

## Appendix 2.2: Industry background

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### Introduction

1. This appendix contains information about the following participants in the energy market in Great Britain (GB):
  - (a) The Six Large Energy Firms – Centrica, EDF Energy, E.ON, RWE, Scottish Power (Iberdrola), and SSE.
  - (b) The mid-tier electricity generators – Drax, GDF Suez, Intergen and ESB International.
  - (c) The mid-tier energy suppliers – Co-operative (Co-op) Energy, First Utility, Ovo Energy and Utility Warehouse.
  - (d) Lists of energy generators and suppliers currently active in the GB market.
  - (e) Electricity and gas distribution networks.

### Evolution of major market participants

2. Below is a chart showing the development of retail supply businesses of the Six Large Energy Firms:

## **The Six Large Energy Firms**

3. This section of the appendix contains brief overviews of the Six Large Energy Firms: Centrica, EDF Energy, E.ON, RWE, Scottish Power (Iberdrola), and SSE.

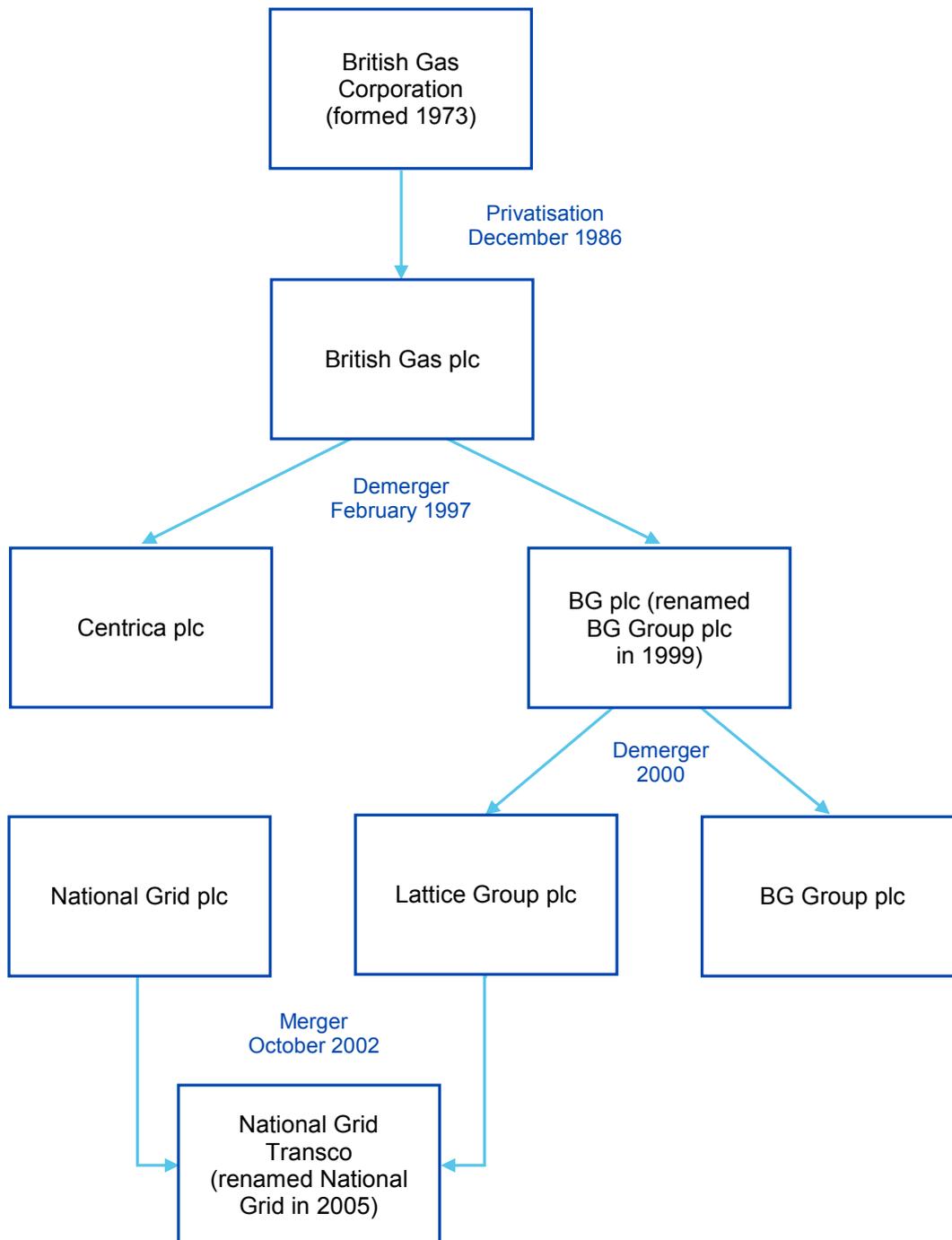
### ***Centrica***

4. Below is a brief overview of Centrica plc (Centrica). It is set out as follows:
  - (a) The creation of Centrica.
  - (b) Corporate activity since 1997.
  - (c) Current divisional structure.
  - (d) Group financial performance and recent announcements.
  - (e) Businesses included in Ofgem's Consolidated Segmental Statements (CSS).

### ***The creation of Centrica***

5. Figure 2 below shows the evolution of British Gas Corporation, through privatisation and various demergers into three companies: Centrica, National Grid and BG Group.

**Figure 2: The creation of Centrica, BG Group and National Grid from British Gas Corporation**



Source: CMA research.

6. Centrica, BG Group and National Grid (formerly National Grid Transco) are all currently FTSE 100 quoted businesses. Their backgrounds are as follows:

(a) Centrica was created from the 1997 demerger of British Gas plc into BG plc and Centrica. This demerger created two different businesses. Centrica assumed the UK retail operations (including the British Gas retail brand in GB) as well as the Morecombe gas fields (UK upstream gas assets which it could use to service its customer base). We discuss

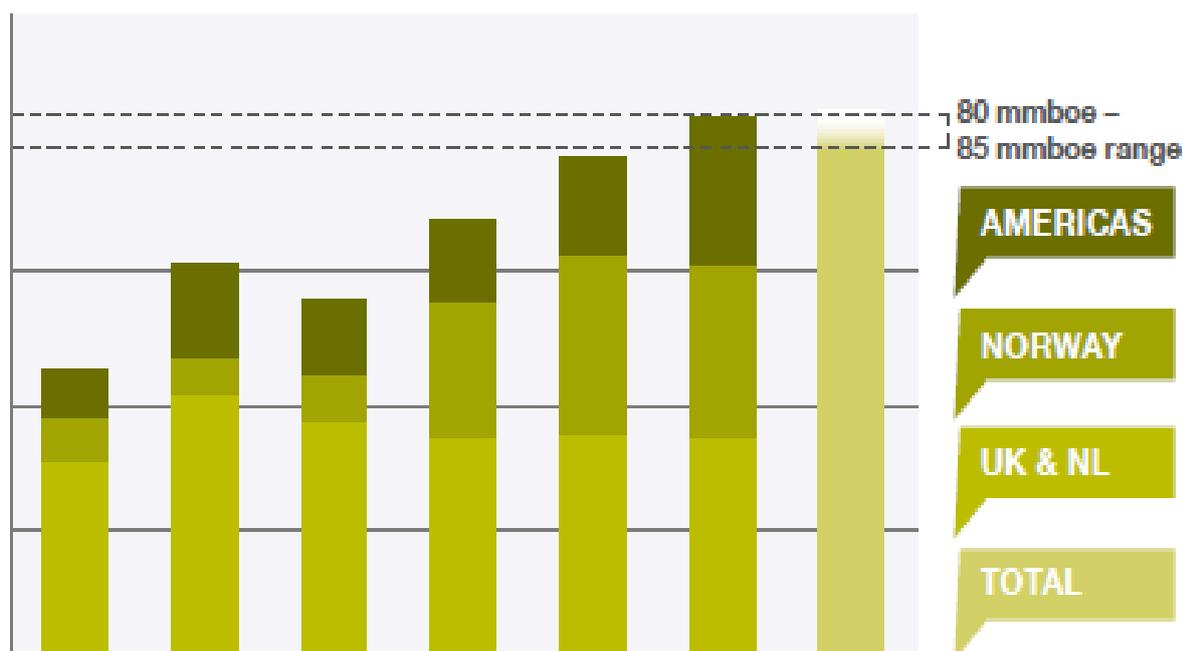
Centrica's corporate development since this demerger and its current structure in the sections that follow.

- (b) BG Group (originally BG plc) was also created from the 1997 British Gas plc demerger. In 1999 it undertook a further demerger, separating its gas transmission infrastructure assets (which became Lattice) from its international oil and gas exploration and production (E&P) assets (which became BG Group). BG Group has been highly successful in oil and gas exploration, mostly outside the UK, with significant interests in Australia, Trinidad and Tobago and the USA. It is also a large producer of liquefied natural gas (LNG).
  - (c) National Grid was created by the merger of Lattice (which was demerged from BG plc, and which owned the gas transmission infrastructure in GB) with National Grid (which owned the electricity transmission infrastructure in England and Wales). As a result of this merger, National Grid became active in both the gas and electricity transmission network in GB.<sup>1</sup> It also owns some gas distribution networks in the UK and has acquired electricity transmission assets in the US.
7. Following the demerger, Centrica developed and acquired a number of different businesses, for example the Goldfish credit card, the AA and telecommunications business OneTel. As well as diversifying away from energy, it also made some acquisitions in this period which form the basis for some of its current divisional structure, for example Rough gas storage and Direct Energy in North America.
  8. From about 2006, Centrica made numerous and significant investments in upstream oil and gas assets in the UK, Norway and Canada. As a result of these acquisitions, Centrica's global oil and gas division expanded its reserves and production significantly. Figure 3 below shows Centrica's actual (2009-2013) and forecast (2014-25) oil and gas production.

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<sup>1</sup> Note that because the Scottish electricity industry was privatised in a vertically integrated structure, National Grid does not own the transmission network in Scotland. However, it is the transmission system operator for the whole of GB.

**Figure 3: Centrica global oil and gas production, 2009–2016**



Note: 2014 outturn was 79.5 mmboe (million barrels of oil equivalent). This was split as follows: UK & NL – 28.5 mmboe, Norway – 23.5 mmboe, Americas – 27.5 mmboe. The latest 2015 estimates are approximately 75 mmboe.

Source: Centrica

9. From 2006, Centrica also made a number of bolt-on acquisitions to its Direct Energy business in North America, which grew in importance to the group. Other notable acquisitions were a 20% stake in British Energy,<sup>2</sup> which operates eight nuclear plants in GB, as well as further gas storage assets.

#### *Current divisional structure and financial performance*

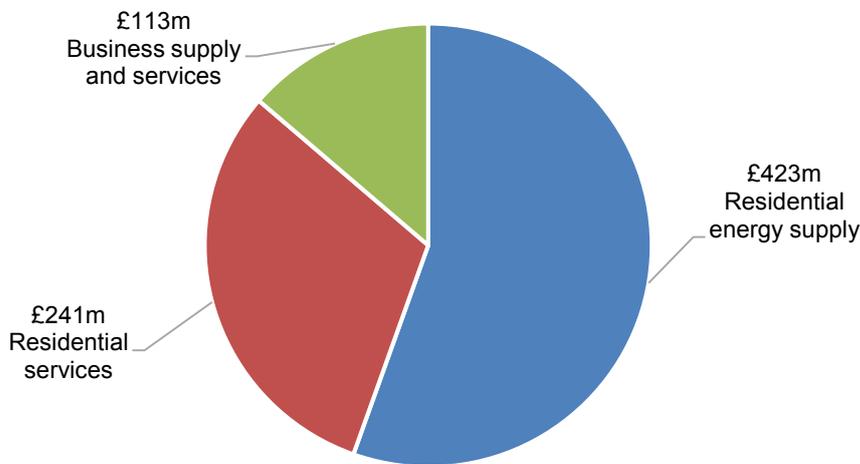
10. Centrica currently has five divisions. We discuss the principal activities and show the relative importance of the different businesses within each division below. For comparability purposes, it is most useful to view the contributions of each business to profitability on a post-tax basis. This is because the Centrica Energy division has a large oil and gas E&P business and therefore pays a very high rate of tax relative to Centrica's other divisions (it paid tax<sup>3</sup> at a rate of 72% of earnings before interest and tax (EBIT) in 2013).
11. British Gas is Centrica's energy supply business in the UK. It supplies gas and electricity to 11 million homes and over 850,000 businesses. This division also offered a range of energy related residential services, for example boiler

<sup>2</sup> EDF Energy owns a majority 80% stake.

<sup>3</sup> For example, the marginal tax rate for oil and gas extracted in the UK is 81% on income from fields paying Petroleum Revenue Tax (PRT), 30% on production income from qualifying new fields if that income is wholly covered by field allowance, and 62% otherwise. PRT applies to UK fields consented before March 1993.

installation. The contribution of each of these activities to divisional profits after tax is shown below in Figure 4.

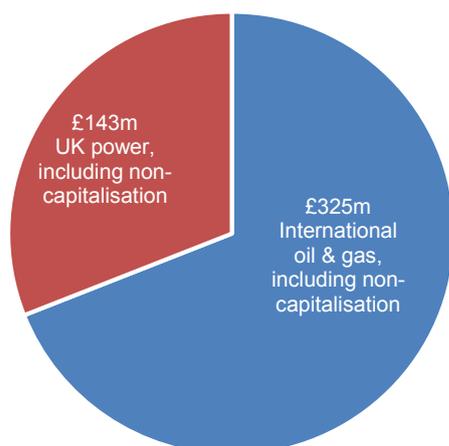
**Figure 4: British Gas division, split of profit after taxation in 2013**



Source: Centrica.

12. Direct Energy is a North American energy supply business that Centrica has built up through a series of acquisitions since 2000. It supplies gas and electricity to homes and businesses in a number of states and provinces, most notably Texas. Following its acquisition of Clockwork in 2010, it is now the largest home services (eg air conditioning) provider in North America. It provides these services in all US states and Canadian provinces.
13. Centrica Energy includes international oil and gas E&P, UK power generation and trading. The contribution of each of these activities to divisional profits after tax in 2013 is shown below in Figure 5.

