SSE's Economic Contribution to the Republic of Ireland

Financial Year 2013/14

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Contents

Front cover picture source: SSE

Foreword
Gregor Alexander, Finance Director, SSE

The core purpose of SSE Airtricity is to provide the energy that people and businesses need to thrive and prosper across the island of Ireland. We have a responsibility to ensure this need is met in a reliable and sustainable way, both now and for the long term. While I am clear that is our mission and purpose, I also want to be sure that we are achieving it.

So the strategy for SSE Airtricity includes a determination to increase transparency of the impacts our business activities make on society, the environment and the economy. If we know what the impacts are then we can do more to maximise positive impacts whilst minimising any adverse outcomes. In order to progress further in this journey we've asked PwC to undertake economic contribution studies across the SSE business– across the different regions, countries and business segments which enable our business to operate successfully within the UK and Ireland.

SSE's operations in Ireland are significant and growing. We directly employ 800 people and made a direct contribution of €183m to the Irish economy in financial year 2014. And, of course, this direct contribution generates a great deal of additional economic activity in the wider Irish economy. This report tells us that a further 4,530 jobs are supported and €740m contributed to the Irish economy through our supply chain and employee spending. This means that SSE and SSE Airtricity's business operations supported the equivalent of 0.3% of total Irish employment and 0.6% Irish GDP in FY14.

I have always understood that SSE's impacts are not simply about the creation of jobs and wealth. There are many areas where SSE's business activities generate an impact on both society and the environment. By starting to understand what our economic impacts are we can better define how our business can increasingly be a force for good. Ultimately that's SSE's aim: to be responsible in all that we do, so we can make a positive impact on people's lives whilst doing so. This new report is simply the next step in our journey to deliver exactly that.

Executive summary

Purpose

This is a PwC study commissioned by SSE plc, a major energy company operating in the UK and Republic of Ireland ("Ireland"). It is an update of a report we produced for SSE in July 2014, which assessed the company's economic and employment contributions in financial years 2011/12 (FY12) and 2012/13 (FY13). The purpose of the current report is to continue building awareness within SSE and amongst its stakeholders of the value that the company brings to society.

Scope of analysis

This study covers the economic contribution by SSE Group in Ireland during FY14. The indicators we have assessed are SSE's contribution to Irish GDP and employment. 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

To estimate SSE's direct contribution to the Irish economy, we used the company's financial accounts and other management information.

We applied economic input-output modelling to SSE's financial and procurement data to estimate SSE's contribution to GDP and jobs in SSE's Irish supply chain.

Key findings – in FY14 SSE:

- Contributed **€923m to Irish GDP** (equivalent to 0.6% of Irish GDP), bringing its total contribution over the past three years to **€2,418m** (in FY14 prices).
- Supported **5,340 jobs in Ireland** (equivalent to 0.3% of total employment in the country), resulting in a yearly average of **4,680 jobs** supported over the past three years.

- SSE's average employee productivity of **€227,810** is **2.6** times the national average.
- For every direct SSE employee in Ireland, SSE supports another **5.6** Irish jobs.

Introduction

1

Purpose and scope of this study

In July 2014 we produced a study for SSE which estimated the company's economic contribution to Ireland in FY12 and FY13. The report covered estimates of SSE's gross contribution to the Irish GDP and employment – both directly and indirectly in its supply chain and the wider economy. The report's aim was to support SSE and its stakeholders in their understanding of the economic significance of the company for Ireland.

After the publication of the first report, SSE asked us to update the analysis to estimate its contribution to the Irish economy in FY14 (see table 1.1). The analysis covers the contribution of the entire SSE Group to the Irish economy through its procurement of goods and services. The SSE Group consolidates SSE Airtricity, its business in the Island of Ireland, and the rest of its UK business. It excludes jointly controlled entities in which SSE has a minority share.

This report presents the results for FY14 and incorporates those from the previous report to show SSE's contribution to the economy over the past three years. [1]

Limitations

This study of SSE's contribution to GDP and employment represents a gross analysis and does not take into account the extent to which part of these contributions might have happened anyway in the absence of SSE. The current report does not look at any other economic, social and environmental impacts created by SSE's direct operations or value chains. Indirect and induced contributions are estimated using an input-output model. Data used for this analysis were provided by SSE and have not been audited by PwC.

