



Sustainability in the Dutch Power Sector

Fact Sheet Series

Electrabel

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Electrabel

1 Introduction

This series of fact sheets is designed to investigate the Dutch power sector and raise public awareness about the sustainability of power companies operating in the Netherlands. The series consists of ten company fact sheets and four thematic fact sheets, for a total of 14. The ten company fact sheets focus on ten of the Netherlands' leading power companies: DELTA, Electrabel, Eneco, E.ON, Essent, Greenchoice, Nuon, Oxxio, RWE, and Windunie. For each company, the fact sheet will contain information on four measures of sustainability: the company's current fuel mix for installed electricity generation capacity in Europe, current fuel mix of electricity supplied in the Netherlands, investments in new generating capacity in Europe, and initiatives to encourage consumers to become more sustainable in their energy use by conserving energy and reducing overall use (demand-side initiatives) in the Netherlands. The thematic fact sheets focus on these same four areas and compare the ten companies' performance in each area. Information for the fact sheets has been gathered from news articles and databases; company sources such as websites, annual reports and CSR reports; and personal interviews with the companies. All of the companies were given and used the opportunity to review a draft of their fact sheet, provide comments, and correct any factual errors. Funding for the fact sheets was provided by Greenpeace. All fact sheets in this series are available on the SOMO website at www.somo.nl.

2 Basic company information

Electrabel is a leading European energy company and number one on the Benelux market. It is part of GDF SUEZ, an international industrial and services group, which designs sustainable and innovative solutions in the management of public utilities as a partner of public authorities, businesses and individuals. GDF Suez was created in the merger between Suez and Gaz de France that took place on 22 July 2008.¹

Electrabel has four core activities:

- Sales of electricity, natural gas and energy products and services
- Electricity generation
- Electricity and natural gas trading
- Management of electricity and natural gas networks, on behalf of distribution system operators (in Wallonia).²

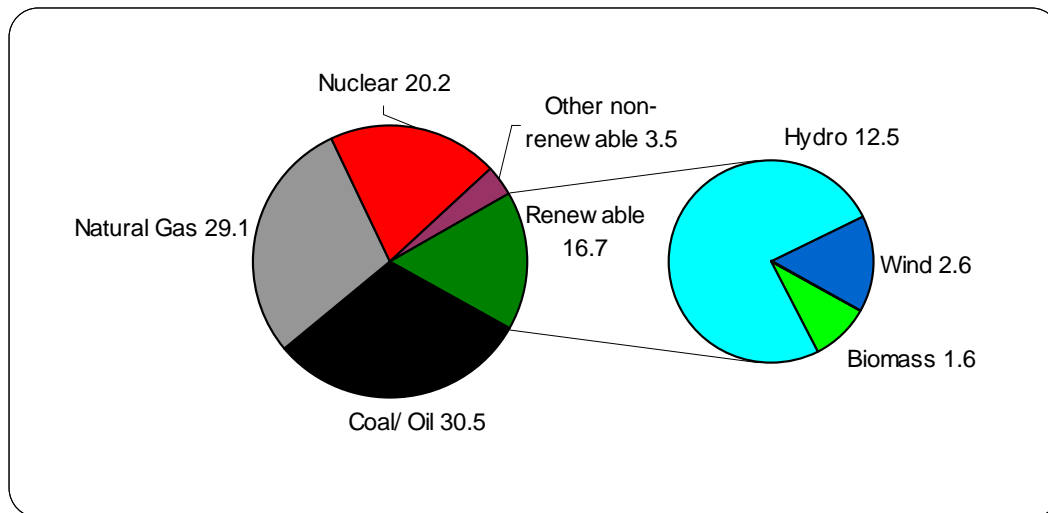
Since its primary markets are Belgium, the Netherlands and France, and it also operates power plants in Luxembourg, Spain, Portugal, Germany, Poland, Hungary and Italy, it is also one of the few companies trading on all of Europe's energy markets.³

3 Installed capacity for electricity generation in Europe

Figure 1 reveals the fuel mix of Electrabel's electricity generation capacity in 2007. The total generation capacity of its European facilities is 31,187 MW. 5,200 MW, or 16.7%, of this generation capacity exists of renewable sources of energy for electricity generation. In 2007, these installations

produced as much energy as the yearly electricity consumption of over 5.5 million households.⁴ The 1.6% biomass is all co-fired in coal-fired power stations rather than in stand alone biomass installations.