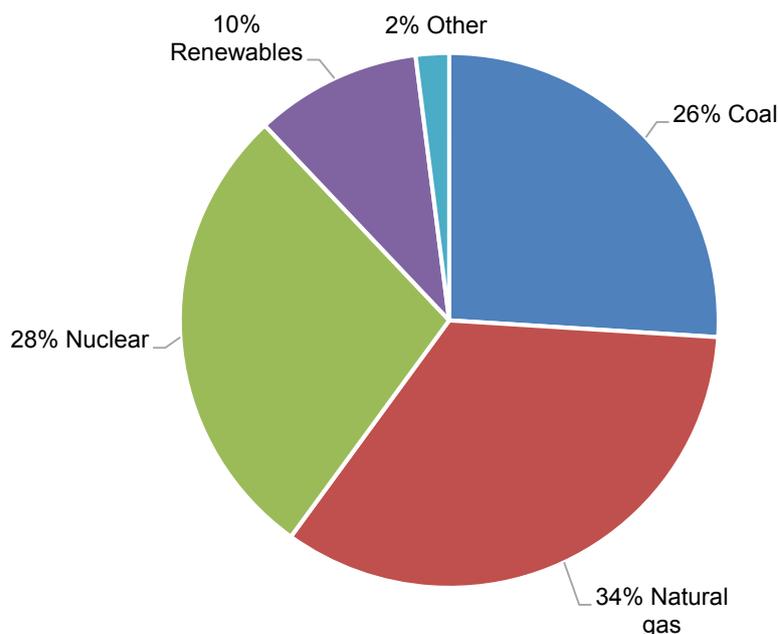
**Figure 5: Centrica Energy division, split of post-tax profit in 2013**



Source: Centrica.

14. International oil and gas E&P is a leading oil and gas producer in the UK as well as owning a significant and growing international portfolio, including in Trinidad, Canada and Norway. This business has grown rapidly through acquisition in the last decade.
15. UK power generation owns a fleet of six gas-fired power plants (CCGT), offshore wind projects as well as a 20% stake in EDF Energy's eight nuclear power stations in the UK (formerly owned by British Energy). It decided not to participate with EDF in new build nuclear plants in the UK in 2013. In 2014, it announced the decision to put its three largest CCGT power stations up for sale (with a net book value of around £500 million). In 2015, it made the decision to retain ownership following a sales process after receiving bids significantly below internal valuation. Centrica's UK Energy Supply fuel mix for the year to 31 March 2013 is shown below in Figure 6.

**Figure 6: Centrica UK power generation fuel mix (year to March 2013)**



Source: Centrica.

16. Centrica Storage is legally, financially and physically separated from all other Centrica businesses.<sup>4</sup> Its assets include Rough gas storage, situated in the Southern North Sea, 18 miles of the coast of East Yorkshire, which stores gas on behalf of utilities, gas traders and gas producers, before processing it at its Easington terminal for onward distribution via the National Transmission System.
17. Bord Gais has been treated as a separate division since its acquisition in 2014.
18. Table 1 below summarises the importance of each division described above to Centrica's group profitability after tax in 2012 and 2013.

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<sup>4</sup> The separation arrangements were agreed in the Undertakings given by Centrica in 2003 and revised in 2012. Centrica's commercial gas storage team is separated from parts of Centrica that deal in gas supply, gas shipping, trading and storage procurement. A Code of Conduct prohibits the disclosure of commercially sensitive information by Centrica Storage to other parts of Centrica. [Centrica \(2012\)](#), [Storage Code of Conduct](#).

**Table 1: Contribution of divisions to Centrica's group profitability in 2012 and 2013**

Operating profit after tax	2012		2013	
	£m	%	£m	%
British Gas	823	54	777	52
Centrica Energy	441	29	468	32
Direct Energy	203	13	189	13
Centrica Storage	67	4	48	3
<b>Total</b>	<b>1,534</b>	<b>100</b>	<b>1,482</b>	<b>100</b>

Source: Centrica.

Note: Operating profit after tax is stated before exceptional items.

19. It can be seen from Table 1 that Centrica's energy supply business, British Gas, contributes just over half of group profit after tax. The most relevant businesses for our investigation are British Gas, in particular the Residential Energy Supply sub-division, as well as the UK power generation business in Centrica Energy. Other parts of the British Gas division are also likely to be of interest, as well as the Centrica Energy oil and gas E&P business and Centrica Gas Storage.

### *Group financial performance and recent announcements*

#### *Group financial performance*

20. Table 2 below shows Centrica's summary group performance from 2009 to 2013.

**Table 2: Summary of Centrica's group performance from 2009-2013**

	£bn				
	2009	2010	2011	2012	2013
Sales	22	22.4	22.8	23.9	26.6
EBIT, pre-exceptional	1.9	2.4	2.4	2.7	2.7
Exceptional items	(0.3)	0.7	(0.8)	(0.1)	(0.4)
Net income	0.8	1.9	0.4	1.2	1
Net assets	4.3	5.8	5.6	5.9	5.3
Net debt	3.1	3.02	3.1	3.9	5
EPS*	21.3p	24.4p	25.1p	26.6p	26.6p
DPS†	12.8p	14.3p	15.4p	16.4p	17.0p

Source: Centrica

\*Earnings per share, stated pre-exceptional items.

†Dividend per share.

21. From Table 2, we note that between 2009 and 2013:
- (a) Centrica has increased its exposure to oil and gas exploration and production (via Centrica Energy). It has done this via numerous oil and gas acquisitions in the UK and overseas;
  - (b) Centrica has increased its exposure to North American energy supply and services, again mainly via a series of acquisitions;

- (c) as a result of (a) and (b), Centrica group's relative exposure to UK electricity and gas supply and power generation has reduced;
- (d) net debt has increased from £3 billion to £5 billion over the period, mainly due to acquisitions. Leverage, as measured by net debt: equity, has increased from 72% to 96%; and
- (e) exceptional items were relatively large throughout the period and give rise to significant volatility in the net profit attributable to Centrica. These include re-measurements relating to certain energy contracts as well as a number of significant asset write-downs that have occurred in the period. Table 3 below shows some examples of the asset write-downs between 2010 and 2013.

**Table 3: Examples of Centrica's asset write-downs and impairments, 2010-2013**

	<i>£m</i>
2013 UK and North American oil and gas E&P	699
2013 UK Gas Storage assets	240
2012 Investment in nuclear new build	231
2012 Group restructuring	214
2011 Impairment of UK power generation assets	226
2011 Group restructuring	154
2010 Impairment of UK power generation assets	68
2010 Impairment of UK and North American oil and gas E&P	95

Source: Centrica

### *Recent announcements*

22. Centrica's most significant recent corporate announcements were:

- (a) its acquisition of Bord Gais;
- (b) its intention to dispose of its largest UK CCGT power stations. On 8 May 2014, Centrica announced its intention to release capital (sell) its three large CCGT plants, which together have a book value of around £500 million, in order to focus on smaller, flexible CCGT plants. It said that in the current environment, gas-fired plants offered reduced vertical integration benefits. Centrica subsequently made the decision to retain its CCGT assets following a sales process, as bids received were significantly below its internal valuation; and
- (c) its creation of a joint venture with Qatar Petroleum International (QPI). This announcement included the sale of some of Centrica's Canadian gas assets to QPI. It represented a continuation of Centrica's strategy to focus on expanding its oil and gas assets.

### *Businesses included in the CSS*

23. The CSS were introduced by Ofgem in 2009 and relate to those UK businesses which hold a supply or generation licence.<sup>5</sup> It may be useful to understand which of Centrica's businesses are included in these statements. They are:
- (a) **British Gas** – residential and business supply, together 'Supply', are included in the CSS. The Energy Services (eg boiler replacement) part of this division is not included; and
  - (b) **Centrica Energy** – the UK power generation business ('Generation').
24. Together, the UK generation and supply businesses covered by the CSS contributed around 46% of Centrica's group post-tax profit in 2013.
25. Additional analysis of supply and generation profitability was carried out during the course of our investigation (see Section 10 and Appendices 10.1 to 10.7).

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<sup>5</sup> The aim of the remedy was to provide better visibility/transparency regarding: (a) the profitability of different activities in the value-chain; and (b) the transfer price used by the supply and generation businesses to exchange wholesale energy to alleviate concerns about cross-subsidisation. Ofgem (October 2009), *Financial Information Reporting: Guidance*, paragraph 1.3.

**Table 4: Centrica's main acquisitions 1998–present**

<i>Date</i>	<i>Event</i>
1998	Development of Goldfish credit card.
July 1999	Acquisition of AA for £1.1 billion.
August 2000	Acquisition of Direct Energy for £406 million (US gas retailer that also owns gas reserves able to supply up to 20% of retail demand).
November 2002	Acquisition of Rough gas storage facility for £316 million (largest gas storage facility in GB).
September 2003	Sale of Goldfish.
October 2004	Sale of AA for £1.75 billion.
October 2004	Acquisition of maintenance business Dyno-Rod for £58 million, developing its home services offering.
June 2005	Acquisition of Dutch energy supplier Oxxio for £93 million.
September 2005	Acquisition of 25.5% stake in Belgian Energy supply business SPE for £98 million.
October 2005	Acquisition of interest in North Sea gas fields for £270 million.
December 2005	Disposal of OneTel telecommunications business for £154 million
March 2006	Acquisition of further interest in Stratfjord gas field in Norwegian North Sea for £151 million.
September 2007	Acquisition of North Sea gas assets for £242 million.
November 2007	Acquisition of Canadian gas assets for £57 million.
February 2008	Acquisition of further interest in North Sea gas assets for £36 million.
April 2008	Acquisition of Strategic Energy, a supplier into US I&C electricity market, for £151 million. Acquisition is designed to accelerate growth of Centrica's US business Direct Energy.
April 2008	Acquisition of Canadian gas assets for £28 million.
July 2008	Acquisition of Norwegian North Sea gas assets for £190 million.
September 2008	Acquisition of Caythorpe gas storage project (requiring additional investment of around £100 million).
January 2009	Acquisition of a further 25.5% stake in Belgian Energy supply business SPE for £547 million.
February 2009	Acquisition of controlling (70%) interest in Baird gas storage for £25 million. Baird is the second largest gas storage project in the UK and will take a further £1.2 billion of investment from Centrica to become fully operational.
May 2009	Sale of 51% stake in SPE to EDF.
May 2009	Acquisition of a 20% stake in British Energy from EDF for £2.3 billion. Stake is at a 6% discount to the price paid to acquire British Energy by EDF. Separate 80:20 joint venture also established for new nuclear development. EDF also agrees to provide an additional 18TWh (beyond 20% share) of power at market prices between 2011 and 2016.
August 2009	Acquisition of North Sea oil & gas business Venture Production plc for £1.3 billion.
October/ December 2009	Acquisition of 50% stakes in a number of Wind Farms requiring a further £750 million investment and subsequent sale of equity stakes in a number Wind Farm projects.
February 2010	Acquisition of equity interest in Trinidadian gas blocks for £246 million.
June 2010	Acquisition of North American home services business for £126 million (to be integrated into Direct Energy).
August 2010	Acquisition of Canadian gas assets for £229 million.
September 2010	Acquisition of further interest in Stratfjord gas field in Norway North sea for £144 million.
March 2011	Acquisition of New York based electricity retailer for £55 million (to be integrated into Direct Energy).
March 2011	Sells stake in Dutch energy retail business Oxxio for £63 million.
September 2011	Acquisition of Texas based energy retailer for £175 million.
November 2011	Acquisition of Norwegian gas and oil assets for £965 million and creation of strategic partnership with Statoil.
January 2012	Acquisition of further interest in Stratfjord gas field in Norwegian North sea for £142 million.
February 2012	Acquisition of a portfolio of UK North Sea oil & gas assets for £246 million.
July 2012	Acquisition of two New York based energy retailers for £71 million.
April 2013	Acquisition, with Qatar Petroleum International, of oil and gas assets in Western Canada for £650 million. Also creation of a North American upstream partnership.
May 2013	Sale of a 50% stake in Braes of Doune Wind Farm for £59 million.
July 2013	Acquisition of Hess Energy Marketing (one of the largest business to business gas and power suppliers in Eastern US) for £478 million (to be integrated into Direct Energy).
December 2013	Sale of Direct Energy's Texas based CCGT power stations for £420 million (returned to shareholders via a share buyback). Centrica also entered into a three year option agreement to buy power from the stations.
December 2013	Sale of Race Bank Wind Farm for £50 million (in development).
March 2014	Acquisition of state owned Bord Gais – a vertically integrated Irish gas and power business for £125 million.
November 2014	(Mandatory) disposal of Lincs Wind Farm transmission assets for £308 million.
December 2014	Sale of 50% stake in Barrow Wind Farm for £50 million.

Source: Centrica

## **EDF Energy**

26. Below is a brief overview of EDF SA (EDF). It is set out as follows:
- (a) The history of EDF.
  - (b) Current divisional structure.
  - (c) Group financial performance, strategy and recent announcements.
  - (d) Businesses included in Ofgem's CSS.

### *The history of EDF*

#### *The group*

27. EDF was founded in 1946 as a result of the nationalisation of the electricity generation, transmission and distribution industry in France.<sup>6</sup> It remained a vertically integrated monopoly until the electricity sector was first opened up to competition in France in 1999. In November 2004 it became a limited liability company, ahead of a partial stock market floatation in November 2005. The French state is an 84.5% shareholder and EDF also retains a significant number of small private shareholders.<sup>7</sup> On 31 December 2014 it had a market capitalisation in excess of €40 billion.
28. EDF is the number one generator of nuclear power globally. This position can be traced to the rapid roll-out of nuclear power plants in France under the 'Messmer Plan' following the oil crisis in 1973, when many of the 58 nuclear plants that EDF owns and operates in France today were constructed.
29. In France, EDF owns businesses across the entire electricity supply chain that are involved in:
- (a) generation, through its ownership of power plants. Most of the electricity generated is through nuclear power;<sup>8</sup>
  - (b) transmission, through its ownership of RTE, the electricity transmission system operator in France. It operates (but does not own) the transmission network. This business is operationally independent, as required by EU legislation;

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<sup>6</sup> On April 8 1946, a law nationalising 1,450 French electricity and gas generation, transmission, and distribution companies was passed. The state-owned industrial and commercial entities created were known under the acronym EPIC (établissement public à caractère industriel et commercial).