Table 1.1: Indicators assessed for this report

Indicator covered in the study	Measured as	Methodology
Contribution to GDP	Gross Value Added (GVA), which is the company-level equivalent of GDP	Input-Output modelling – see the appendix for a more detailed discussion
Employment supported	Headcount	Input-Output modelling

[1] This report was initially released in January 2015. In light of an update to our Irish economic model, in June 2016 we re-estimated SSE's economic contribution to Ireland in all years of analysis. This revision affects the estimates of SSE's indirect and induced contribution to Ireland only. We have also updated the national labour productivity statistics presented in the report using the latest national statistics from the CSO.

About SSE

SSE plc ('SSE' or 'the company') is one of the largest companies in the UK, part of 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*"[2] through its involvement predominantly in the generation, transmission, distribution and supply of electricity. SSE's business is organised into three segments: Networks, Wholesale and Retail. In FY14, SSE's reported profit before tax was £575m and it employed a total of 19,894 people across the UK and Republic of Ireland.

Picture source: SSE

Table 1.2: SSE's business in the Republic of Ireland

SSE in Ireland

- Revenue: €1,097 m
- Profit before tax and interest: €104m
- Employment: 800 employees[3]

Wholesale

Generation of electricity and energy portfolio management:

- Total electricity generation capacity of over 1.52 GW
- 30% of total capacity is from renewable sources (wind)
- Owns and operates Meentycat Wind Farm in Donegal, the largest wind farm in Ireland with 84MW capacity

Retail

Supply of electricity and gas to business and household customers:

- 500,000 household and business customer accounts throughout the Republic of Ireland
- One single brand in Ireland: SSE Airtricity

Other services

Provides street light services for Ireland's local authorities:

- SSE Airtricity Utility Solutions maintains 250,000 street lights for 19 local authorities, covering two thirds of all public lighting in Ireland

Source: SSE

[2] Source: SSE. [3] Rounded for presentational purposes.

SSE's contribution to Irish GDP and employment

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Measuring economic contribution

We have estimated SSE's economic contribution to Ireland 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 equivalent of GDP: adding up the GVA of all individual companies in the economy is equivalent to a country's GDP.[4]

GVA is distributed as profits (before interest, taxes, depreciation and amortisation) 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.

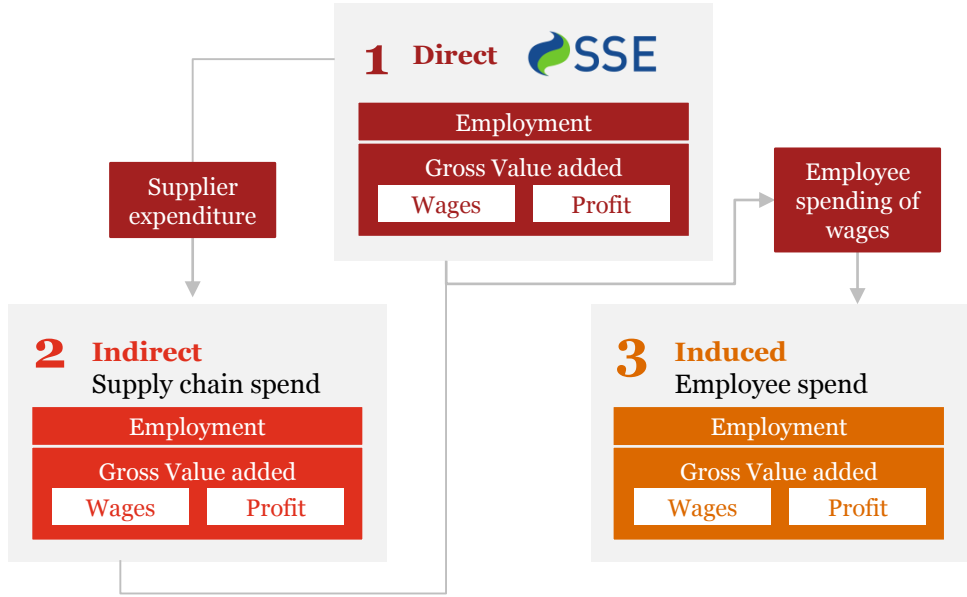
The contribution to GDP and employment is divided into three tiers:

1. **Direct contribution:** The increase in GDP and employment as a result of the 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. What is often known as the '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 the employees of SSE and its suppliers. What is often known as the 'induced contribution.'

