term competitiveness and political debate around climate change, the industry has been under increased scrutiny to demonstrate the value that it brings to society through the responsible use of energy bill payers money.

The findings of the report aim to support both SSE and its stakeholders to further their understanding about the company’s absolute contributions, but most importantly what these mean when contextualised and benchmarked. This study helps SSE to get a better perspective of what drives its impacts and the strategic levers it can pull to enhance its direct and indirect economic contribution going forward.

The report examines the size and significance of SSE’s economic and tax contributions in the UK. We have carried out our analysis independently focusing on answering the following questions:

- What is SSE’s contribution to the GDP of the UK?
- How many jobs are supported by SSE in the UK?
- What is SSE’s contribution to capital expenditure in the UK?
- What is SSE’s total contribution to tax revenue in the UK?
- What is the significance of such contributions?

SSE generates a wide range of other economic, social and environmental impacts which have not been covered in this report. These include securing affordable future energy supply in the UK, building technical skills and capacity in the UK workforce, and helping the UK to achieve its renewable energy targets. SSE has already taken steps towards measuring some of these impacts and plans to continue in a direction that increases transparency and helps to constantly improve its operations.



## Scope of analysis

### The study covers the following elements of scope:

- **Indicators:** SSE’s contribution to GDP, employment, capital expenditure and tax revenue.
- **Business units:** All are covered including SSE’s Networks, Wholesale and Retail business units.
- **Geography:** UK economic and tax contributions are the focus of the study but a breakdown of the economic contribution to Scotland and Northern Ireland is also provided.
- **Time period:** The years of analysis are SSE’s financial years 2011/12 (FY12) and 2012/13 (FY13) (running from 1 April to 31 March). The analysis is not forward-looking and does not take into account any developments since the end of FY13 .
- **Case studies:** The report also includes two case studies of the impacts of relevant capital investments by SSE, including a transmission line and a wind farm.

### Limitations

This report focuses on contributions only and represents a gross analysis which does not take into account the extent to which part of these contributions might have happened anyway in the absence of SSE. Data on capital expenditure, direct employment, supply chain purchases, financial accounts and cash payments made to the Exchequer were requested and received from SSE and have not been audited by PwC. We estimated contributions to GDP and employment supported in SSE’s supply chain and the wider economy using an Input-Output model. We round figures throughout the report for presentational purposes. More details about our economic contribution approach can be found in Section 2 and in Appendix A to this report.

<sup>1</sup> Note the four value indicators presented in this report are not additive. GVA and employment are two different ways of assessing the size of a company’s contribution. Taxes are, in large part, a subset of GVA. Capital expenditure is one of the financial transactions used to estimate SSE’s supply chain contribution (as expenditure on fixed assets generates economic activity).

<sup>2</sup> GVA is a measure of the value generated in the economy by a company or productive sector and represents the difference between the value of goods and services produced and the goods and services used as an input to this production. Hence, it is the company- and sector-level equivalent of GDP and adding up the GVA of all individual sectors or organisations in the economy gets you to a country’s GDP.

**Table 1.1: Indicators measured in this report<sup>1</sup>**

Indicator covered in the study	Measured as...	Methodology	Section of report
<b>Contribution to GDP</b>	Gross Value Added (GVA), which is the company-level equivalent of GDP <sup>2</sup>	Input-Output modelling	<b>2</b> (UK and breakdowns for Scotland and Northern Ireland)
<b>Employment supported</b>	Headcount	Input-Output modelling	<b>2</b> (UK and breakdowns for Scotland and Northern Ireland)
<b>Capital expenditure</b>	Cash capital additions to fixed tangible (Property, Plant and Equipment) and intangible assets	N/A	<b>3</b> (UK only)
<b>Contribution to tax revenue</b>	Cash payments to the Exchequer for either taxes borne or collected by the company	PwC’s Total Tax Contribution (TTC)	<b>4</b> (UK only)

Details of the methodologies can be found in the appendices

## About SSE

SSE (“the company”) is one of the largest companies in the UK, listed in the FTSE100, and the only major energy provider which is both UK headquartered and operates exclusively in the UK and Republic of Ireland. Its core purpose is to ‘provide the energy people need in a reliable and sustainable way’<sup>3</sup> through its involvement predominantly in the generation, transmission, distribution and supply of electricity, as well as the production, storage, distribution and supply of gas. SSE’s business is organised into three segments. In FY13, SSE’s operating profit was £670.2m and it employed a total of over 19,700 people across the UK and Ireland. SSE generated almost half of its operating profits through its Networks business (49%), followed by Wholesale (28%) and Retail (23%).



Source: SSE

<sup>3</sup> Source: SSE

<sup>4</sup> SSE’s involvement in the gas market is through Scotia Gas Networks, in which it has a 50% stake. The analysis in this report does not take into account SSE’s interest in jointly controlled companies unless they act as suppliers to SSE Group companies.

**Table 1.2: SSE’s business**

Business unit	Share of FY13 operating profit
<b>Networks</b>	<b>49%</b>
Transmission and distribution of electricity:	
<ul style="list-style-type: none"> <li>covers 130,000km of overhead lines and underground cables</li> <li>connects to 3.7m homes and businesses.</li> </ul>	
Its gas network <sup>4</sup> covers:	
<ul style="list-style-type: none"> <li>covers 75,000km of gas mains</li> <li>connects to 5.7m homes and businesses.</li> </ul>	
<b>Wholesale</b>	<b>28%</b>
Production and storage of gas, generation of electricity and energy portfolio management. SSE’s electricity generation capacity is one of the UK’s largest with around 12,000MW capacity in the UK and Republic of Ireland, or about 12.5% of the combined capacity of 96,000MW for the two countries in 2012. 3,200MW of SSE’s generation capacity uses renewable energy, which represents about 20% of the 16,000MW of total UK and Irish renewable energy capacity in 2012.	
<b>Retail</b>	<b>23%</b>
Supply of electricity and gas and other services such as electrical contracting to business and household customers. This covers:	
<ul style="list-style-type: none"> <li>more than 9m household and business customer accounts</li> <li>six brands: SSE, Scottish Hydro, Southern Electric, SWALEC, Atlantic and Airtricity.</li> </ul>	

Source: SSE, UK Department for Energy and Climate Change, Eirgrid



# *SSE's contribution to GDP and employment*

## **This section covers:**

- SSE's contribution to GDP
- SSE's support of employment
- Two case studies on SSE's contribution to Scottish and Northern Irish GDP and employment

# 2



## ***SSE's contribution to UK GDP and employment***

For every person employed by SSE directly, another **4.8** were employed elsewhere in the UK economy in FY13.

At £121,500 in FY13, SSE's average employee productivity was **2.6** times the UK national average.



In FY13, SSE contributed **£9.10bn** to UK GDP and supported **112,200** jobs in the UK. This represented **0.7%** and **0.4%** of the UK total GDP and employment for that year, respectively.

### **Focus: Contribution to the Scottish economy (page 19)**

In FY13, SSE contributed **£1,400m** to Scottish GDP and supported **16,900** jobs.

### **Focus: Contribution to the Northern Irish economy (page 20)**

In FY13, SSE contributed **£300m** to Northern Irish GDP and supported **3,750** jobs.



## Introduction and key findings (1/2)

This section discusses SSE’s economic contribution to the UK using two indicators:

- Contribution to GDP: Measured in terms of Gross Value Added (GVA)
- Employment supported: Expressed as number of jobs (headcount)

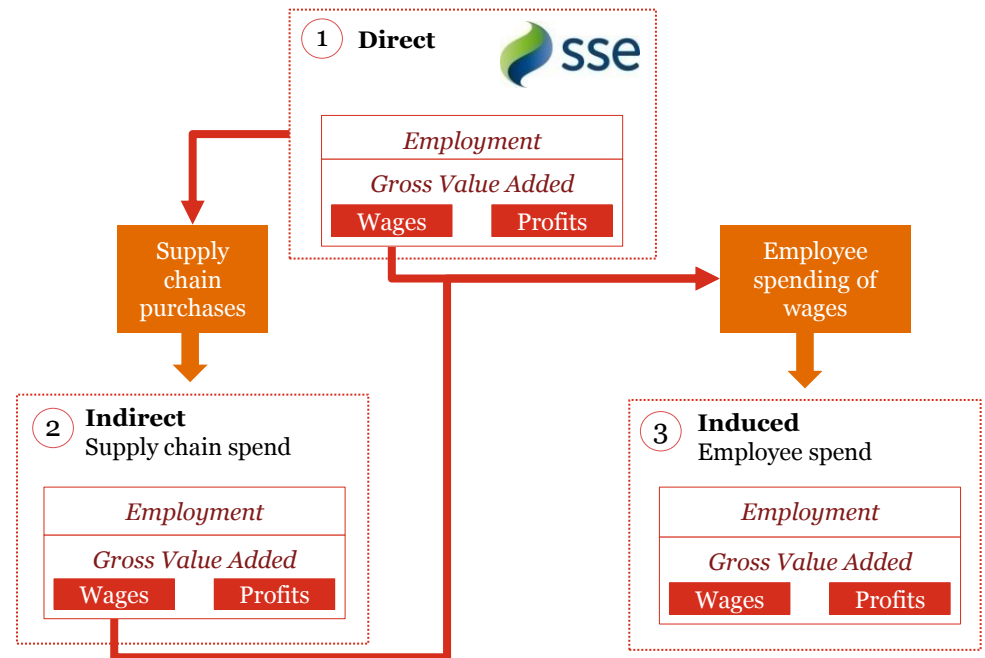
GVA is a measure of the value generated in the economy and represents the difference between the value of goods and services sold and the goods and services used as an input to their production. Hence, it is the company-level and sector-level equivalent of GDP and adding up the GVA of all individual sectors in the economy gets you to a country’s GDP.<sup>1</sup>

GVA is distributed as profit and wages. SSE’s direct contribution to GDP can, therefore, be calculated from its financial statements by adding earnings before interest, tax, depreciation and amortisation (EBITDA) and employee compensation.

The contribution to GDP and employment are both divided into three tiers:

- 1. Direct contribution:** The increase in GDP and employment as a result of supply of SSE’s goods and services
- 2. Supply chain spend contribution (indirect):** The increase in GDP and employment from SSE’s demand for goods and services from its suppliers and their suppliers. This is often known as ‘indirect contribution’
- 3. Employee spend contribution (induced):** The increase in GDP and employment in the wider economy as a result of wages being spent by employees of SSE and of its suppliers. This is often known as ‘induced contribution.’

**Figure 2.1: The relation between the three tiers of economic contribution**



Source: PwC

<sup>1</sup> After adjusting for taxes and subsidies on products, a component of GDP which is not included in the calculation of GVA.



## ***Introduction and key findings (2/2)***

Both the supply chain and employee spend contributions to GDP and employment are estimated using Input-Output modelling. For this we have collected data from SSE on how much it spends on goods and services for both its operating and capital expenditure.

