11 JANUARY 2009

EDP RENOVÁVEIS

COMPANY REPORT

ELECTRICITY

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Green light for green energy

Growth in spite of crisis

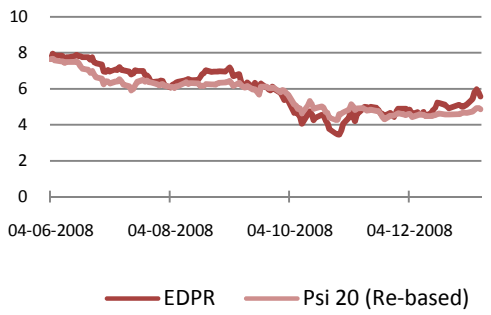
- EDP Renováveis has an ambitious, but likely achievable, target for growth until 2012. This growth will shift the company's main country of operation from Spain to the USA in the next years.
- High regulatory support for green energy and the supportive legislation of the renewable energy prices in all its countries of operation gives EDPR a stable outlook in spite of the credit crisis and the economic slowdown expected for 2009. The US's New Energy for America and the EU's Recovery Plan have been two recent important sponsors of the importance of green energy.
- Although the financing conditions have deteriorated for EDPR, the probable decrease in prices of turbines will benefit the company since they have contracted only 53% of their needs until 2012. A 1% decrease in the price of turbines causes a increase of 0,08€ per share.
- The consequences of the creation of a EU Guarantee of Origins market aren't clear, depending on which mechanisms are used to make it function and how they are regulated.
- I believe the current share price doesn't correctly reflect the company's value if we take into account the intense growth the company will have in the next years, since even ignoring the repowering of wind parks the company would be worth 6,73€ per share .

Recommendation:	**BUY**
Price Target FY09:	**8,00 €**
Vs Price Target	*8,00 €*
Potential Return	*43,63%*
Price (as of 11-Jan-09)	**5,57 €**

Reuters: EDPR.LS, Bloomberg: EDPR PL

52-week range (€)	3,43-8,06
Market Cap (€m)	4.858,756
Outstanding Shares (m)	872,308
52-week change (%)	-27,19
Average volume (52 week) (m)	1,767

Source: Euronext



Source: Euronext

(Values in € millions)	2007PF	2008E	2009E
Adjusted Revenues	338,8	614,8	988,5
EBITDA	229,7	427,1	741,3
EBITDA/Revenues	67,8%	69,5%	74.9%
Depreciation	(125,7)	(200,2)	(276,9)
EBIT Adjusted	104,1	226,9	464,4
Net Financial Results	(94,7)	(89,0)	(193,1)
EBT	9,4	137,9	271,3
Taxes	(3,1)	(40)	(67,8)
Minority Interests	2,4	6,10	8,97
Net Income	4,0	91,8	194,5
EPS	-	0,11	0,22

Source: Company Reports, Nova Research Estimates

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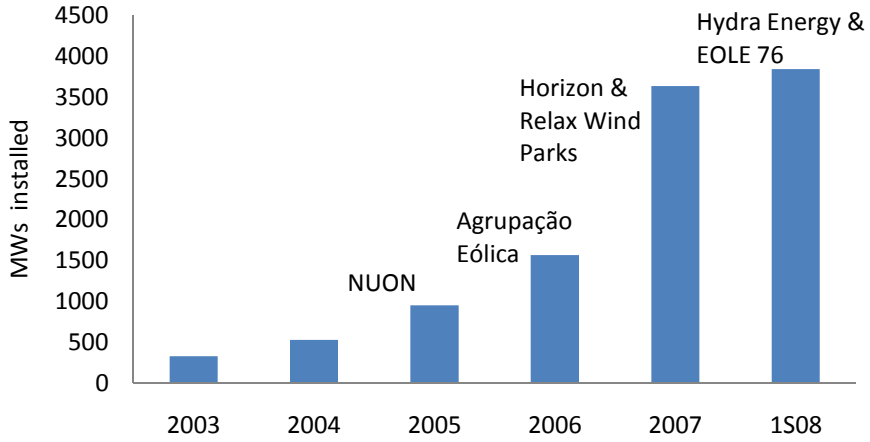
Executive summary

EDPR the only pure wind energy company in the world, and has tripled its installed capacity since 2006

EDP Renováveis is one of the leading renewable energy companies in the world, coming in fourth in the world in terms of net Installed Capacity, and is the only pure wind player operating right now. The company had an installed capacity of 4.155MWs at 9M08, and had 64.916MW in pipeline in the same period.

Exhibit 1: Installed Capacity by Year and Acquisitions (in Gross MW)



Source: Company Data

The company has the objective to reach 10,5GW of installed capacity by 2012, which is roughly 1,4GWs per year until then.

Recommendation

I give a strong buy recommendation for a target price of 8,00€, with possible return of 43,63%. I believe the current share price isn't evaluating the company correctly, since it barely covers the current installed capacity, even when excluding the repowering of wind farms.

The investors lack of confidence on EDPR provides a potential return of 43,63% on the current share price

The company's share performance clearly shows investors are not confident in renewable energy in a time of crisis, probably preferring to be safer hiding in stocks with a historical behaviour more similar to bonds. Nevertheless, the company is in a very high growth stage of its life, concentrating its future growth in countries like the US (with an installed capacity by 2012 estimated to represent 48% of the company's total) and in the markets it recently entered through acquisitions of projects in greenfield stages in Poland and Romania (which together should represent over 6% of its installed capacity by 2012).

EDP Renováveis is in a comfortable position nowadays, with strong growth targets and firm regulatory incentives in every country it operates, and with the European Union's recent support through the Recovery Plan and Senator

Obama's victory, this industry will probably be one of the first ones to recover once the credit crisis is over.

- Stable Regulation

EDPR continues to enjoy a stable regulatory framework

EDPR is enjoying stable regulatory environments born through the consistent support of renewable energies. Nowadays, after the enormous inconsistency of the oil prices, the constant reminder of the need to fight climate change, and the constant insistence on the need to have energy independency, countries are more than ever devoted to promoting renewable energies.

The past years have witnessed several new legislative efforts to help renewable energies develop, and they don't appear to show any sign of slowing down in the future.

So the main risk EDPR faces which are regulatory changes, have in the past months become even less probable, due to the previously mentioned Recovery Plan and the new President-Elect in the USA's plans.

- Turbine Flexibility

The flexibility of turbines needed until 2012 could benefit EDPR

The current credit crisis is decreasing the prices of primary goods used in the construction of turbines, and EDPR has nearly 50% of its turbine needs not contracted for, which gives it flexibility to negotiate better prices. Its most direct competitor, Iberdrola Renovables, at the end of the first semester of 2008 already had 100% of its turbine needs for 2012 contracted.

- Financing

The credit crisis worsened the conditions to finance EDPR

In spite of the possible opportunities in decreased capital expenditure costs the effects of the current situation of the credit markets will affect EDPR in its ability to finance itself. The historical methods of financing of EDPR are contracts with its mother company EDP, Institutional Partnerships and Project Finance. The cost of debt has increased to 6,70% from 6,00% in the past year which will decrease the return of the wind parks for EDPR.

- Green Certificates

The development of a EU wide quota system (commonly assumed to present itself through a Green Certificates market) could be very beneficial for wind energy as a whole, because it promotes the quick development of the more mature and cost efficient renewable energies in the short term.

Valuation

Valuation by a SotP DCF analysis

To value the company I used a Sum-of-the-parts discounted cash flows approach. To do this I used nominal values in the model, taking into account the

expected inflation according to the International Monetary Fund, and in the corresponding currency of each country. After discounting the cash flows I convert them into Euros at their one-year forward rates. The model is composed by two main parts. The operational assets installed until 9M08 were included individually, to take into account not only their countries' prices, regulations and load factors, but also their specific date of installation. After 9M08 the wind parks are included by country and by year of installation.

Exhibit 2: IRR

IRR of 1MW Installed in 2009		
	IRR	IRR/WACC
USA	10,96%	1,35
Spain	8,91%	1,32
Portugal	10,10%	1,47
France	9,59%	1,43
Belgium	13,61%	2,06
Poland	12,91%	1,49
Romania	18,21%	1,33

Source: Nova Research Team Estimates

Because we have access to the company's projects that are under consideration, and these projects are divided into four categories according to their stage of development, we are able to predict where the company will grow. Nonetheless, it's important to refer that the company typically has more projects than necessary to meet their yearly targets in Pipeline I, and will choose which projects will proceed into construction by examining which projects provide the best return for their shareholders. To do this they often calculate the IRR/WACC of each project, typically looking for values over 1,4 to invest.