Both the supply chain and employee spend contributions to GDP and employment have been estimated using economic 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.

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

Figure 2.1: The relationship between the three levels of economic contribution



Source: PwC

[4] After adjusting for taxes and subsidies on products, a component of GDP which is not included in the calculation of GVA.

Direct contribution to the Irish economy

In FY14, SSE employed 800 people in Ireland.

SSE employed a wide range of different skill sets, including engineers, technicians, business administration staff and customer support personnel.

SSE's direct contribution to GDP in FY14 amounted to €183m.[5]

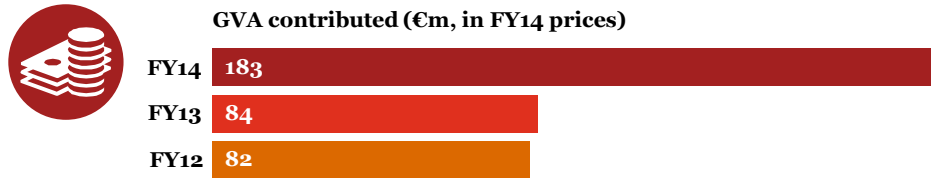
The increase from last year is largely driven by SSE's acquisition of Endesa Ireland Ltd., who operate four thermal power plants. This has led to an increase in headcount, profits and wage payments in FY14.

Combining SSE's direct contribution to GDP and the size of its workforce implies that SSE's average employee productivity in Ireland was €227,810 in FY14. This compares to the Irish national average employee productivity of €86,900 in 2013, which implies SSE's average productivity is 2.6 times the national average.[6]

Figure 2.2: Direct contribution to employment

Source: SSE, PwC analysis

Figure 2.3: Direct contribution to GDP



Source: SSE, PwC analysis.

SSE's average employee productivity in FY14 was **2.6 times** the Irish national average of €86,900

[5] 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 the Appendix of this report. [6] Source: CSO. Average employee productivity is defined as Gross Value Added per employee.

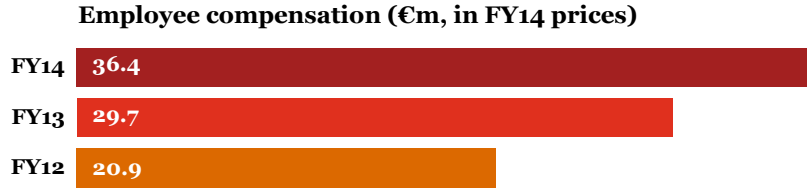
Employee compensation

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 FY14, SSE paid out a total of €36.4m in total employee compensation in Ireland. Of this €31.5m was paid as wages and salaries. Dividing this equally between SSE's employees in Ireland shows that SSE paid an average wage of €39,200 that year.

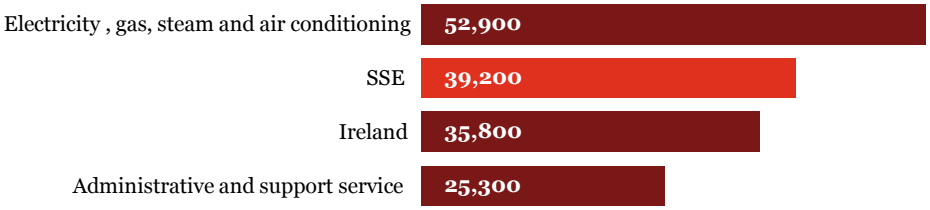
SSE's average wage was above the Irish mean average of €35,800 in 2013 while it is below that of the *electricity, water supply and waste management* sector.