Figure 1: Fuel mix of Electrabel's installed electricity generation capacity, 2007

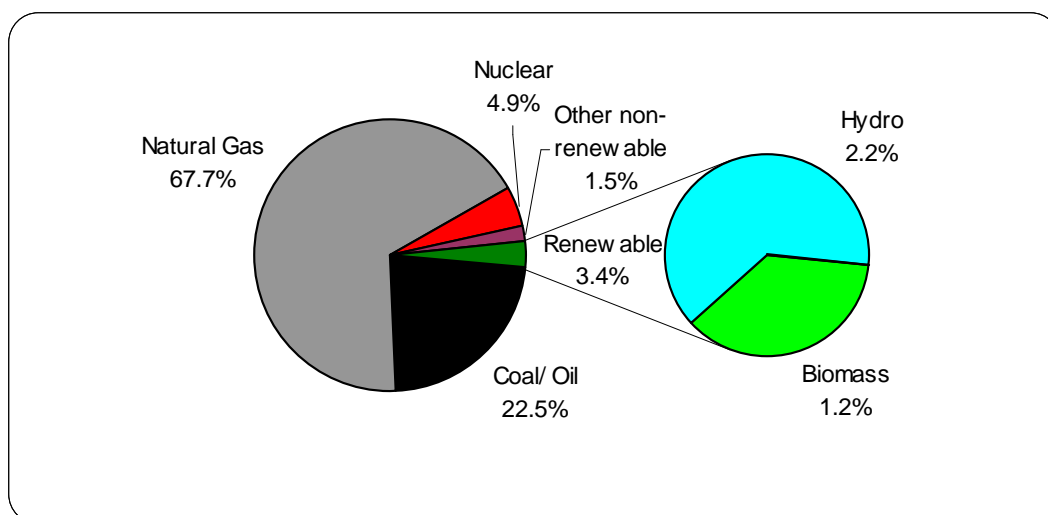


Based on: Electrabel⁵

4 Electricity supplied in the Netherlands

Figure 2 shows the fuel mix of energy supplied by Electrabel in the Netherlands.

Figure 2: Fuel mix of electricity supplied by Electrabel Nederland, 2007



Based on: Electrabel⁶

Table 1 presents the CO₂ emissions and radioactive waste production resulting from the generation of the electricity that Electrabel supplies in the Netherlands.

Table 1: Emissions and waste resulting from Electrabel Nederland's electricity supply, 2007

Indicator	Amount
CO ₂ (g/kWh)	485.8
Radioactive waste (µg/kWh)	148

Based on: Electrabel⁷

5 Announced investments in new generation capacity in Europe

Table 2 indicates the projects Electrabel is currently developing in Europe. Electrabel is expanding its generating facilities to have a local presence in various European regions. Its target is to reach a generating capacity of 35,000 MW in Europe by 2009, and to increase the generating capacity based upon renewable energy sources to 6,300 MW or 18% of its total capacity.⁸ This strategy is reflected in the large number of announced investment plans in new generation projects, with the use of various technologies and different fuels. In addition to investments in new to-be-built capacity, Electrabel has also been active in various acquisitions and joint ventures.

Table 2: Electrabel's announced investments in new production capacity

Project name	Location	Fuel Type	Date in operation	Amount (€)	Output Capacity (MW)	Project Status
Power Plant Wilhelmshaven	Wilhelmshaven (DE)	Coal	2012	1 billion	800 ⁹	Pre construction phase ¹⁰
Flevo	Lelystad (NL)	Natural gas (CCGT)	End of 2009	Unknown	864	Under construction
Amercoeur	Charleroi (BE)	Natural gas (CCGT)	2009	150 million	420	Under construction ¹¹
Fos-sur-Mer	Fos-sur-Mer (FR)	Natural gas (CCGT)	Unknown	270 million	425	Under construction ¹²
Degussa	Antwerp (BE)	Natural gas (CHP)	Mid 2010	45 million ¹³	42	Under construction ¹⁴
Lanxess	Zwijndrecht (BE)	Natural gas (CHP)	Autumn 2008	60 million ¹⁵	56	Under construction ¹⁶
Teesside	Teesside, North East England (UK)	Natural gas (CCGT)	Unknown	Unknown	938	Acquisition (completed)
Napoli Levante	Unknown (IT)	Natural gas (CCGT)	Unknown	Unknown	185	Acquisition (completed)
Sidmar	Gent (BE)	Gas (furnace and convection gas)	2010	Unknown	305	Pre construction phase ¹⁷
Doel 4	Doel (BE)	Nuclear	Unknown	Unknown	30	Unknown
Doel 1	Doel (BE)	Nuclear	Unknown	Unknown	40	Unknown
Tihange 3	Tihange (BE)	Nuclear	Unknown	Unknown	30	Unknown
Wind Farm Eemshaven	Groningen (NL)	Wind	End of 2008	Unknown	27	Under construction ¹⁸
BASF	Unknown (BE)	Wind	Unknown	Unknown	12	Unknown
Büllingen	Büllingen (BE)	Wind	Unknown	14 million	12 ¹⁹	Under construction
Dour-Quévrain	Dour-Quévrain (BE)	Wind	Unknown	Unknown	6	Under construction