There are individual WACC rates considered for every country in operation, and the rates are in their domestic currency. This is mainly due to the fact that the cost of debt in the United States includes the interests in Institutional Partnerships that are originated from the tax credits in the USA.

The search for the levered equity beta was difficult for many reasons: the first one is that the company hasn't been in the market long enough to have a significant value. Even trying to use the values from the market as approximations is difficult because of the high volatility the markets had in the past year.

Alternatively, the solution would be to turn to its comparables and trying to find an average which would give an approximated beta of EDP Renováveis. But since the company has no direct comparables, and the only one which has a somewhat similar operation (Iberdrola Renovables) has been in the market for around the same time as EDPR, I searched for EDPR's comparables in a "broader" definition, and tried to remove the effect of the other sectors they are present in. The results pointed to a levered equity beta of 1,1, which is what I will use for the USA and for Europe, and the market risk premium considered was 5,5%.

- USA

Since the company analyzes their American projects' profitability by computing IRR/WACC in dollars, we also use a US 10-year Treasury rates for the risk free rate, which is 2,70%. Although the main assets owned by the company have a 20 year life, I believe there is a liquidity premium in the 20-year Treasury rates.

During the presentation of the 9M08 results EDP Renováveis mentioned that because of the credit crisis the new Institutional Partnerships that are being signed have higher costs of debt than in the past, namely 7%-7,50%. Because it seems the US economy will need more time to heal than the European, I am assuming a US cost of debt of 7,50%.

- Europe

The yield of German 10-year government bonds were used to determine the risk free rate in Spain, Portugal, France and Belgium (3,02%). The 20-year government bond was avoided for the same reason as the 20-year Treasury bonds.

In the case of Poland and Romania, since they are not in the Euro area, the yield of their government bonds was used (4,50% and 11,85%, respectively).

Regarding the company's cost of debt, the company has negotiated a line of credit with EDP until the end of 2009 with rates typically of market rates plus a spread of 150 basis points. Considering current LIBOR rates this means a cost of debt of around 6,20%. After 2009 it's likely the company may have to pay a higher premium or use bank loans, when the offered conditions are better than EDP's. Usually using project finance has a cost of market rates plus 200 basis points, or 6,70%. EDP recently placed debt in the market at the rate of 6,40%, therefore we should expect a spread in loans between the two companies.

Increased spreads in today's credit market worsen the debt spreads, but EU's Recovery plan ensures a faster recovery of these markets

There are many contradicting factors in the credit market right now, especially because higher spreads are being negotiated, but the European Central Bank and the European Commission have come through lately both with cutting of interest rates and also with European Commission Recovery Plan from November 2008 to help boost the economy.

Because of all these factors a conservative cost of debt of 6,70% was used, since I believe the efforts will result in a quicker-than-expected recovery of the credit market. For Poland and Romania this value was adjusted for their inflation.

Being very young and having a Net Debt of nearly zero in 2008 because of the amortization of debt, EDPR has a very strong short term balance sheet, with a Debt/Equity ratio of 0,66 (assuming share prices of 5,57€). To determine the target Debt/Equity Ratio, I calculated the investment needs in the next few years to meet the desired targets, assuming the new projects will be financed with 30% equity at least, and concluded the Debt/Equity ratio in 2012 should be around 1,12.

To summarize, the following table shows the assumptions made to find the weighted average cost of capital:

Exhibit 3: Summary of WACC variables

	USA	Spain	Portugal	France	Belgium	Poland	Romania
Risk Free	2,70%	3,02%	3,02%	3,02%	3,02%	4,50%	11,85%
Levered Equity Beta	1,1	1,1	1,1	1,1	1,1	1,1	1,1
Risk Premium	5,50%	5,50%	5,50%	5,50%	5,50%	5,50%	5,50%
R equity	8,75%	9,07%	9,07%	9,07%	9,07%	10,55%	17,90%
R debt	7,50%	6,70%	6,70%	6,70%	6,70%	8,64%	11,89%
Tax Rate	0%	30%	27%	33%	34%	19%	16%
Target D/V	0,53	0,53	0,53	0,53	0,53	0,53	0,53
Target E/V	0,47	0,47	0,47	0,47	0,47	0,47	0,47
Target Debt/Equity	1,12	1,12	1,12	1,12	1,12	1,12	1,12
WACC	**8,09%**	**6,75%**	**6,87%**	**6,64%**	**6,75%**	**8,67%**	**13,70%**

Source: Nova Research Team Estimates, Reuters, Bloomberg, US Department of the Treasury, National Bank of Poland and Bucharest Stock Exchange

From this point on the analysis we value the operations of EDPR, and we can easily conclude the company's current market value isn't correctly evaluating its assets and its prospected growth: even without assuming the substitution of turbines at the end of 20 years, the value of the company would be higher than the current share price,5,57€. The breakdown by country is the following:

Exhibit 4: Enterprise Value of Current Installed Capacity and New Projects by Country

EV of Parks Installed at 9M08 (No Repowering)		
	EV Per Share	EV (in m€)
United States	1,93 €	1.686,144€
Spain	2,11 €	1.843,956€
Portugal	0,89 €	777,321.€
France	0,12 €	102,947 €
Total	**5,06 €**	4.410,370 €

New Projects (4Q2008-2012)	EV Per Share	EV (in m€)
United States	1,88 €	1.635,778€
Spain	1,86 €	1.621,907€
Portugal	0,33 €	286,056 €
France	0,34 €	297,710 €
Belgium	0,02 €	13,853€
Poland	0,28 €	240,540 €
Romania	0,21 €	185,640 €
Total	**4,91 €**	4.281,487 €

Source: Nova Research Team Estimates

Above are the expected values per share added from the installed capacity in each country in the following years.

Repowering of Wind Parks

The wind turbines have an accounting life of around 20 years, meaning they are depreciated to, in 20 years time, have no residual value for the company. When that time comes, it's possible for the company to either leave the turbine working – although it would most likely have lower capacity – or to repower the wind parks. This consists of installations of new turbines to substitute the old ones, which represents around 75% of the initial capital expenditures per MW installed.

The other 25% are costs such as connections to the grid, studies and negotiation of rent contracts which aren't going to be incurred again.

After the 20 useful years of life, EDPR is expected to repower the turbines, taking advantage of the advanced technology

With the development of the capacity of wind turbines it doesn't make much sense to assume EDPR will let turbines working after the 20 year mark. In 2008 they were already substituting turbines in a Spanish wind park (which hadn't completed its 20 years of life yet) because at the time of installation the turbines had a capacity of 0,30MW, and a common turbine in 2008 has around 1,5-2MWs capacity. As time evolves and new turbines keep appearing in the market, it's logical that especially in countries where the good sites for wind energy are scarce, the company will repower these parks to take full advantage of their wind potential.

Exhibit 5: Enterprise Value of Repowering Parks

Enterprise Value of Repowering Wind Farms	
United States	0,51€
Spain	0,50 €
Portugal	0,09 €
France & Belgium	0,07 €
Poland	0,05 €
Romania	0,07 €
Total	**1,29 €**

Source: Nova Research Team Estimates

Therefore, I assumed that after the 20 years of functioning of each park, the company will repower them, keeping the capital expenditure costs per MW growing with inflation, but assuming each repowering gives them an increase of 100% in installed capacity, to take into account the technological development of turbines. Therefore a 1MW wind park installed in 2008 will be repowered in 2028 and become a 2MW wind park. This is a somewhat modest expectation of the development of turbines, especially when taking into account the latest developments (in 2005 the first 5MW turbine was installed in Germany), but the effect on the share price of EDPR is not very significant (an installed capacity increase of 1% for every park means an increase in price per share of 0,013€).

After finding the free cash flow of one year, I discount it at the country's WACC rate, with a growth rate of 2%. The results are summarized on the table.

Taking all these results into account we can compute the target price for 2009YE by subtracting its Net Debt, Provisions and Minority Interests.

Exhibit 6: Target Price

Target Price	
Current Projects+ New Projects+Repowering	11,33€
Net Debt, Provisions and Minorities Per Share	3,33 €
Target Price@2009YE	8,00 €

Source: Nova Research Team Estimates

This represents a possible return of 43,63%.

