Current trends in the M&A business with wind farm projects



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Green Energy 2012

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Finadvice

Presentation of Finadvice

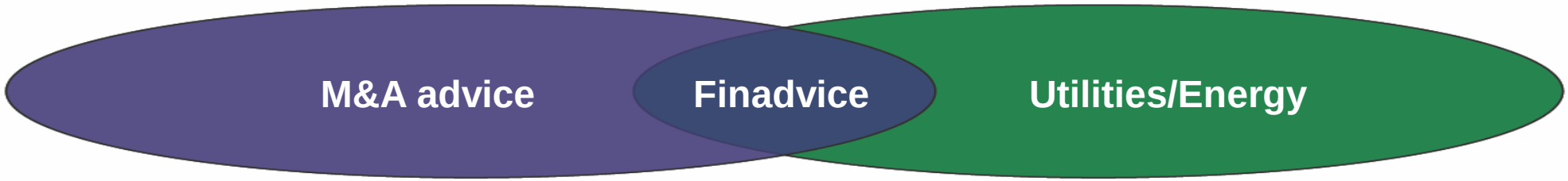
Finadvice is specialized on M&A advice regarding energy and utilities

Focus on M&A advice

- Finadvice has over 13 years experience in M&A transactions
  - Thorough understanding of technical, legal, economic, strategic and political influences and value drivers
  - Contacts and business relations to a large number of strategic and financial investors
  - Project management of M&A processes
  - Due Diligence for buy and sell side
  - Valuation models
  - Contract negotiations

Focus on utilities/energy

- Majority of our projects concern companies in the energy and utility industry
  - Comprehensive understanding of technical and economic details
  - Expertise of regulated and free markets
  - Knowledge of market participants and their requirements
  - Special knowledge in
    - Power plant operational improvement
    - Typical contract structures for the industry
    - Price escalation formulas and forecasts
    - Risk management in the utilities industry



Finadvice is present in Europe and India at eight locations and with more than 40 employees from 11 nationalities

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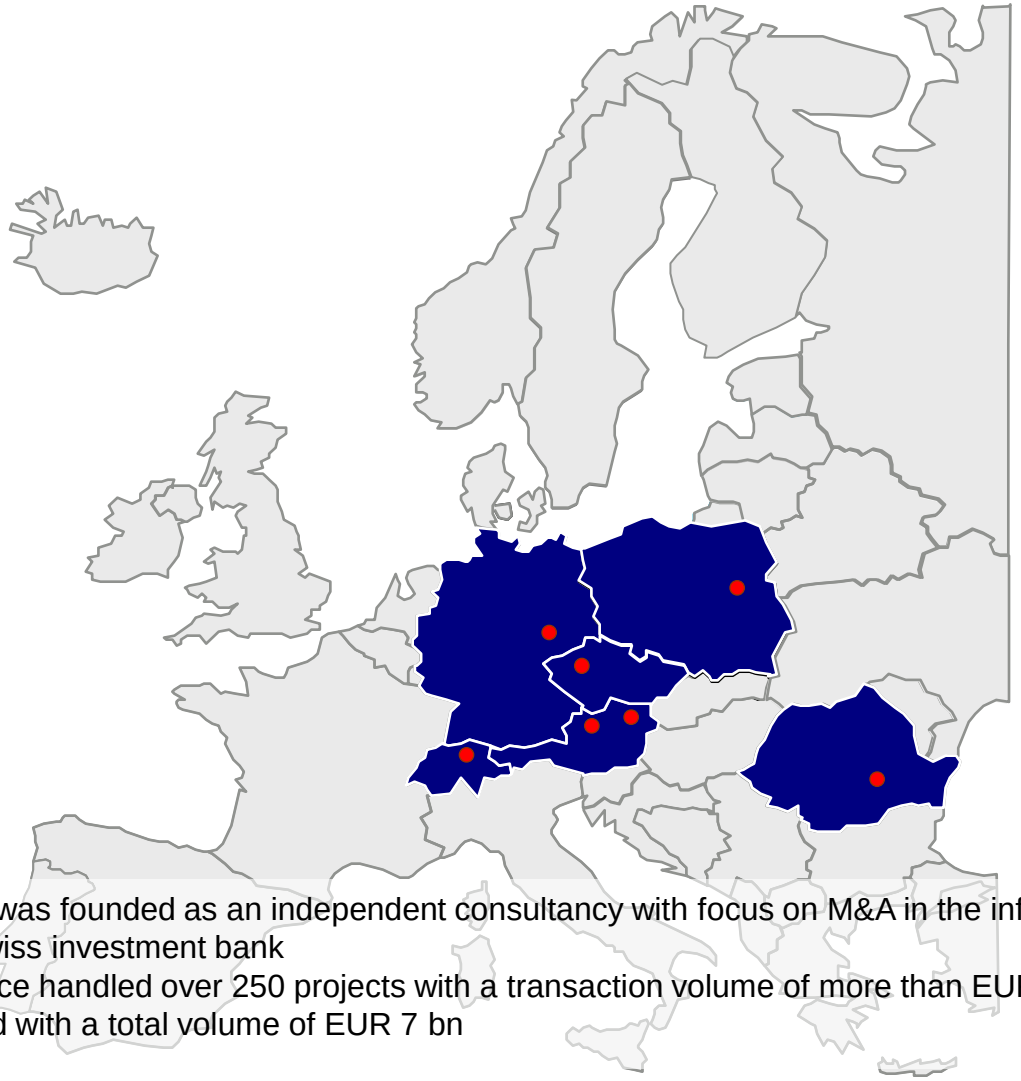