Figure 2.4: Total employee compensation



Source: SSE, PwC analysis

Figure 2.5: Comparing SSE's mean average wage against Irish mean averages in FY14



Source: CSO, SSE, PwC analysis

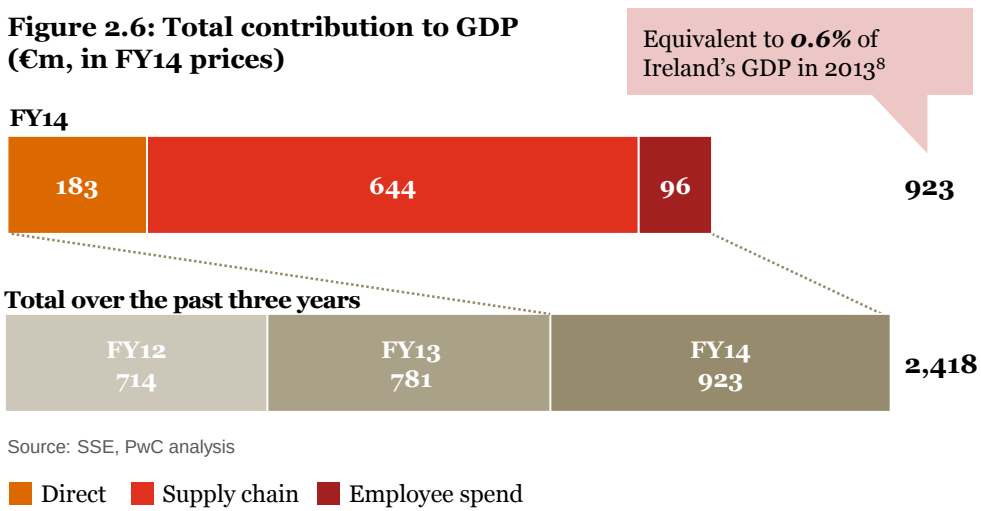
Total contribution to Irish GDP

We estimate that, in FY14, SSE's total contribution to Irish GDP was €923m. This is equivalent to 0.6% of Irish GDP in 2013. This brings SSE's total contribution between FY12 and FY14 to €2,418m when expressed in FY14 prices.[7] On average, 14% of this contribution was from SSE's direct operations, 76% resulted from its supply chain spend and 10% resulted from spending by its employees and those of its suppliers. The supply chain contribution is partially a result of spending in Ireland by SSE's UK business.

In FY14, the sector benefitting most from SSE's supply chain spend was the *electricity and gas supply* sector, where we estimate SSE sustained €524m of GVA. This reflects SSE's core role in electricity and gas supply in Ireland, as well as its payments to grid operators such as EirGrid, ESB Networks and Gas Networks Ireland.

The second largest beneficiary from SSE's supply chain spending was the *wholesale trade* sector with approximately €27m of GVA.

Figure 2.6: Total contribution to GDP (€m, in FY14 prices)



Source: SSE, PwC analysis

Table 2.1: Key sectors in terms of supply chain GDP contribution

Sector	GVA contributed (€m) FY14
Electricity and gas supply	524
Wholesale trade	27
Repair/installation of machinery & equipment	24
Financial intermediation services	8
Telecommunications services	7
All other sectors	54
Total	**644**

Source: SSE, PwC analysis.

[7] We have inflated results from the FY12 and FY13 report using the GDP deflator. As a result, the values appear slightly higher than reported in our FY12 and FY13 report, as they are expressed in FY14 prices rather than current prices.
[8] Source: CSO. GDP measured at factor cost.

Total contribution to Irish employment

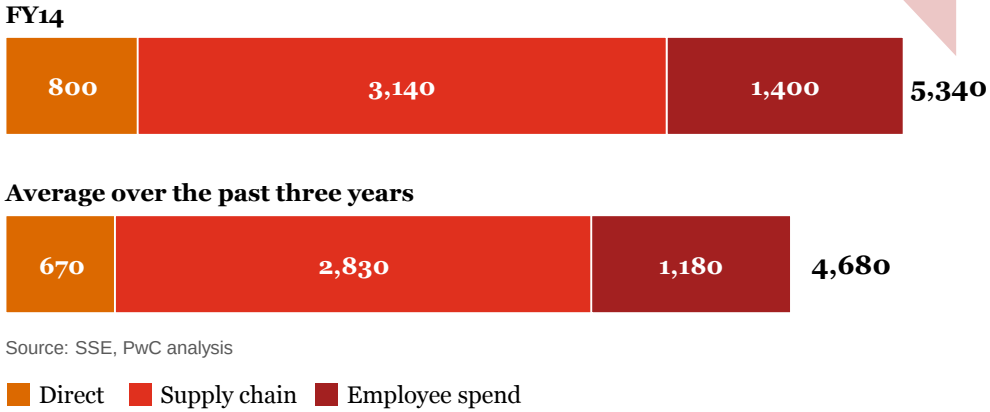
We estimate that SSE supported 5,340jobs in Ireland in FY14. Given SSE's direct payroll of around 800 employees, this implies that for every SSE employee in Ireland, the company supports another 5.6 Irish jobs.[9] Over the last three years, SSE has supported an annual average of 4,680 jobs in Ireland.