This section first discusses the contribution to the UK economy and then breaks this down at a sub-national level for Scotland and Northern Ireland.

A more detailed explanation of our methodology can be found in Appendix A of this report.

### **Key findings<sup>2</sup>**

- SSE supported a total of 112,200 jobs in FY13, of which 19,200 were direct employees of SSE.
- This implies that for every SSE employee in the UK, there are 4.8 jobs supported elsewhere in the economy as a result of procurement and wage spending. This employment multiplier of 5.8 is higher than the UK average of 3.1.
- We estimate that SSE contributed £9.10bn to UK GDP in FY13. £2.33bn of the total was generated by SSE’s own operations.
- SSE’s average employee productivity of £121,500 in FY13 is 2.6 times the UK national average of £46,900.<sup>3</sup>
- The *crude oil, natural gas, and metal ore* sector benefits the most from SSE’s supply chain spending, followed by the *electricity* and *construction* sectors.
- SSE contributed £1,400m to Scottish GDP and supported 16,900 jobs in Scotland.
- SSE contributed £300m of Northern Irish GDP and supported 3,750 jobs in Northern Ireland.

<sup>2</sup> Throughout this section and the rest of the report we present rounded data for presentational purposes. This means that some numbers may not exactly match any equivalent numbers SSE reports in its financial accounts. It is also important to note that any derived statistics, such as multipliers or sector shares, are calculated on the basis of the underlying data, not the rounded totals presented in this report.

<sup>3</sup> Average employee productivity is defined as Gross Value Added per employee.



## SSE’s direct contribution to the UK economy

In FY13, SSE employed **19,200 people in the UK**. Employment is spread throughout the UK, with about 58% of staff based in England, 32% in Scotland and the rest divided between Wales and Northern Ireland.

SSE employed a wide range of different skill sets, including engineers, technicians, business administration staff and customer support personnel. The largest share of staff was employed by SSE’s Retail business, followed by Networks and Wholesale.

**SSE’s direct contribution to GDP in FY13 amounted to £2.33bn.**<sup>4</sup> This is equivalent to approximately 12% of the *electricity, gas, steam and air conditioning* sector.<sup>5</sup>

Combining SSE’s direct contribution to GDP and the size of its workforce implies that SSE’s average employee productivity was £107,300 in FY12, increasing to £121,500 in FY13. This compares to just under £46,900 for the UK in 2012, which means SSE’s average productivity is 2.6 times the national average.<sup>6</sup>

**SSE’s average employee productivity in FY13 was 2.6 times the UK national average of £46,900.**

**Figure 2.2: Direct contribution to employment**



Source: SSE, PwC analysis

**Figure 2.3: Direct contribution to GDP**



Source: SSE, PwC analysis

<sup>4</sup> SSE’s direct contribution to GDP is estimated from data contained in its financial accounts that are prepared on an accruals basis for the financial year.

For a more detailed description of the approach used in this section, please refer to Appendix A of this report.

<sup>5</sup> Source: ONS, PwC analysis. Sector size measured in terms of GVA.

<sup>6</sup> Source: ONS. Average employee productivity is defined as Gross Value Added per employee.





## SSE’s employee compensation

An important component of SSE’s direct contribution to GDP is employee compensation, which includes wages and salaries, social security costs, pension contributions and share-based remunerations.

In FY13, SSE paid out a total of £0.76bn in total employee compensation in the UK. Of this, £0.62bn in FY13 was paid as wages and salaries. Dividing this equally between SSE’s UK employees shows that SSE paid an average wage of £31,300 that year. In FY12, SSE’s average wage was £30,600 for each of SSE’s 18,900 UK employees.

SSE’s average wage was above the UK mean average of £26,700. SSE’s average wage sits between that of the *all service industries* and *electricity, gas, steam and air conditioning* sectors of the UK economy. This is consistent with the makeup of SSE’s business, which includes for example UK-based call centre workers in its Retail business as well as technicians in its Wholesale business.

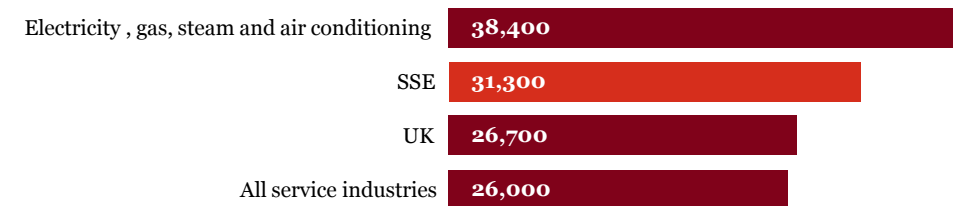
In comparison with the 100 Group<sup>7</sup>, SSE was ranked in the bottom third for average wages per employee. This is consistent with SSE employing a large workforce who are paid, on average, more than the UK average but less than most large companies in the UK. In September 2013, SSE became one of the biggest UK companies to sign up as a living wage employer, guaranteeing all of its employees a wage of at least £7.45 an hour.<sup>8</sup>

**Figure 2.4: Total employee compensation**



Source: SSE, PwC analysis

**Figure 2.5: Comparing SSE’s mean average wage against UK mean averages**



Source: ONS, SSE, PwC analysis

<sup>7</sup> For the last nine years we have carried out a survey with the 100 Group of Finance Directors (whose members are mainly the FTSE 100 and UK largest private companies) to collect data on all the UK taxes that they bear and collect as well as other key financial indicators such as employee compensation and capital expenditure. The anonymised and collated survey results are shared with government and other stakeholders and published into the public domain. Throughout this report, we use the 100 Group, or a subset thereof, for benchmarking.

<sup>8</sup> Source: BBC



## Section 2 – SSE’s contribution to GDP and employment

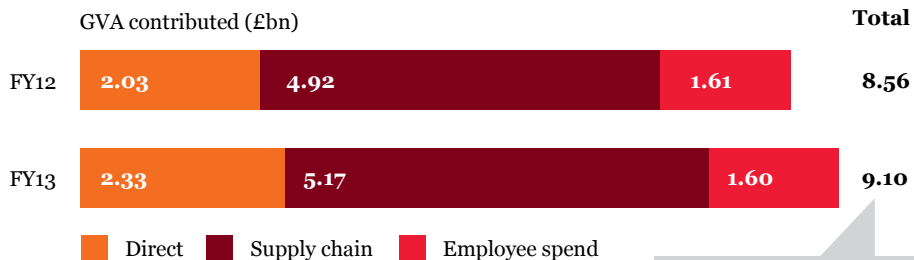
# Total contribution to UK GDP



We estimate that in FY13 SSE’s total contribution to UK GDP was £9.10bn, which was equivalent to nearly 0.7% of UK GDP.<sup>9</sup> On average between FY12 and FY13, 26% of this contribution was from SSE’s direct operations, 56% resulted from its supply chain spend and 18% resulted from spending by its employees and those of its suppliers.

In FY13, the sector benefitting the most from SSE’s supply chain spend was the *crude oil, natural gas, and metal ores* sector, to which we estimate SSE contributed £0.86bn of GVA. We estimate that this is equivalent to 3.4% of the sector in 2012.<sup>10</sup> The second largest beneficiary from SSE’s supply chain spending was the *electricity* sector with £0.64bn, due in part to payments made to distribution and transmission network operators for use of their infrastructure. The third largest beneficiary was the *construction* sector, to which we estimate SSE’s supply chain spending contributed £0.46bn of GVA.

**Figure 2.6: Total contribution to GDP**



Equivalent to **0.7%** of UK GDP in 2012

Source: SSE, PwC analysis

<sup>9</sup> Source: ONS, PwC analysis. UK GDP measured at factor cost.

<sup>10</sup> Source: ONS, PwC analysis. Sector size measured in terms of GVA.

**Table 2.1: Top sectors in terms of supply chain GDP contribution**

Sector	GVA contributed (£bn)	
	FY13	FY12
Crude oil, natural gas, and metal ores	0.86	0.82
Electricity	0.64	0.65
Construction	0.46	0.37
Financial services, except insurance and pension	0.41	0.24
Gas	0.28	0.02
All other sectors	2.52	2.82
<b>Total</b>	<b>5.17</b>	<b>4.92</b>

Source: SSE, PwC analysis. Note that the above ranking is based on the top 5 sectors in FY13



# Total contribution to UK employment



We estimate that in FY13 SSE supported 112,200 jobs in the UK, which represents 0.4% of total UK employment. Given SSE’s direct payroll of 19,200 employees, this implies that for every SSE employee another 4.8 people were employed elsewhere in the UK.

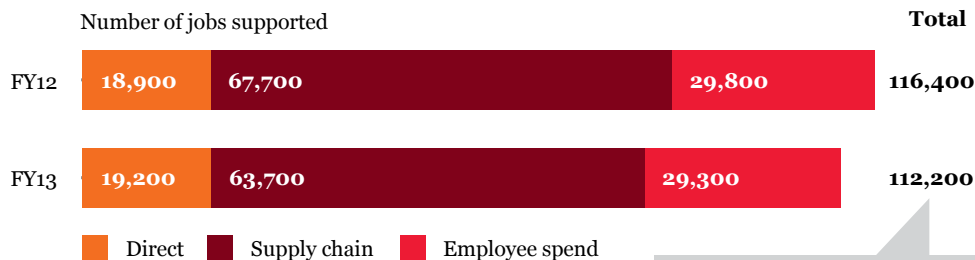
The largest beneficiary of SSE’s supply chain spend in terms of employment was the *construction* sector. We estimate SSE supported 6,700 jobs in this sector, which represents 0.5% of the sector’s total. This can be explained as SSE is a major investor in fixed assets such as network infrastructure (for more detail on this, please refer to Section 2).

**Figure 2.7: SSE’s employment multiplier in the UK**



Source: SSE, PwC analysis

**Figure 2.8: Total employment supported**



Equivalent to **0.4%** of UK employment in 2012

Source: SSE, PwC analysis

**Table 2.2: Top sectors in terms of employment supported by SSE’s supply chain**

Sector	Number of jobs supported FY13	Number of jobs supported FY12
Construction	6,700	5,400
Services auxiliary to finance and insurance	4,600	10,600
Electricity	4,300	4,500
Employment services	3,200	2,900
Head office and management consulting	3,000	2,500
All other sectors	41,900	41,800
<b>Total</b>	<b>63,700</b>	<b>67,700</b>

Source: SSE, PwC analysis. Note that the above ranking is based on the top 5 sectors in FY13



# Focus

## Contribution to Scottish GDP and employment



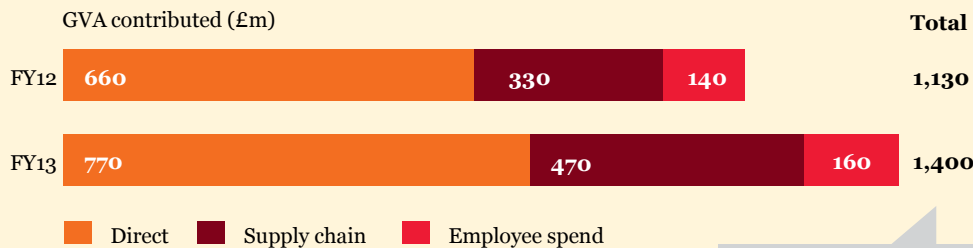
SSE’s contribution to Scottish GDP in both FY12 and FY13 was largely driven by the GVA it generated itself. We estimate that in FY13 SSE’s operations in Scotland made a direct contribution of £770m to Scottish GDP, as part of a total contribution of £1,400m.