Company overview

EDP Renováveis was officially created in December 2007 when EDP decided to form a company that would join the company's renewable energy activities dealing with wind in one company. Through the jointure of Nuevas Energias del

Ocidente (NEO), which operated in Europe, and Horizon Wind Energy, with operations in the United States, EDP Renováveis was formed.

Company description

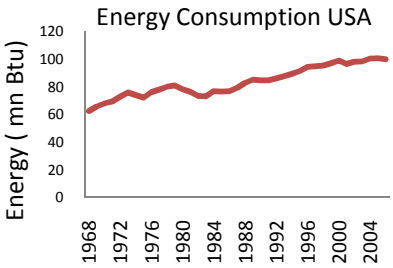
The company differentiates itself from others in the sector by being the only one with revenues originated only from wind energy, and right now EDPR is thought to be the third company in terms of installed capacity both in the world and fourth in the USA.

Industry

Wind Energy is one of the most talked about industries nowadays because not only does it constitute a renewable, non polluting energy, it is relatively mature and developed in comparison with other renewable energies.

Some of its main advantages are the short installation times (around three years), and the costs related to the production of wind energy have recently become competitive due mostly to the development of turbines, the competition among turbine producers and the economies of scale and experience that are being created through the high quantities of installed capacity all around the world.

Exhibit 7: Historic Energy Consumption in USA



Source: Energy Information Administration

The energy independence is an important factor for most developed countries nowadays. A regular 1,5MWs wind turbine in a site with an average/good amount of wind (load factor around 27%) will produce enough electricity in a year to supply 1000 four-person households. This is important for the countries highly dependent on oil which are pressing its prices.

A report by the US Energy Department concluded in 2008 that by 2030 20% of the US's energy needs could come from wind energy

At the end of 2007 there were over 90GWs of installed capacity in the world, which represents an increase of 27% in relation to the previous year, with CAGR of almost 26% between 2001 and 2007. There had previously been an objective of 40GWs capacity installed determined for 2010 by the EU in the White Paper, which was met before 2005.

Wind energy has been growing at impressive rates and, in spite of those against it, it remains one of the safest bets in the renewable world. All these factors leave EDPR in a comfortable position because the wind energy has shown no signs of slowing down.

Initial Public Offer

EDPR was fully owned by the EDP Group until June 2008, when there was an initial public offer of 22,5% of its shares, which still allows EDP to have control of the company with 77,5% of its shares.

At the same time, EDPR did an increase in capital that they used in paying off most of its impending debt to EDP and the remaining was used to finance their short term growth. They also gave some short term loans to EDP. This resulted in the company have nearly no financial costs in the third quarter of the year.

Growth Strategy

Exhibit 8: Installed Capacity

Installed Capacity (in Gross MWs)				
	12M07	1Q08	1H08	9M08
Spain	1.639	1.639	1.651	1.761
Portugal	424	424	517	517
France	87	87	122	144
USA	1.490	1.556	1.556	1.733
Total	**3.640**	**3.706**	**3.846**	**4.155**

Source: Company Data

The evolution of EDPR's installed capacity by country can be summarized by the following table on the side.

In the past EDPR has growth both organically and with acquisitions – some of the main ones include EOLE 76, and Horizon Wind Energy, which significantly increase EDPR's installed capacity. Nevertheless, the company mainly buys smaller companies with many projects in early stages of development to be able to use its know-how.

EDP Renováveis now has a very firm growth plan, which consists of reaching 10,5GW of installed capacity until 2012, which means the company will need to grow 188% in relation to the installed capacity at the end of 2007. This means a growth of roughly 1,4GW per year, although the values for 2008 seem to be ahead of schedule.

Wind parks typically take 6 months in construction and most (around 65%) are finished in the last quarter of the year, which is why only around 500 MWs have been installed in 2008 until the end of the third quarter.

International Expansion

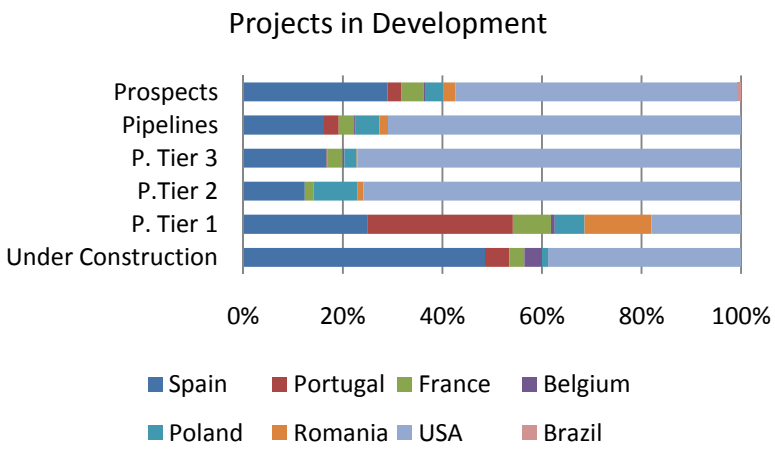
The company has a diverse pipeline spreading through Europe, the United States and Brazil. According to the different phases the development of each wind project is in, they will be classified as Prospects, Pipeline (I, II and III) or Under Construction.

Exhibit 9: Projects in Development

Projects Portfolio (in Mws) as of 9M08						
	Under Construction	Pipeline				Prospects
		Tier 1	Tier 2	Tier 3	**Total**	
Spain	783	415	636	1.707	2.758	8.452
Portugal	78	489	0	17	506	816
France	49	127	92	312	530	1.308
Belgium	57	13	0	37	49	131
Poland	20	100	456	254	810	1.022
Romania	0	225	60	12	297	737
Europe Total	***987***	***1.368***	***1244***	***2.339***	***4.950***	***10.463***
USA	625	300	3.913	7.872	12.085	16.548
Brazil	0	0	0	0	0	216
Total	**1.621**	**1.668**	**5.156**	**10.211**	**17.035**	**29.227**

Source: Company Data

Exhibit 10: Graph of Projects in Development



Source: Company Data

While Spain is, as of now, EDP Renováveis's biggest market, we can see there is a huge portion of the projects in development that are based in the USA (71% of all Pipelines are in the USA, as well as 57% of the projects in the Prospect phase). Additionally, although as of now the operations are only in Spain, Portugal, France and the USA, there are many projects in development for the Eastern European markets such as Poland and Romania. Studying the portfolio, we find that 7% of all Pipelines and 5% of the projects under construction are in countries with no installed capacity in 9M08.

The decision of which project to pursue depends on the specific data the wind development teams gather from each site and the country where they operate, striving to achieve the best possible value added for their shareholders. In other words, EDPR will choose from their portfolio and prioritize the projects with higher NPV. Because there is no specific information of each project in their portfolio, it's impossible to predict which project will be carried out in the future. Instead, I estimate the proportions of projects the company has in each country in each stage of development, and will assume the amount of wind parks they install in each country will be proportional to the projects they have developing there.

I will assume the company will be able to meet its 10,5GWs objectives for two reasons. The first one is that, even during the credit crisis, EDPR has always reassured its shareholders they will maintain their targets. The second is that EDP has a good access to funding through EDP, and with the increase in capital has a strong short term balance sheet.

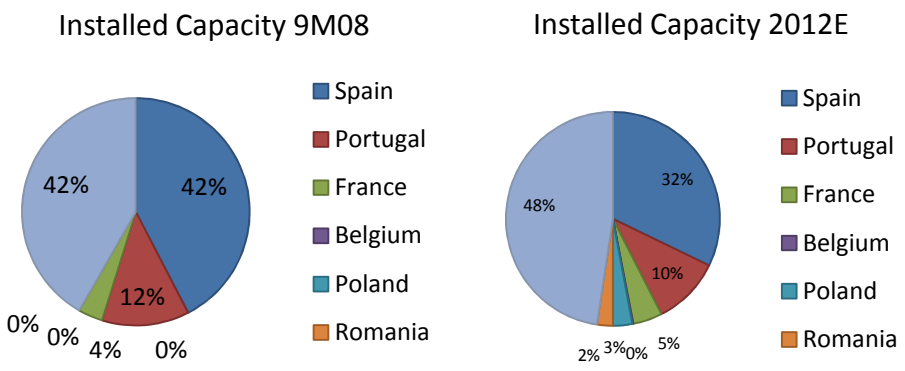
Following that strategy and assuming the company will meet its 10,5GW by 2012 deadline, the installed capacity by country in 2012 will be:

Exhibit 11: Estimates of Installed Capacity by Country until 2012

Installed Capacity by Country (in MWs)												
	9M08		2008YE		2009E		2010E		2011E		2012E	
	Gross	% Owned	Gross	% Owned	Gross	% Owned	Gross	% Owned	Gross	% Owned	Gross	% Owned
Spain	1.761	1.293	2.044	1.576	2.681	2.213	2.994	2.526	3.166	2.698	3.385	2.917
Portugal	517	512	568	563	756	751	1.084	1.079	1.084	1.079	1.086	1.081
France	144	144	227	227	312	312	402	402	427	427	465	465
Belgium	0	0	0	0	4	4	13	13	13	13	17	17
Poland	0	0	0	0	33	33	125	125	249	249	306	306
Romania	0	0	0	0	74	74	228	228	245	245	250	250
Europe	*2.422*	*1.949*	*2.839*	*2.366*	*3.859*	*3.386*	*4.846*	*4.373*	*5.183*	*4.710*	*5.508*	*5.035*
USA	1.733	1.516	2.077	1.860	2.457	2.240	2.871	2.654	3.933	3.716	5.008	4.791
Total	**4.155**	**3.465**	**4.916**	**4.226**	**6.316**	**5.626**	**7.716**	**7.026**	**9.116**	**8.426**	**10.516**	**9.826**

Source: Company Data, Nova Research Team Estimates

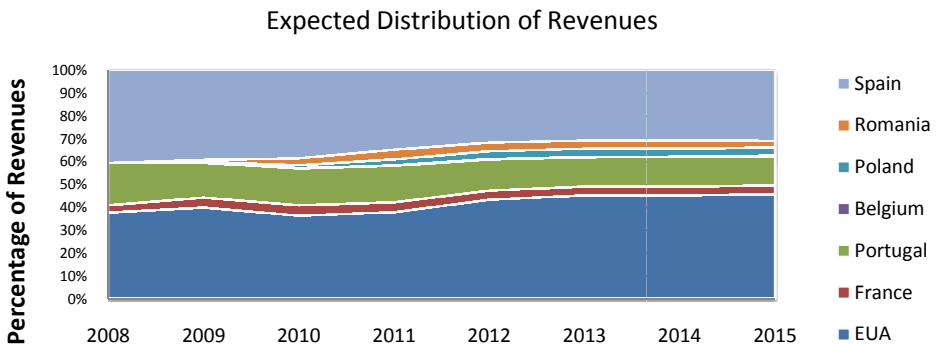
Exhibit 12: Graph of Installed Capacity by Country in 9M08 and 2012E



Source: Company Data, Nova Research Estimates

The USA will become the company's biggest market, with 48% of their installed capacity while Spain appears to make way for the new markets as well. The graphic below is helpful in summarizing the shift in revenues breakdown by country through the years:

Exhibit 13: Revenues by Country until 2015

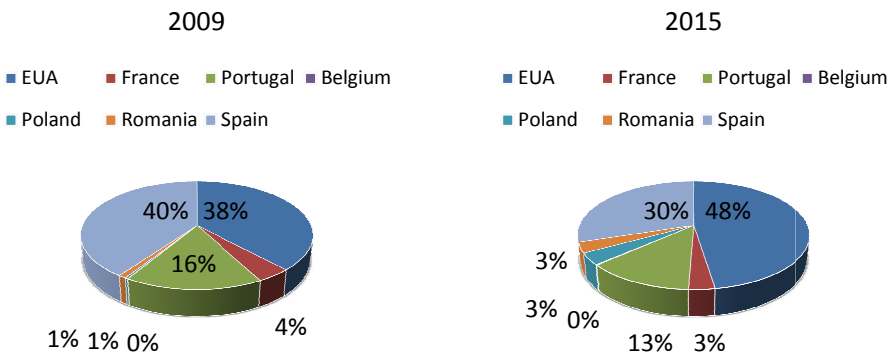


Source: Nova Research Team Estimates

The new markets will gain their way through, but the USA will manage to overall still increase its proportional amount of revenues by 2015; the other old markets will decrease its percentage of revenues.

A similar analysis, with expected conclusions, can be made for the EBITDA breakdown by country:

Exhibit 14: Estimated EBITDA for 2009 and 2015 by Country



Source: Nova Research Team Estimates

There appears to be a big shift to operations in the USA, which will become the company's biggest market with 48% of their installed capacity in 2012 and 48% of their estimated EBITDA for 2015. The rest of the "old" markets will lose their weight to make way for the new contributors, Poland and Romania.

Load Factors

Load factors represent the percentage of time in a year, or a day, a turbine is producing wind. For instance a load factor of 30% means that out of the 24 hours in a day, only 7,2 will produce electricity. The analysis is made in hours because the commonly used measure of electricity produced are megawatts hour (number of megawatts installed x number of hours producing electricity).

The company has load factors above the industry average. Even when the company suffers from lower load factors, as in 3Q08, the company still manages to perform better than the competition

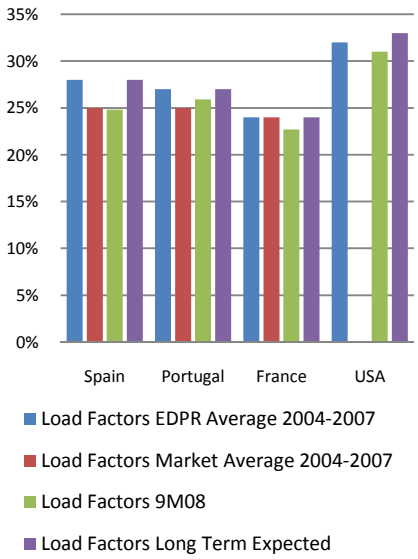
For any given country/park, if we have the load factor and the installed capacity, we can find an estimate of the electricity produced in megawattshour per day or, per year.

Load factors depend mainly on their site, where logically places with more wind will have higher load factors – this is the main reason there is a need for years of study of each wind park's location before the project even enters in construction. It's very important to have a correct assessment of the behavior of wind and how to take maximum advantage of each site, placing the turbines in the places that will make them capture the biggest amounts of wind.

This is where EDPR's wind assessment team is important. The knowhow they have shown in architectural placement of turbines and in the choice of projects

has caused a load factor consistently higher than the industry average. This is an important advantage, since countries like Portugal often open new locations for wind parks in auctions, and the additional knowhow will permit EDPR to bid more than competitors for the same site.

Exhibit 15: Load Factors



Source: Company Data

Exhibit 16: Load Factors Data and Estimates

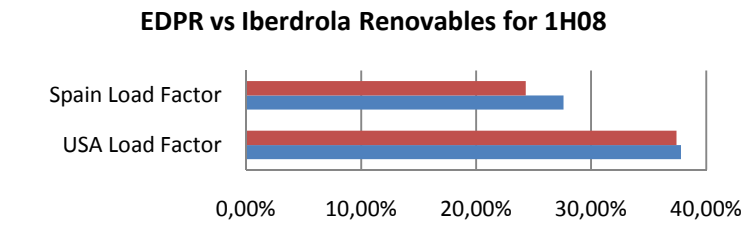
Load Factors				
	EDPR Average 2004-2007	Market Average 2004-2007	Long Term Expected NOVA RESEARCH	Long Term Expected EDPR
Spain	28%	25%	28%	28%
Portugal	27%	25%	27%	28%
France	24%	24%	25%	25%
USA	32%	-	33%	35%
Belgium	-	-	22%	<25%
Poland	-	-	22%	<25%
Romania	-	-	22%	<25%

Source: Company Data, Nova Research Team Estimates

The data above shows how EDPR consistently outperforms the market average load factors, and the long-term expectations the company has in regards to future load factors.

Additionally, not only does the company beat the market average, it also beat Iberdrola Renovables in the first semester in both markets they have in common, Spain and USA:

Exhibit 17: Load Factors, EDPR and Iberdrola Renovables



	USA Load Factor	Spain Load Factor
Iberdrola Renovables	37,40%	24,30%
EDPR	37,80%	27,60%

Source: EDP Renováveis and Iberdrola Renovables Company Data

The company seems to be very positive in what regard their future load factors, even in countries like Portugal, where the market for good spots for installation of wind turbines are scarce. For the model, I assumed more moderately positive load factors, where markets like Portugal and Spain would be able to maintain their capacity factor values and France and the USA would be able to increase by 1 percentage point each their load factors due to the market's young stages,

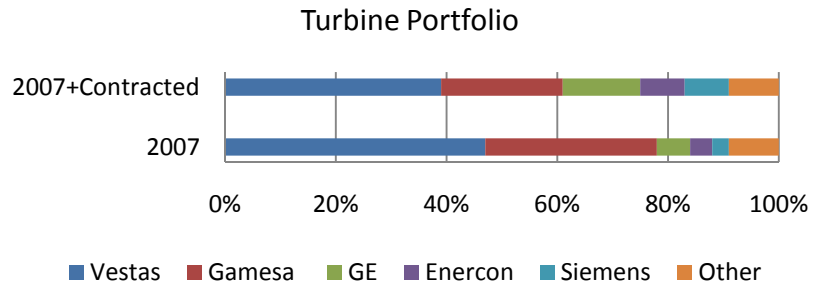
where there are still many good places to install wind parks with good amounts of wind.