<sup>7</sup> EDF (2014), [Shareholding structure](#).

<sup>8</sup> 86.8% in 2012.

- (c) distribution, through its ownership of ERDF, which operates the distribution network in most of France. This business is operationally independent, as required by EU legislation; and
- (d) retail supply of gas and electricity to domestic and business customers.
30. EDF also has a majority stake in a consortium currently developing an LNG terminal at Dunkirk.
31. Since 1992, EDF has expanded internationally. Its main international businesses are in:
- (a) the UK, which is discussed below;
- (b) Italy, through its ownership of Edison, Fenice and a subsidiary of EDF Energies Nouvelles. Edison is the second largest power producer in Italy, with a strong focus on gas. Italy operates as the centre for EDF's gas business; and
- (c) Benelux, North America, Central and Eastern Europe and China.
32. Table 5 below shows the split of EDF's electricity generation on a group basis in 2013.

**Table 5: Split of EDF's electricity generation on a group basis in 2013**

	%	
	<i>Capacity</i>	<i>Generation</i>
Nuclear	52	74
Coal/fuel oil	18	9
Hydro	16	9
CCGT/gas	10	6
Other renewables	4	2

Source: EDF

### *EDF Energy – UK business*

33. EDF Energy (EDF UK) is the UK subsidiary of EDF Group. It has six million customers and over 15,000 employees. Table 6 below shows the key acquisitions which led to the current business.

**Table 6: Key acquisitions leading to creation of EDF Energy's current UK business**

<i>Date</i>	<i>Event</i>
November 1998	Acquisition of London Electricity Plc (former London Electricity board) for £[REDACTED].
July 1999	Acquisition of electricity supply business of SWEB plc (former South West electricity Board) for £[REDACTED].
2000-2001	Acquisition of 3 power stations (1 CCGT, 2 coal) at 3 sites (Cottam, West Burton, Sutton Bridge).
July 2002	Acquisition of SEEBOARD Plc (former South East Electricity Board) for £[REDACTED].
September 2008	Acquisition of 80% of British Energy (which operates 15 nuclear plants at 8 sites in the UK) for €[REDACTED].
July 2010	Sale of UK Electricity Distribution Networks business for €[REDACTED] (now called UK Power Networks).

Source: EDF.

34. It can be seen from Table 6 that EDF UK was developed through the acquisition of three of the original England and Wales regional electricity companies (RECs), beginning with London Electricity in November 1998. It then added electricity generation through the initial acquisition of three thermal power plants in 2000/2001 and the subsequent purchase of 80% of British Energy (in which Centrica has a 20% minority stake) in 2009.
35. In 2010, it sold the electricity distribution network assets for London Seaboard and Eastern areas. This sale left EDF Energy in its current form, with interests in supply and generation.
36. Table 7 below shows the split of electricity generation by fuel type for EDF UK in 2013.

**Table 7: Split of electricity generation by fuel type for EDF UK in 2013**

	%	
	<i>Capacity</i>	<i>Generation</i>
Nuclear	62	70
Coal	28	27
CCGT and co-generation	9	2
Other renewables	1	1

Source: EDF

#### *Current divisional structure and financial performance*

37. EDF segments its business on a geographic basis. Table 8 below summarises the performance of the business segments in 2013.

**Table 8: Performance of EDF's geographic business segments in 2013**

	<i>€bn</i>					
	<i>France</i>	<i>UK</i>	<i>Italy</i>	<i>Other int'l</i>	<i>Other</i>	<i>Total</i>
Sales	40.2	9.8	12.7	6.4	2.9	71.92
EBITDA	10.8	2.0	1.1	0.8	1.5	16.1
EBIT	6.2	1.0	0.2	-0.2	1.0	8.3
Total assets	126.3	26.0	13.3	10.9	19.08	250.9

Source: EDF

38. It also provides sales segmentation by activity. This is shown below in Table 9.

**Table 9: Segmentation of EDF sales by activity in 2013**

	Sales	
	€bn	%
Generation and supply – France	25.8	36
Generation and supply – RoW*	29.7	41
Distribution – France	14.7	20
Distribution – RoW	0.8	1
Other – RoW	1.0	2
Total	71.9	100

Source: EDF.

\*Rest of World.

Note: The table excludes 'Transmission' in RoW, 'Other' in France and 'Eliminations', which each represent less than 1% of group sales.

39. It can be seen from tables 8 and 9 that while EDF has significant international exposure (especially in terms of sales), France remains the most important profit centre for EDF, representing around 74% of total EBIT in 2013. The UK is the next most significant geography, representing around 12% of EBIT in 2013.

### *Group financial performance and recent announcements*

#### *Group financial performance*

40. Table 10 below shows EDF's summary group performance over the last five years.

**Table 10: Summary of EDF's group performance from 2009 to 2013**

	€bn				
	2009	2010	2011	2012	2013
Sales	66.3	63.9	65.3	72.2	71.9
EBITDA	17.5	16.6	14.8	16.0	16.8
Net income	3.9	1.0	3.0	3.3	3.5
Equity	28.0	31.3	30.6	26.3	34.2
Net debt	42.5	34.4	33.3	41.6	33.4
EPS*	2.14	0.55	1.63	1.77	1.84
DPS†	1.15	1.15	1.15	1.25	1.25

Source: EDF

\*Earnings per share.

†Dividend per share.

Note: All financials are presented post-exceptional items.

41. From Table 10 we note the following:
- (a) Profits have been relatively stable over the period. The significant reduction in net income in 2010 was driven by a number of non-recurring provision increases in Italy and the USA.
  - (b) Variations in net debt have to a large extent been driven by acquisition and disposal activity as well as high capital investments in its businesses. At the beginning of the period, net debt was at a relatively high level following the acquisitions of 80% of British Energy (for €11.1 billion) and

49.99% of Constellation Energy's nuclear business in the USA (for €3.1 billion). Net debt then fell in 2010 following the disposal of its UK electricity distribution networks business for €6.7 billion and its stake in German electricity provider EnBW for €7.1 billion. The acquisition of Edison for €3.3 billion in 2012 resulted in another short term increase in net debt.

### *Strategy and recent announcements*

42. We note the following recent announcements on EDF's strategy:
- (a) It has agreed terms with the UK government for a new build nuclear plant at Hinkley Point C, which it described as a defining strategic agreement for the EDF group in 2013. The agreement guarantees an electricity price of £92.50/MWh, rising with inflation, for 35 years. EDF will undertake construction and has a stake of 45 to 50% in the project.<sup>9</sup>
  - (b) EDF is targeting positive cash-flow by 2018 excluding the Linky programme (responsible for the roll-out of 35 million smart meters in France by 2021) and it sees its major strategic issues between 2014 and 2018 being:
    - delivering on major industrial projects in France, in particular the Dunkirk LNG terminal and the Flamanville 3 nuclear plant, which will complete in 2017; and
    - selective development within and outside Europe. Within Europe the focus is on Hinkley Point in the UK and Edison in Italy.

### *Businesses included in the CSS*

43. The CSS were introduced by Ofgem in 2009 and relate to those UK businesses which hold a supply or generation licence.<sup>10</sup> Only the UK supply and generation elements of EDF's businesses are included in these statements. As we do not have a detailed breakdown of the UK business, it is not possible at this stage to say which elements are excluded from these statements (for example, trading and energy services).

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<sup>9</sup> Other participants are: Areva (10%), Chinese partners – CNNC and CGN (30 to 40%), and Others (up to 15%).

<sup>10</sup> The aim of remedy was to provide better visibility / transparency regarding: (a) the profitability of different activities in the value-chain; and (b) the transfer price used by the supply and generation businesses to exchange wholesale energy, to alleviate concerns about cross-subsidisation. Ofgem (October 2009), [Financial Information Reporting: Guidance](#), paragraph 1.3.

44. Additional analysis of supply and generation profitability was carried out during the course of our investigation (see Section 10 and Appendices 10.1 to 10.7).

## **E.ON**

45. Below is a brief overview of E.ON SE (E.ON). It is set out as follows:
- (a) The history of E.ON group and E.ON UK.
  - (b) Current divisional structure.
  - (c) Group financial performance, strategy and recent announcements.
  - (d) Businesses included in Ofgem's CSS.

### *The history of E.ON*

#### *The group*

46. E.ON is based in Düsseldorf and is the result of the merger of two of Germany's largest industrial conglomerate groups (VEBA and VIAG) in June 2000. VEBA and VIAG were founded in the 1920s to serve as holding companies for German state-owned industrial enterprises. They owned businesses across a large number of sectors, including electricity, chemicals, logistics and real estate.
47. VEBA and VIAG were privatised and listed on the DAX (the stock index of Germany's top 30 blue chips) in various stages during the 1960s and 1980s, with the government selling its final interest in 1988. Prior to the merger VEBA and VIAG narrowed their focus through a number of divestments. Following the merger, E.ON focused on the energy and chemicals sectors. Later, the focus became energy. During this process of focusing the business VEBA and VIAG (and then E.ON) undertook numerous disposals and acquisitions.
48. Today, E.ON is one of the world's largest investor-owned energy businesses. It operates in Europe, Russia, and North America with more than 58,000 employees, 33 million customers and around €122 billion in sales. It also has joint venture businesses in Brazil and Turkey. Its businesses include renewables, conventional and decentralized power generation, natural gas, energy trading, retail and distribution.

## E.ON UK

49. At privatisation, the electricity generation assets of England and Wales, 11 which had previously been held by the Central Electricity Generation Board (CEGB), were split between three companies:<sup>12</sup> Powergen, National Power and Nuclear Electric. Powergen was formed in 1989 and privatised in two tranches in 1991 and 1995.
50. E.ON acquired Powergen in July 2002 and eventually renamed the business E.ON UK.<sup>13</sup> The business is headquartered in Coventry. Table 11 below shows the main corporate activity undertaken by the business (as both Powergen and then as the UK subsidiary of E.ON).

**Table 11: Main corporate activity of E.ON and its predecessor, Powergen, from 1996–2012**

<i>Date</i>	<i>Event</i>
1996	Powergen sells by way of lease 2 coal-fired power stations following a voluntary undertaking to offer to divest 2GW of plant.
July 1998	Purchase of East Midlands Electricity for £1.9 billion. Regulatory approval conditional upon divestment of further 4GW of plant completed in 1999.
2000/2001	Disposed of a further 2.7GW of generation plant.
December 2001	Powergen purchased LG&E Energy, Kentucky, USA for £3.9 billion.
July 2002	E.ON AG acquires Powergen (Including LG&E) for €15 billion.
October 2002	Purchase of UK business of TXU Europe Group for £1.6 billion.
January 2004	Purchase of Midlands Electricity Distribution network (merged with the East Midlands distribution business and renamed Central Networks) for £1.2 billion.
March 2011	Sale of Central Networks for £4 billion.
October 2012	Sale of its 50% stake in Horizon Nuclear Power to Hitachi for £348 million.
December 2014	E.ON announces that the future of E.ON will focus on renewables, energy networks and customer solutions. Conventional generation, global energy trading and exploration will be combined and spun off in a new independent company, Uniper, in 2016.

Source: E.ON and Powergen annual reports and press releases.

51. It can be seen from Table 11 that a small number of significant acquisitions and disposals have developed the original Powergen electricity generation business into the vertically integrated (by virtue of common ownership) supply and generation businesses of E.ON UK.
52. East Midlands Electricity was the third largest REC. It added 2.3 million customers as well as the electricity distribution network in the region. At the time, Powergen said that that the acquisition would provide a platform to develop a national domestic supply business ahead of the full liberalisation of the electricity market.

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<sup>11</sup> In Scotland, electricity was privatised on a vertically integrated basis.

<sup>12</sup> Two pumped storage units were transferred to National Grid.

<sup>13</sup> This process took place between July 2004 and December 2007.

53. TXU added a further 5.5 million customers and three coal fired power stations, making Powergen the largest electricity supplier in GB and second largest gas supplier (behind British Gas).
54. Midlands Electricity added an electricity distribution network contiguous to the East Midlands network which had been acquired in 1998. The two electricity distribution network businesses were merged and renamed Central Networks. By the time of this acquisition, distribution network assets had to be operated independently of retail businesses. Central Networks was eventually sold by E.ON as part of a global divestment programme in March 2011.
55. In October 2012, E.ON exited the Horizon nuclear joint venture that had been formed in 2009 with RWE to invest in new nuclear capacity in the UK. Hitachi acquired 100% of Horizon in October 2012.

#### *Current divisional structure and financial performance*

56. E.ON operates with five global units (by function) and nine regional units (by country). The five global units are:
  - (a) Exploration & Production, which is an oil and gas E&P business that is active the UK North Sea, the Norwegian North Sea, Russia and North Africa.
  - (b) Generation, which oversees and coordinates the operations of E.ON's generation portfolio in Europe. Its generation fleet is one of the biggest in Europe with major asset portfolios in Germany, the UK, Sweden, Italy, Spain, France, and the Benelux countries.
  - (c) Technologies, which supports the construction of new power plants and the operation of existing plants across E.ON. It also executes research and development projects.
  - (d) Global Commodities, which buys and sells electricity, natural gas, LNG, coal, freight, and carbon allowances. In addition, it manages and develops assets at several stages of the gas value chain, including pipelines, long-term supply contracts, and storage facilities.
  - (e) Renewables, which develops, builds and operates large renewable energy assets in a technology portfolio covering onshore and offshore wind and photovoltaic and concentrating solar power, primarily in Europe and North America.<sup>14</sup>

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<sup>14</sup> From 1 January 2015 Generation and Renewables merged into a single global unit called Next Generation.