We estimate that SSE’s supply chain contributed £470m to Scottish GDP. We estimate that spending by employees of SSE and those in its Scottish supply chain contributed a further £160m to GDP in Scotland. The total contribution of £1,400m to Scottish GDP in FY13 is equivalent to approximately 1.4% of the GDP of Scotland.<sup>11</sup> SSE contributed an estimated £1,130m to Scottish GDP in FY12.

We estimate that in FY13 SSE supported a total of 16,900 jobs in Scotland, which is equivalent to 0.7% of Scotland’s employment in 2012.<sup>12</sup> SSE’s direct employment accounts for 6,100 of these jobs.

The sectors that benefited most in terms of employment support through SSE’s procurement were the *electricity* sector (13% of supply chain employment) and the *construction* sector (8%).

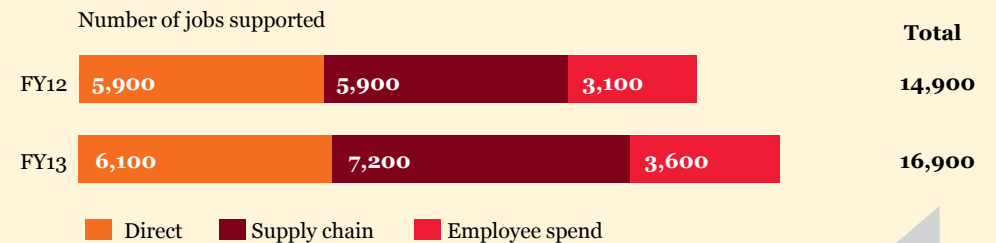
**Figure 2.9: Total contribution to Scottish GDP**



Equivalent to 1.4% of Scottish GDP in 2012

Source: SSE, PwC analysis

**Figure 2.10: Total Scottish employment supported**



Equivalent to 0.7% of Scottish employment in 2012

Source: SSE, PwC analysis

<sup>11</sup> Source: ONS, PwC analysis. Scottish GDP measured at factor cost.

<sup>12</sup> Source: ONS



# Focus

## Contribution to Northern Irish GDP and employment



In Northern Ireland, the major contribution SSE made to GDP was through its supply chain spending. We estimate that in FY13, SSE’s operations contributed around £8m to Northern Irish GDP, but the company contributed £242m to GDP through its supply spending. In FY12, supply chain GVA totalled £193m.

SSE’s own operations in Northern Ireland are limited, but it purchased a large amount of goods and services from Northern Ireland. The majority (86%) of SSE’s procurement is from the *electricity, gas and water* sector and relates to payments for embedded energy generation and network usage charges.

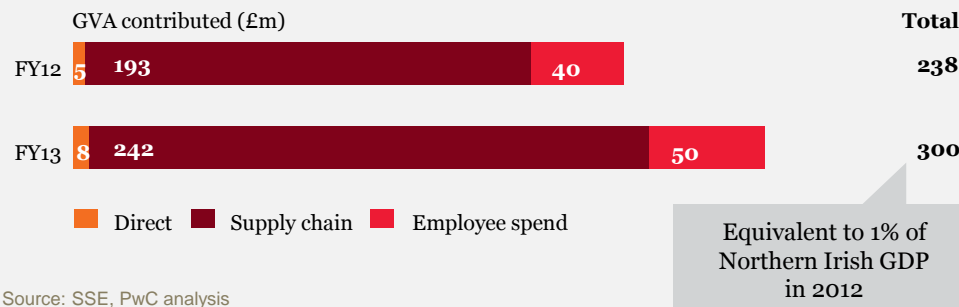
The contribution to GDP through wage spending of employees is, therefore, largely driven by employees in SSE’s Northern Irish supply chain. This contribution totalled an estimated £50m of GVA in FY13, bringing the total contribution to the Northern Irish economy to £300m. This is equivalent to around 1% of Northern Irish GDP in 2012.<sup>13</sup>

In line with SSE’s contribution to Northern Irish GDP, the vast majority of its support of employment is in its supply chain. At the end of FY13, SSE only had a small presence in Northern Ireland, employing 100 people. Although this was a significant increase compared to the 60 people employed in FY12, it is only a small fraction of total employment.

We estimate that SSE supported a total of 3,750 jobs in Northern Ireland in FY13, equivalent to 0.5% of employment in Northern Ireland in 2012.<sup>14</sup> 2,380 of these jobs were supported in SSE’s supply chain. The wage spend of these employees is the main reason for the further 1,270 estimated jobs supported through employee spend.

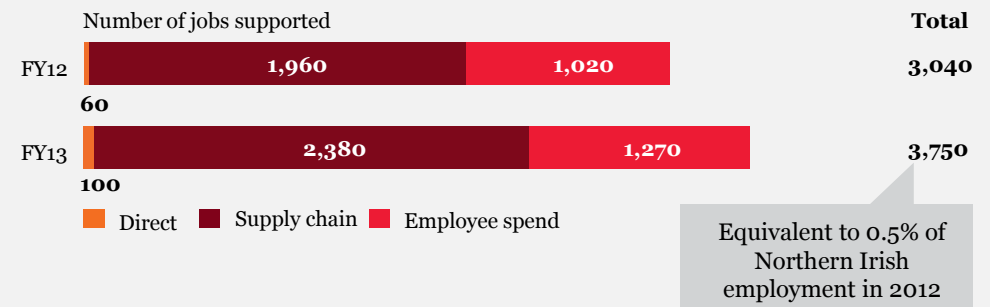
As a large part of SSE’s supply chain in Northern Ireland consists of transmission and distribution networks, 40% of the jobs supported by SSE’s supply chain were in the *electricity, gas, and water* sector. This is followed by the *construction* (17%) and *financial and business services* (12%) sectors.

**Figure 2.11: Total contribution to Northern Irish GDP**



Source: SSE, PwC analysis

**Figure 2.12: Total Northern Irish employment supported**



Source: SSE, PwC analysis

<sup>13</sup> Source: ONS, PwC analysis. Northern Irish GDP measured at factor cost.

<sup>14</sup> Source: Department of Enterprise, Industry and Trade of Northern Ireland, PwC analysis



# *SSE's contribution to capital expenditure*

## **This section covers:**

- SSE's capital expenditure
- Comparison of SSE's capital expenditure against UK total and the 100 Group
- Two infrastructure project case studies

# 3



## ***SSE's contribution to capital expenditure***

In FY13, SSE's capital expenditure on tangible and intangible fixed assets in the UK amounted to **£1.5bn**, which is equivalent to 0.7% of total UK capital expenditure in 2012 and 9.2% of capital expenditure by the *electricity, gas and water* sector in the UK in the same year.



### **Focus: Beaulieu-Denny transmission line (page 26)**

The ongoing upgrade of the Beaulieu-Denny transmission line contributed a total of **£193m to GDP** and supported **5,010 person years** between May 2010 and November 2012.



### **Focus: Fairburn wind farm (page 28)**

In 2010, SSE constructed a wind farm at Fairburn, which contributed an estimated **£12.4m to GDP** and supported **310 person years**.





## ***Introduction and key findings***

SSE’s business activities are capital-intensive and it owns significant capital assets throughout the UK, including: generation, transmission and distribution assets; land; and commercial property. In 2010, SSE committed to a long-term capital expenditure programme by investing in areas such as transmission infrastructure and renewable energy assets.

In this section we describe SSE’s capital expenditure in FY12 and FY13 and compare it against overall capital expenditure in the UK; capital expenditure by SSE’s own sector; and that of peers from the 100 Group.

In addition, this section also includes case studies on two of SSE’s capital investment projects. The first is the Beaulieu-Denny 400kV transmission line, a large infrastructure construction project in Scotland that is still ongoing. The second is Fairburn wind farm, a 20-turbine development constructed in 2010. For both projects we present the gross economic contribution made by these projects during the construction phase, using the same metrics as in Section 2.

### **Key findings**

- SSE’s total capital expenditure in FY13 was £1.5bn.
- 80% of SSE’s capital expenditure in FY13 was on tangible fixed assets, including power generation assets, gas storage and production, network assets and meters. The other 20% related to expenditure on intangible fixed assets.
- In FY13 SSE’s Wholesale business accounted for just over half of capital expenditure, followed by the Networks business which accounted for 40%.
- SSE’s capital expenditure in FY13 was equivalent to 0.7% of total capital expenditure in the UK and around 1.2% of capital expenditure by the private sector.
- Capital expenditure by the *electricity, gas and water* sector in the UK was around £16bn in 2012, implying that SSE’s capital expenditure is equivalent to 9.2% of total investment by its own sector.
- When ranking SSE against capital expenditure on tangible fixed assets by companies from the 100 Group it ranked 6 out of 86 among all reporting companies and 4 out of 9 for the reporting companies from the *energy, utilities* and *telecom* sectors in FY13.

<sup>1</sup> We define capital expenditure as the sum of Capital Additions to Property, Plant and Equipment (PP&E) and Capital Additions to Intangible Assets as reported in SSE’s financial accounts. Taken together, these indicators form the company-equivalent to the definition the UK Office for National Statistics (ONS) uses for capital expenditure. For a more detailed description of the approach used in this section, please refer to Appendix B of this report.



## SSE’s capital expenditure in FY12 and FY13

In FY13, SSE spent a total of £1.5bn on tangible and intangible fixed assets in the UK. The vast majority (80%) of this related to expenditure on tangible fixed assets.

The company’s Wholesale business was responsible for the majority (52%) of its capital expenditure.<sup>2</sup> This part of SSE’s business in recent years has predominantly invested in renewable energy generation assets. In FY13, these projects included the Keadby wind farm in England, the Calliacher wind farm in Scotland and the Glenconway wind farm in Northern Ireland. In the same year, the Wholesale business also invested in thermal generation assets, including a £300m multifuel power plant at Ferrybridge in Yorkshire.