For the new markets, their wind potential is smaller and therefore in the valuation I took into account load factors of 22%, which I believe to be a reasonable value for these markets.

Suppliers

In a company like EDP Renováveis the suppliers that need to be analyzed are turbine suppliers, since they represent usually 70% to 80% of the capital expenditures of a wind park. Its main suppliers are Vestas and Gamesa, which composed 78% of the turbine portfolio in 2007, but EDPR has been progressively diversifying its supplier of turbines. This effect can be seem in the graphic.

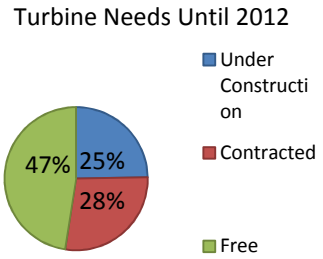
Exhibit 18: Turbine Portfolio



Source: Company Data

If we include the turbines that had been contracted for in 2007 the attempt at balancing each supplier stands out, since Vestas and Gamesa represent only 61% of the portfolio, a 17 percentage point decrease.

Exhibit 19: Graph of Turbine Needs



Source: Company Data

It's typical for companies which have operations in wind energy to secure their turbine needs years in advance – this results from unpredictability of the turbine markets. In fact, last year, it was commonly known that there was a lot of demand for turbines, which as expected drove the turbine cost up. Consequently, the main wind energy companies bought their turbines nearly three years in advance, and considered it a positive aspect for the company.

EDP Renováveis was no exception. It had recently indicated the turbine needs for 2008 and 2009 were guaranteed and 80% of 2010 were contracted for as well. In comparison with their competitors, this value seemed low at the time, since it could be seen as a capital expenditure risk.

Now, however, the sector is looking at this differently. Because of the economic slowdown the world economy is facing, the raw material costs are decreasing fast, possibly driving the turbine cost down. Therefore EDP Renováveis is now on

a better position in relation to its competitors, because they have more flexibility to negotiate turbines at possibly lower costs, and its competitors will have to pay a higher price.

As of November 2008, the company has roughly 50% of turbine needs until 2012 not contracted for, with 1,6GW under construction and 1,8GW contracted at fixed prices (or linked to inflation), out of roughly 6,5GW they will need to fulfil their objectives.

In comparison, by the end of the first semester Iberdrola Renovables already had 100% of its turbine needs until 2012 contracted, which will mean they won't be able to benefit from lower turbine prices.

Since EDPR has their growth objectives well defined, they may use the anticipated economic slowdown to negotiate contracts at favourable prices, which would increase the value of their future projects. A decrease of 1 percentage point of the price of turbines increases the price per share by 0,08€.

Foreign Exchange Exposure

To face the foreign exchange exposure EDPR matches costs and hedges big investments like turbines. Nevertheless it is still affected by the EUR/USD rate

The main currency to which EDPR is exposed is obviously the US dollar. While the company uses hedging mechanisms for big investments like turbines, which are often bought years in advance, it doesn't hedge the revenues it has in different currencies.

To value EDPR I used a EUR/USD exchange rate of 0,74, based on current forward contracts in the market. An increase of 1% of this value (an appreciation of the USD) would increase the EDPR share price in 0,03€.

It's also exposed to the Polish zloti and in the future will be exposed to the Romanian lei, but these would need a more significant depreciation/appreciation to affect EDPR's share price.

Dividend Policy

In 2008 the company declared they would pay dividends to their shareholders in 2010, with a payout ratio of 20%. EDPR at the moment has such a high growth strategy, it doesn't make sense for them to pay dividends, specially because they will be financing themselves with debt to build new wind parks until 2012, according to their current growth strategy. Still, the company maintains its position to pay dividends as stipulated previously.

Competitive Advantages

The company benefits from some important advantages in relation to some of its competitors. Understanding them is important to evaluate the company.

- First Mover Advantage

Given that in some countries where EDPR is present there is beginning to exist a saturation of the market (namely talking about Portugal where the possibility of contruction of new parks is from now on only possible by entering auctions), and wind energy companies always try to pick the best locations to place their windfarms, being one of the first companies in this market provided EDP Renováveis with better than average locations, which translate to better than average load factorsain text.

- Size

It's already been mentioned the company is among the biggest in terms of installed capacity in the world. This will imply that a company like EDP Renováveis will be in a better position to negotiate with suppliers of turbines (which represent 70-80% of the cost of construction of a new park).

- Know How

Because the company is focused on wind energy, they have a team that knows how to evaluate correctly the best way to take advantage their wind resources in each specific place. Evidence to this is the fact that the company has provided load factors consistently above the industry average.

Risks

While nowadays the company seems to be in a comfortable market, in a comfortable position to add value to their shareholders, there are a few key factors that could reduce, perhaps strongly, its value. It's important then to study them and attempt to evaluate the likelihood of their occurrence.

- Heavily Regulated Market

It's no surprise that since environmental groups have started to point out the damage and the long term effects that the greenhouse gases will cause to our planet several governments have stepped up. In an attempt to develop the renewable energy markets they have given diverse benefits to green companies in an attempt to attract investment to these industries.

EDP Renováveis is gaining heavily through this incentives in all their countries of operation, from tax credits to price increases or green certificates where applicable. Although there have been no indications of diminishing support for clean energy, the regulatory risk still needs to be considered.

On a positive note, the geographic diversification EDPR is going through will help decrease this risk, since each country has a different regulatory framework in place. Each country will be explored later in this report, in the Regulation topic.

- Dependency on Wind

Because wind energy is obviously dependent on the presence of wind to produce electricity, there is always an unpredictability about the production in each quarter. When there is less wind, the sales in the quarter will infallibly fall. Ironically, the climate changes have caused for more extreme weather conditions during the year, which could enhance even further the cyclicality of revenues, and the company/industry beta.

- Development of alternatives

Given that in some countries where EDPR is present there is beginning to exist a saturation of the market (namely talking about Portugal and Spain), and knowing that most of the regulatory support the company receives is not only shared with other wind energy companies, but also all other renewable energy firms, it's not hard to imagine a scenario where an alternative renewable energy is developed quickly, "stealing" the wind energy market. Wind energy right now is at a further stage of development than most other renewable energy technologies, but there is a lot of support for other renewables and there is some backslash in wind, namely about the so-called eye pollution, the noise and the sazonality of wind, among others.

It's likely that even with the growth of other renewable industries, the market would be stolen from non-green energy rather than decreasing the demand for wind electricity. But the development of better renewable industries could decrease the wind-specific incentives in the regulation.

Regulation

Nowadays, the renewable energy market is still heavily regulated by law and subsidized. The pricing of renewable electricity is determined by law in each country EDP Renováveis operates, varying from fixed prices to market rates plus incentives to ceiling and floor prices. Some already include green certificates or incorporate their possible existence in the future and some don't. Some have renewable energy and CO2 emission targets and some don't. It's important to understand the regulatory environment influencing each country.

- European Union

The EU has been one of the main supporters of renewable sources of energy, and it has contributed in diverse ways to expand their development in Europe.

The most important one is perhaps the definition, through the Directive, of renewable energy targets to be met by each individual country until 2020, determining the percentage of energy that should be originated from green energy. Each country is given a target, taking into account the initial situation they were in, but overall the EU would have 20% of their total energy consumption by 2020 would be green.

But this wasn't the first time the EU had shown interest in promoting green energy. The White Paper, in 1997, was the first attempt at supporting renewable energy when it set an objective of increasing its contribution from 6% of the total energy consumption to 12% by 2010. The Directive 2001/77/CE, commonly known as the Renewable Energy Directive, reinforced the previous objective by setting individual targets for each country until 2010. It's likely this target won't be met, since the green energy proportion in 2005 was of only 8,5%, and it won't likely exceed 10% by 2010.