57. The nine regional units in Europe manage sales operations, regional energy networks, and distributed-generation businesses in their respective countries. These are: Germany, UK, Sweden, France, Netherlands, Hungary, Czech Republic, Slovakia, and Romania. In addition, E.ON has operations in Russia, as well as joint ventures in Brazil and Turkey.
58. The UK regional business is engaged in the sale of gas and electricity products to almost eight million domestic and business customer accounts. It has five million electricity and three million gas customer accounts. This business does not contain conventional generation or commodities trading assets – these form part of the separately run Generation and Global Commodities units (where a country breakdown of financial performance is not provided).
59. Table 12 below provides a breakdown of E.ON's UK operational generation capacity by type of generating fuel.

**Table 12: Breakdown of E.ON's UK generation capacity by fuel type**

Type	Number of sites	Capacity (MW)
Coal	1	2021
Gas	5	3840
Offshore wind	4	429
Onshore wind	14	262
CHP*	8	209†
Biomass	2	44

Source: E.ON.

\*Gas Combined Heat and Power.

†Electrical output, sites also produce heat. E.ON equity MW.

60. In Table 13 below we show the segmental financial performance of the business in 2013, as presented in the group annual report.

**Table 13: E.ON's segmental financial performance in 2013**

	€bn		
	Sales	EBITDA	Operating cash-flow
Generation	11	1.9	1.6
Renewables	2.4	1.4	1.5
Global Commodities	90	0.4	-1.8
Exploration & Production	2.1	1.1	1.0
Germany	36.8	2.4	3.3
Other EU countries	23.3	2.2	2.5
Non-EU Countries	1.9	0.5	0.6
Group Management/ Consolidation	-45	-0.5	-0.7
Total	122.5	9.3	8.0

Source: E.ON.

61. There is some additional breakdown of the segment 'Other EU countries', of which the UK supply business is a part. The information available for the UK is shown below in Table 14.

**Table 14: Information relating to E.ON UK's supply business**

	€m	
	2012	2013
Sales	9,701	9,714
EBITDA	289	378
Operating cash-flow	278	395
Investments	141	106

Source: E.ON.

62. It can be seen from Tables 13 and 14 that the UK regional business unit represents around 8% of E.ON group sales and 4% of EBITDA. However, this underrepresents the UK's importance to E.ON since it does not include the UK generation assets (which are a part of the Global Generation segment). In addition, Global Commodities may generate some profit from its interactions with E.ON's retail and generation businesses in the UK.

### *Group financial performance and recent announcements*

#### *Group financial performance*

63. Table 15 below shows E.ON's summary group financial performance over the last five years.

**Table 15: Summary of E.ON's group financial performance from 2009–2013**

	€bn				
	2009	2010	2011	2012	2013
Sales	81.8	92.9	113	132.1	122.5
EBITDA	13.5	13.3	9.3	10.8	9.3
EBIT	9.6	9.5	5.4	7	5.7
Equity	44	45.6	39.6	38.8	36.4
Net debt	44.7	37.7	36.4	35.9	32
EPS*	€4.41	€3.07	–€1.16	€1.49	€1.12
DPS†	€1.50	€1.50	€1.0	€1.10	€0.60

Source: EON

\*Earnings per share.

†Dividend per share.

Note: EBITDA and EBIT are stated pre-exceptional items.

64. We note the following from Table 15:
- (a) There has been a significant reduction in profitability over the last five years. For example, EBIT has fallen by 40% and EPS has fallen from over €4 per share to just over €1 per share.
  - (b) Financial performance reduced notably in 2011. This was caused by the shut-down of nuclear power stations in Germany<sup>15</sup> following the

<sup>15</sup> All German nuclear facilities are scheduled to close by 2022.

Fukushima disaster, the introduction of a nuclear fuel tax as well as margin pressure in its gas business.

- (c) During this period E.ON has reduced net debt from €44.7 billion to €32 billion. It has done this mainly through a series of asset disposals, for example the £4 billion sale in March 2011 of Central Networks.
- (d) While E.ON has been profitable (as measured by pre-exceptional EBITDA/EBIT) during the period, it has generated low levels of positive free cash-flow. This has been caused in part by high levels of capital investment in its businesses.

### *Strategy and recent announcements*

65. We note the following elements of E.ON's current strategy:
- (a) E.ON aims to become free cash-flow positive by 2015, to enable the business to reduce leverage organically, instead of through disposals.
  - (b) It aims to become much more efficient and has a cost reduction strategy to save €1.3 billion annually by 2015, by reducing employee headcount by 11,000.
  - (c) It aims to invest prudently in future, which means that forecast capital expenditure will drop to around €4 billion by 2016, as compared with around €7 billion in 2012. This will bring capex close to depreciation and improve free cash-flow.
66. In its Q1 2014 interim report,<sup>16</sup> E.ON said that it believed that the German energy market presented it with the biggest energy policy and regulatory challenges. It said that the energy system can be transformed efficiently and in a way that ensures supply reliability. In its view, a key element of ensuring reliability is providing appropriate compensation for conventional generating capacity. It noted the broad consensus for such compensation in France, the United Kingdom, and Italy, which all will establish capacity markets in the near future.

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<sup>16</sup> E.ON (2014), *Interim Report I*.

### *Businesses included in the CSS*

67. The CSS were introduced by Ofgem in 2009 and relate to those UK businesses which hold a supply or generation licence.<sup>17</sup> It may be useful to understand which of E.ON's businesses are included in these statements:
- (a) Regional Business Unit UK.
  - (b) Global Generation – the UK generation element of this business is included.
68. Additional analysis of supply and generation profitability was carried out during the course of our investigation (see Section 10 and Appendices 10.1 to 10.7).

### ***Iberdrola (Scottish Power)***

69. Below is a brief overview of Iberdrola SA (Iberdrola) and its UK subsidiary Scottish Power. It is set out as follows:
- (a) The history of Iberdrola and Scottish Power.
  - (b) Current divisional structure.
  - (c) Group financial performance, strategy and recent announcements.
  - (d) Businesses included in Ofgem's CSS.

### *The history of Iberdrola and Scottish Power*

#### *Iberdrola*

70. Iberdrola is headquartered in Bilbao, Spain. It is the result of the 1991 merger of Iberduero and Hidroeléctrica Española. Its largest shareholder is Qatar Investment Authority, with a 9.6% stake.
71. In the late 1990s Iberdrola began expanding internationally, beginning in South America. In 2001, it decided to focus on the energy sector, investing in generation and electricity networks in Spain, Mexico and Brazil. It also began investing heavily in wind energy.

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<sup>17</sup> The aim of remedy was to provide better visibility/transparency regarding: (a) the profitability of different activities in the value-chain; and (b) the transfer price used by the supply and generation businesses to exchange wholesale energy, to alleviate concerns about cross-subsidisation. Ofgem (October 2009), [Financial Information Reporting: Guidance](#), paragraph 1.3.

72. From 2007, it embarked on a further major international expansion, which led to the acquisitions of Scottish Power in the UK and Energy East (now Iberdrola USA). In 2011, it purchased the Brazilian company Elektro for US\$2.4 billion.
73. As a result of its international expansion Iberdrola now has significant electricity businesses in Spain, the UK, the USA, Mexico and Brazil. Taking each in turn, further details are presented below:
- (a) In Spain it operates six nuclear plants, two coal fired power stations, eight CCGT power plants, 119 hydroelectric plants and 195 wind farms. It also owns electricity distribution network assets and supply businesses.
  - (b) In the UK, through Scottish Power, Iberdrola operates one coal-fired power plant, three hydroelectric power plants, four CCGT power plants and 32 wind farms. It also owns regulated electricity transmission (in Scotland) and distribution (in England, Scotland and Wales) network assets.<sup>18</sup> We discuss the development of this business in greater detail below.
  - (c) In the USA, it owns electricity generation, transmission, distribution and retail assets as well as a gas storage business.
  - (d) In Brazil, it is the largest electricity distribution network owner and also owns electricity generation and retail businesses.
  - (e) In Mexico, Iberdrola is the largest private power producer, owning six CCGT power plants and five wind farms.

#### *Scottish Power*

74. Iberdrola made an agreed bid for Scottish Power in November 2006, and the acquisition completed in 2007. The Iberdrola bid amounted to 777 pence per share<sup>19</sup> plus a special dividend of 12 pence per share valuing the share capital at £11.6 billion. A year earlier Scottish Power had rejected a bid from E.ON in November 2005 at 570 pence per share.
75. Scottish Power was formed in 1990 and privatised in June 1991. It traces its history to the South of Scotland Electricity Board<sup>20</sup> (SSEB), which was a vertically integrated public utility operating electricity transmission, distribution

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<sup>18</sup> [Iberdrola Integrated Report 2015](#).

<sup>19</sup> Based on Iberdrola closing share price as at 27 November 2006, the day before the accepted offer was announced.

<sup>20</sup> Which itself was a result of the 1955 merger of the South-East Scotland Electricity Board and the South-West Scotland Electricity Board.

and supply in the south of Scotland. The North of Scotland Hydroelectric board (which became SSE) was the equivalent in the north of Scotland. Most of SSEB's assets, the notable exception being the nuclear power stations, were included in the privatisation of Scottish Power.

76. It is worth noting that in Scotland the electricity industry was privatised on a vertically integrated basis, unlike England and Wales where the RECs initially owned the distribution network and retail supply but no power generation assets.
77. Table 16 below shows the key corporate activity following privatisation which led to the current structure of the Scottish Power business.

**Table 16: Key corporate activity leading to current structure of the Scottish Power business 1995–2006**

<i>Date</i>	<i>Event</i>
October 1995	Acquisition of Manweb Plc (formerly Merseyside and North Wales Electricity Board) for £1.1bn.
August 1996	Acquisition of Southern Water for £1.7bn.
December 1998	Acquisition of Pacifcorp for \$10.3bn.
November 1999	Floated 50% of Thus Telecoms business for circa £1bn (fully demerged in 2002 and eventually acquired by Cable & Wireless in 2008).
March 2002	Sale of Southern Water for £2bn.
May 2005	Sale of Pacifcorp (to Berkshire Hathaway) for \$9.4bn.
November 2006	Agreed takeover of Scottish Power by Iderbrola (completed 2007).

Source: Various.

78. It can be seen from Table 16 that in 1995 Scottish Power acquired Manweb, a REC, expanding its reach into England and Wales. Between 1996 and 2006 it also acquired and then subsequently sold Southern Water and Pacificorp (an electric power company based in the northwest USA). The sale of Pacificorp to Berkshire Hathaway generated an impairment charge of £927 million. By 2002 Scottish Power fully demerged a telecommunications business that it had developed.

### *Current divisional structure and financial performance*

79. Iberdrola organises its business into three segments:
- (a) Networks contains the businesses that are regulated, for example Scottish Power's electricity transmission and distribution assets.
  - (b) Wholesale and Retail contains businesses that operate in liberalised energy markets, for example the electricity generation and supply businesses of Scottish Power.
  - (c) Renewables contains the renewable energy assets.

80. Iberdrola also segments financial performance for its Networks division and its Wholesale & Retail division by country. Spain, the UK, the USA, Brazil and Mexico represent the vast proportion of its geographic exposure.
81. Table 17 below summarises the profits (as measured by EBITDA) generated by each of the business segments and countries between 2009 and 2013.

**Table 17: Profits as measured by EBITDA of each of Iberdrola's business segments and national divisions between 2009 and 2013**

	<i>€bn</i>				
	2009	2010	2011	2012	2013
Group	6.8	7.5	7.7	7.7	6.8
Networks	2.7	3.5	3.8	3.8	3.3
Spain	1.1	1.4	1.6	1.3	1.5
UK	0.7	0.8	0.8	0.9	0.9
US	0.5	0.7	0.5	0.7	0.7
Brazil	0.5	0.6	0.9	0.8	0.2
Wholesale & Retail	2.5	2.4	2.3	2.4	2.0
Spain	1.3	1.5	1.6	1.6	1.3
UK	0.7	0.5	0.3	0.4	0.3
US	0.0	0.0	0.0	0.0	(0.0)
Mexico	0.4	0.4	0.4	0.4	0.4
Renewables	1.3	1.5	1.4	1.6	1.5
Other	0.3	0.2	0.2	0.0	-0.1

Source: Iberdrola.

82. It can be seen from Table 17 that Spain represents the largest component of Iberdrola's profits, at around 40% of total EBITDA.
83. It can also be seen that the UK regulated networks business (which comprises electricity transmission and distribution assets in Scotland and electricity distribution assets in England and Wales) is much more significant than the UK Wholesale & Retail business. For example, between 2011 and 2013, UK networks generated more than double the EBITDA of the UK Wholesale & Retail business.

### *Group financial performance and recent announcements*

#### *Group financial performance*

84. Table 18 below shows Iberdrola's summary group financial performance over the last five years.

**Table 18: Summary of Iberdrola's group financial performance from 2009 to 2013**

	€bn				
	2009	2010	2011	2012	2013
Sales	25.9	30.4	31.6	34.2	31.1
EBITDA	6.8	7.5	7.7	7.7	5.8
EBIT	4.5	4.8	4.5	4.4	2.2
Net income	2.8	2.9	2.8	2.8	2.6
Equity	29.0	31.7	33.2	34.1	35.3
Net debt	28.5	29.5	31.7	30.3	28.1
EPS*	€0.54	€0.52	€0.47	€0.45	€0.41
DPS†	€0.33	€0.34	€0.34	€0.34	€0.31

Source: Iberdrola.

\*Earnings per share.

†Dividend per share.

Note: In 2013 there was a significant positive tax effect which means that net income and EPS is not comparable with previous years.

85. From Table 18 we note the following:

- (a) Between 2009 and 2012 Iberdrola reported a very stable level of profits (as measured by EBIT/EBITDA and net income), although it did acquire businesses which added to profits over this period (for example Elektro in Brazil) so the underlying profit performance was slightly negative.
- (b) In 2013, EBIT fell by 50%. This was driven by one-off impairments in Brazil and the Renewables division. EBITDA fell by around 12%, mainly due to an increase in generation taxation in Spain of €0.5 billion.