Office India

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- In 1998 Finadvice was founded as an independent consultancy with focus on M&A in the infrastructure area by former employees of a Swiss investment bank
- Since then Finadvice handled over 250 projects with a transaction volume of more than EUR 45 bn, of which 80 projects successfully closed with a total volume of EUR 7 bn

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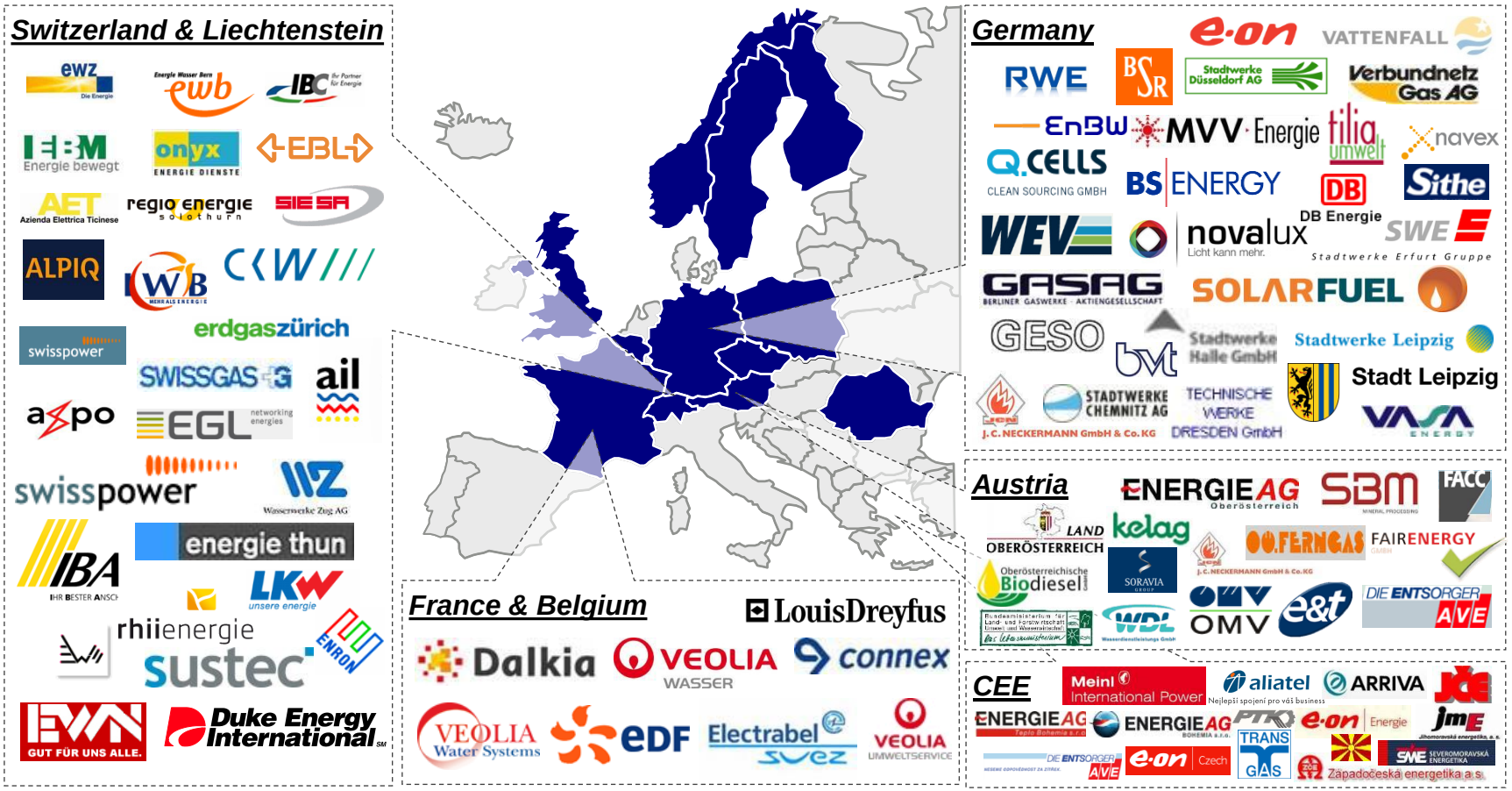
Selection of clients in the utilities/energy industry