In 2006 the European Comission published "An Action Plan for Energy Efficiency", where the current renewables targets were set, and introduced new objectives including CO2 emission cuts, the 10% of biofuels in energy mix and conservation of energy (although this one is not mandatory).

- Spain

According to the Asociación Empresarial Eólica during 2007 3.515MWs were installed, totalling 15.145MWs in total for the Spanish market. This is a good indicator the target for 2010 of 20.155MWs will be met, since only 5.010MWs need to be installed in 3 years, and it places Spain as the third country in wind energy by installed capacity.

Exhibit 20: Spain

Spain in 2009	
EBITDA (€mn)	286,463
% Total EBITDA	38,64%
# of Wind Parks for EDPR	2.681

Source: Nova Research Team Estimates, Company Data

Spain is a country in a transitory legislation at the moment. The Real Decreto 661/2007 substituted the Real Decreto 436/2004. The RD 436/2004 was based on market price plus incentives (fixed per year), and is applicable to parks that enter production until January 2008. The new legislation has the option of fixed prices or market and incentives, but with a price ceiling of 85€/MWh in 2007 and minimum price of 71€/MWh also in 2007, updated yearly with inflation minus 0,25% until 2012, and inflation minus 0,50% afterwards.

The legislation is expected to be re-evaluated in 2010 to adjust to the position the country is in, in relation to its EU Directive objectives.

- Portugal

Portugal is one of the countries where wind energy is most developed, with over 2.000MW of installed capacity at the end of 2007. The EU targets defined for the country in 2008 are among the most ambitious ones, with a 31% of renewables in

the energy mix by 2020, in comparison with 20,5% the country had in 2005 Only Finland, Latvia, Sweden and Austria have higher targets for 2020.

In Portugal the regulatory framework is defined by a regulated price (a feed-in tariff), and the grid operator REN is under statuatory obligation to buy all the electricity produced through renewable energy sources. The prices are negotiated yearly taking into account a formula included in legislation that regulates renewable energy.

Exhibit 21: Portugal

Portugal in 2009	
EBITDA (€mn)	115,988
% Total EBITDA	15,65%
# of Wind Parks for EDPR	756

Source: Nova Research Team Estimates, Company Data

Nowadays there are still two remuneration strategies in place. The first one is for wind parks licensed until 1 year after the Decreto Lei 33-A/2005 is in place and the other for the rest. In the first case, the prior formula to calculate prices is used, resulting in a price of 88,2€/MWh in 2005 (increasing yearly with inflation after the first year of operation, and depending on the hours of production of each park) for the first 15 years of a wind park. The new legislation brings a new way to calculate the feed in tariff, and this tariff is applicable until the production of 33GWh by each MW or until the wind park completes 15 years (whichever comes first). In both cases, after the deadlines, the plan is to converge to market prices plus green certificates.

For the megawatts installed in the future with Eólicas de Portugal, the new legislation is already applicable, which results in a price of 74€/MWh.

The access to construct wind parks in Portugal is now mostly done only by auction, and although the country has a good load factor on average, the best places are already taken. As a result, the wind parks EDPR has in Portugal are all under the old regime, and only the parks installed from now on will be under the new legislation.

- France

With an objective of 21% of green electricity consumption in the energy mix until 2010, while in 2004 it only had 12,4% according to the European Commission, France is another country expected to experience high growth in renewables in the next years.

Exhibit 22: France

France in 2009E	
EBITDA (€mn)	29,362
% Total EBITDA	3,96%
# of Wind Parks for EDPR	312

Source: Nova Research Team Estimates, Company Data

According to the "Syndicat des Energies Renouvables" the installed capacity at the end of 2008 is expected to be 3.577MW, up over 50% from the 2.377MW cumulative installed capacity in 2007.

France is another country France is another country which has a feed in tariff in place for renewable electricity. In the case of wind onshore energy, according to the legal document "Arrêté du 10 Julliet 2006", which determines the compensation for wind energy, the price is fixed at 88,2€/MWh for the first 10 years of the wind park, and after that point the price depends on the load factor of

each park (parks with higher load factors will produce more and therefore receive less per MWh).

- Belgium

Belgium had at the end of 2007 nearly 300MWs of installed capacity, and its targets from the EU directive were of 13% renewables in the energy mix, from the 2,2% in 2005 according to the European Commission.

Exhibit 23: Belgium

Belgium in 2009E	
EBITDA (€mn)	275,654
% Total EBITDA	0,037%
# of Wind Parks for EDPR	4

Source: Nova Research Team Estimates, Company Data

Belgium has a complex remuneration system because it depends on the area in the country the wind park is situated in (each one of the three areas has different incentives set). Nevertheless, there are still price ceilings and floors, and the average prices in Flanders was 108€/green certificate in 2007, and in Walloon the average price in the first quarter of 2008 was 89€/green certificate. For a long time the penalties for not having the green certificates were lower than the acquisition price, which obviously led to most companies prefering to pay the fine. The current penalties have increase and the amount of green certificates traded exploded. According to the Walloon Agricultural Research Center the penalty in Flanders is 125€ per missing green certificate, and in Walloon and Brussels is 100€. The penalties are received by each of the energy regulators of each region, and will be used to finance renewable projects.

- Poland

Poland is an example of the countries where EDPR plans to enter in the future, because it has a non-developed market, but with a lot of potential. The amount of wind energy installed capacity in Poland was only 350MW in June 2008, according to the Polish Wind Energy Association, and only 7,2% of its energy mix was from renewable energy sources, when the EU Directive established an objective of 15% by 2020. This would mean the renewables production in Poland will need to double to meet their target.

Exhibit 24: Poland

Poland in 2009E	
EBITDA (€mn)	2,333
% Total EBITDA	0,31%
# of Wind Parks for EDPR	33

Source: Nova Research Team Estimates, Company Data

The Polish government has specific plans for wind energy, saying in 2005 they had an objective of 2000MW of installed capacity and 2,3% of wind energy contribution for energy mix in 2010, as defined by the “Goals on Renewable Energy Sources share in Poland enery supply by 2010”. These values have since changed, increasing the quotas they planned to 2010 for renewable energy to 10,4% until 2010. These objectives are related to a new energy law (Energy Law Act) in place since 2005 where the renewable energy remuneration was defined as regulated prices, negotiated annually, plus green certificates, and established quotas to be met, with penalties of non compliance of 240PLN/MWh.

The Polish market also provides other renewable incentives like subsidies or loans at lower rates, and there are tax benefits applicable (no consumption tax for electricity from renewable sources).

The green certificates (or certificates of origin) are issued by the Polish regulator to ensure the quotas are met. The green certificates market seems to be fairly competitive, and more developed than in Poland, and there is an over the counter market, a continuous market and a fixing market, with prices posted daily in the Polish Power Exchanger (Towarowa Gielda Energii S.A). In the past year green certificate prices have been around 243PLN/MWh, around 61€.

- Romania

Romania already has a good contribution from renewable energy sources, and in 2005 it represented 17,8% of its energy mix. The EU targets for 2020 are not very ambitious, only 24%. Nevertheless, the wind energy installed capacity was almost non-existant, with 3MW installed in 2006 and 10MW in 2007. The government has declared an objective of 200MWs installed by 2010, but the market remains extremely young and with possibilities for enormous growth.

Exhibit 25: Romania

Romania in 2009E	
EBITDA (€mn)	7,232
% Total EBITDA	0,9%
# of Wind Parks for EDPR	74

Source: Nova Research Team Estimates, Company Data

Romania is therefore very similar to Poland in the sense that both are markets with very high growth potential in the next few years.

The regulation of renewable energy sources has been developing with the EU targets, and like in Poland there are a young version of green certificates in place since 2004 (usually called Certificates of Origin or Guarantee of Origin), with the prices of green certificates set anually and constant at 150 romanian lei per green certificate (around 42€), and a system of quotas that need to be met. Like in most countries, green electricity has priority entering the grid.

In accordance with new legislation 220/2008, the different producers of renewable energy will receive different amounths of green certificates. The wind energy producers receive two green certificates until 2015 and one green certificate from 2016 on. The producers of solar power receive four green certificates for each MWh produced, without time limit.

- United States

At the end of the third quarter of 2008, the United States had over 21000MW installed according to the American Wind Energy Association, with 5249MW installed in 2007 and currently have over 8000MW under construction. Although Germany is the country with the most installed capacity (23044MW by the middle of 2008, according to the German Wind Energy Association), the USA's stronger load factors and better turbines result in higher electricity production in the USA, according to the American Wind Energy Association.