#### *Strategy and recent announcements*

86. For 2014 Iberdrola forecasts a further reduction in EBITDA to €6.6 billion (a fall of 8%), followed by growth in profits in 2015 and 2016.

87. We note the following elements of Iberdrola's strategy:

- Iberdrola sees its three strategic pillars as being:
  - a balanced risk profile, which includes increasing its geographic diversification and concentrating more than 80% of future investments into its lower risk networks division;
  - operational efficiency, which means reducing headcount and keeping costs flat; and
  - financial strength, which means targeting a further reduction in net debt to €25 billion and active management of its existing portfolio of assets.
- It says that it sees regulatory uncertainty in some European markets, due to: lack of clear energy policy; unstable and unpredictable legal and

regulatory frameworks; excessive taxes and charges; and unattractive returns. It said that the consequences of this include higher charges to consumers, loss of competitiveness and longer term supply risk.

- It said that it sees a more predictable and stable regulatory framework in the US and Latin America. In the UK, the investment focus for 2014/16 is stated to be networks and wind generation.

### *Businesses included in the CSS*

88. The CSS were introduced by Ofgem in 2009 and relate to those UK businesses which hold a supply or generation licence.<sup>21</sup> The CSS capture Iberdrola's UK Wholesale & Retail business, but not its UK Networks business. The renewables business may also contain some UK generation activity, which is captured in the CSS.
89. Additional analysis of supply and generation profitability was carried out during the course of our investigation (see Section 10 and Appendices 10.1 to 10.7).

### **RWE AG**

90. Below is a brief overview of RWE AG (RWE) and its UK subsidiaries. It is set out as follows:
- (a) The history of RWE and its UK retail and generation subsidiaries.
  - (b) Current divisional structure.
  - (c) Group financial performance and recent announcements.
  - (d) Businesses included in Ofgem's CSS.

### *The history of RWE*

#### *RWE*

91. RWE is based in Essen, North Rhine-Westphalia. In 2013 it was the largest electricity producer in Germany. In the early 1990s it was an industrial conglomerate with interests that included energy, mining, raw materials,

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<sup>21</sup> The aim of remedy was to provide better visibility/transparency regarding: (a) the profitability of different activities in the value-chain; and (b) the transfer price used by the supply and generation businesses to exchange wholesale energy, to alleviate concerns about cross-subsidisation. Ofgem (October 2009), [Financial Information Reporting: Guidance](#), paragraph 1.3.

petroleum/chemicals, waste management and engineering. It has subsequently narrowed its focus to become a utility with a focus on the electricity and gas supply chain. RWE's international expansion has been focused on Europe, although between 2001 and 2008 it owned American Water. RWE's wholesale energy and commodities trading business, RWEST, operates globally.

92. Until very recently RWE operated across the entire electricity and gas supply chain, including the upstream production of oil and gas. However, it sold its upstream oil and gas production business (RWE Dea) in March 2015 which resulted in its main businesses being:
- (a) power generation in Germany, the UK and the Netherlands;
  - (b) electricity distribution networks and supply in Germany;
  - (c) electricity, gas and energy services supply in the Netherlands and Belgium (this business is called Essent);
  - (d) electricity, gas and energy services supply in the UK (through npower);
  - (e) networks, generation and supply in Central Eastern and Southern Eastern Europe (through RWE East);
  - (f) renewables generation, through RWE Innogy; and
  - (g) Wholesale energy and commodities trading, through RWE Supply and Trading.

#### *RWE in the UK*

93. The UK retail and generation arm of RWE traces its history back to National Power, which was one of the three England and Wales electricity generation companies formed from the CEGB during the privatisation of the UK electricity industry (the other two being PowerGen and Nuclear Electric). It was created in 1990 and at that time generated around 50% of the electricity supplied in England and Wales, 91% of which was generated from coal.
94. It was privatised in March 1991 and the government sold its remaining 40% stake in 1995. It is worth noting that National Power's business included a significant portfolio of international power generation assets that it had acquired after privatisation, which became a separate business (International Power) following the demerger of National Power in 2000.
95. Table 19 below shows the key corporate activity following the privatisation of National Power which led to the current structure of the business.

**Table 19: Key corporate activity leading to the current structure of the RWE UK retail and generation business 1996–2013**

<i>Date</i>	<i>Event</i>
1996	Sale of 3 coal-fired power stations to Eastern Group (following a 1994 investigation by Offer).
March 1999	Purchase of Calortex adding 500,000 gas customers.
June 1999	Purchase of supply business of Midlands Electricity (formerly Midlands Electricity Board).
December 1999	Sale of 4,000 MW Drax power station for £1.9bn.
March 2000	Sale of Eggborough power station and Killingholme power station.
September 2000	Purchase of Independent Energy adding 240,000 customers.
October 2000	Demerger of National Power into Innogy (UK operations) and International Power (predominantly international operations).
April 2001	Purchase of Yorkshire Electricity Plc (previously Yorkshire Electricity Board) for £1.8bn.
September 2001	Asset swap – Innogy swaps Yorkshire Electricity networks business for supply business of Northern Electric (previously Northern Electricity Board).
May 2002	RWE acquisition of Innogy Holdings plc completes. Business is later renamed RWE Innogy Holdings plc and then later renamed RWE npower Holdings plc.
January 2004	The trading business of RWE Innogy plc was transferred to RWE Trading GmbH.
March 2006	Purchased Gas Supply Ltd, Electrical Plus Supply Ltd and Plus Shipping Services Ltd.
February 2008	On 1 February 2008 the renewables generation assets of the RWE Group were consolidated in a new company, RWE Innogy (UK) Limited being wholly owned by RWE Innogy (GmbH).
January 2009	Purchase of Superior Plumbing Installations Group, one of the UK's largest building services businesses.
January 2013	Completed the operational management separation of the retail and generation (non-renewables) businesses in the UK. European generation business RWE Generation SE begins operation.
December 2013	Sold Gas Plus Supply Ltd, Electricity Plus Supply Ltd.
July 2014	Changed name of UK generation business RWE Generation, UK plc.

Source: RWE.

96. It can be seen from Table 19 above that from its beginnings as the largest power generator in England and Wales, the business then vertically integrated through the purchase and acquisition of the supply businesses of three RECs (Midlands, Yorkshire, Northern) as well Independent Energy and Calortex. During this period it also sold a significant amount of generation capacity, firstly in 1996 as following an Offer investigation and then with the sale of the giant Drax coal-fired power station<sup>22</sup> in 1999 and Eggborough and Killingholme in 2000.
97. By the time National Power was demerged into Innogy and International Power in October 2000, Innogy owned eight UK power stations and had a market share of around 9% of generation (as compared to around 50% at privatisation in 1991).
98. In addition it is worth noting that RWE Group acquired Thames Water for £4.3 billion in 2001 and then subsequently sold it for £4.8 billion in December 2006 to a group led by Macquarie Group (both figures net of debt).

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<sup>2222</sup> The largest power plant in the UK.

99. In October 2012, RWE npower plc sold its stake in Horizon Nuclear Power, which was a joint venture (with E.ON) set up to develop new build nuclear power plants in the UK. Hitachi acquired 100% of Horizon.

*Current structure and financial performance*

100. Table 20 below summarises the profits (as measured by EBITDA) generated by each of the group's segments and geographies in 2012 and 2013.

**Table 20: Profits as measured by EBITDA generated by each of RWE Group's business segments and geographies in 2012 and 2013**

	<i>€bn</i>	
	2013	2012
RWE Group	8.8	9.3
Conventional Power Generation	2.4	4.4
of which:		
Continental Western Europe	2.3	3.9
United Kingdom	0.2	0.5
Supply/Distribution Networks Germany	2.3	2.3
Central Eastern and South Eastern Europe	1.3	1.3
Upstream Gas & Oil	0.9	1.0
Supply Netherlands/Belgium	0.4	0.3
Supply United Kingdom	0.4	0.4
Renewables	0.4	0.4
Trading/Gas Midstream	0.8	(0.6)
Other, consolidation	(0.2)	(0.1)

Source: RWE.

101. It can be seen from Table 20 that:
- (a) the UK represents a relatively small proportion of group profit. In 2013 UK conventional power generation and UK supply contributed a little under 7% of RWE EBITDA (10% in 2012);
  - (b) conventional power generation currently represents the most significant element of RWE's EBITDA (47% in 2012, 27% in 2013) but it is expected to become less important in the future;
  - (c) Upstream Oil & Gas represented around 10% of group EBITDA in 2013. RWE sold its upstream oil and gas production business (RWE Dea) in March 2015; and
  - (d) given (b) and (c), in the future RWE's business will become increasingly exposed to networks and supply in Germany, Central Eastern Europe and South Eastern Europe.

## Group financial performance and recent announcements

### Group financial performance

102. Table 21 below shows RWE's summary group financial performance over the last five years.

**Table 21: Summary of RWE's group financial performance from 2009–2013**

	€bn				
	2009	2010	2011	2012	2013
Sales	47.7	53.3	51.7	53.2	54.1
EBITDA	9.2	10.3	8.5	9.3	8.8
EBIT	7.1	7.7	5.8	6.4	5.9
Net income*	3.5	3.8	2.5	2.5	2.3
Equity	13.7	17.4	17.1	16.5	12.1
Net debt	25.8	29.0	29.9	33.0	30.7
EPS*†	€6.63	€7.03	€4.60	€4.00	€3.76
DPS‡	€3.50	€3.50	€2.00	€2.00	€1.00
ROCE (RWE measure)	16.3%	14.4%	10.9%	12.0%	10.8%

Source: RWE.

\*Sated pre-exceptional items.

†Earnings per share.

‡Dividend per share.

103. From Table 21 we note the following:

- (a) While sales have grown over the period, profits have reduced and the dividend has been cut significantly. EBIT has fallen by 17% and the dividend per share has fallen by more than 70%, from €3.5 to €1.0.
- (b) RWE's power generation business has been a key driver for the reduced levels of profits. For example, in 2010, its German power generation business alone reported EBITDA of €4.5 billion; by 2013 its entire power generation business (including the UK and the Netherlands) reported EBITDA of €2.3 billion, and this is expected to fall significantly further in 2014.

### Strategy and recent announcements

104. In the medium term RWE expects its power generation business to represent only 5 to 10% of group profit, compared to 50% in 2012. A number of RWE's power generation assets are currently under review. Distribution and Supply is expected to be much more significant, representing more than 70% of group profits in the medium term. This change will make a greater proportion of RWE's profit regulated in the future (about 40 to 50%).

105. RWE is aiming to deleverage and have cash-flows cover investments and dividends by 2015. To improve its balance sheet and cash-flow it is undertaking a number of measures, including:

- (a) cost reduction and efficiency measures worth at least €1.5 billion per annum by 2016;
- (b) reducing capex to maintenance levels;
- (c) asset sales, for example Ureno; and
- (d) resetting dividend to 40 to 50% of recurrent earnings.

### *Businesses included in the CSS*

- 106. The CSS were introduced by Ofgem in 2009 and relate to those UK businesses which hold a supply or generation licence.<sup>23</sup>
- 107. Additional analysis of supply and generation profitability was carried during the course of our investigation (see Section 10 and Appendices 10.1 to 10.7).

### **SSE**

- 108. Below is a brief overview of SSE plc (formerly known as Scottish and Southern Energy plc). It is set out as follows:
  - (a) The history of SSE plc.
  - (b) Corporate activity since 1998.
  - (c) Current divisional structure.
  - (d) Group financial performance and recent announcements.
  - (e) Businesses included in the CSS.

### *The history of SSE plc*

- 109. SSE is the result of the 1998 merger of Southern Electric and Scottish Hydro Electric.
- 110. Southern Electric was formed in 1948 as the Southern Electricity Board to distribute electricity in Southern England. It was floated in 1990 as one of 12 England and Wales RECs. At privatisation, the RECs owned the local electricity distribution networks and monopoly retail operations but no power

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<sup>23</sup> The aim of remedy was to provide better visibility/transparency regarding: (a) the profitability of different activities in the value-chain; and (b) the transfer price used by the supply and generation businesses to exchange wholesale energy, to alleviate concerns about cross-subsidisation. Ofgem (October 2009), [Financial Information Reporting: Guidance](#), paragraph 1.3.

generation assets.<sup>24</sup> The distribution network assets were later required to be operated separately and ring-fenced from the retail business under the Utilities Act 2000.

111. Scottish Hydro Electric traces its history back to Scotland's hydroelectric power revolution, which began in 1943. The North of Scotland Hydroelectric board managed hydroelectric construction and then took control of the whole electric power supply chain in the north of Scotland (that is generation, distribution and retail). It was privatised as Scottish Hydro Electric in June 1991. In Scotland the electricity industry was privatised on a vertically integrated basis, unlike England and Wales where the RECs (for example Southern Electric) initially owned no power generation assets.

### *Corporate activity since 1998*

112. Table 22 below shows the main corporate activity undertaken since the 1998 merger of Scottish Hydro Electric and Southern Electric.

**Table 22: Main corporate activity since 1998 merger of Scottish Hydro Electric and Southern Electric**

<i>Date</i>	<i>Event</i>
August 2000	Purchase of Southern Wales Electricity (SWALEC) energy supply business for £210m.
July 2004	Purchase of Ferrybridge and Fiddlers Ferry coal fired power stations for £250m.
August 2004	Purchase of (in a joint venture) gas distribution assets in Scotland and Southern England from National Grid for £3.16bn. SSE owns 50% of the JV.
February 2008	Purchase of Airtricity (Irish Wind farm business) for £1.35bn.
August 2009	Purchase of Uskmouth coal fired power station (Wales) for £27m.
February 2011	Purchase of UK North Sea Gas assets (from Hess) for £197.2m
June 2012	Purchase of Phoenix Supply (NI regulated gas business) for £29.3m
October 2012	Purchase of Irish thermal generation assets for £290m (from Endesa).