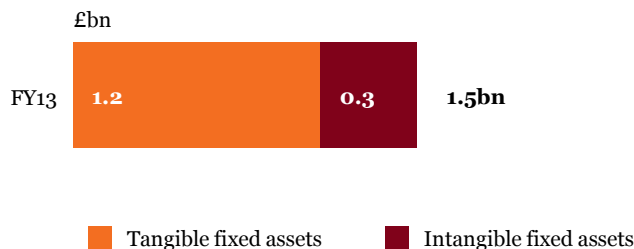
The second largest share of capital expenditure was by SSE’s Networks business, which invests in both transmission and distribution infrastructure. In FY13, important projects included the upgrade of the Beaulby-Denny transmission line (see the case study in this section) and distribution system upgrades such as the undergrounding of high voltage cables between Bracknell and Camberley in England. SSE states that its Networks business will require the biggest proportion of capital expenditure over the period up to 2015.<sup>3</sup>

<sup>2</sup> Source: SSE

<sup>3</sup> Source: SSE

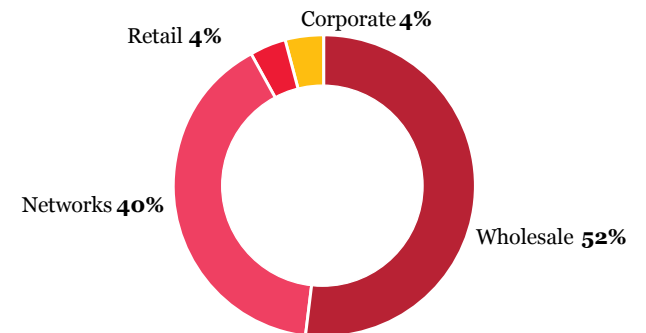
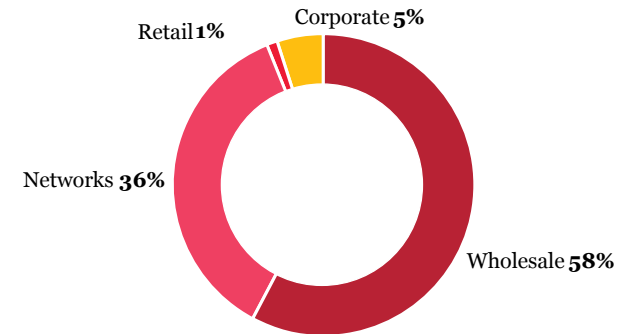
<sup>4</sup> Note we apportioned capital expenditure across business units on the basis of SSE’s segmental reporting of capital additions before any adjustments for prepayments, trade payables and other non-cash additions,

**Figure 3.1: Total capital expenditure in FY12 and FY13**



Source: SSE, PwC analysis

**Figure 3.2: Capital expenditure share by Business Unit (percentage)<sup>4</sup>**



Source: SSE, PwC analysis



## Benchmarking SSE’s capital expenditure against the 100 Group and UK totals

We compared SSE’s UK capital expenditure on tangible fixed assets<sup>8</sup> with the capital expenditure in the UK by 100 Group companies.<sup>9</sup> In FY13, the 100 Group contributed around £19bn to UK capital expenditure on tangible fixed assets. Of this group, SSE ranked 6 out of 86 reporting companies in terms of its capital expenditure in the UK. Compared to SSE’s reporting peers from the *energy*, *utilities* and *telecom* sectors, its absolute rank was 4 out of 9.

In addition to companies from the 100 Group, we compared SSE’s capital expenditure against total capital expenditure in the UK. In 2012, total capital expenditure in the UK amounted to just over £224bn and was made up of expenditure by businesses, households and the government on tangible and intangible fixed assets.<sup>10</sup>

**Figure 3.3: SSE’s capital expenditure in FY13 relative to the 100 Group**



Ranked **6 out of 86** for all reporting 100 Group companies



Ranked **4 out of 9** for all reporting 100 Group *energy*, *utilities* and *telecom* companies

Source: PwC 100 Group survey

<sup>8</sup> For the purpose of the 100 Group comparison only, we look at capital expenditure on tangible fixed assets, as measured by Capital Additions to PP&E. This is a subset of the total figure for capital expenditure reported earlier in this section and used in the UK total capital expenditure comparison. For more information on the methodology used refer to Appendix B.

<sup>9</sup> Source: PwC 100 Group survey.

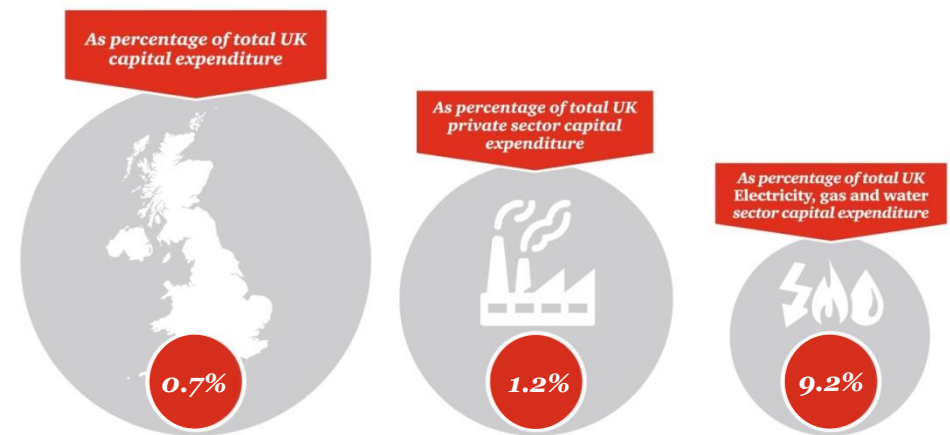
<sup>10</sup> Source: ONS. We compare SSE’s capital expenditure on tangible and intangible fixed assets against Gross Fixed Capital Formation and Business Investment.

<sup>11</sup> Idem

SSE’s total UK capital expenditure of £1.5bn in FY13 is equivalent to 0.7% of total capital expenditure in the UK.

Private sector businesses account for just over half of total capital expenditure in the UK, amounting to just over £121bn in 2012. SSE’s capital expenditure in FY13 is, therefore, equivalent to around 1.2% of total private sector business investment in the UK.<sup>11</sup> This share increases to 9.2% when SSE investment is considered in the context of capital expenditure by businesses from its own industry, the *electricity, gas and water* sector.

**Figure 3.4: SSE’s capital expenditure in FY13 relative to UK totals**



Source: ONS, SSE, PwC analysis



## Focus

# Beaully-Denny transmission line

**220 kilometres** of 400kV transmission line in central Scotland

Total expected investment of **£675m** (**£186m** of which was spent in the UK up to November 2012)

The total contribution to GDP and employment related to spend up to November 2012 was **£193m** of GVA and **5,010 person years** of employment<sup>5</sup>

### What is the Beaully-Denny project?

In 2010 SHE Transmission, a subsidiary company and economically-regulated entity of SSE, started work to upgrade one of its main transmission lines running between the towns of Beaully and Denny in Scotland. The upgrade involves the replacement of a 132kV line with a 400kV line to transmit renewable energy generated in the north of Scotland to other parts of the UK.

Construction work will complete in 2016, when over 220 kilometres of line will have been upgraded, 20 kilometres of which by Scottish Power Transmission who SHE Transmission are working with. The upgrade of the Beaully-Denny line is part of continued investment in the UK’s energy infrastructure mandated by Ofgem, the electricity market regulator in Great Britain. The Beaully-Denny project represents an important element of SSE’s capital expenditure programme with over £675m expected to be invested by SHE Transmission between 2010 and 2016,.

### What impacts are associated with the construction of the Beaully-Denny line?

The Beaully-Denny transmission line is expected to support long term energy security and decarbonisation in the UK, while the construction itself generates a range of economic, social and environmental impacts.

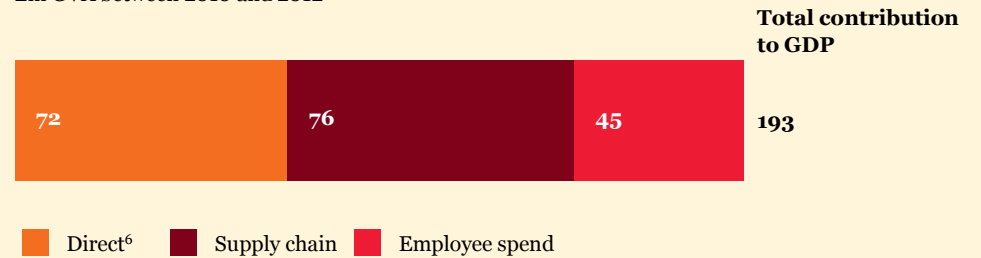
<sup>5</sup> A person year is the employment of a single person for the period of one year. It is the convention to use person years when reporting on the economic contribution of a capital expenditure project.

<sup>6</sup> For the purpose of this case study, direct contribution is defined as that created by SSE and its direct subcontractors (first tier suppliers). Note that the direct impact of capital expenditure on SSE as a company may be negative.

<sup>7</sup> Idem

**Figure 3.5: Contribution to GDP**

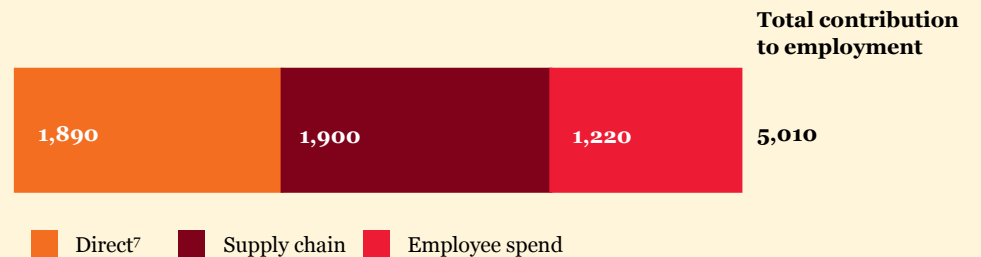
£m GVA between 2010 and 2012



Source: SSE, PwC analysis

**Figure 3.6: Employment supported**

Number of person years between 2010 and 2012



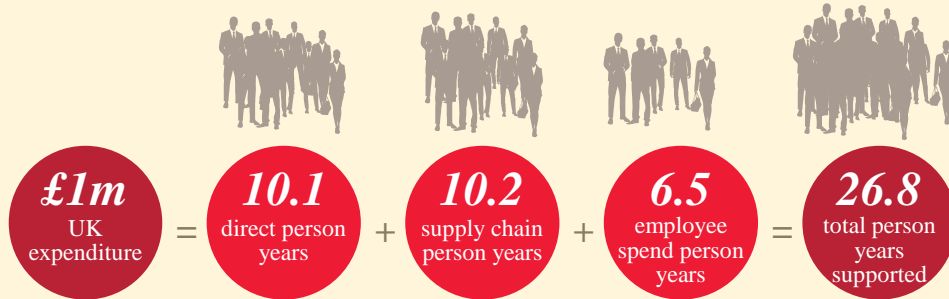
Source: SSE, PwC analysis



### Section 3 – SSE’s contribution to capital expenditure

With the aim to better understand the sustainability impacts that such capital projects have on society and to measure them using a consistent metric, SHE Transmission commissioned PwC to help identify the most material of these impacts and to develop an approach to put a monetary value on them.