There are two main different types of tax incentives in the United States, the Production Tax Credits (PTC) and the Modified Accelarated Cost Recovery System (MACRS).

Production Tax Credits are federal grants that provide tax credits and benefits according to the amount of green electricity produced, obviously including wind energy. They give a certain tax credit per Mwh produced (for instance, 20USD/MWh in 2007), and they are applicable for the first 10 years of a wind park.

Production Tax Credits were first implemented in 1992, and have been continuously renovated for 1-3 years since. The last renovation took place in October of 2008, where they were renovated for an additional year.

Exhibit 26: USA

USA in 2009E	
EBITDA (€mn)	299,680
% Total EBITDA	40%
# of Wind Parks for EDPR	2.457

Source: Nova Research Team Estimates, Company Data

The MACRS are a system of accelarated depreciation in 5 years of assets that are related with renewable energy, including most of the costs of wind parks. This is unrelated to the amount of energy produced, but allows for a large amount of tax credits in the first few years of operation of wind parks.

The issue with these incentives is that EDPR doesn't have enough operations in the USA to use the credits, and these only benefit companies that have enough taxable income, or that create Institutional Partnerships. Hence, when constructing wind parks in the USA, EDPR creates these partnerships where they receive the money first hand, selling these tax credits to companies that need them in the following years.

Another factor in support of renewable energy in the US are the Renewable Portfolio Standards (RPS), which in a similar way to what the EU is doing, determine by State the amount of renewable energy they want to have in the energy mix. The amount is around 10-20% until 2012-2015, depending on each State. This is still in early stages of development since not all states have a target yet, and some are on a non-mandatory basis. Also, although some have penalties for non-compliance, it's common not to have a penalty defined. Nevertheless, Renewable Energy Certificates (REC) are already traded, which seem to be an original form of the future green certificates in the EU – they serve as proof that the electric company is meeting the RPS objectives, selling a determined percentage of clean energy to the final consumers.

It's also very common in US operations to create long term contracts to energy distributors, so EDPR receives either the fixed tariff in these contracts or market rates (plus the RECs), and always receives the benefits from the tax credits through their Institutional Partners.

New Opportunities in the USA

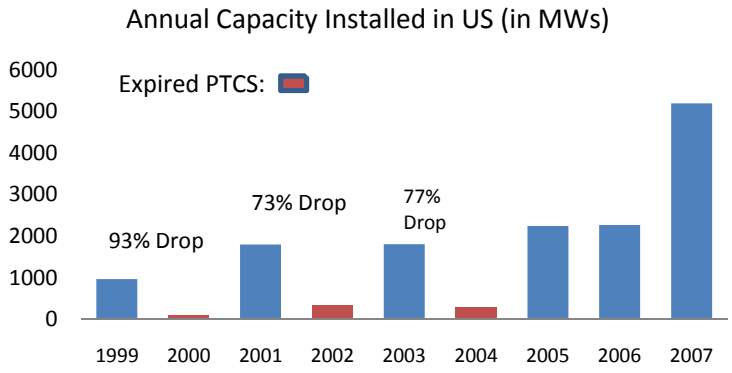
When Senator Obama became the new President Elect in the USA in November those were very good news for renewable energy supporters, for two reasons. The first one is that Obama had declared his intention to support renewable energies more than the USA had in the past. The second is that John McCain wasn't a big supporter of the typical renewable energies.

In Obama's "New Energy for America" he mentions one of his priorities will be to set targets for renewable energies (much like the ones in place in the European Union). More specifically, he defines a country wide Renewable Portfolio Standard that by 2012 America would have 10% of electricity from renewable sources and by 2025 the value would increase to 25%. He also mentions an objective of reducing Greenhouse gas emissions by 80% until 2050 through the creation of a cap and trade program.

Lastly, and most importantly, Obama claimed to invest USD150 billion over 10 years to develop new energies, including increasing the research and human capital in green energy and renovating the PTCs for a period of 5 years.

Because PTCs have been renewed in the past for short periods, but have nonetheless always been renewed, this may not seem like an important factor. Looking at data from the American Wind Association, we can see there is a clear pattern of lower installed capacity in years of expiration of PTCs.

Exhibit 27: Effect of Expired PTCs



Source: American Wind Energy Association

At the moment these incentives are in place until the end of 2009, but if Obama remains true to his word, the development of wind energy in the USA could increase, and EDPR could benefit from this by developing more projects in the USA with more confidence.

Other International Expansion

In September EDPR admitted it was one of the companies that it was interested in entering the wind market in Mexico. There have also been attempts to enter Brazil (although the capacity already installed is waiting regulatory permission to operate in the country).

The past efforts at geographical diversification have been to somewhat safer countries – in 2007 to the USA, before that to France and Belgium and recently to Poland and Romania.

Latin America and Asia have huge potential growth in the next few years in wind energy

Countries like Mexico, India, China have huge wind energy potential, since a report from the Global Wind Energy Council from 2007 estimates China could have a wind energy potential of 122GW installed capacity by 2020 (which is more than the 100GW of worldwide installed capacity right now), because of high wind resources along its coast line. At the end of 2006, it had an installed capacity of 2600MW, which was an increase of over 100% in relation to 2005. China is also entering the supplier market, with numerous Chinese suppliers of turbines appearing in the market. Obviously the market is growing very fast, and there are opportunities to be seized.

According to the Latin American Wind Energy Association, Mexico had only 88MW of installed capacity in the beginning of 2008, and the governmental support of renewable energies is based on tax exemptions. The Global Wind Energy Council admits Mexico is the country in Latin America with the biggest potential in wind energy, although it has had virtually no growth in the past.

India is an example of a more mature market, with over 8.000MWs installed in 2008. Nevertheless, it's one of the countries with the most uncertainties about regulation, because there are no official incentives, there may be procedures to support renewable energies. Some of these are accelerated depreciations, no payment of taxes for ten years, and quotas to be met of energy purchased from renewable sources. There have appeared also numerous Indian suppliers of turbines in the past years.

While there are clear opportunities in each of these countries, the question become whether EDPR is willing to face the risk. To enter the Indian market they would need partnerships in a way similar to what they do in the USA to take advantage of the accelerated depreciations (80% of the project is depreciated in the first year). But even looking past that, in an industry which is still so dependent on government support and subsidies, would EDPR face the political risk of entering a market like India? It would severely increase its risk because the return would be too volatile and the partnerships would end up absorbing all the added value EDPR would create.

Mexico has a better chance of entering EDPR's portfolio because it's closer to what EDPR typically does – brand new market with huge unexplored potential, but it's not a new situation altogether because EDPR is already tapping the Brazilian market.

The Sector

Whether we consider EDPR's sector Electricity, Utilities or Renewable Industries, it's complicated finding a company similar to it. Moreover, the countries where EDPR is present always ensure that the green energy has priority over non-green energy, so everything the company produces will be sold in the market (it's highly unlikely renewable energies will ever develop enough to supply all the electricity needs in a country). The prices are fixed by country by energy regulators. Therefore, there are no competitors other than in the placement of wind farms.

Comparables

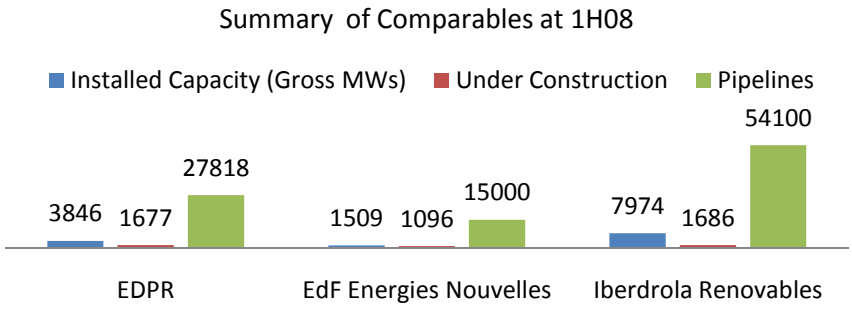
As mentioned, EDP Renováveis is the only pure-wind renewable energy company in the world. This means that there are no direct comparables to analyze the company with. Nevertheless, if we broaden our comparables definition, there are a few European companies with which we can do a comparables analysis. This is the case of Iberdrola Renovables, EDF Energies Nouvelles, which are present in similar countries and have wind energy as a main source of revenues.