The largest beneficiary of SSE's supply chain spend in terms of employment was the *electricity and gas supply* sector. We estimate that SSE supported approximately 1,730 jobs in this sector in FY14. This can be explained as SSE is a major user of electricity and gas networks in Ireland. The second and third largest beneficiaries are the *repair/installation of machinery & equipment* and *wholesale trade* sectors.

Figure 2.7: SSE's employment *multiplier* in Ireland

Source: SSE, PwC analysis

Figure 2.8: Total employment supported in Ireland



Source: SSE, PwC analysis

Table 2.2: Key sectors in terms of employment supported by SSE's supply chain in Ireland

Sector	Number of jobs supported FY14
Electricity and gas supply	1,730
Repair/installation of machinery & equipment	370
Wholesale trade	140
Architectural and engineering services	140
Construction and construction works	110
All other sectors	650
Total	**3,140**

Source: SSE, PwC analysis.

[9] Please note that we look at the overall contribution of SSE Group to Ireland, which includes procurement from the UK business. This does not reflect the multiplier effect of Irish operations only. [9] Source: Quarterly National Household Survey (QNHS), PwC analysis.

Appendix

3

Appendix: 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-level equivalent of GDP.

The 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 contributions have been called direct, supply chain spend and employee spend to make it easier for readers not familiar with economic 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
= profit before interest and taxation + employee costs
+ depreciation + amortisation.

Direct employment is taken directly from SSE's human resources data, which contain information on each employee by country in which he/she is based.

Appendix: Economic contribution approach (2/4)

Approach to estimating indirect and induced economic contribution

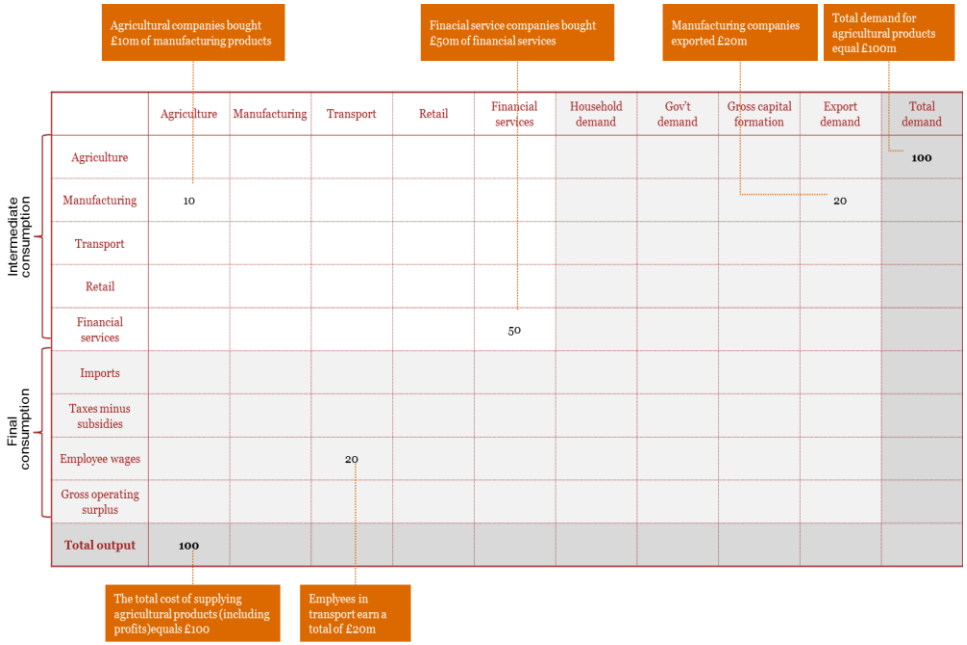
Indirect and induced economic contribution are estimated using an Input-Output model. This enables us to understand how industries relate to each other. On this basis we estimate how activity by one company stimulates economic activity elsewhere in the economy.

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 on 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. Additional statistics on employment 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 then 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.