Besides the contributions to GDP, employment and tax revenue, we identified other material economic, environmental and social impacts from construction activities. These included changes to landscape character and cultural heritage as well as changes in land use, air emissions (such as greenhouse gases), employee health and safety, and traffic patterns which also impact local businesses and communities.



Source: SSE, PwC analysis

Mitigating measures related to planning permission were also examined in order to understand how effective they were in limiting any negative impacts. This provides further insight into how to achieve value for money in the future.

### How does the UK economy benefit from the construction of the Beaulieu-Denny line?

Up to November 2012, around £262m had been spent by SHE Transmission on the project. £186m of this was spent with suppliers in the UK. The majority of spending on the project goes to SHE Transmission’s main contractor Balfour-Beatty, a large engineering firm headquartered in London. Around £50m was spent on other suppliers based in the UK, many of whom are Scottish.

We estimate that between the start of the project in May 2010 and November 2012, the project contributed a total of £193m of GVA to UK GDP, of which about £86m went to the Scottish economy. This supported 5,010 person years of employment in the UK in total, of which 1,500 were based in Scotland. This implies that, for every £1m of UK expenditure by SHE Transmission on the Beaulieu-Denny project, it supported a total of 26.8 person years of employment in the UK.



Source: SSE



## Focus

# Fairburn wind farm

20 onshore turbines in northern Scotland

Generation capacity of 40MW

Total capital expenditure of £48m

Total estimated contribution to GDP of £12.4m and 310 person years of employment<sup>12</sup> in 2010

### What is the Fairburn project?

The Fairburn wind farm is a 20 turbine, 40MW onshore wind farm built in 2010 with the capacity to provide electricity for two in five houses in the city of Inverness. The project will help the UK to meet its legal obligations under the European Renewable Energy Directive to increase the share of energy from renewable sources in gross final consumption.

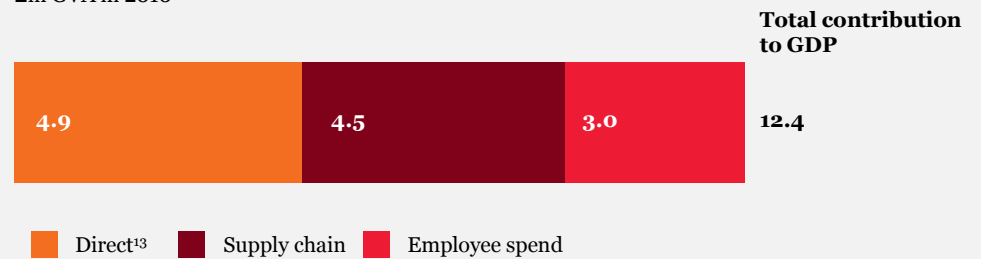
### What impacts does the Fairburn project create?

Following the Beaulay-Denny sustainability analysis (see previous case study), SSE wanted to better understand the sustainability impacts from constructing its wind farms and chose Fairburn as an example to study. SSE identified a number of economic, social and environmental outcomes associated with constructing and operating the wind farm.

SSE estimated that, over Fairburn’s 25 year operational life, the energy generated would displace at least 354,500 tonnes of CO<sub>2</sub>e, compared to conventional energy generation. SSE estimated that a one-off Energy Efficiency Fund of £150,000 could lead to annual energy savings worth £445 to £6,005 for the local community groups receiving a share of it. A Community Benefit Fund of £80,000 to support local community projects was also set up. SSE reported that, as of January 2014, over £345,000 had been granted to the local communities of Contin, Strathconon, Muir of Ord, Scatwell and Marybank. It was estimated that, over the life of Fairburn, communities would receive over £2m from the fund.

Figure 3.7: Contribution to GDP

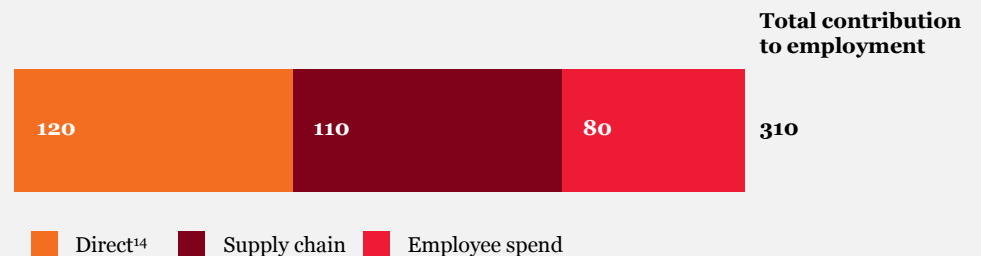
£m GVA in 2010



Source: SSE analysis

Figure 3.8: Employment supported

Number of person years between 2010 and 2012



Source: SSE analysis

<sup>12</sup> A person year is the employment of a single person for the period of one year. It is the convention to use person years when reporting on the economic contribution of a capital expenditure project.

<sup>13</sup> For the purpose of this case study, direct contribution is defined as that created by SSE and its direct subcontractors (first tier suppliers). Note that the direct impact of capital expenditure on SSE as a company may be negative.

<sup>14</sup> Idem





## Section 3 – SSE’s contribution to capital expenditure

### What is the gross economic contribution of Fairburn construction expenditure?

£48m was spent by SSE to construct Fairburn wind farm. £10.5m of this expenditure was within the UK, with over 99% of the remainder being spent on turbines which could only be sourced overseas as there was no UK wind turbine supplier. Although £10.5m is only just over 20% of total project cost, 45 of the 48 contractors and suppliers in the construction phase were UK-based companies.



Source: SSE analysis

The UK expenditure contributed a total of £12.4m to UK GDP, £8.3m of which accrued to the Scottish economy. It was estimated that this directly supported 92 person years of employment in Scotland and a further 25 person years elsewhere in the UK. Taking into account the person years supported in the rest of the economy SSE estimated that, in total, 310 person years of employment were supported in the UK. This implies that every £1m spent by SSE on the project in the UK supported 29.3 person years in total.<sup>15</sup>

### Supporting a local supply chain

As part of its commitment to developing strong local supply chains, shortly after finalising the construction of Fairburn wind farm, SSE invested to help establish Wind Towers (Scotland) in 2011– a manufacturing facility for high quality wind turbine towers based in Argyll, Scotland. The company now employs 130 people in the UK and supplies tower components for the majority of SSE’s wind farm developments in Scotland, including SSE’s 152 turbine Clyde wind farm.

<sup>15</sup> This ratio is significantly lower if considering overall project expenditure in and outside the UK to support jobs in the UK.



Source: SSE





# *SSE's contribution to tax revenue*

## **This section covers:**

- Taxes borne by SSE
- Taxes collected by SSE
- Comparison of SSE's Total Tax Contribution to that of the 100 Group

# 4



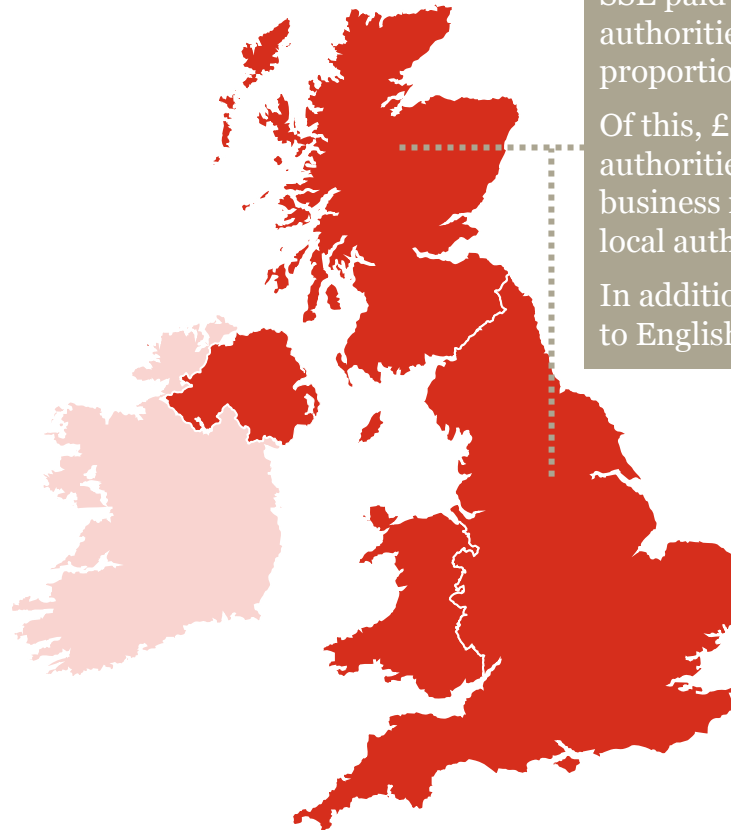
## ***SSE's contribution to tax revenue***

In FY13, SSE's Total Tax Contribution was over **£536m**, from which £310m were taxes borne.

SSE ranked **22<sup>nd</sup> among 100 Group companies** in terms of taxes borne.

*“SSE does not take an aggressive stance in its interpretation of tax legislation, or use so-called ‘tax havens’ as a means of reducing its tax liability.”*

SSE Annual Report 2013



### **Focus: Business rates in FY13 (page 34)**

SSE paid £127m in business rates to UK local authorities, which made up the largest proportion of SSE's tax payments.

Of this, £66m was paid Scottish local authorities. This is equivalent to 3% of all business rates payments received by Scottish local authorities in that year.

In addition, SSE paid £58m of business rates to English local authorities.



## *Introduction and key findings*

In this section we use PwC's Total Tax Contribution (TTC) framework to examine the taxes that SSE contributed to the Exchequer in the 2 years of our analysis.

The scope of TTC is much wider than corporation tax, focussing on total cash payments to all layers of government. Because TTC is based on cash payments in FY12 and FY13, rather the goods and services received in this period (the accruals approach), the numbers cited here will not match those disclosed in SSE's financial accounts and our economic analysis. However, they provide a meaningful measure of SSE's contribution to tax revenue in this period.

TTC makes a distinction between taxes borne and taxes collected:

- taxes borne are a cost to the company and will impact its results via the income statement, such as corporation tax and business rates
- taxes collected are those that the company administers on behalf of the government or local authorities and collects from others, such as employees' income taxes and net VAT. While generated by a company's operations, taxes collected do not directly enter its accounts.

The TTC methodology is widely recognised as a robust approach and is being used by PwC around the world. For a more detailed description of the approach used in this section, please refer to Appendix C of this report.

Our analysis is informed by data provided by SSE as well as the annual PwC surveys of the 100 Group.