Exhibit 28: Size Comparison

	Price	Capitalization	EPS
EDPR	5,57	4.858,756	0,11
IBR	3,13	13.390,29	0,07
EEN	28,92	2.242,39	0,9

Source: Nova Research Team Estimates, Reuters

Exhibit 29: Similar Companies



Source: EDP Renováveis, EdF Energies Nouvelles and Iberdrola Renovables Company Data

Iberdrola Renovables is by the one with the highest Pipelines/Installed Capacity ratio, with a value of 14%, followed by EDPR with 13%. EdF Energies Nouvelles has a ratio of 10%. This value is important only because the wind energy market is changing so quickly as new regulations appear that the more options these companies have to meet their targets the better return they will have. Therefore,

EDPR has a good pipeline which provides the company with several options for growth.

Green Certificates

One of the main questions right now in terms of renewable energies is if there will be a fully operational green certificates market and, if so, how will it work.

Green Certificates go hand in hand with quota systems. In these the government will determine specific renewable targets which will need to be met, and the producers of green electricity receive a pre-determined number of certificates per MWh of clean energy produced. Then they will sell them on the market, where the necessity to meet the quotas will create a demand for these certificates.

Green certificates remain a big uncertainty in the future: whether or not the market will work depends on how it's implemented and regulated

The problem is, even at a European Union level, it's hard to predict how this market would work. The current situation involves a close monitoring by the energy regulators and the issuing bodies, and many countries have fixed prices for green certificates because the markets don't work well enough.

There is also the question of whether, once there are green certificates actively being traded in each country, they will be tradable between member states. This has its upsides, namely it would end the price differences in the member states, and would avoid countries with low potential spending high amounts of money to achieve their 2020 goals when other countries can do it more efficiently, with higher resources and lower costs. All the countries could meet their targets by buying green certificates.

The differences in types of legislation might make it a difficult transition, though. Countries right now have the option between feed-in tariffs and certificates, but there would be virtually no difference in prices from country to country, leaving a small window of opportunity for each energy regulator to control its country's industry. Also, the targets defined by country would be virtually meaningless. It's not that Country A has to consume Y% of green electricity, but that the EU overall would have a global objective.

The Belgian market was useful in pointing out flaws in the system. After the Guarantees of Origin began trading, the penalty was below the compliance cost, so no certificates were traded.

A criticism of these certificates that is often pointed out is that because there are no industry specific targets in the renewable energy targets, this would end up developing very quickly the more mature, and less costly industries in the short run and ignoring industries like offshore wind which still need a lot of support before they can compete in the market with wind energy, for example.

EDPR might benefit, depending on how it's conducted. If the market is created by country, then places like Romania and Poland end up with markets with too little liquidity to have an open tradable market and end up with the government having to ensure minimum and maximum prices, working like a feed in tariff. In an open market, the countries will lose ability to regulate the market and promote specific renewable industries. A positive factor regarding this system is that it promotes cost-efficiency in the green sector, because the incentives do not depend on cost, only on the amount of production of a company.

Another important issue is whether there will be a carbon emissions trading going on at the same time or if there is a choice between one and the other.

If the market functions properly and with no barriers the achievement of 20% renewable energy by 2020 in the energy mix would be easier and more likely met. But for EDPR, who benefits from high fixed incentives and green certificates at prices like 84€/Mwh produced, a well functioning certificates market could very well be filled with new competitors, driving the prices down because of the increased offer. To avoid this, the EU would have to adjust its targets (on a union level or by country) to make sure there is a market for green producers.

Financials

To have a deeper understanding of EDPR it's necessary to take a look at some of its key financial ratios.

Exhibit 30: Financial Ratios

Important Ratios (Values in €)				
	2008E	2009E	2010E	2011E
EPS	0,11	0,22	0,27	0,39
EPS YoY Growth	-	112%	20%	45%
Dividends/Share	0,00	0,00	0,05	0,08
Dividend Yield	0%	0%	20%	20%
EBITDA (Adjusted) (in m€)	427,11	741,34	966,31	1256,64
P/E Ratio	52,94	24,98	20,83	14,38
Enterprise Value (in m€)	7.057,55	8.887,02	10.517,40	12.091,23
EV/EBITDA	16,52	11,99	10,88	9,62
EV/Sales	11,48	8,99	8,08	7,38
Number of Shares (in m)	872,308			
Current Share Price	5,57 €			

Source: Company Data, Nova Research Team Estimates

Analyzing the EV/EBITDA and the PER we can conclude the company is becoming progressively cheaper in time.

The EPS are expected to increase at high (although decreasing) growth rates, which is expected in a company with such high growth objectives. In this same

line of thought, the Free Cash Flow is very negative until 2012, resulting from the growth strategy which is very demanding in terms of capital expenditures.

Financial Statements

Exhibit 31: Profit and Loss Account

Profit & Loss Accounts (in €mn)						
	2007PF	*2008E*	*2009E*	*2010E*	*2011E*	*2012E*
Adjusted Revenues	338,800	614,762	988,531	1.301,363	1.638,531	1.975,433
Operational Costs	89,300	187,656	247,195	335,057	381,889	418,658
EBITDA	229,700	427,106	741,336	966,306	1.256,642	1.556,774
Depreciation	125,900	200,209	276,937	361,344	445,803	546,799
EBIT	104,100	226,897	464,398	604,962	810,839	1.009,976
Financial Costs	94,700	89,031	193,066	282,034	348,511	348,511
EBT	9,400	137,866	271,332	322,929	462,328	661,465
Taxes	-3,100	39,981	67,833	80,732	115,582	165,366
Earnings After Taxes	6,400	97,885	203,499	242,196	346,746	496,099
Minority Interests	4,000	6,100	8,970	8,970	8,970	8,970
Net Income	2,400	91,785	194,529	233,226	337,776	487,129

Source: Company Data, Nova Research Team Estimates

Exhibit 32: Balance Sheet

Balance Sheet (in €mn)					
	2007PF	*2008E*	*2009E*	*2010E*	*2011E*
Tangible Fixed Assets	4.839	6.588,31	8.131,83	9.956,83	11.556,46
Intangible Assets	1.268	1.774,98	1.896,66	2.266,49	2.620,96
Financial Investments	40	47,25	48,195	49,159	50,142
Deferred Taxes	17	18,09	18,452	18,452	18,821
Inventories	39	14,909	15,271	15,641	16,021
Clients	61	92,214	148,28	195,205	245,78
Other Debtors	299	432	324	216	144
Assets held for negotiation	42	29,145	29,728	30,322	30,929
Assets held for sale	3	2,01	2,05	2,091	2,133
Cash and Equivalents	388	114,15	385,99	272,45	129,287
Total Assets	6.997	9.113,05	11.000,44	13.022,63	14.814,53
Share Capital + Premium	1.901	4.915	4.915	4.915	4.915
Reserves and other Results	130	82	82	82	82
Net Income Attributable to EDPR Shareholders	1	91,785	194,529	233,226	337,776
Minority Interests	186	70,1	79,07	88,04	97,01
Total Equity	2.218	5.158,88	5.270,60	5.318,27	5.431,79
Financial Debt	2.882	1.534,22	2.970,25	4.338,98	5.361,71
Institutional Investors	733	989,394	1.133,94	1.512,40	1.903,05
Provisions	24	38,042	38,21	38,379	38,549
Deferred Taxes	278	275,37	280,877	286,495	292,225
Suppliers and others	862	1.117,13	1.306,57	1.528,11	1.787,22
Total Debt	4.779	3.954,17	5.729,85	7.704,37	9.382,75
Total Debt + Total Equity	6.997	9.113,05	11.000,44	13.022,63	14.814,53

Source: Company Data, Nova Research Team Estimates

Exhibit 33: Cash Flow Statement

Cash Flow Statement (in €mn)			
	2008E	**2009E**	**2010E**
Net Income	*91,785*	*194,529*	*233,226*
Operating Cash Flow	514,85	603,84	768,19
Investing Cash Flow	2.001,63	2.151,00	2.444,16
Cash Flow from Financing	1.212,93	1.819,00	1.562,44
Net Change in Cash	-273,85	271,84	-113,54
Initial Cash	388	114,15	385,99
Final Cash	114,15	385,99	272,45

Source: Company Data, Nova Research Team Estimates

Disclosures and Disclaimer

Research Recommendations

Buy	Expected total return (including dividends) of more than 10% over a 12-month period.
Hold	Expected total return (including dividends) between -10% and 10% over a 12-month period.
Sell	Expected total return (including dividends) of -10% or worse over a 12-month period.

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