Source: SSE.

113. It can be seen from Table 21 above that after expanding its supply business into South Wales, SSE has acquired additional generation capacity and upstream gas assets, thereby increasing its level of vertical integration. It also acquired gas distribution network assets from National Grid in its home areas of Scotland and Southern England in 2004 (via a joint venture). In addition SSE has built up its energy business in both Northern Ireland (NI) and the Republic of Ireland (ROI).
114. It is worth reiterating that the Scottish electricity industry was privatised in a vertically integrated structure and, as a result, the business required less corporate activity in order to achieve vertical integration.

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<sup>24</sup> In England and Wales the electricity generation assets owned by the CEGB were privatised into three power generation companies – Powergen, National Power and Nuclear Electric.

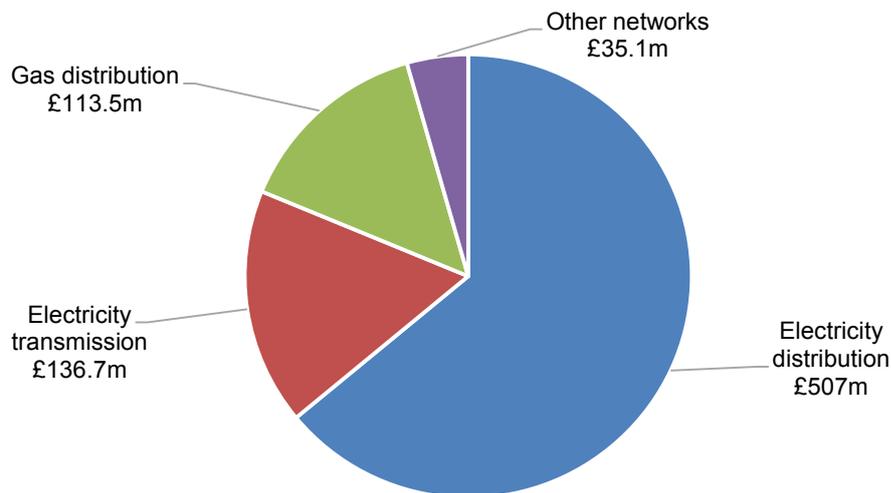
115. SSE was part of the NuGeneration (Nugen) consortium with GDF Suez and Iberdrola (SSE had a 25% stake) which was set up to develop a new nuclear power station at Sellafield. In September 2011 it sold its stake to the other partners in the venture. Toshiba (through its Westinghouse subsidiary) is now the majority holder of Nugen.

### *Current divisional structure and financial performance*

116. SSE has three divisions. These are as follows:

- Networks contains the regulated electricity and gas transmission and distribution assets. During financial year 2014/15, non-regulated network businesses (for example in Telecoms and Lighting Services) were moved out of the Networks and into the Retail division as part of a newly formed B2B enterprise business. The regulated electricity network assets are the legacy of the privatisation of Southern Electric (which owned the electricity distribution infrastructure in Southern England) and Scottish Hydro (which owned the electricity transmission and distribution network in Northern Scotland). The gas distribution assets are a result of an SSE acquisition from National Grid in 2004. Most of these businesses are regulated by Ofgem and ring-fenced from the remainder of SSE's operations (the exception being the non-regulated network assets). Figure 11 below provides a breakdown of the Networks division EBIT in 2014.

**Figure 11: Networks division, split of 2013/14 EBIT**

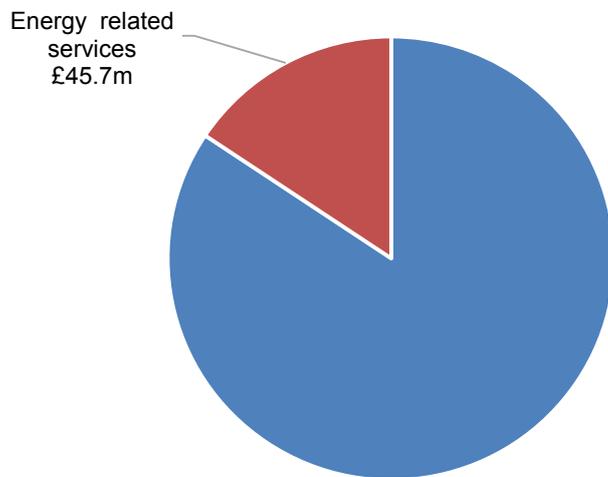


Source: SSE.

- Retail supplies gas and electricity to more than eight million customers in Great Britain, NI and the ROI. It also supplies energy related services, such as gas boiler cover to domestic customers and metering services.

Figure 12 below provides a breakdown of the Retail division EBIT in 2013/14.

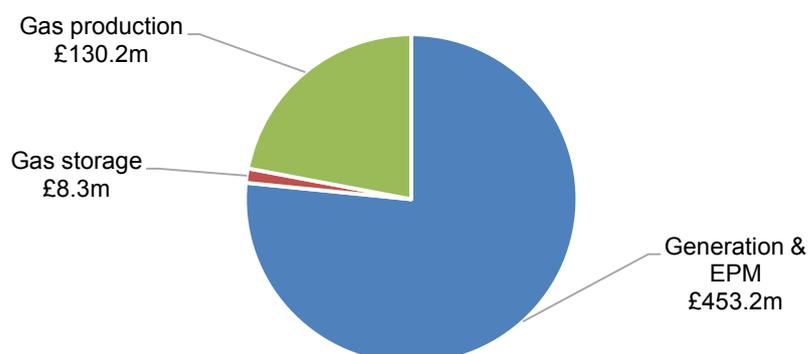
**Figure 12: Retail division, split of 2013/14 EBIT**



Source: SSE.

- Wholesale is comprised of four businesses: Generation operates and maintains the electricity producing assets; Energy portfolio management (EPM) procures fuel for the generation business and manages its interactions with the wholesale electricity market; Gas Storage operates and maintains SSE's gas storage assets; and Gas Production ensures the efficient delivery of gas from the fields in which SSE has a share. Figure 13 below provides a breakdown of the Wholesale division EBIT in 2013/14 and Table 23 shows SSE's electricity generation capacity and production in 2013/14 by fuel type.

**Figure 13: Wholesale division, split of 2013/14 EBIT**



Source: SSE.

**Table 23: SSE's electricity generation capacity and production in 2013/14 by fuel type**

Plant type	Capacity	Mothballed	Generation
	MW	MW	GWh
Thermal – coal	3,009	-	16,576
Thermal – gas/oil	5,330	1,915	10,111
Renewable – hydro	1,150	-	3,753
Renewable – onshore wind	1,484	-	3,861
Renewable – offshore wind	355	-	1,338
Renewables – biomass	38	-	67
Renewable – pumped storage/biomass	300	-	252

Source: SSE.

117. Table 24 below summarises the contribution to group profits of each of the divisions described above for 2013 and 2014 (note: SSE has a March year-end).

**Table 24: Divisional contribution to overall SSE group profits in 2013 and 2014**

EBIT/operating profit	2013		2014	
	£m	%	£m	%
Networks	874.24	49.1	955.42	50.8
Retail	409.1	22.9	92.0	15.5
Wholesale	508.6	28.5	634.6	33.8
Corporate unallocated	-12.9		-1.9	
Total	1,779.0		1,880.1	

Source: SSE.

Notes:

1. Operating profit is stated before exceptional items.
2. Note: columns do not sum – the difference is small unallocated corporate items.

118. It can be seen from Table 24 that the regulated Networks division is the most significant contributor to profits at SSE, representing around 50% of operating profit before interest and tax. While most aspects of SSE's business are relevant to our investigation the Retail business in GB and the Generation & EPM (in the Wholesale division) are particularly relevant.

## Group financial performance and recent announcements

### Group financial performance

119. Table 25 below shows SSE's summary group performance over the last five years.

**Table 25: Summary of SSE's group performance from 2010 to 2014**

	<i>£m</i>				
	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>2014</i>
Sales	21,550	28,334	31,724	28,305	30,585
Profit before tax*	1,316.9	1,318.4	1,338.1	1,415.1	1,551.1
EPS*†	113.1	113.2	112.9	118.5	123.4
DPS‡	70.0	75.0	80.1	84.2	86.7
Net assets	3,121	5,201	4,584	5,549	5,120
Adjusted net debt (SSE measure)	5,292	5,891	6,759	7,348	7,659

Source: SSE.

\*SSE measure.

†Earnings per share.

‡Dividend per share.

120. From Table 25 and a review of recent SSE accounts we note the following:

- (a) SSE has grown profit before tax at a compound rate of 3.3% over the period (on a pre-exceptional basis).
- (b) Net debt has increased by £2.7 billion to £7.6 billion over the period. Leverage (as measured by net debt: equity) has also increased.
- (c) SSE has increased its dividend every year since 1999. During the period since 1999 it has grown its dividend from 25.7p to 86.7p. It intends to grow the dividend by at least RPI in future.
- (d) There have been significant asset write-offs in the period, which are not captured in the SSE measure of profits (stated before exceptional items). These exceptional items (as well as other re-measurements on long-term energy contracts) help explain why net assets have not grown despite SSE being consistently profitable over the period. Table 26 below shows some examples of asset impairments from recent years.

**Table 26: Examples of asset impairments 2011–2014**

		£m
2014	Impairment of thermal Generation assets	238
2014	Impairment of renewable Generation assets	126
2014	Impairment of gas storage assets	138
2013	Impairment of thermal Generation assets	434
2012	Impairment of Generation assets	522
2011	Impairment of Generation assets	397

Source: SSE.

### *Recent announcements*

121. SSE recently announced its full year results for the year to 31 March 2015. On 26 March 2014 it had also announced a change in strategy in a number of areas. This included:<sup>25</sup>

- (a) planned disposals amounting to around £1 billion, to reduce debt levels and simplify its business (eg disposal of onshore wind farms in whole or in part);
- (b) a cost saving programme which will save around £100 million by March 2016 and reduce headcount by 500;
- (c) a legal separation of Wholesale and Retail activities by March 2015;
- (d) a price freeze until at least January 2016 (subsequently extended to 2016); and
- (e) reduction in new Offshore Wind development.

### *Businesses included in the CSS*

122. The CSS were introduced by Ofgem in 2009 and relate to those UK businesses which hold a supply or generation licence.<sup>26</sup> It may be useful to understand which of SSE's businesses are included in these statements:

- (a) Networks are not included.
- (b) Retail – 'Energy Supply' included (GB only). 'Energy Related Services' (boiler insurance etc) are not included.

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<sup>25</sup> SSE plc (March 2014), [Notification of close period, value programme and household energy prices in Great Britain](#).

<sup>26</sup> The aim of the remedy was to provide better visibility/transparency regarding: (a) the profitability of different activities in the value-chain; and (b) the transfer price used by the supply and generation businesses to exchange wholesale energy, to alleviate concerns about cross-subsidisation. Ofgem (October 2009), [Financial Information Reporting: Guidance](#), paragraph 1.3.

(c) Wholesale – ‘Generation’ included (GB only). EPM, Gas Storage and Gas Production are all excluded.

123. Together, UK generation and supply businesses covered by the CSS contributed around 40% of SSE’s group post tax profit in 2013.<sup>27</sup>
124. Additional analysis of supply and generation profitability was carried out during the course of our investigation (see Section 10 and Appendices 10.1 to 10.7).

### Gas producers other than Centrica

125. There are a number of other gas producers who are active in the market in Great Britain: Statoil, ExxonMobil, Total, Shell, BP, GDF and Gazprom.

### Mid-tier independent generator company profiles

126. This section sets out information about the four largest independent generators in the market in Great Britain. We refer to these four generators as ‘mid-tier’ generators. They are

- (a) GDF Suez;
- (b) Drax Group;
- (c) Intergen; and
- (d) ESB International.

127. Table 27 below provides a quick summary of these generators’ attributes.

**Table 27: Summary of mid-tier independent generators’ attributes**

<i>Name</i>	<i>GB Generation capacity</i>	<i>Generation type</i>	<i>Supplier</i>
GDF SUEZ	5GW (gross) 3.8GW (net)	CCGT,* Coal, Pumped storage, Wind	Yes – business customers
Drax	4GW	Coal, Oil, Biomass	Yes – business customers
Intergen	2.5GW	CCGT	No
ESB International	0.8GW	CCGT, Wind	No

Source: GDF Suez, Drax, Intergen, ESB International.

\*Combined Cycle Gas Turbine.

Notes:

1. For GDF Suez, gross and net GB capacity figures are given because it does not own 100% of all of its plants.
2. ESB International has an additional 0.9GW (CCGT) under construction at Carrington.

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<sup>27</sup> The profits of Generation & EPM and Energy Supply as a share before exceptional items (adjusting for JVs). In reality this includes some non-GB profit which it is not possible to exclude.

## **GDF Suez**

128. GDF SUEZ (GDF) is headquartered in Paris and operates in more than 70 countries worldwide with sales of €74.7 billion in 2014. It is quoted on the Paris stock exchange and has a market capitalisation of around €47 billion. It operates globally in Power, Natural Gas, LNG and Energy Services.
129. It acquired 70% International Power<sup>28</sup> in February 2011 and acquired the remaining 30% of the company in June 2012. GDF has various operations in the UK, including: electricity generation; oil and gas E&P; LNG; gas storage; engineering project management and construction; supply of electricity and gas to businesses; and environmental services and facilities management.
130. We briefly discuss its electricity generation and supply operations in GB below.

## **Generation**

131. GDF has around 5GW of gross<sup>29</sup> electricity generation capacity in the UK, making it the seventh largest generator in the UK by capacity. It represents around 6% of UK capacity, as of the beginning of 2015 GDF SUEZ operates the following plants:
- (a) Two gas-fired power stations (Deeside, Saltend) that are each 75% owned and have combined capacity of 1,712 MW.
  - (b) One coal-fired power station, with combined capacity of around 1GW. GDF owns 10% of Eggborough<sup>30</sup> and 75% of Rugeley.
  - (c) One pumped storage<sup>31</sup> facility, First Hydro, which is 75% owned<sup>32</sup> and has capacity of 2,088 MW.
  - (d) Six wind farms, which are 50% owned, with combined capacity of 68 MW.