### **Key findings**

- SSE contributed £536m of taxes to the Exchequer in FY13.
- In FY13, the taxes borne by SSE were £310m, making it the 22<sup>nd</sup> highest out of the 100 Group. Most of this comprised business rates and corporation tax.
- The business rates paid by SSE in Scotland are equivalent to 3% of all the business rates paid to Scottish local authorities annually.
- In FY13, SSE collected £226m of tax on behalf of others, such as its employees and customers, putting it 46<sup>th</sup> out of the 100 Group.
- Employee-related taxes made up two-thirds of the taxes SSE collected. SSE was ranked in the top third of the 100 Group for the number of UK-based employees as well as for wage and salary payments.
- The Climate Change Levy comprised much of the remaining taxes collected. The CCL collected by SSE in FY13 is equivalent to 12% of revenue from the CCL received by the government in FY13.
- Note that SSE was the 28<sup>th</sup> largest company by market capitalisation within the 100 Group survey participants, on 31 March 2013.



## Taxes borne by SSE in FY12 and FY13

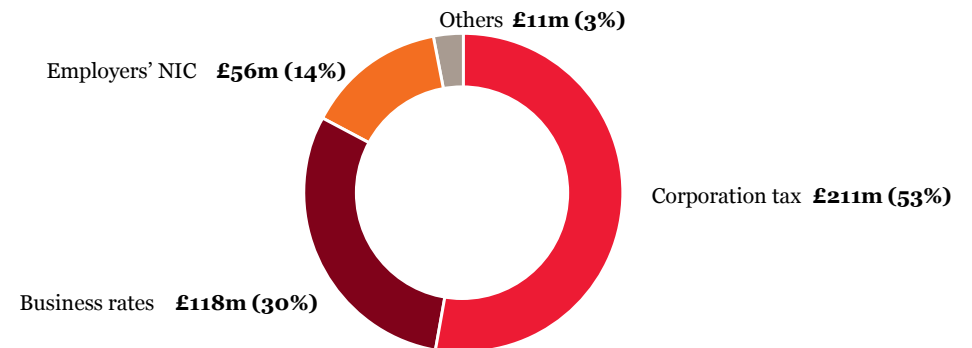
In FY13, SSE’s taxes borne amounted to £310m. SSE’s UK profits after tax for the same period, reported to the 100 Group survey, was £356m.

- £127m of SSE’s taxes borne was paid in business rates, which are charged on the properties and land that SSE uses, including wind farms, thermal power stations, transmission lines and distribution substations.
- £115m was paid in corporation tax, which is charged on SSE’s profits.
- £59m was paid in employers’ national insurance contribution (NIC), which is a charge on SSE’s employment.
- £9m was paid in other taxes and levies, which is mainly made up of environmental taxes and fuel duties.

Between FY12 and FY13, taxes borne by SSE decreased by 22% from £396m to £310m. This was mainly driven by the 46% reduction in corporation tax paid, due to a combination of changes to the statutory tax rate from 30% to 24%, SSE’s capital expenditure programme, increased levels of participation in joint ventures and impairments on assets. This was offset slightly by an 8% increase in business rates and a 5% increase in employers’ NIC.

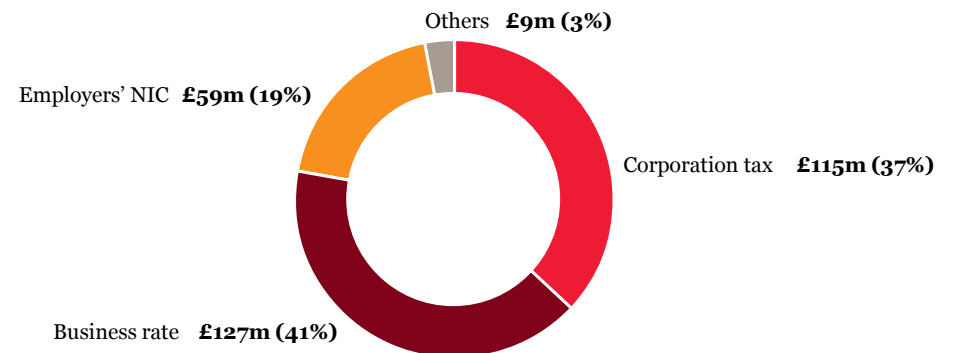
**In FY13, SSE taxes borne were £310m, and SSE’s profits after tax were £356m.**

**Figure 4.1: Breakdown of taxes borne**  
**Taxes borne by SSE in FY12 were £396m**



Source: SSE, PwC analysis

**Taxes borne by SSE in FY13 were £310m**



Source: SSE, PwC analysis



## Focus

### Business rates

Business rates made up the largest proportion of taxes paid by SSE in FY13, at 41%, including around £66m paid to local authorities in Scotland. This is equivalent to 3% of all business rates received by Scottish local authorities.<sup>1</sup> Business rates borne by SSE have increased by more than 50% between FY08 and FY13, from £84m to £127m in total.

A similar amount (£58m) of business rates were paid to local authorities in England in FY13. However, this is equivalent to a much smaller proportion of all business rates received by local authorities in England, at 0.3% in each year.<sup>2</sup>

Historically, business rates have been passed by local authorities to a central pool and redistributed back to local authorities in a fashion similar to a government grant. However, from 2012/13 onwards, business rates relocalisation reform will see 50% of business rates retained locally.<sup>3</sup>

This analysis demonstrates the contribution that SSE makes to fund local public services as a result of the non-domestic property it holds, particularly transmission and distribution infrastructure in Scotland.

**Table 4.1: Distribution of business rates paid by Home Nation**

Home Nation	Business rates paid in FY12 (£m)	Business rates paid in FY13 (£m)
Scotland	60	66
England	55	58
Wales	2	2
N. Ireland	<1	<1
<b>Total</b>	<b>118</b>	<b>127</b>

Source: PwC analysis

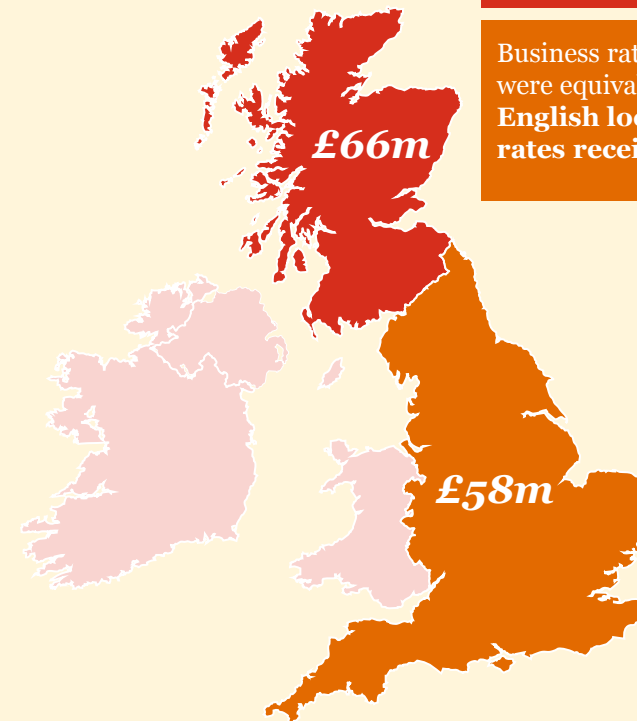
<sup>1</sup> Source: The Scottish Government, PwC analysis

<sup>2</sup> Source: UK Department for Communities and Local Government, PwC analysis

<sup>3</sup> Source: UK Department for Communities and Local Government

SSE’s business rates payments in Scotland were equivalent to **3% of all Scottish local authority business rates receipts** in FY13 and FY12.

Business rate payments in England were equivalent to **0.3% of all English local authority business rates receipts** in FY13 and FY12.





## Taxes collected by SSE in FY12 and FY13

In FY13, SSE collected tax to the value of £226m on behalf of others such as businesses and employees. This was made up of:

- £102m of employees’ income tax collected through the Pay As You Earn system (PAYE);
- £73m of Climate Change Levy (CCL). This is paid by industrial, commercial or agricultural businesses, as well as public services, who consume energy above a threshold set by government. SSE collects CCL on behalf of Government though the energy bills it issues to these consumers;
- £46m of employees’ NIC; and
- £5m of other taxes collected on behalf of the government, mostly tax deducted at source.

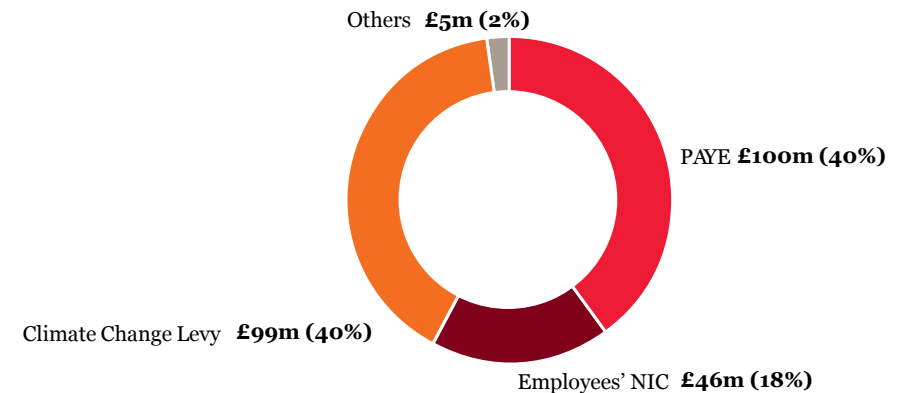
In FY13, PAYE made up the largest proportion of taxes collected, followed by CCL and employees’ NIC. This means that employee-related taxes made up around two-thirds of all taxes collected.

In FY12, SSE collected £250m of taxes on behalf of others. The largest proportion of taxes collected in FY12 came from the CCL, followed by PAYE and then employees’ NIC.

Between FY12 and FY13, 10% less taxes were collected on behalf of others. This was mainly driven by the drop in CCL collected, which fell by 26%. Both categories of employee-related taxes stayed relatively constant during this period at a combined total of £146m in FY12 and £148m in FY13.