Clients (Selection)



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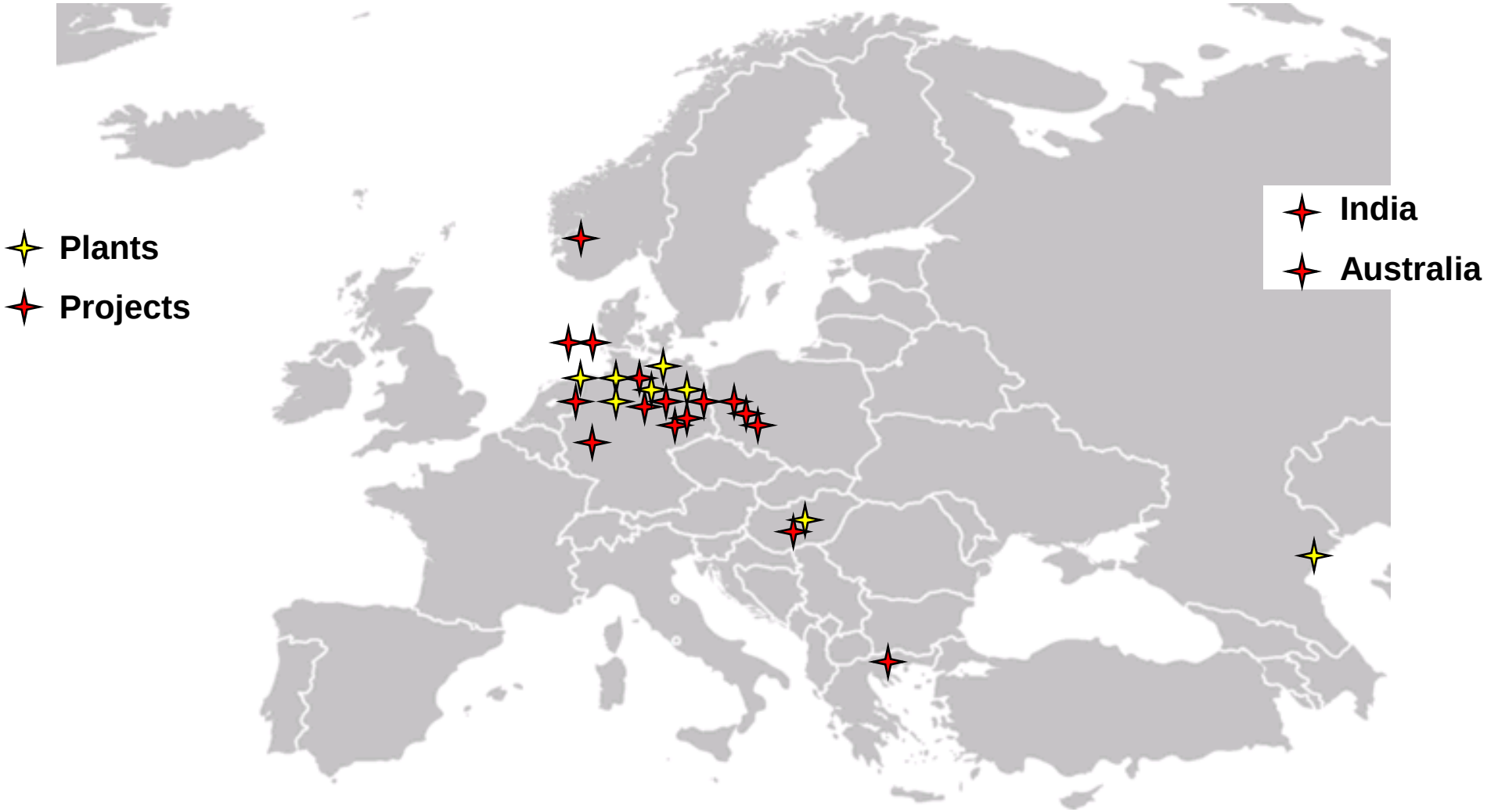
Finadvice has valued over 100 renewable energy plants

	Plants and projects valued (developers count as 1)	***Transactions concluded***	***Projects under development***
Solar power plants	13	-	-
Hydro power plants	27	4	3
Wind farms	36	4	2
Biomass and waste power and CHP plants	9	2	-
Biogas plants (gas, heat or power production)	31	14	1

Finadvice has an outstanding know-how in the area of on- and offshore wind energy in Europe