Izegem	Izegem (BE)	Wind	Unknown	Unknown	4	Under construction
Compagnie du Vent	Unknown (FR)	Wind	Unknown	375 million	64 ²⁰	Acquisition (completed)
Trapani Salemi	Sicily (IT)	Wind	October 2009	Unknown ²¹	66 ²²	Pre construction phase ²³
Fafe extension	Fafe (PT)	Wind	Summer 2008	93.5 million ²⁴	26 ²⁵	Under construction
Gardunha (Generg)	Gardunha (PT)	Wind	Unknown	Unknown	36	Unknown
Monte della Difesa	Salerno (IT)	Wind	Unknown	Unknown	29	Joint Venture (completed)
SHEM	La Verna (FR)	Hydro	Unknown	Unknown	4 ²⁶	Acquisition (completed)

Based on: Electrabel²⁷

Table 3 lists Electrabel's investments that are either still awaiting permission or have merely been announced as plans.

Table 3: Electrabel's announced plans for investment in new capacity

Project name	Location	Fuel Type	Date in operation	Amount (€)	Output Capacity (MW)	Project Status
Power Plant Rotterdam	Rotterdam (NL)	Coal (and Biomass)	Mid 2012	Unknown	800	Awaiting permission
Power Plant Romania	Constanta (RO)	Coal (and Biomass)	Unknown	2.4 billion	1,600	Planning phase ²⁸
Power Plant Poland	Gdansk (PO)	Coal (and Biomass)	End 2012	2 billion	1,600 ²⁹	Planning phase
Power Plant Gelderland	Nijmegen (NL)	Coal and biomass	2010	Unknown	150 ³⁰	Planning phase
Power Plant Brunsbüttel or Stade	Brunsbüttel (DE) / Stade (DE) ³¹	Coal	2012	Unknown	800	Planning phase
Vado Ligure	Vado Ligure (IT)	Coal	Unknown	Unknown	230	Unknown
Dunamenti	Szazhalombatta (HU)	Natural gas (CCGT)	Unknown	170 million	400	Unknown
Power Plant Germany	Site to decide (DE)	Natural gas (CCGT)	Unknown	Unknown	850	Unknown
Morata de Tajuña	Morata de Tajuña (ES)	Natural gas (CCGT)	Unknown	500 million ³²	1343	Planning phase, permissions granted ³³
Gas and Steam Turbine Power Plant	Schwandorf/ Calbe/ Stassfurt (DE)	Natural gas (CHP)	Unknown	500 million	800 ³⁴	Planning phase
Comined heat and power plant in Belgium	Site to decide (BE)	Natural gas (CHP)	Unknown	Unknown	100	Unknown
Belene	Belene (BG)	Nuclear	Unknown	Unknown	2,000	Awaiting allocation ³⁵
Cernavoda-3 and -4 Candu	Cernavoda (RO)	Nuclear	2014-2015	2.3 billion	1,460	Awaiting allocation ³⁶
Wind Farm Poland	North of Poland (PO)	Wind	2012	0.5 billion	100	Unknown
Dour-Quévrain	Dour-Quévrain (BE)	Wind	Unknown	Unknown	4	Planning phase
E-40	Landen (BE)	Wind	Unknown	Unknown	50	Planning ³⁷

La Roche	La Roche (BE)	Wind	Unknown	Unknown	12	Unknown
Wind Farm Belgium	Site to decide (BE)	Wind	Unknown	Unknown	100	Unknown
Bollène	Bollène (FR)	Wind	Unknown	Unknown	9	Unknown
Wind Farm France	Site to decide (FR)	Wind	Unknown	Unknown	300	Unknown
Wind Farm Italy	Site to decide (IT)	Wind	Unknown	Unknown	50	Unknown
Compagnie du Vent	Unknown (FR)	Wind	Unknown	375 million ³⁸	2000	Planning phase
Wind Farm Generg	Portugal (PT)	Wind	Unknown	Unknown	240	Unknown
Industrial partners Flanders	Belgium (BE)	Solar	Unknown	Unknown	11	Unknown
Photovoltaic France	Site to decide (FR)	Solar	Unknown	Unknown	220	Unknown
Photovoltaic Portugal	Site to decide (PT)	Solar	Unknown	Unknown	26	Unknown
Hydroelectric power station France	Site to decide (FR)	Hydro	Unknown	Unknown	50	Unknown
Hydroelectric power station IT	Unknown (IT)	Hydro	Unknown	Unknown	10 ³⁹	Unknown