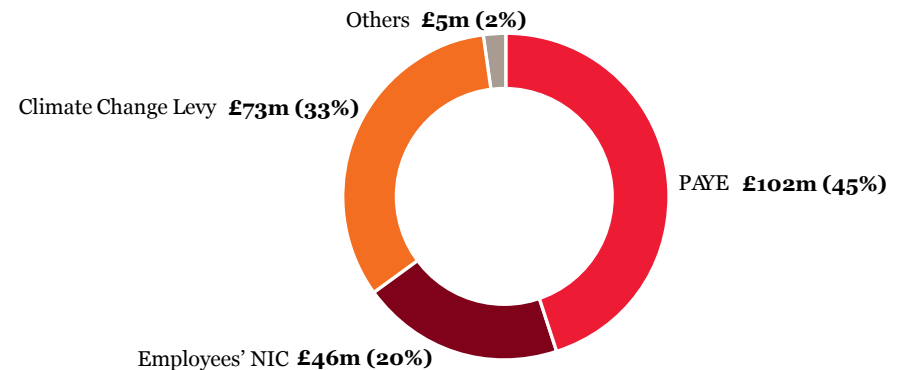
**Figure 4.2: Taxes collected by SSE in FY12 and FY13**

**Taxes collected by SSE in FY12 were £250m**



Source: SSE, PwC analysis

**Taxes collected by SSE in FY13 were £226m**



Source: SSE, PwC analysis



## Benchmarking SSE’s tax contribution against the 100 Group

**SSE ranked 22<sup>nd</sup> among 100 Group companies in terms of taxes borne**

The table below provides a ranking of SSE’s TTC, taxes borne, and collected as well as business rates, against other 100 Group companies in FY13.

Companies within the 100 Group have different tax profiles as they represent a wide range of sectors. In addition to an overall 100 Group comparison, we have also carried out benchmarking using the 100 Group less those companies from the *oil and gas* and *financial services* sectors (these companies face a number of sector-specific taxes). We have also benchmarked SSE to a ‘peer group’ of eight other companies from the *energy, utilities* and *telecom* sectors.

For taxes borne, SSE was in the top quartile of the 100 Group, 13<sup>th</sup> once *oil and gas* and *financial services* companies were removed, and in the top half of its peer group. Given the focus of SSE’s profile towards business rates, it is not surprising that SSE is ranked 9<sup>th</sup> out of the 100 Group for business rates and second out of its peer group.

SSE is ranked 46<sup>th</sup> for taxes collected, moving to 34<sup>th</sup> once *oil and gas* and *financial services* companies were removed, and in the middle of its peer group. Unsurprisingly, this means that SSE’s TTC ranking sits in between that of these two metrics: at 34<sup>th</sup> of all the 100 Group, 21<sup>st</sup> once *oil and gas* and *financial services* companies were removed and, again, in the middle of its peer group.

**Table 4.2: Ranking of SSE’s absolute tax contributions compared to the 100 Group in FY13**

	TTC	Taxes borne	Taxes collected	Business rates
100 Group	34/101	22/101	46/100	9/95
100 Group – less <i>oil and gas</i> and <i>financial services</i> companies	21/73	13/73	34/73	9/68
100 Group – <i>energy, utilities</i> and <i>telecom</i> companies	5/9	4/9	5/9	2/9

Source: PwC 100 Group survey



---

# *Concluding remarks*

5

## Concluding remarks

### What we found

This study analysed three ways in which SSE contributed to the UK economy: its own operations, the economic activity it supports in its supply chain via procurement of goods and services and the economic activity it supports in the wider economy via employee expenditure.

Taken together in FY13, we estimate that this amounts to:

- A gross value added contribution equivalent to 0.7% of UK GDP.
- Jobs supported equivalent to 0.4% of UK employment.

SSE's capital investment is equivalent to 0.7% of total UK capital expenditure in 2012 and 9.2% of capital expenditure by the *electricity, gas and water* sector in the same year.

SSE was also the 5<sup>th</sup> largest Total Tax contributor, and the 2<sup>nd</sup> largest contributor of business rates among the *energy, utilities* and *telecom* companies in the 100 Group of Finance Directors in FY13.

When considering these gross figures in context, they can provide a useful indication of the significance of SSE's contribution to the UK.

### What we learned

SSE is aware that the impacts it creates extend beyond the economic contribution of its operations and spending. For example, identifying and valuing the material environmental, social and economic impacts from constructing the Beaulieu-Denny transmission line is allowing SSE to better understand the importance of these impacts and how they can be mitigated in the most cost effective way. It has already started to apply this thinking to other infrastructure projects.

In the future SSE could use this thinking to understand the impacts it creates at a corporate or group level, beyond those covered in this report, such as:

- Securing an affordable future energy supply in the UK
- Helping the UK to achieve its renewable energy targets
- Improving and influencing the sustainability performance of its capital assets and value chain, and
- Building technical skills and capacity in the UK workforce.

By making holistic impact analysis a core element of its business processes in areas such as the appraisal of capital project options, the design of corporate policies and the development of external reporting, SSE can take advantage of information that is both credible and meaningful for many of its stakeholders. It can further use impact analysis as a tool to plan for and track the achievement of its strategic priorities.

---

# *Appendices*

## **This section covers:**

- Appendix A: Economic contribution
- Appendix B: Capital expenditure
- Appendix C: Total Tax Contribution

## ***Appendix A: Economic contribution approach (1/4)***

### **Overview**

SSE's economic contribution is defined in terms of its contribution to GDP and employment supported.

Contribution to GDP is measured in terms of Gross Value Added (GVA). GVA is a monetary measure of the value a company adds during its production process. Hence, it is the difference between the price of its products (outputs) and the price of the inputs it uses in producing these (or intermediate consumption). GVA is an alternative term for GDP at factor cost, which is GDP without taxes and subsidies on products. As such, GVA is the company- and industry-level equivalent of GDP.

Contribution to GDP and employment are estimated at the direct, indirect and induced levels. Direct contribution results from the company's own operations: it includes the people employed directly by a company and the economic value the company creates. Indirect contribution is generated in a company's supply chain through the procurement of inputs. Induced contribution is generated through wage spend by employees throughout the value chain, both a company's own employees and those in its supply chain. In the report these tiers of contribution have been called direct, supply chain spend and employee spend to make it easier for readers not familiar with economics terminology.

### **Approach to estimating direct economic contribution**

We estimate SSE's direct contribution to GDP using an income approach from data contained in its financial accounts that are prepared on an accruals basis for the financial year (rather than relating to the cash spent during the year). The following equation is used:

#### **Direct contribution to GDP**

$$\begin{aligned} &= \text{profit before interest and taxation} + \text{employee costs} \\ &+ \text{depreciation} + \text{amortisation.} \end{aligned}$$

These indicators are prepared for the UK. For Scotland and Northern Ireland, we apportioned the share of SSE's direct contribution to GDP by Home Nation on the basis of employee compensation in each Home Nation.

Direct employment is taken directly from SSE's human resources data. The breakdown by country and nation is based on the home address of its employees.

## Appendix A: Economic contribution approach (2/4)

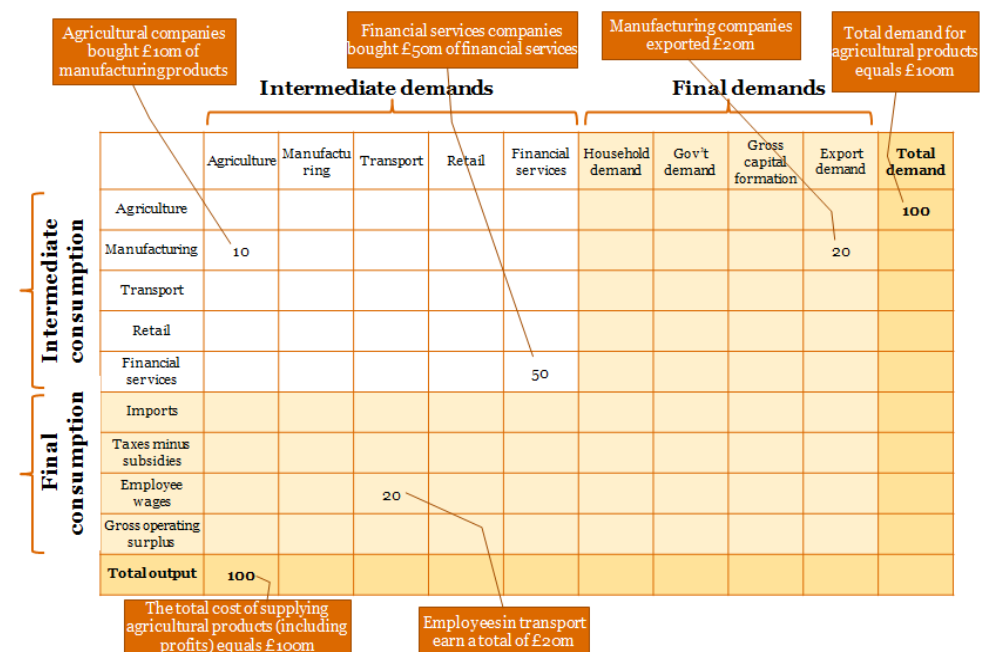
### Approach to estimating indirect and induced economic contribution

Indirect and induced economic contribution are estimated using an Input-Output model. This enables us to understand how industries relate to each other. On this basis we can estimate how activity by one company stimulates economic activity elsewhere in the economy.

The indirect (or supply chain) contribution is estimated using SSE's procurement data. We analysed SSE's purchase ledger to identify the sectors of the economy the company spends money with in order to purchase inputs. The Input-Output table provides information on what the typical business in the supplier's sector requires for producing one unit of output. Equally, we can model the supplier's input requirements from other sectors to produce its own unit of output. In this way we can trace back the input requirements through the entire supply chain, and calculate the total value of production stimulated. This process of one company stimulating economic activity in other companies is referred to as the multiplier effect.

In addition to the above, an Input-Output table provides data on the share of revenue that constitutes profit and wages for each sector. We can apply this ratio to the total production value stimulated, and hence estimate the total GVA in the supply chain by sector associated to this. Equally, the statistics that accompany Input-Output tables provide information on the number of people that work in any particular sector. As we know the output stimulated in each sector, we can estimate the production value to job ratio. We can subsequently apply this to the total production value stimulated in the supply chain. This allows us to estimate the number of jobs supported in the supply chain – the indirect employment.

Figure A.1: A simplified version of an Input-Output table, the basis for an Input-Output model



## Appendix A: Economic contribution approach (3/4)

These steps get repeated for calculating the induced contribution, but through using wage data to estimate how much production is stimulated in the supply chain that supports the products employees buy, e.g. accommodation, food and entertainment.

