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Corporate performance of the Seven Brothers of the European energy market: Then there were five

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ABSTRACT

Fifteen years ago, Thomas (2003) found that seven European energy utilities had a strong hold over European energy markets. By 2009, further concentration had occurred, with five large utilities becoming more dominant. However, by 2015, while the market share of these five companies remained intact, their strength was waning. Sales and profits were declining, and their credit ratings suffering. Contributing factors were poor corporate strategy, competition from new entrants, and a shift from large, complex technologies to smaller, decentralised options. The challenge for the Big Five is to embrace new business models and transform themselves into more nimble companies.

1. Introduction

Fifteen years ago, Thomas (2003) examined whether seven large European energy utilities, the Seven Brothers, would emerge to parallel the 'Seven Sisters,' the Anglo-American oil companies that, from the 1940s until the 1970s, dominated and were said to control world oil markets.[1] Thomas found that seven large companies with international interests were indeed emerging in Europe. Like the Seven Sisters, there were three big siblings: Electricité de France (EDF) and Germany's RWE, and E. ON that paralleled Exxon, Shell, and BP. Likewise, there were four smaller siblings: ENEL (Italy), Endesa (Spain), Vattenfall (Sweden), and Suez (Belgium) that paralleled Texaco, Mobil, Chevron, and Gulf. Thomas concluded that while these Seven Brothers had an increasingly firm grip on the European market, they were unlikely to exert much force outside Europe.

By 2009, in the wake of mergers and takeovers, only five Brothers were left (Thomas, 2009). All were of a comparable, large size and had increased their market share in Europe, but most had few holdings outside Europe. EDF, RWE, and E. ON remained, ENEL had taken over Endesa, and Suez had merged with Gaz de France to form GDF Suez, subsequently renamed ENGIE. Vattenfall is much smaller than these five and seems to be increasingly focused only on the integrated Nordic market. The Five Big Brothers seemed stronger than ever.

By 2017, however, there were signs their grip on the market was substantially weakening and a real prospect it would be broken. E. ON and RWE had both split themselves into two entirely separate businesses, with their large power plants the centre of one part and renewables and customer services in the other. EDF was selling much of its foreign assets to try to finance its nuclear ambitions and was being required to buy the collapsed French reactor vendor, Areva NP. ENEL, and ENGIE shrank significantly (20–30 percent) between 2012 and 2016 and there appeared to be little coherence in their strategies. They now face potential transformation toward what the literature refers to as "utilities of the future" (see, for example, Perez-Arriaga and Knittel, 2016; Tomain, 2017).

This reviews the companies' financial position in 2017 and their corporate strategies over the period 2009-17, identifies the factors behind their apparent decline, and discusses their prospects.

2. The companies

The cash value of sales for energy companies inevitably tends to fluctuate with changes in fossil fuel prices (see Table 1) as well as with weather conditions. Nevertheless, all the Big Five except EDF (whose generation is dominated by nuclear) have lower value sales in 2016 than in 2012 when fossil fuel prices were far higher than in 2016, despite the volume of their sales (in kWh) being similar. For all five companies, their financial positions appear to have deteriorated since 2009 with profits much lower with three of the five recording losses in 2015. Their credit ratings are weaker even though all except RWE carried far less debt in 2015 than 2009.

2.1. EDF

EDF was created in 1947 as the nationally owned electric utility for France. It was partly privatised in 2005, when about 15 percent of its

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[1] The term Seven Sisters was coined in the 1950s by Enrico Mattei, then head of the Italian state oil company ENI.

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Table 1
Sales of the five brothers (€m).
Sources: Annual reports and accounts.

	2009	2012	2014	2015	2016
EDF	66336	72729	73383	75006	71203
E.ON	81817	132093	113095	116218	38173
Uniper					67788
RWE	47741	53227	48468	49599	5684
innogy					43611
ENEL	64035	84889	75791	75658	70592
ENGIE	79908	97038	74686	69883	66639
Total	267927	439976	385423	386364	363690

Table 2
EDF economic performance 2009-16.
Source: https://www.edf.fr/sites/default/files/contrib/groupe-edf/espaces-dedies/espace-finance-fr/informations-financieres/informations-reglementees/document-de-reference/edf-ddr_2016-en.pdf (Accessed June 6, 2017)

	2009	2012	2014	2015	2016
Sales (€m)	66336	72729	73383	75006	71203
Group net income (€m)	3905	3316	3773	1481	2851
Employees	169,000	160,000	158,000	159,000	155,000
Net indebtedness (€m)	42496	41575	34208	37395	37425
S&P long-term credit rating[a]	A+ stable	A+ stable	A+ stable	A+ negative	A- stable
Share price (€) at Dec 31	41.56	13.98	22.825	13.575	9.68

[a] Standard & Poors has four basic ratings, classified as 'investment grade' AAA, AA (subdivided into AA+, AA, and AA-), A (subdivided into A+, A, and A-) and BBB (subdivided into BBB+, BBB, and BBB-). Its highest 'non-investment grades' (often known as junk) are BB and B.

shares were sold, but the rest remain in the hands of the French government, which retains a 'golden share' entitling it to veto EDF decisions that the government regards as being against France's interests.