Based on: Electrabel⁴⁰

6 Demand-side initiatives

Demand-side initiatives undertaken by Electrabel Nederland include:

- Electrabel Nederland publishes energy use reduction tips on its website⁴¹
- Electrabel Nederland advises its clients on energy saving possibilities. Electrabel Nederland charges costumers for this service.⁴²
- Electrabel Nederland advices its clients on possibilities to lower the energy costs, amongst others by way of Energy Kronos. Electrabel Nederland charges costumers for this service.⁴³
- Electrabel Nederland advices its clients on environmental permits and subsidies concerning energy. Electrabel Nederland charges costumers for this service.⁴⁴

¹ Please note that as a result of the merger between Gaz de France and SUEZ, the energy activities in Europe have been restructured. The company now has a Branch GDF SUEZ Energy France (containing all former Electrabel SUEZ and GDF activities in France), and a branch GDF SUEZ Energy Europe and International. Within the latter branch there are 2 divisions (division Benelux and division Europe) in which the former electricity generation activities of Electrabel and GDF have been combined. This will have consequences for the installed generation capacity for the year 2008. W. Wolters, Directeur Strategie & Regulatory Affairs, Electrabel, email 11 August 2008.

² Folder Electrabel 2007, p.2.

³ Electrabel website, Company profile, "Key figures", no date, <http://www.electrabel.com/whoarewe/companyprofile/keyfigures.aspx> (22-07-08).

⁴ Electrabel website, Activities, Generation, "Generation figures", no date, <http://www.electrabel.com/whoarewe/activities/keyfiguresgene.aspx> (22-07-08).

⁵ Non-renewable energy: Electrabel website, About us, Activities, Generation, "Generation figures", no date, <http://www.electrabel.com/whoarewe/activities/keyfiguresgene.aspx> (28-08-08).
Renewable energy: Electrabel website, About us, Activities, Generation, "Renewable energies", no date, <http://www.electrabel.com/whoarewe/activities/renewableenergy.aspx> (02-09-08).