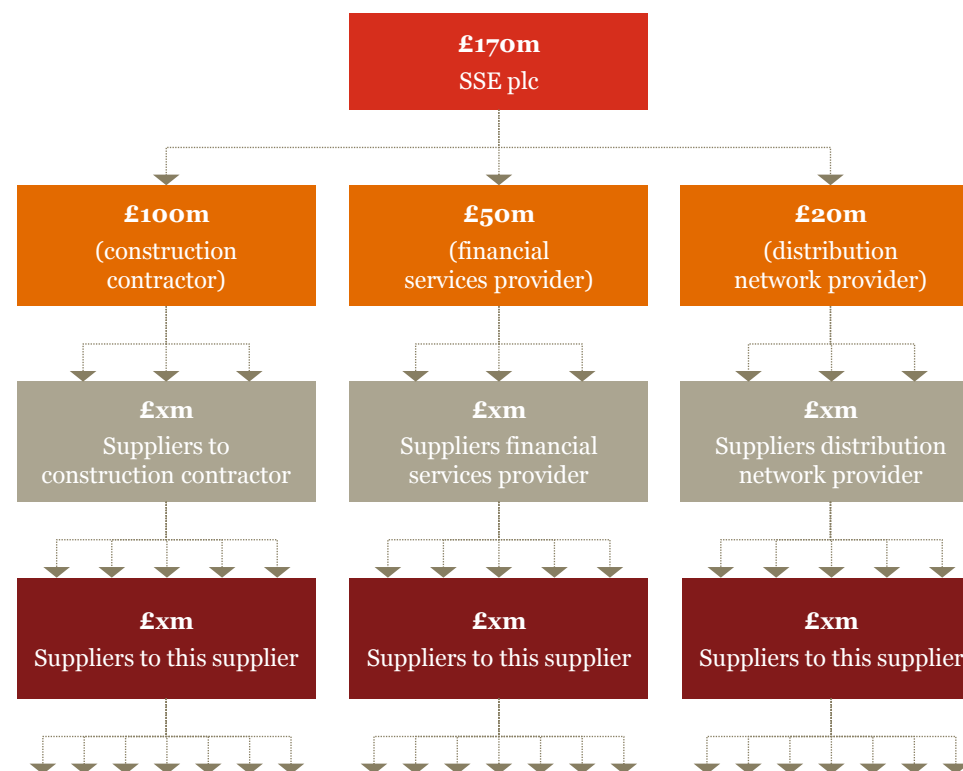
### Model data sources

The Input-Output models for each geography are based on Input-Output tables provided by the relevant statistics offices. Input-Output tables are based on data collected through business surveys undertaken by national statistics offices on an annual basis. We have combined data from the Input-Output tables with employment data for the relevant years to obtain employment to output ratios. These have been updated using estimates for labour productivity and inflation to reflect the years of our assessment.

**Table A.1: Key data sources for our Input-Output models**

Country	Source
<b>Input-Output tables</b>	
UK	ONS. UK Input-Output Analytical Tables, 2010
Scotland	Scottish Government. Input-Output Analytical Tables, 2009
Northern Ireland	DETINI. Social Accounts and Input-Output Tables, 2003
<b>Employment data</b>	
All geographies	ONS. Annual Employment Statistics (BRES)

**Figure A.2: A simplified representation of the relation between SSE and its supply chain (note: hypothetical numbers used below)**



## ***Appendix A: Economic contribution approach (4/4)***

### **Key notes and assumptions**

- All data presented are in current prices.
- All analysis is done in gross terms and we have not assessed the net contribution of SSE to the economy.
- The name and scope used for SSE's sector and those in its supply chain differ between geographies, as the macroeconomic statistics used to analyse them are different for each country.
- We have used SSE's own data for performing this analysis. We obtained these data from SSE's purchase ledgers to be able to distinguish between different years, geographies, sectors and transaction types.
- SSE's purchase ledgers cover transactions related to both operating and capital expenditure.
- The breakdown by country is based on the billing address of the supplier. In case we were certain that the products were immediately supplied from abroad, we adjusted the billing address to the correct country.
- As matching all purchase ledger data of SSE was unfeasible, we used a consistent approach to extrapolation to account for unreported data. This was done by apportioning the unmatched data to geography and sector in similar proportions as the matched data. We did this for less than 2% of the overall transaction value.
- SSE is a Group of companies. We have excluded any transactions between the individual companies that make up the group to avoid double counting contributions.
- A significant share of SSE's purchases is related to commodity trading. We have modelled SSE's net position with regards commodities purchases, as this represents the real contribution of the company to the economy. For financial instruments we have only modelled the commission paid by SSE.
- We have used three stand-alone models to estimate SSE's economic contribution in the UK, Scotland and Northern Ireland. These models are not linked and the results presented are, therefore, only related to the direct expenditure in each geography. They do not take into account feedback loops between geographies, for example, an English supplier buying goods from a Scottish company. The results, therefore, represent the lower bound of SSE's economic contribution (particularly in Scotland and Northern Ireland). For this reason, SSE's contribution in England and Wales cannot be derived by calculating the residual between the results for the UK, Scotland and Northern Ireland.
- To contextualise the contribution that SSE makes to the UK economy we have presented economic data from the ONS and other statistics agencies. It should be noted that these data generally refer to calendar years as opposed to financial years. We have referred to financial year data as FY[yy] and calendar year data as 20[yy]. When comparing calendar to financial years, we use 2011 for FY12 and 2012 for FY13.
- Our analysis does not cover jointly controlled entities, unless they are suppliers to SSE group in which case they are treated as any other supplier in the analysis.

## ***Appendix B: Capital expenditure approach***

### **Our definition of capital expenditure**

We measure SSE's capital expenditure as the sum of Capital Additions to Tangible Assets or Property, Plant and Equipment (PP&E) and Capital Additions to Intangible Assets, as reported in SSE's Cash Flow Statement in its financial accounts. These figures represent the cash spent during the financial year on additions to both tangible fixed assets and intangible fixed assets which are not due to acquisitions, disposals or accounting adjustments (e.g. accruals) and, hence, represent the actual money spent on additions to capital assets in the UK. As such, these metrics are the company-level equivalent to what the UK Office for National Statistics (ONS) uses for the UK national accounts. The figures reported are net of capital expenditure in the Republic of Ireland and are rounded to the nearest £0.1bn.

### **Comparison against capital expenditure by the 100 Group**

For the last nine years we have carried out a TTC study with the 100 Group of Finance Directors (whose members are mainly the FTSE 100 and the UK's largest private companies) to collect data on all the UK taxes that they bear and collect. The anonymised and collated survey results are shared with government and other stakeholders and published. Each year's survey collected data for companies' accounting periods ending in the year to 31 March.

The anonymised and collated survey results are shared with government and other stakeholders and published into the public domain. Each year's survey collects data for companies' accounting periods ending in the year to 31 March of that year.

In addition to tax data, the survey also collects data on other items such as capital expenditure. As all data reported refers to capital expenditure in the UK, we are able to rank SSE against other companies that have responded to the survey.

Please note, capital expenditure in the 100 Group survey is defined as Capital Additions to PP&E and therefore the ranking is based on expenditure on tangible assets only.

### **Comparison against UK capital expenditure statistics**

To assess the significance of SSE's capital expenditure, we compare it against two key indicators from the UK national accounts: Gross Fixed Capital Formation (GFCF) and Business Investment (BI).

GFCF measures all investment in fixed assets, including tangibles and intangibles, by business, government and households. It is a key component of the UK's national accounts. BI is a subset of GFCF and only focuses on capital expenditure by businesses. In 2012, BI represented about 56% of GFCF. The data for BI is collected through the ONS' Survey on Capital Expenditure.

### **Key notes and assumptions**

- To calculate aggregate economic statistics, statistics agencies go through a range of adjustments after receiving raw company survey data. Data reported also refer to financial years as opposed to calendar years. For these two reasons, it can not be stated that the capital expenditure data presented in this report are regarded as SSE's share of the UK total.
- The data from the 100 Group survey are provided by the participants and are not audited, validated, or verified in any way, so PwC cannot give any representations or warranties with respect to the accuracy of the information reported.
- Our analysis does not cover jointly controlled entities.



## ***Appendix C: Total Tax Contribution methodology (1/2)***

### **PwC's Total Tax Contribution (TTC) framework**

PwC's TTC framework looks at all the different taxes companies pay. It is much wider than corporation tax, and focuses on cash payments to all layers of government. It is a measure of what companies contribute to tax revenue, and the creation of prosperity and stability for the communities in which they operate.

TTC makes a distinction between taxes borne and taxes collected. Taxes borne are a cost to the company and will impact its results via the income statement, such as corporation tax and business rates. Taxes collected are those that the company administers on behalf of government and collects from others, such as employees' income taxes and net VAT. While generated by a company's operations, taxes collected do not directly enter to its accounts.

The TTC methodology is widely understood and recognised as a robust approach by organisations like the World Bank and is being used in many countries around the world.

### **Comparison against TTC by the 100 Group**

In this section, we benchmark SSE's result against the 100 Group as a whole (see details of the TTC survey to the 100 Group on Appendix B). Additionally, we have ranked SSE against the 100 Group with the exclusion of *oil and gas* and *financial services* companies. The reason is that these sectors have significantly different tax profiles to other industries.

Finally, we rank SSE against a small peer group of *energy, utilities* and *telecom* survey participants, all of which would have a similar taxation profile.

The survey results can be found online at: [www.pwc.co.uk/ttc](http://www.pwc.co.uk/ttc).

We would caution against using market capitalisation as a benchmark to position SSE against the 100 Group or FTSE 100 peers when considering TTC. The survey data are for UK taxes only, whereas market capitalisation is an indicator of value for the global value.

The survey does not report on government subsidies received by participant companies. In the case of SSE, it is important to consider TTC in the context of subsidies received.

## ***Appendix C: Total Tax Contribution methodology (2/2)***

### **Key notes and assumptions**

- PwC's UK TTC survey collects data from participating members of the 100 Group of Finance Directors for the accounting periods in the 12 months ending at 31 March of each year.
- The data used on the tax contribution section of this report are based on submissions made by SSE to the survey for the past six years. The data requested was for UK taxes only.
- The data from the 100 Group survey are provided by the participants and are not audited, validated, or verified in any way, so PwC cannot give any representations or warranties with respect to the accuracy of the information reported.
- Other tax data relating SSE (e.g. on subsidies received and on business rates paid to different regions in the UK) have been provided by SSE and are not audited, validated, or verified in any way, so PwC cannot give any representations or warranties with respect to the accuracy of the information reported.
- All tax payments are reported on a cash basis. Monetary items are reported in current prices and no inflation adjustments have been made. As a result, tax contribution figures are not directly comparable to the economic contribution estimates or to figures reported in SSE's financial statements.
- In FY08 and FY09, SSE reported a negative VAT under taxes collected – reflecting a tax refund. To reflect the pure tax contribution, this item has been disregarded for these two years.
- Where comparisons have been made to relevant national figures, sources and descriptions are provided throughout.
- Our analysis does not cover jointly controlled entities.



This document has been prepared for and only for SSE Plc in accordance with the terms of our contract signed on 24 February 2014 and subsequent variation signed on 28 March 2014 and for no other purpose. We do not accept or assume any liability or duty of care for any other purpose or to any other person to whom this report is shown or into whose hands it may come save where expressly agreed by our prior consent in writing.

© 2014 PricewaterhouseCoopers LLP. All rights reserved. In this document, 'PwC' refers to PricewaterhouseCoopers LLP (a limited liability partnership in the United Kingdom) which is a member firm of PricewaterhouseCoopers International Limited, each member firm of which is a separate legal entity.