2.1.1. *Corporate changes from 2009*

In 2009, EDF made a concerted effort to expand its foreign nuclear holdings. In the USA, it took 49.99 percent, equivalent to about 2GW, of Constellation Energy's five nuclear plants (completed in 2009) to form Constellation Energy Nuclear Group (CENG). This group proposed to build a new French-designed reactor at its Calvert Cliffs (Maryland) site. In the UK, it acquired the privatised British nuclear power plant generator with 9GW of capacity, British Energy, selling on 20 percent of the company to Centrica. EDF/Centrica also formed a consortium that planned to build four new reactors in the UK. EDF and ENEL signed a cooperation agreement for the development of nuclear power in Italy and set up a 50-50 joint venture, Sviluppo Nucleare Italia SRL. The new joint venture was to conduct feasibility studies for the construction of at least four EPRs in Italy. These acquisitions led to a massive increase in its net debt from €24.5bn at end 2008 to €42.5bn at end 2009.

In 2010, the level of debt was reduced by the sale of EDF's three UK electricity distribution networks (covering a third of the UK territory) for £5.8bn and the sale of its stake in one of the four major German utilities, EnBW, for €4.5bn. EDF also allocated 50 percent of the shares in its French electricity transmission business, RTE, to its dedicated asset portfolio to cover back-end of the fuel cycle costs. These measures reduced EDF's net debt to €27.3bn.

The Fukushima disaster, in March 2011, severely dented the strategy of developing nuclear power to drive growth in Europe. In Italy, a verdict against nuclear power reached by a referendum held

Table 3
EDF Revenue and profits by division, 2016 (€m).
Source: https://www.edf.fr/sites/default/files/contrib/groupe-edf/espaces-dedies/espace-finance-en/financial-information/regulated-information/reference-document/edf-ddr_2015-va.pdf (Accessed November 8, 2016).

Division	External Revenue	EBITDA
France	39524	11258
United Kingdom	9267	1713
Italy	11125	641
Other international	5286	711
Other activities	7734	2091
Total	71203	16414

after the disaster effectively closed the Italian market to new nuclear plants. Constellation Energy, its US partner in the Calvert Cliffs) project, signalled its intention to leave the project and its application for a Combined Construction and Operation License (COL) with the US Nuclear Regulatory Commission was put on partial hold.[2] Prospects for further expansion in China beyond the two reactors under construction in which it had taken a 30 percent stake in 2008 looked poor.

By 2012, the Calvert Cliffs project had been shortlisted for loan guarantees from the US government, but the project proved not to be viable and was abandoned. In 2013, agreement was finally reached on the terms for the sale of power from the UK Hinkley nuclear project, although the plant was by then not expected to be operational before 2023, implying start of construction in 2018.

2.1.2. *The business in 2017*

Around 2000, EDF had major holdings across the world including, for example, Brazil, Cote D'Ivoire, and Vietnam.[3] However, by 2015, while EDF lists many countries in which it is active, most are these are for small volumes of renewable generation sources (see Tables 2 and 3). Its home market accounted for 55 percent of its sales in 2016, with its UK (13 percent) and Italian (16 percent) accounting for most of the rest. Its flagship policy, as set out in its 2015 annual report was its CAP 2030 strategy, has three priorities: proximity to customers and local communities; low carbon generation, with a balanced mix of nuclear and renewable energy; and international expansion. A measure of how far EDF is trying to change its image is given in EDF's 2016 'Book'[4] The first 80 of its 147 pages are concerned with consumer self-generation, energy storage, 'smart' systems, electric vehicles, and energy from waste. Almost the first reference to nuclear is on page 105, where EDF states that the company spends as much on renewable resources as it does on nuclear power. This change of emphasis has yet to be reflected in the fuel mix. The amount of power generated fell by more than 10 percent between 2009 and 2016, mostly due to lower fossil fuel generation, but the contribution of renewables remained small (see Table 4).

From 2015 onwards, major changes dramatically altered the shape of the company. In March 2015, the annual report by Areva, the French nuclear reactor and fuel-cycle company, 87 percent state-owned, showed losses for the fifth consecutive year, this time of €4.8bn. It became clear that a major restructuring was needed if the company was to continue to trade. Areva comprised two main divisions, Areva NP the reactor business and Areva NC, the fuel cycle business. The French government led this effort and proposed spinning off the reactor

[2] http://www.world-nuclear-news.org/NN-Calvert-Cliffs-3-COL-withdrawn-2107157.html (Accessed August 21, 2015).

[3] Information is drawn from EDF's Reference Document. https://www.edf.fr/sites/default/files/contrib/groupe-edf/espaces-dedies/espace-finance-en/financial-information/regulated-information/reference-document/edf-ddr_2015-va.pdf (Accessed November 1, 2016).

[4] https://www.edf.fr/sites/default/files/contrib/finance/Annual%20Report%20VA/2015/edf-instabook-2015-va.pdf (Accessed June 8, 2017).