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.

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



Appendix: Economic contribution approach (3/4)

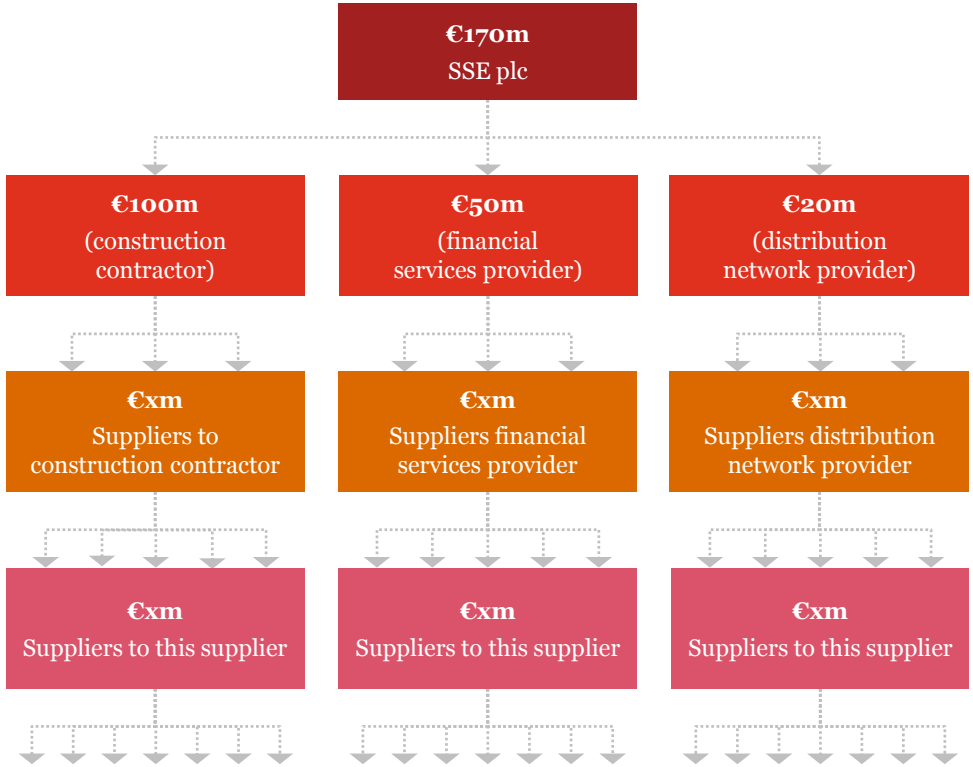
Model data sources

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. It should be noted that this type of adjustment does not sufficiently capture structural changes in the economy that occur between the input-output table year and the year of analysis.

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

Source	
Input-Output table	CSO. Input-Output Tables for Ireland, 2011
Employment data	CSO. Quarterly National Household Survey (QNHS) and Earnings Hours and Employment Costs Survey (EHECS)
Inflation	IMF World Economic Outlook database - GDP deflators
Labour productivity	OECD Statistics

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



Appendix: Economic contribution approach (4/4)

Key notes and assumptions

- All financial data presented are in FY14 prices, unless indicated otherwise.
- All analysis is done in gross terms and we have not assessed the net contribution of SSE to the Irish economy.
- Where we have used data directly provided by SSE, we have not audited the data.
- SSE mapped over 95% of its supplier expenditure to the relevant sector and country. We extrapolated the remainder of the expenditure in the same proportion as the mapped expenditure to obtain total expenditure by sector and country.
- A significant share of SSE's purchases is related to commodity trading. We have modelled SSE's net expenditure on energy commodities, as this represents the real contribution of the company to the economy. For financial instruments we have only modelled the commission paid by SSE.
- 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.
- Our analysis does not cover jointly controlled entities in which SSE has a stake of 50% or less, unless they are suppliers to SSE group in which case they are treated as any other supplier in the analysis. Jointly controlled entities in which SSE has a majority stake are included.
- Our model estimates the total impact of SSE Group in Ireland. Apart from the contribution of SSE's operations in Ireland, it also includes the contribution of its business in the UK through its procurement from Ireland.
- To contextualise the contribution that SSE makes to the Irish economy we have presented economic data from the CSO 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, 2012 for FY13, and 2013 for FY14.

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