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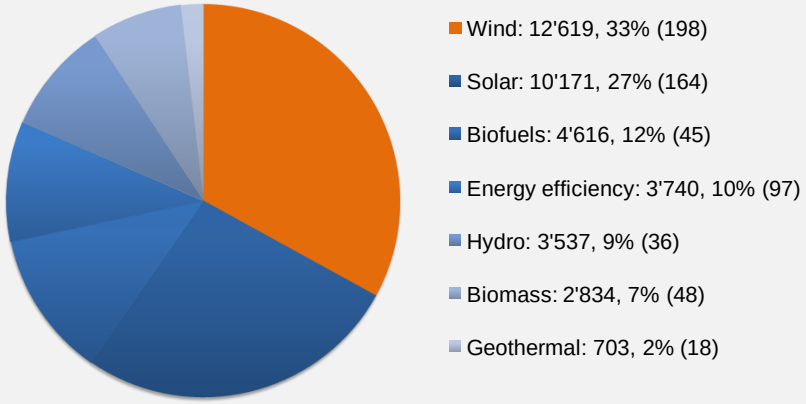
M&A activities in the renewable energy industry in 2011

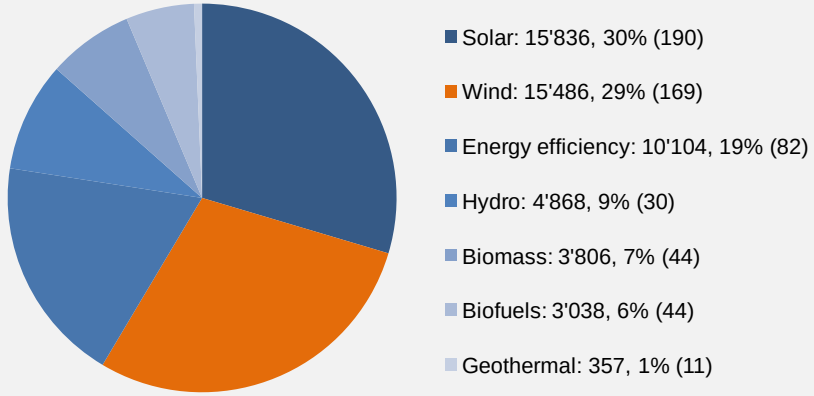
Total transaction value in the renewable energy industry increased by 40% from USD 38.2 bn in 2010 to USD 53.5 bn in 2011

Transaction value by technology in 2010 and 2011

2010 - total transaction value USD 38'221 mln



2011 - total transaction value USD 53'495 mln



M&A activities in 2011

- In comparison to 2010, the number of transactions decreased by 6% in 2011
- M&A activities remained on a high level with 570 deals - in 2009 at the bottom of 319 deals
- Increase in transaction value not only due to large transactions. However, deals worth more than USD 1 bn occurred more frequently - annual average transaction volume increased by 25% from USD 28.1 mln to USD 32.5 mln
- M&A activities with wind farm projects the highest in 2011

Cause for increased M&A activities in 2011

- Due to technological progress and market maturity, the deal activities are increasing steadily
- High demand for sustainable and safe assets by strategic and financial investors
- Consolidation of manufacturer due to build up of overcapacity

Source: PWC, Renewables Deals 2012 outlook and 2011 review

In 2011, major market participants were utilities, expanding their renewable energy portfolios as well as infrastructure-, private equity- and pension funds

Top 10 transactions in 2011

No.	Value of transaction (USD mln)	Date announced	Target name	Target nation	Acquirer name	Acquirer nation	Market sector	Type of purchase
1	2'900	20-Apr-11	ERSA Energias Renováveis SA	Brazil	CPFL Energia SA	Brazil	Hydro	Operational
2	2'300	19-Jun-01	Landis+Gyr AG	Switzerland	Toshiba Corp. Innovation Network Corp. of Japan	Japan	Energy Efficiency	Technology
3	2'077	08-Apr-11	EDF Energies Nouvelles SA	France	Electricite de France SA	France	Wind	Operational
4	1'687	22-Nov-11	True Green Energy Group	Philipines	Universal Resources Development Inc.	USA	Biomass	Operational
5	1'370	03-May-11	SunPower Corp.	USA	Total SA	France	Solar	Technology
6	1'364	01-Jun-11	Telvent GIT SA	Spain	Schneider Electric SA	France	Energy Efficiency	Technology
7	1'230	08-Sep-01	Sarnia solar project (80MW), Enbrigde Ontario wind project (190MW), Talbot wind project (99MW), located in Sarnia and Chatham, Canada	Canada	Enbridge Income Fund	Canada	Solar	Operational
8	1'130	28-Mar-11	Windfarm (400MW) - Anholt	Denmark	PensionDanmark A/S PKA A/S	Denmark	Wind	Operational
9	880	12-Aug-11	Windfarms (443 MW) - Castilla y Leon province Spain	Spain	Bridgepoint	Spain	Wind	Operational
10	731	22-Jul-01	Hansen Transmissions International NV	Belgium	ZFHN Zukunftsfonds Heilbronn GmbH & Co. KG	Germany	Wind	Technology

