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RESTRUCTURING OF THE ELECTRICITY INDUSTRY IN EUROPE

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I. The European electricity market has undergone radical changes in the last few years

The following radical changes are :

- The launch of modernization and rationalization programs in power plants in order to improve their price competitiveness, flexibility and diversification ;
- The development of renewable energy production capacities fostered by national government incentives in response to EU requests ;
- The use of trading enabled by the development of electricity exchanges ;
- The step-by-step unbundling of the transport activity and its heightened regulation to ensure non-discriminatory third party access to the grid.

II. Vertical integration is a key success factor in the electricity market

II.1. Statement

It is essential for electricity firms to become vertically integrated.

This integration enables them to control margins by controlling sourcing costs, to ensure customer access, and to avoid exposure to price volatility on power exchanges.

Electricity firms which have not vertically integrated are going the way of the dinosaurs.

American firms like Enron, TXU, Williams Energy, Aquila have tried to enter the European electricity industry by integrating only their downstream activities. Their supply strategy relied on their position in power exchanges and the development of trading activities. Even if they were well positioned in downstream activities, the sole use of trading as a supply source penalized them. These firms have left the European market.

In the same way, firms which are positioned only in the upstream activities are having difficulties. British Energy is an example : In 2002, its high-cost dependency on nuclear power plants made it vulnerable to the collapse of prices in UK power exchanges, and without direct relations with end users, BE lost out to the competition.

II. Vertical integration is a key success factor in the electricity market

II.3. Interests and constraints on each segment

SEGMENT	INTERESTS	CONSTRAINTS
PRODUCTION	o Relative control of production cost (and hence of sourcing) o Low industrial risk o Differential rents o Cash-cow activity	o High capital intensity o Oil and gas price volatility (for thermal plants) o Overcapacity in certain areas
TRADING	o Low capital intensity o Production optimization/alternative supply options	o High financial risk o Supply risk o Hedging of price-risk o Larger client offering
TRANSMISSION / DISTRIBUTION	o Situation of natural monopoly o Limited risk o High transparency of the activity	o High capital intensity o Low profitability o High regulatory pressure
SUPPLY	o Access to customers o Knowledge of customers' needs	o Thin margins (end of chain) o Dependency on the upstream activities

III. Acquisitions have been pursued by elecricity firms

III.1. Examples

From 1999 to 2001, big players intensively invested in European markets. Through 2002/2003, they tried to consolidate their positions in order to obtain critical size in target markets.

EDF acquired Seeboard, which has been integrated into EDF Energy which already owns London Electricity and Sweb.

Vattenfall created Vattenfall Europe, which is composed of HEW, VEAG, Bewag & Laubag. In the past few years, Vattenfall has increased its shareholdings in these groups to obtain total control of them.

Italy-based Enel, which already owns Viesgo in Spain, has recently acquired 80% of the share capital of Union Fenosa Energias Especiales.

III. Acquisitions have been pursued by elecricity firms

The German company E.ON has reinforced its position in the United Kingdom (where it already owned Powergen) by acquiring Midlands Electricity and TXU Europe, in Sweden (where it already owned Sydkraft) by increasing its capital share in Graninge, and in Germany where it recently acquired EWW.

E.ON is the only electricity company funding its acquisitions by selling its non-energy businesses.

The reasons are the followings :

- Potential targets are since scarce. Restructuring seems to be achieved as in Netherlands as in France where you can't find new opportunities of acquisitions. In Germany, opportunities can only be found in distribution where StadtWerke are present. In production, big players are well established and there is no place for new entrants.

- Most of electricity firms have now financial difficulties and not enough financial resources to acquire new firms.

The percentage of debt of European utilities

Rank	Players	Country	1998	1999	2000	2001	2002
1	Italgas	Italy	55.1	32.8	56.2	57.5	15.5
2	Centrica	United Kingdom	-16.1	12.1	9.2	26.6	28.4
3	GDF	France	23.8	16.7	33	29.3	29.4
4	Nuon	Netherlands	-	38.4	24.7	34	36.2
5	E.ON	Germany	58.9	51.9	43.7	31.1	67.5
6	EDF	France	60.4	52.4	50.9	61.9	72.4
7	ScottishPower	United Kingdom	92.8	65.2	73.8	98.4	74.5
8	Saur	France	-	28.3	39.2	38	81.9
9	Acea	France	-9.4	25	39.2	81	86.3
10	Agbar	Spain	55.2	83.7	80.2	80.9	99.4
11	Severn Trent	United Kingdom	57.1	71.9	98.7	98.5	105.7
12	United Utilities	United Kingdom	86.7	94.7	83.8	99.4	108.8
13	Iberdrola	Spain	72.4	82.5	101	119.8	122.4
14	Enel	Italy	68.6	66.8	86.3	112.7	124.1
15	Veolia Env	France	104.5	565.3	141.6	149.9	136.2
16	Suez	France	63.9	105.3	130.3	134.4	164.9
17	Vattenfall	Sweden	67.9	76.5	108	116.4	166.6
18	Endesa	Spain	101.9	148.1	154	179	174.9
19	Union Fenosa	Spain	114	69.8	121.4	171.7	188
20	RWE	Germany	30.6	33.3	196.9	168.2	365.9