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<sup>28</sup> National Power demerged into Innogy and International Power in 2000. International Power inherited the overseas generation assets of National Power.

<sup>29</sup> Net capacity is around 4GW as GDF Suez does not have 100% ownership of all sites.

<sup>30</sup> Eggborough has announced its intention to close. It applied for funding for conversion to biomass but was not selected.

<sup>31</sup> Pumped storage is a form of hydroelectric power generation used for load balancing during times of high demand.

<sup>32</sup> Mitsui owns a minority 25% stake in First Hydro.

132. It is also a 40% shareholder in the Nugen joint venture, which was set up in 2009 to build a new nuclear power station at Sellafield.<sup>33</sup> Toshiba is its joint venture partner, through its Westinghouse<sup>34</sup> subsidiary.

### *Energy supply*

133. GDF is a business-to-business supplier of energy in the UK. As of the beginning of 2015 it supplied around 8,550 business premises with electricity and around 4,550 business premises with gas.
134. It also owns 30% of Opus Energy, which was established in 2002 and is an independent supplier to around 200,000 sites for electricity and 30,000 for gas as of the start of 2015.<sup>35</sup>

### **Drax Group**

135. Drax power station was originally built, operated and owned by the Central Electricity Generating Board (CEGB). It was the last coal-fired power station to be built in the UK, completed in two stages in 1974 (three units) and 1986 (three units). Each unit has a capacity of 660MW, giving a total capacity of almost 4,000MW and making it the largest power station in the UK, meeting around 7% of UK electricity demand.
136. Drax power station was privatised as part of National Power and subsequently sold to AES Corporation<sup>36</sup> in 1999. Following a significant drop in wholesale electricity prices in 2002, it experienced financial problems when its major customer went into administration. Creditors took control of the business and following a re-financing Drax Group emerged in December 2005 as a quoted business for the first time. It is currently a constituent of the FTSE 250.
137. In March 2009 it acquired Haven Power, an electricity supplier focused on business customers. It has since significantly grown sales to small and medium sized enterprises (SMEs) and industrial and commercial (I&C) customers. It aims to grow this business to sell 12 to 15 TWh of electricity each year, which compares to its electricity generation of 26.2 TWh in 2013.
138. In July 2012, Drax announced that it would transform the business into a predominantly biomass-fuelled generator through burning sustainable biomass in place of coal. It has plans to convert three of its six generating

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<sup>33</sup> Nugen was originally a partnership between GDF SUEZ, Iberdrola (which owns Scottish Power) and SSE. Iberdrola and SSE have both now sold their positions in the venture.

<sup>34</sup> Westinghouse Electric is a US based nuclear power company that is 87% controlled by Toshiba.

<sup>35</sup> Opus Energy is also part-owned by Telecom Plus plc (trading as Utility Warehouse), a mid-tier independent energy supplier, which holds a 20% stake in Opus Energy.

<sup>36</sup> Listed on the New York Stock Exchange, with a portfolio of electricity generation and distribution businesses.

units to burn biomass. The first of the three units were successfully converted in April 2013, and the new biomass receipt, storage and distribution systems to support the converted units were officially launched in December 2013. The biomass generation plants will rely on government subsidies (eg the Contracts for Difference Feed in Tariff (CfD FIT)).

139. Table 28 below shows Drax's summary group financial performance over the last five years.

**Table 28: Summary of Drax's group financial performance 2009–2013**

Year ending December	£bn				
	2009	2010	2011	2012	2013
Sales	1.5	1.6	1.8	1.8	2.1
EBITDA	0.4	0.4	0.3	0.3	0.2
EBIT	0.3	0.3	0.3	0.2	0.2
EPS*	58p	64p	55p	51p	35p

Source: DRAX.

\*Earnings per share, stated pre-exceptional items.

Note: EBITDA and EBIT are stated pre-exceptional items.

140. It can be seen from Table 28 that EBIT fell in 2013 – this was due to the removal of free carbon allowances which were granted under the EU Emissions Trading System (ETS) scheme. Free carbon allowances were withdrawn for the electricity generation market from 1 January 2013.
141. We note that Drax in 2013, unlike the Six Large Energy Firms, holds a net cash position (of £71 million).

### **Intergen**

142. Intergen is a global power generation firm with 11 power plants representing a total generation capacity of 7,686MW. It aims to be a world leader in the development, ownership, and operation of power generation and related energy infrastructure. Its plants are located in the UK, the Netherlands, Mexico and Australia. Intergen is jointly owned by the Ontario Teachers' Pension Plan and China Huaneng Group.
143. In the UK, Intergen owns three CCGT power plants, located at:
- (a) Rocksavage, Runcorn (810 MW), which opened in 1998;
  - (b) Coryton, Essex (800 MW), which opened in 2002; and
  - (c) Spalding, Lincolnshire (880 MW,) which opened in 2004. Centrica originally owned a 50% share of the equity in the project.

144. It is a Netherlands registered company (Intergen NV) and has a number of subsidiary companies in the UK. At this stage, there is limited available financial information.

### ***ESB International***

145. ESB Group (ESB) is a 95% state owned Irish electricity business.<sup>37</sup> It is headquartered in Dublin and operates across electricity networks,<sup>38</sup> power generation and supply in the ROI. It also built and owns a national fibre optic cable network in the ROI and owns the electricity transmission and distribution network in NI.

146. ESB had revenues of €3.4 billion in 2013 and made profit before tax of €526 million. ESBI has sales of over €500 million. Its assets in GB are focused on electricity generation, as follows:

(a) Corby Power Station, a 350 MW CCGT plant in Northamptonshire, opened in 1992. ESBI had previously been a minority owner of the plant but in 2011 took full control.

(b) Carrington Power Station, a 860 MW CCGT plant that is under construction near Manchester. It is expected to become commercially operational in 2016.

(c) A 25 MW wind farm in West Durham.

(d) A 66 MW wind farm in Fullabrook.

(e) A 35 MW wind farm in Myneed y Betws.

147. We note that ESBI says that it is using its substantial CCGT expertise and experience to develop a generation portfolio in Britain of the order of 3,000 MW in the next decade, in addition to its existing assets. This ambition is dependent on prevailing market and regulatory conditions.

### **The mid-tier energy suppliers**

148. This section provides an overview and brief history of the independent energy suppliers whom, for the purposes of our market investigation, we have

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<sup>37</sup> The remaining 5% is held by an Employee Share Ownership Trust.

<sup>38</sup> As Distribution system operator and Transmission asset owner. It is also the Transmission and Distribution network owner in NI.

provisionally classified as ‘mid-tier’ energy suppliers, namely: First Utility, Ovo Energy, Co-op Energy and Utility Warehouse.<sup>39</sup>

149. The information contained in this part of the appendix was based on desktop research and confidential submissions from the relevant companies during the joint Ofgem/OFT/CMA assessment of the state of the energy market (published in March 2014) (phase 1).
150. A snapshot overview of the independent suppliers covered in this appendix is set out in Table 29 below. References to ‘run-rate’ revenues in this appendix mean the annual revenues that a supplier would have generated in its financial year, if the part-year revenue impact of customers joining and leaving during the year, was assumed to have had a full-year 12-month impact on revenues.

**Table 29: Overview of mid-tier independent suppliers**

<i>Supplier name</i>	<i>Year of market entry</i>	<i>Ultimate parent</i>	<i>Headquarters</i>	<i>Energy customers*</i>	<i>Energy supply revenues</i>	<i>Method of sourcing wholesale energy</i>
First Utility	2006	Impello plc	Warwick	705,000	FY13: £283m	Structured deal with Shell (previously with Morgan Stanley)
Ovo Energy	2009	Ovo Group Ltd	Bristol	450,000	FY13: £172m	Trading arrangement with third party
Co-op Energy	2010-11	The Midcounties Co-operative Ltd	Warwick	[§]	FY13: £[§]	[§]
Utility Warehouse	2003	Telecom Plus plc (listed)	London	800,000 supply points*	FY13/14: £528m	Long-term wholesale supply agreement with npower (RWE)

Source: First Utility, Ovo Energy, Co-op Energy, Utility Warehouse.

\*The number of customers are counted only once regardless of whether they are on single or dual fuel tariffs. The number of accounts or supply points however would count a customer twice if that customer was a dual fuel customer.

## **First Utility**

### *Company overview*

151. First Utility Limited (First Utility) is headquartered in Warwick. The company first entered the retail energy market in 2006. It employs around 500 staff,<sup>40</sup> and currently supplies around 705,000 customers, over 90% of whom are on dual fuel contracts.
152. First Utility is a wholly-owned subsidiary of Impello plc (unlisted), which for its financial year (FY) ended 31 December 2013, generated consolidated revenues of around £284 million, almost all of which came from its GB energy

<sup>39</sup> If appropriate, company profiles of a selection of smaller energy suppliers may be prepared during the course of our investigation.

<sup>40</sup> Just over 300 employees split roughly 50-50 between operations and administration, with only 12 employed in sales

supply business, with less than 1% from its telecoms reselling activities.<sup>41</sup> Four of the seven who serve on the First Utility board of directors are also on the board of Impello plc.

153. During FY13, First Utility generated an operating profit (before exceptional items)<sup>42</sup> of £0.6 million (prior year: £1.7 million) on total revenues of £283 million (prior year: £145 million), which resulted in an operating margin of 0.2% (prior year: 1.2%)
154. First Utility attributed its fall in operating margin in FY13 to its 'continued investment in customer acquisition, growth and scaleable [sic] customer care and billing systems', as well as incurring for the first time, additional 'cost of sale charges' [redacted] associated with complying with the government's social and environmental obligations (eg the Warm Homes Discount, Green Deal and Energy Company Obligation schemes, which came into force for the first time after First Utility's customer base exceeded the regulatory thresholds).
155. First Utility stated during its phase 1 hearing that it was insulated from the credit and collateral issues that were faced by smaller suppliers when hedging wholesale energy costs. It explained that it had put in place a 'structured deal' with Shell, which acts as an intermediary and goes out to the wholesale market to contract electricity and gas on its behalf. In return, First Utility granted Shell security over its assets through a debenture, [redacted] (this replaced a similar arrangement that First Utility had in place with Morgan Stanley).<sup>43</sup> Absent a similar arrangement or a very strong balance sheet, First Utility considered that it would be very difficult for smaller suppliers to hedge their wholesale energy costs, and therefore represented a barrier to expansion.

### *Brief history*

156. First Utility has its origins in a previous business, First Telecom, which served around half a million domestic customers across the UK, France and Germany, before it was eventually sold in 2000.
157. It first entered the retail energy market in 2006, focusing on SME and new build customers, with a strategy to apply the 'telecoms business model' to energy supply, focusing on customer service and using smart meters to obtain accurate billing information. It considered that a 'smart meter' offering was a

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<sup>41</sup> Impello plc reported FY13 energy supply revenues of £283 million and telecoms reselling revenues of just under £1 million, ie 99.7% 0.3% of FY13 consolidated revenues respectively

<sup>42</sup> FY13 exceptional items were -£3.6 million, relating to the termination of its trading counterparty arrangement with Morgan Stanley and First Utility's withdrawal from the 'new homes' customer segment

<sup>43</sup> It is worth noting that these wholesale trading agreements with trading counterparties (ie first with Morgan Stanley and subsequently with Shell) were entered into by First Utility's ultimate parent company, Impello plc, rather than by First Utility itself

means of differentiating its business from those of the Six Large Energy Firms.

158. However, by 2009, its focus shifted to, the mass market, although it cited a number of difficulties around rolling out smart meters. More recently, it took the decision to exit the non-domestic sector and it believed its growth opportunity lay in the domestic sector.
159. In recent years, its customer base had grown significantly, eg during 2012, it grew its customer base from 60,000 to 170,000, and in October 2013 alone, it won around 100,000 customers. During its phase 1 hearing, First Utility stated that it had benefited from the Six Large Energy Firms' recent price increase announcements, and from the subsequent media and political focus on energy prices and the benefits of switching energy suppliers. In its FY13 audited accounts, First Utility reported that by the end of FY13, its total energy customer base had increased by 75% during the year to 314,131 (2012: 179,014).
160. To accommodate its large growth in its customer base, in early 2013, First Utility stated during its phase 1 hearing that it had invested around £5 million into a new bespoke customer care and billing system that would enable it to scale up to serve between one and two million customers, with minimal further investment required. It also restarted rolling out smart meters to its customers (currently around 40,000 to 50,000 customers have smart meters installed).

## **Ovo Energy**

### *Company overview*

161. Established in September 2009, and headquartered in Bristol, Ovo Energy Limited (Ovo Energy) employs [REDACTED],<sup>44</sup> and currently supplies electricity and gas to around 450,000 customers, the majority of whom are on fixed tariff contracts, with around 90,000 customers on variable tariffs.
162. Ovo Energy is a wholly-owned subsidiary of Ovo Group Limited, which is majority owned by Stephen Fitzpatrick and his immediate relatives through direct shareholdings and a holding company.
163. For its financial year ended 31 December (ie FY13), Ovo Energy increased its customer base from around 131,000 (FY12) to 137,000, but generated an operating loss (before exceptional items) of –£67,000 (prior year: –£3 million

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<sup>44</sup> [REDACTED] staff based on average employees during FY13 (FY12: [REDACTED] staff).

operating loss) on total revenues of around £172 million (prior year: £103 million).

164. Ovo Energy stated during its phase 1 hearing that it had to be 'innovative' to compete effectively against the Six Large Energy Firms. However, it considered that its ability to innovate was being restricted by Ofgem's changes to suppliers' licence conditions. For example, Ofgem's Retail Market Reforms would effectively result in all suppliers offering customers the same 'shape' and type of package.
165. Ovo Energy [REDACTED].