Source: PWC, Renewables Deals 2012 outlook and 2011 review

In 2011, Europe was the most active M&A market for renewable energy transactions

Transactions by technology in Europe in 2011

Country	By value (USD mln)	share of total Europe deal value	Number of deals	share of total Europe deal number
Wind	11'954	40%	104	38%
Solar	9'697	32%	103	37%
Energy efficiency	5'761	19%	31	11%
Biomass	1'458	5%	24	9%
Hydro	559	2%	6	2%
Biofuels	473	2%	4	1%
Geothermal	149	0%	3	1%
Total	**30'049**	**100**	**275**	**100**

- 40% of M&A activities are related to wind farms, closely followed by solar projects with 37%
- In 2011, two of the top 10 deals were in the field of smart metering
- M&A activities in the remaining technologies turned out to be weak

Transactions by country in Europe in 2011

Country	By value (USD mln)	share of total Europe deal value
Spain	4'996	17%
Italy	4'601	15%
France	3'641	12%
Germany	3'591	12%
UK	3'224	11%
Switzerland	2'483	8%
Norway	2'338	8%
Denmark	1'342	4%
Belgium	862	3%
Poland	816	3%
Other countries	2'155	7%
Total	**27'894**	**100%**

- High intensity of large transactions in Spain and Italy as well as in France
- Focus on countries with attractive supporting schemes
- Bridgepoint acquired 11 wind farms, worth USD 880 mln from the Spanish construction company ACS

Source: PWC, Renewables Deals 2012 outlook and 2011 review

In 2011, particularly financial investors showed great interest in renewable energies – transaction value increased by 146% compared to 2010

M&A activities by type of investors

	2010				2011			
	Number	Value (USD mln)	Number	Value	Number	Value (USD mln)	Number	Value
Alternative Energy	84	8'148	42%	28%	71	6'899	36%	16%
Diversified	23	5'045	12%	17%	24	9'040	12%	21%
Financial	41	4'828	21%	17%	52	11'869	26%	28%
Other	24	4'461	12%	15%	30	7'188	15%	17%
Utility	28	6'509	14%	22%	23	7'629	12%	18%
Total	**200**	**28'991**	**100%**	**100%**	**200**	**42'625**	**100%**	**100%**

- Attracted by distressed asset prices traditional private equity companies such as KKR or Bridgepoint have entered the renewable energy market
- For established Private Equity companies in the renewable energy industry like HG Capital and Platina Partners or the typical strategic investors such as utility companies, the competition to acquire an attractive project has increased
- Established and new infrastructure funds enter the market and are highly active
- New legislation opens doors for pension funds to do direct investments for the first time

Source: PWC, Renewables Deals 2012 outlook and 2011 review.
Results based on 200 largest transactions corresponding to 80 % of total transaction value in 2011

Financial investors have considerably higher yield expectations than strategic investors/utility companies

Financial investors

- Typical financial investors are private equity companies, infrastructure and pension funds
- Allocation of funds to safe and high yield assets classes
- Minority holdings are welcome – majority holdings not to be ruled out
- Advanced securing of revenues is essential, e.g. through feed-in tariffs or Power Purchasing Agreements
- Acquisition only in operating projects. No construction risk except with an EPC contractor
- Operational leadership is usually not aspired
- Private equity companies interested in favorable purchase price with exit-option – does not apply to pension funds or infrastructure funds
- ROE (after tax) expectations range between 12% and 20%

Major motivation of a financial investor: secure and adequate interest yield for contributed capital