- ⁶ Electrabel stroometiket 2007
- ⁷ Idem.
- ⁸ Electrabel website, Activities, Generation, "Generation figures", no date, <http://www.electrabel.com/whoarewe/activities/keyfiguresgene.aspx> (22-07-08).
- ⁹ M. Gommeren, "Electrabel bouwt steenkoolcentrale in Wilhelmshaven", De Tijd, 14 November 2007, http://www.tijd.be/nieuws/ondernemingen_energie/Electrabel_bouwt_steenkoolcentrale_in_Wilhelmshaven.3378165-432.art (21-07-08).
- ¹⁰ W. Wolters, Directeur Strategie & Regulatory Affairs, Electrabel, email 11 August 2008.
- ¹¹ Electrabel, "Electrabel invests €150 million in the Amercoeur (Belgium) power station", 14 November 2005, <http://www.suezenergy.com/press/documents/ElectrabelAmercoeur20051114.pdf> (21-07-08).
- ¹² Energie Business Review Online, "Alstom to construct combined cycle plant for Electrabel France", 20 March 2008, http://www.energy-business-review.com/article_news_print.asp?guid=AE8607B4-B818-411E-8F8B-A2312247917F (21-07-08).
- ¹³ The power plant will be build in cooperation with E.ON. The two companies will jointly invest € 45 million.
- ¹⁴ Thomson Reuters, "Suez, E.ON to build Belgian power plant for Degussa", 11 September 2007, <http://uk.reuters.com/article/oilRpt/idUKL1184194320070911> (21-07-08).
- ¹⁵ The power plant will be build in cooperation with Lanxess Rubber. The two companies will jointly invest € 60 million.
- ¹⁶ Electrabel, "Lanxess Rubber en Electrabel bouwen samen een nieuwe warmtekrachtkoppelingcentrale", 15 february 2007, <http://hugin.info/133965/R/1105632/198944.pdf> (21-07-08).
- ¹⁷ De Standaard, "Electrabel bouwt centrale Sidmar", no date, http://www.utilities.nl/index.php?option=com_content&task=view&id=675&Itemid=75 (21-07-08)
- ¹⁸ Electrabel "Electrabel investeert in de toekomst!", no date, <http://www.electrabel.nl/Over-Electrabel/Nieuws-en-Pers/-/media/Files/Over%20Electrabel/Electrabel%20investeert%20in%20de%20toekomst.ashx> (21-07-08)
- ¹⁹ Envirosdesk, "Electrabel investeert in windturbines te Büllingen", no date, http://www.laatiebouwen.com/nieuws/bed-prod/bed-prod-item.asp?nieuws_id=29 (21-07-08).
- ²⁰ Electrabel, "Suez trekt de buidel voor uitbreidingen in de Zuid-Europese windenergiesector", 14 November 2007, <http://mm.mailing-electrabel.nl/35/pages/website/archief.asp?type=ms&weeknummer=47&jaar=2007> (21-07-08).
- ²¹ Electrabel took a 90 % shareholding in the company WindCo which is developing a 66 MW wind farm in Sicily.
- ²² Energy Business Review, "vestas receives 66 MW wind turbine order for Windco's Sicily project", 20 June 2008, http://www.energy-business-review.com/article_news.asp?guid=0893CF54-6EFB-40CF-B7FC-252CB0EEFBB (21-07-08).
- ²³ Vestas, Vestas receives order for 66 MW in Italy, 18 June 2008, http://www.vestas.com/files/Filer/EN/Investor/Company_announcements/2008/080618-MFKUK-31.pdf (13-08-08)
- ²⁴ This money is invested in the Fafe Extension, and in a wind farm in Mourisca that has already brought into use.
- ²⁵ Electrabel, "Electrabel, Suez Group, buys two new wind farms in Portugal", 14 November 2007, <http://hugin.info/133965/R/1168329/229544.pdf> (21-07-08).
- ²⁶ Already in operation since the first half of 2008.
- ²⁷ Electrabel Activities Report 2007, p. 68.
- ²⁸ In cooperation with the Romanian company Convex.
- ²⁹ Central Europe Energy Weekly, "Belgian energy company Electrabel plans to invest EUR 2.5 bln in Poland", 29 September 2007.
- ³⁰ This investment will increase the total capacity of the primarily coal-based power plant to 600MW, of which 150MW (25%) is planned to be biomass co-fired.
- ³¹ Electrabel will choose one of these locations for the construction of the power plant.
- ³² Electrabel Spain website, Our offer, Generation, "Morata", no date, http://www.electrabel.es/content/corporate/aboutelectrabel/morata_en.asp (21-07-08).
- ³³ Electrabel Spain Website, Our offer, Generation, Morata, http://www.electrabel.es/content/corporate/aboutelectrabel/morata_en.asp (13-08-08).
- ³⁴ Electrabel, "Electrabel prüft bau von gaskraftwerken in Deutschland", 23 January 2008, <http://hugin.info/133965/R/1184911/237016.pdf> (21-07-08).
- ³⁵ Electrabel is in competition with RWE for a 49% stake in the enterprise.
- ³⁶ <http://www.roconsultboston.com/Pages/InfoPages/Businesspages/NuclearCrnvd3and4.html> (13-08-08)
- ³⁷ Website Propere Stroom Werkt, <http://www.properestroomwerkt.be/doel2.html> (13-08-08)
- ³⁸ Electrabel, "Suez trekt de buidel voor uitbreidingen in de Zuid-Europese windenergiesector", 14 November 2007, <http://mm.mailing-electrabel.nl/35/pages/website/archief.asp?type=ms&weeknummer=47&jaar=2007> (21-07-08).
- ³⁹ Ownership Tirreno Power (50% ElectrabelAcea).
- ⁴⁰ Electrabel Activities Report 2007, p. 68.
- ⁴¹ Electrabel website, Zakelijk, Midzakelijk, Advies, "Bespaartips", no date, <http://www.electrabel.nl/Zakelijk/Midzakelijk/Advies/Bespaartips.aspx> (21-07-08).
- ⁴² Electrabel website, Zakelijk, Midzakelijk, Advies, "Energie- en kostenbesparing", no date, <http://www.electrabel.nl/Zakelijk/Midzakelijk/Advies/Energie-en-kostenbesparing.aspx> (22-07-08).
- ⁴³ Electrabel website, Zakelijk, Midzakelijk, Advies, "Verbruiksmonitor", no date, <http://www.electrabel.nl/Zakelijk/Midzakelijk/Advies/Verbruiksmonitoring.aspx> (22-07-08).
- ⁴⁴ Electrabel website, Zakelijk, Midzakelijk, Advies, "Milieuvergunningen en subsidies", no date, <http://www.electrabel.nl/Zakelijk/Midzakelijk/Advies/Milieuvergunningen-en-subsidies.aspx> (22-07-08).