Ana Paula Pires Martins Penha

THE OIL COMPANIES' APPROACH TO RENEWABLE ENERGY

Portugal, penhitaemcasa@yahoo.com

OVERVIEW

"The Oil Companies' Approach to Renewable Energy" research focuses on the reasons for oil companies investing or not in renewable energy.
The main two fundamental drivers for renewable energy mentioned in the literature are energy security and climate change. Literature also shows that climate change and energy security are not a common issues since they are not perceived in the same way by the different players in the oil industry.
Companies representative of the O&G market were analyzed. Companies were selected taking into consideration the rankings performed by *Petroleum Intelligence Weekly* and *Platts*. The companies are: BP, Chevron, CNPC, ConocoPhillips, Eni, ExxonMobil, Gazprom, NIOC, PDVSA, Rosneft, Saudi Aramco, Shell, StatoilHydro and Total.
Apart from analyzing the information available on the internet, efforts were made to contact the companies in order to know which factors they consider more important to invest or not to invest in renewable energy. Of these 14 companies, 10 accepted the invitation to participate in this study.
This research was performed for a master's thesis (submitted in May 2009). This study has one distinctive difference from other previous published studies. Normally studies about oil companies' strategies related to climate change compare only the so called "western" companies like BP, Shell, ExxonMobil ... This study analyses the biggest oil companies independently from their location. The relevance of this issue is even bigger if we take in consideration that the companies with more relevance in the market in terms of O&G (oil and gas) reserves or production are companies such as Saudi Aramco, NIOC, Gazprom etc which are not included in those types of comparison studies.

METHODS

"The Oil Companies' Approach to Renewable Energy" research is based on a qualitative method in which both primary and secondary data were used.
A comprehensive literature review was performed. Several articles were found concerning the strategy of oil companies regarding climate change, which provided a greater understanding of the potential factors that influence oil companies' behavior as far as renewable energy is concerned. These papers make comparisons on corporate responses to climate change between western companies.
In order to analyze the behavior of representative companies in the global market, an objective criterion was used to select the companies: a top ranking of O&G companies performed by well-known entities in the sector. The selection of the companies took into consideration the following:
1 – Ranking based on operational criteria (reserves and production of O&G, product sales and distillation capacity) published in December 2008 by the Petroleum Intelligence Weekly;
2 – Ranking based on financial performance (asset worth, revenues, profits, and return on invested capital) performed by Platts.

Fourteen companies were selected. The companies have significant differences between each other regarding shareholding structure, worldwide location, type of operations and political context, amongst others. These factors were perceived as influencing the strategy of companies and analyzing different companies avoid bias.
Efforts were made to contact these companies in order to collect information. Of fourteen companies selected, ten accepted the invitation to participate in this study and provide information directly through a brief questionnaire or phone conversations.
In order to address validity of the information triangulation was performed using different sources of information (such as articles, websites and reports of the companies, news, speeches...). When doubts emerged, efforts were made to validate the information. That happened in several situations where contacts with study authors were triggered or contacts with companies respondents were renewed.
To note that this research was performed after an extensive methodological investigation and discussion was performed in the “Oil companies approach to renewable energy - Research Proposal”

RESULTS

O&G companies have different approaches to renewable energy. There are companies that are not investing in renewable energy such as NIOC, Gazprom, Rosneft and Saudi Aramco. There are also companies that focus their investment only in research such as ExxonMobil and ENI. Moreover, there are companies that spread their investment in multiple technologies (wind, solar, biofuel etc) such as BP and StatoilHydro and there are companies that focus their investment in just one technology such as ConocoPhillips.
The majority of the companies preferred not to provide investment data. However, some data was obtained. The highest value for investment in renewable energy collected corresponds to 4% of total company investment. There are companies that invest around 0.5% of the total investment in renewable energy, and others less than 0.1%
Apart from the climate change and energy security, creating and sustaining a business platform in renewable energy is considered an important driver. Also, the most influencing factors in an oil company’s approach to renewable energy were found to be: technological development, governmental policy and the relation between the government and the company.
In general, state owned companies, with huge O&G reserves are the ones that invest less in renewable energy, but that does not mean their governments are not interest in this even if to a lesser extent. Apart from other drivers present, power distribution in backward regions is, in this case, relevant. However, in these countries renewable energy is often addressed by entities other than oil companies.
National policies to promote renewables are already spread worldwide, including in developing countries, and even new developments are expected. Also, the strongest policies are set by importer energy countries but exporter energy countries are also promoting renewables.

CONCLUSIONS

Oil companies argue that renewable energy and fossil fuels are complementary interests. In fact, the majority of the relevant O&G companies in the world market invest in renewable energy, even if that only represents a small (or very small) share of their global investment. In this research various strategies, commitments and action of the oil industry in renewable energy development were found.

However, if a viable renewable energy resource emerges, which is competitive in economic and technical terms with fossil fuel, and at the same time can be used in the transportation sector; a threat could materialize for the oil industry.

The most important drivers to invest in renewable energy are climate change, business opportunity and energy security issues. However, these drivers are perceived differently by companies. Each company is unique and their strategy is defined by taking into consideration a combination of internal and external factors.

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7. NOTE: In this research more than 120 papers were used. A few examples are mentioned above.