Strategic investors

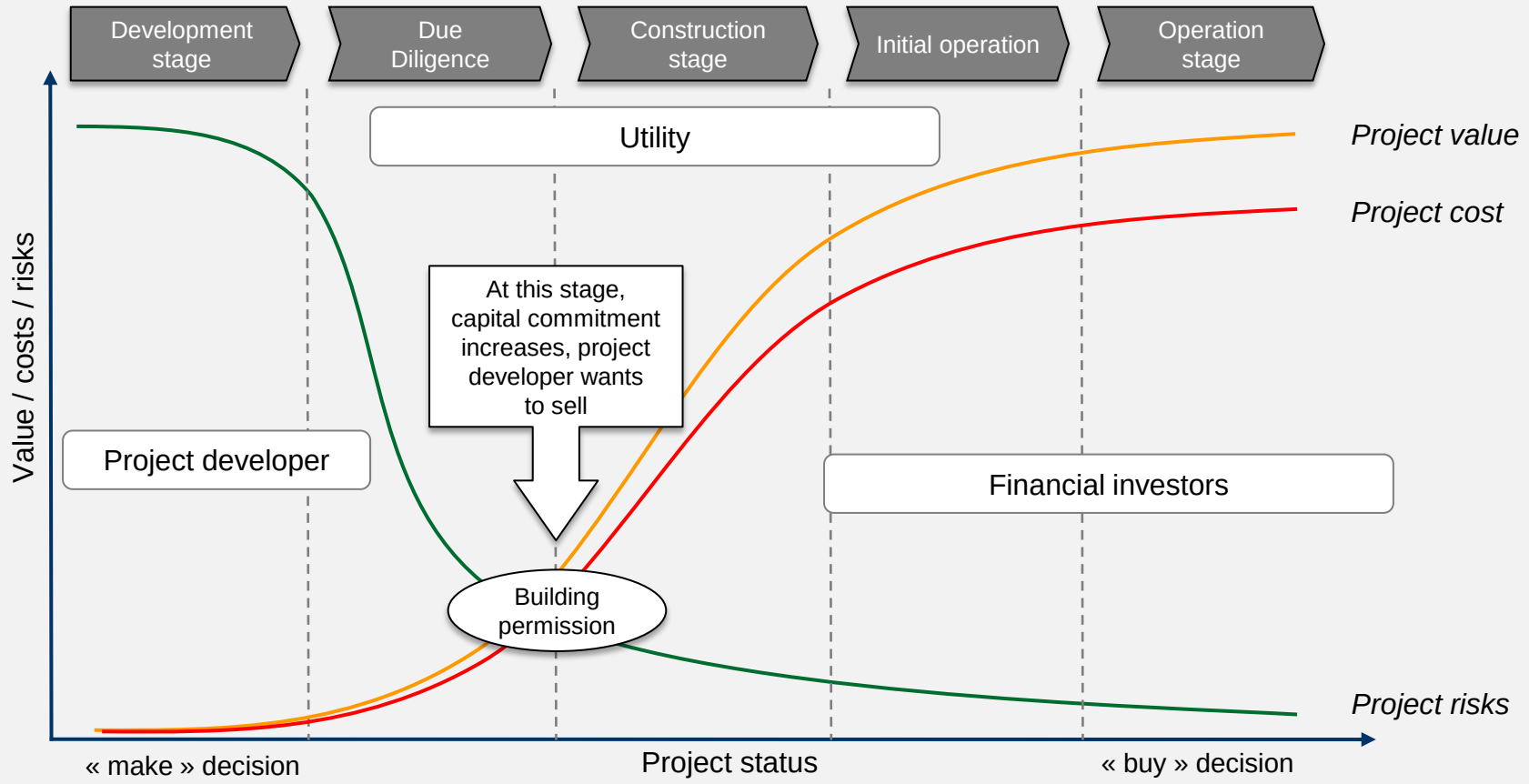
- Typical strategic investors in the renewable energy sector come from the utility industry
- Expansion of own generation capacity or entering new markets. Electricity supply for own customers
- Majority holdings and operating leadership preferred – minority holdings rather for small utilities
- Electricity purchase right and opportunity for trade or import of electricity is an essential investment criterion
- Acquisition of green field projects and fully permitted projects
- Participation in operation and construction required, thereby realization of additional margins
- ROI (after tax) expectations range from 6% to 10% under consideration of own project participation

Major motivation of a strategic investor: long-term security of corporate success and guarantee of security of energy supply

Prices and valuation methods for wind farms and wind farm developer

Strategic investors acquire preferably fully permitted wind farms in order to benefit from the added value