#### *Brief history*

166. Since entering the retail market in 2009, Ovo Energy has grown its customer base to around 450,000 customers. It stated at its phase 1 hearing that its ambition was to grow its customer base to over one million over the next three years through marketing campaigns aimed at addressing customer disengagement, and highlighting the benefits of switching suppliers.
167. It stated that it had invested significantly in online platforms to deliver on its strategy to provide customers with the 'best possible value and service'.

#### **Co-operative Energy**

##### *Company overview*

168. Co-operative Energy Limited (Co-op Energy) currently serves around [REDACTED] electricity and gas customers accounting for [REDACTED] accounts (ie around [REDACTED]% of which are on dual fuel contracts).
169. Co-op Energy is a wholly-owned subsidiary of The Midcounties Co-operative Limited (Midcounties Co-op), a cooperative society based in Warwickshire that includes food stores, pharmacies and funerals, with annual turnover of around £1 billion.
170. By the end of its financial year ended 26 January 2013 (ie FY13), Co-op Energy grew its customer base from around [REDACTED] (FY12) to [REDACTED], and reported

FY13 revenues of £[redacted] (prior year: £[redacted]) and an operating loss (before exceptional items)<sup>45</sup> of [redacted].<sup>46</sup>

171. Co-op Energy stated at its phase 1 hearing that the food stores operated by its ultimate parent company were located in North Wales and across the Midlands to Wiltshire, and added that while its energy customers were located across the whole country, there was some regional bias due to the raised brand awareness caused by its ultimate parent company's high street stores.

172. [redacted].

### *Brief history*

173. Co-op Energy entered the energy supply market in 2010. In FY13, Co-op Energy saw a significant increase in its customer base, which it attributed to a number of factors, including its success in the switching initiatives orchestrated by the consumer group Which?, which saw [redacted] new customers join in a single day.<sup>47</sup>

### *Utility Warehouse*

#### *Company overview*

174. Utility Warehouse is a wholly-owned subsidiary of its London-based ultimate parent company, Telecom Plus plc (Telecom Plus), which is listed on the London Stock Exchange and is a constituent of the FTSE 250 index, with a current market capitalisation of just over £1 billion (as at 26 June 2014).

175. Telecom Plus trades under the 'Utility Warehouse' brand, and supplies domestic and small business customers with electricity and gas, as well as landline and mobile telephony, broadband services. For its latest financial year ended 31 March 2014 (ie FY14), Telecom Plus generated total consolidated revenues of £659 million (prior year: £602 million). Its energy supply business generated £528 million in FY14 (prior year: £492 million).

176. Telecom Plus also holds a 20% equity stake in another independent energy supplier, Opus Energy Group Limited (Opus Energy), which was acquired by

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<sup>45</sup> Total FY13 exceptional items of around [redacted] comprised [redacted] in one-off start-up costs for the energy business, and [redacted] in commissions paid to energy switching websites. The treatment of the latter as an exceptional item may be questionable (source: [Midcounties Co-operative Annual Report and Accounts 2013](#)).

<sup>46</sup> [Midcounties Co-operative Annual Report and Accounts 2013](#).

<sup>47</sup> [Midcounties Co-operative Annual Report and Accounts 2013](#).

Telecom Plus in 2002. Opus Energy generated FY14 revenues of £434 million (prior year: £369 million).

177. Utility Warehouse is the seventh largest energy supplier in GB (ie the largest independent supplier), with over 800,000 supply points, of which around 40% are 'energy only' contracts and the remaining 60% on a combination of 'energy and other utility' contracts. Utility Warehouse stated that 80% of its energy customers were on dual fuel contracts. The average annual revenue per customer (across all of Telecom Plus's utility customers) for FY14 was around £1,300.
178. During its phase 1 hearing, Utility Warehouse stated that it considered itself to be a 'fully integrated utilities supplier', whereby its customers received a single monthly bill for all of its utilities. Utility Warehouse believed that this model enabled its customers to benefit from the cost savings arising from its maintaining only one 'set of overheads' for all of its utility services.
179. Utility Warehouse sources all of its wholesale energy from npower (RWE) under a long-standing agreement, which was recently revised in December 2013. Under the terms of this agreement, npower is responsible for funding the principal working capital requirements relating to the supply of wholesale energy, as well as supplying the wholesale energy to Utility Warehouse (ie trading and supplying wholesale energy on behalf of Utility Warehouse). Utility Warehouse stated at its phase 1 hearing that it was not required to put up any collateral with npower, but added that the prices it paid to npower took this into account. In its FY14 annual report, Telecom Plus reported that as a result of its revised wholesale supply agreement with npower, its forecast gross margins were expected to improve, revising its guidance from a range of 13 to 15%, up to a range of 15 to 17%. It is also worth noting that npower holds a small equity stake in Utility Warehouse of less than 0.5%.

#### *Brief history*

180. Utility Warehouse entered the market in 2003 and stated that its target was to grow its share of the energy supply market to at least 5%.
181. During 2012, Utility Warehouse added between 60,000 and 70,000 of net supply points (ie net of leavers) to its customer base, and a further 100,000 net supply points during 2013. It stated that all of these customers joined through 'word of mouth' as it did not undertake any advertising, and did not 'sell' through switching websites. Instead, it works in partnership with over 44,000 independent (and part-time) distributors (known as 'Partners') who receive a 'small share of the revenues' from each new customer they introduce.

182. In December 2013, Telecom Plus renewed and revised its 'long-standing' wholesale energy supply agreement with npower, which secured its wholesale supply on 'improved commercial terms' for a further 20 years. As part of this arrangement, Telecom Plus also acquired two of npower's subsidiaries, Gas Plus Supply Limited and Electricity Plus Supply Limited, for a total consideration of £218 million. Telecom Plus had previously sold these two subsidiaries to npower in 2005, after Telecom Plus struggled to secure wholesale energy profitably. The disposals by npower were reported to be the result of rules introduced by Ofgem which restricted suppliers to offering four tariffs to their customers. These acquisitions did not result in a change in the number of customers served by Utility Warehouse given that npower's subsidiaries were legal vehicles which held supply licences, and all of their customer relationships (around 770,000 accounts) were already managed, and served, by Utility Warehouse prior to these transactions.<sup>48</sup>

### **Energy generators and suppliers currently active in GB**

183. Below is a list of energy generators active in the GB market as of 1 April 2015.<sup>49</sup>

- A7 Energy
- AES
- Baglan Generation Ltd
- Barking Power
- Beaufort Wind Ltd
- BIIF LP
- Braes of Doune Windfarm
- British Energy
- Cemmaes Windfarm Ltd
- Centrica

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<sup>48</sup> Although the acquired subsidiaries were owned by npower, all their customers prior to the acquisitions had been supplied under the Utility Warehouse brand and managed by Telecom Plus under a management services agreement entered into between Telecom Plus and npower in March 2006 (source: npower press release, 20 November 2013).

<sup>49</sup> CMA research, [Dukes Table as of May 2014](#).

- CEP Wind 2 Ltd
- Cold Northcott Windfarm Ltd
- Coolkeeragh ESB Ltd
- Corby Power Limited
- Dong Energy UK Ltd
- Drax Power Ltd
- EDF Energy
- Eggborough Power Ltd
- E.On UK plc
- Energy Power Resources
- ESB International Ltd
- Falck Renewables Wind Ltd
- Fenland Windfarms Ltd
- Fred Olsen Renewables
- GDF SUEZ
- Grangemouth
- Great Orton Windfarm Ltd
- High Hedley Hope Wind Ltd
- Infinis
- Intergen
- International Power Ltd
- Kirkheaton Wind Ltd
- K/S Winscales
- Llangwryfon Windfarm Ltd

- London Array Ltd
- LondonWaste Ltd
- Lynemouth Power Ltd
- Magnox Ltd (NDA)
- Marchwood Ltd
- MEAG
- Peel Energy Ltd
- Prime Renewables GmbH
- PX Ltd
- RES UK and Ireland Ltd
- Resonance
- Riverside Resources Recovery Ltd
- RWE npower plc
- Scottish Power plc
- Seabank Power Limited
- Sembcorp Utilities (UK) Ltd
- South East London Combined Heat and Power Ltd
- SSE plc
- Statkraft
- Sutton Bridge Power Generation
- Talisman Energy
- The Renewables Infrastructure Group (UK) Ltd
- Third Energy Trading Ltd (formerly RGS)
- Triodos

- Vattenfall
- Velocita
- VPI Immingham LLP
- Windcluster
- Yorkshire Windpower Ltd

184. Table 30 below lists energy suppliers active in the GB market as of 1 April 2015.

**Table 30: Active domestic and non-domestic energy suppliers in Great Britain**

<i>Supplier</i>	<i>Domestic gas</i>	<i>Domestic electricity</i>	<i>Non-domestic gas</i>	<i>Non-domestic electricity</i>
Axis Telecom			✓	✓
Axpo			✓	✓
Barrow Green Gas			✓	
BES			✓	✓
Better Energy	✓		✓	
BP			✓	
Centrica	✓	✓	✓	✓
Contract Natural Gas			✓	
Co-operative Energy	✓	✓		
Corona Energy			✓	✓
Crown Energy			✓	✓
Daligas	✓		✓	
Danske Commodities				✓
D-Energi			✓	✓
Dong			✓	✓
Dual Energy				✓
Economy Energy	✓	✓		
Economy Gas			✓	
Ecotricity	✓	✓	✓	✓
EDF Energy <sup>50</sup>	✓	✓	✓	✓
Eneco				✓
Energy Data Company (EnDCo) (EPG Energy)				✓
ENI			✓	
E.On UK	✓	✓	✓	✓
E-UK	✓	✓		✓
ExtraEnergy	✓	✓	✓	✓
First Utility	✓	✓		
Flow Energy	✓	✓		
F&S Energy				✓
Gazprom			✓	✓
GB Energy	✓	✓		
GDF Suez			✓	✓
GnERGY	✓	✓	✓	✓
Go Effortless Energy	✓	✓	✓	✓
Good Energy	✓	✓	✓	✓
Green Energy UK	✓	✓	✓	✓
Green Star Energy (Hudson Energy for non-domestic)	✓	✓		✓
Haven				✓
iSupply		✓		
Lancashire Gas and Power			✓	✓
LoCo2 (Ganymede Energy Supply for non- domestic)	✓	✓		✓
MA Energy				✓
MB Energy (IAZFS)			✓	✓
Opus			✓	✓

<sup>50</sup> EDF Energy is only active in the SME gas market (ie single sites with simple metering up to 293,000 kWh).

<i>Supplier</i>	<i>Domestic gas</i>	<i>Domestic electricity</i>	<i>Non-domestic gas</i>	<i>Non-domestic electricity</i>
Ovo Energy	✓	✓		✓
Power4all				✓
PX Group (Coulomb Energy for electricity)			✓	✓
Regent Gas			✓	
RWE npower	✓	✓	✓	✓
Scottish Power	✓	✓	✓	✓
Smartest				✓
Spark Energy	✓	✓		
SSE	✓	✓	✓	✓
Statkraft				✓
Statoil			✓	
Symbio Energy				✓
Tempus		✓		✓
Total Energy Solutions			✓	✓
Total Gas and Power			✓	✓
Utilita	✓	✓		
Utility Warehouse (Telecom Plus)	✓	✓	✓	✓
Vayu			✓	
Wingas			✓	
Yorkshire Gas and Power			✓	✓
Yu Energy			✓	✓
Zog Energy	✓			

Source: Cornwall Energy and CMA research.

## Electricity and gas distribution networks

185. Below are tables containing information about the operators of the electricity and gas distribution networks in GB.

**Table 31: Electricity distribution networks in Great Britain**

<i>Distribution Network Operator (DNO)</i>	<i>DNO group</i>	<i>Parent company</i>
Electricity North West Limited	Electricity North West Limited	North West Electricity Networks (Jersey) Limited
Northern Powergrid (Northeast) Limited	Northern Powergrid	Berkshire Hathaway Energy
Northern Powergrid (Yorkshire) plc	Northern Powergrid	Berkshire Hathaway Energy
Scottish Hydro Electric Power Distribution plc	Scottish and Southern Energy	SSE plc
Southern Electric Power Distribution plc	Scottish and Southern Energy	SSE plc
SP Distribution Ltd	Scottish Power Energy Networks	Scottish Power Ltd
SP Manweb plc	Scottish Power Energy Networks	Scottish Power Ltd
London Power Networks plc	UK Power Networks	Cheung Kong Infrastructure Holdings
South Eastern Power Networks plc	UK Power Networks	Cheung Kong Infrastructure Holdings
Eastern Power Networks plc	UK Power Networks	Cheung Kong Infrastructure Holdings
Western Power Distribution (East Midlands) plc	Western Power Distribution	PPL Corporation
Western Power Distribution (West Midlands) plc	Western Power Distribution	PPL Corporation
Western Power Distribution (South West) plc	Western Power Distribution	PPL Corporation
Western Power Distribution (South Wales) plc	Western Power Distribution	PPL Corporation

Source: CMA research.

**Table 32: Gas distribution networks in Great Britain**

<i>Gas Distribution Network (GDN)</i>	<i>GDN operator</i>	<i>Parent company</i>
Scotland	Scotia Gas Networks Ltd	SSE plc (50%), Borealis Infrastructure Europe (UK) Ltd (25%), Ontario Teachers' Pension Plan Board (25%)
North East England (includes Yorkshire and Northern Cumbria)	Northern Gas Networks	Cheung Kong Infrastructure, Power Assets Holding Limited, SAS Trustee Corporation
North West England	National Grid Gas plc	National Grid plc
East Midlands	National Grid Gas plc	National Grid plc
West Midlands	National Grid Gas plc	National Grid plc
East of England (includes North London)	National Grid Gas plc	National Grid plc
Wales and South West England	Wales & West Utilities Ltd	Cheung Kong Holdings (30%) Power Assets Holdings (30%) Cheung Kong Infrastructure Holdings (30%) Li Ka Shing Foundation (10%)
Southern England (includes South London)	Scotia Gas Networks Ltd	SSE plc (50%), Borealis Infrastructure Europe (UK) Ltd (25%), Ontario Teachers' Pension Plan Board (25%)

Source: CMA research.