Project development stage as investment criteria



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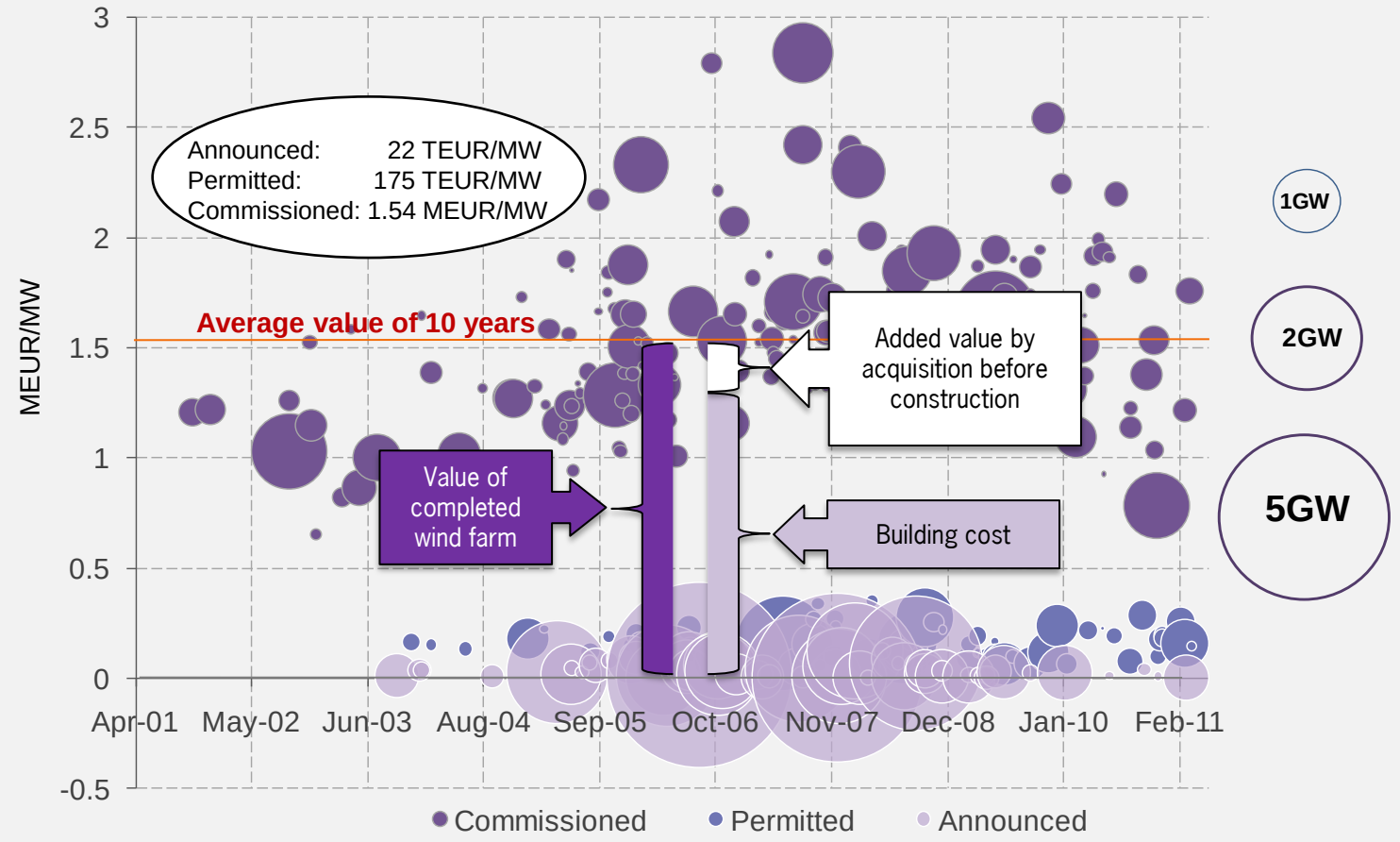
Historical wind farm transactions show the project value development

Transaction prices of wind farm projects in MEUR/MW



Source: Bloomberg New Energy Finance

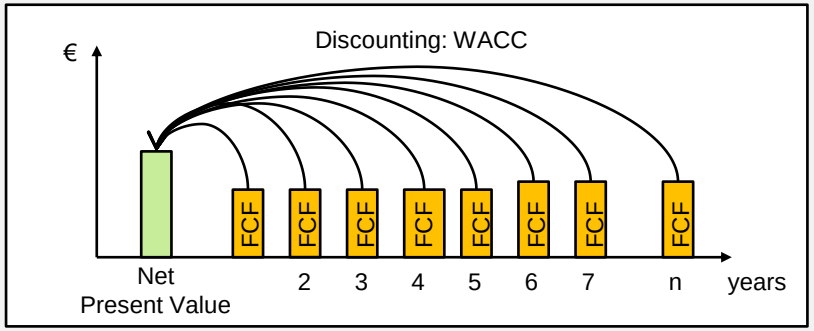
The Discounted Cash Flow Method (DCF) is generally used to determine an acquisition price of an operating wind farm

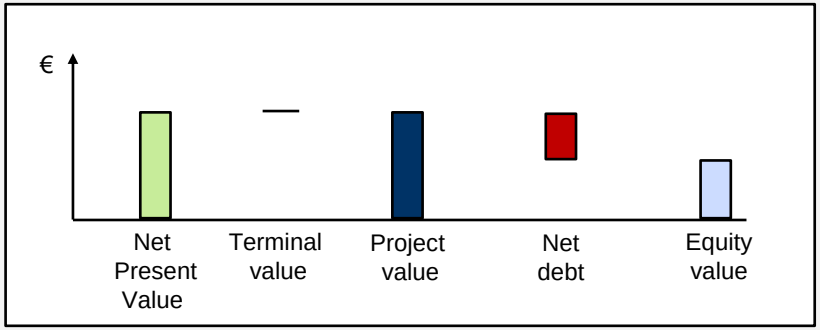
Theoretical context of the DCF-Method

- The wind farm value (price) is determined by the projection of future cash flows. The future cash flows have to fulfill all obligations to cover the investors equity and debt obligation
- The calculated period-specific Free Cash Flows (FCF) are discounted with the rate of weighted average cost of capital (WACC) which contains yield requirements of investors
- In contrast to company valuations, the Terminal Value (TV) of wind farms is not considered in a valuation because the wind farm is not operational forever
- Wind farms are commonly valued with the Entity Approach. Firstly, it is to determine the unleveraged project value (Enterprise Value). Secondly, the project value has to be deducted by the outstanding net debt to obtain the equity/shareholder value

No application for wind farm valuation

$$EquityValue = EnterpriseValue - Debt = \sum_{t=1}^{T} \frac{FCF_t}{\left(1+c^{WACC}\right)^t} + \frac{TV}{\left(1+c^{WACC}\right)^T} - Debt$$





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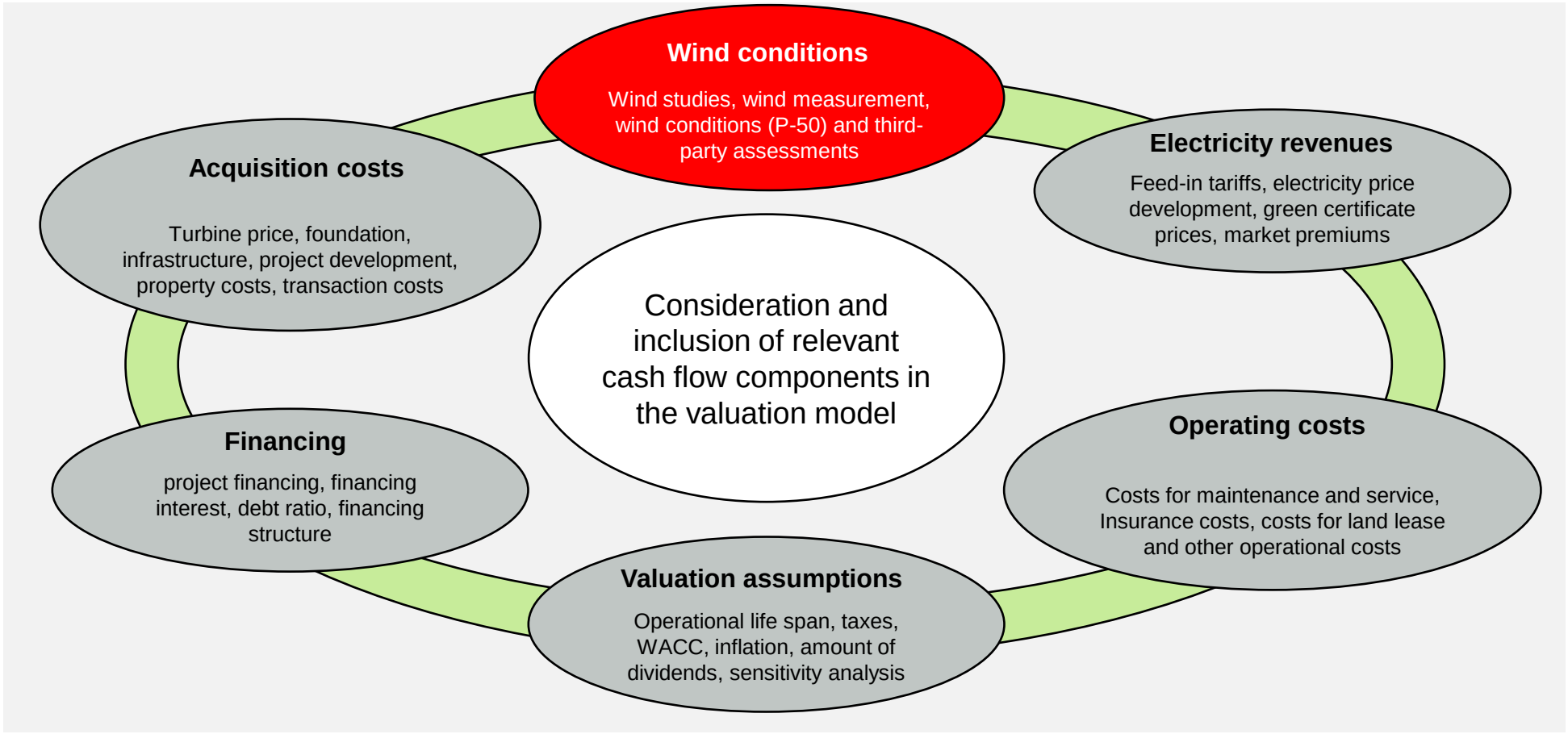
The value of a wind farm depends on projections of the future cash flows

Determination of all cash flow components for the valuation modell



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In comparison to the DCF method multiples provide a quick and relatively easy cross check of the calculated value and a first price indication

Multiples for wind farm projects by life cycle and size

- Multiples should not be used to determine the exact acquisition price, rather give a first rough estimate. Multiples can be based i.e. on EBITDA or transaction price EUR/MW
- According a study by Deloitte, which has analyzed 72 undisclosed transactions in the last 5 years in Europe, the following multiples can be used to evaluate a wind farm project according its development status
- To ensure the factors, lower and upper boundaries have been determined. Therefore it is possible to argue that 95 % of all observed values lie within the determined boundaries

Multiples without consideration of scale effect	Screening/under approval	Approved	Under construction	Installed capacity
EV/MW base case	**0x**	**0.5x**	**1.1x**	**1.6x**
EV/MW upper boundary	0x	0.7x	1.5x	1.8x
EV/MW lower boundary	0x	0.4x	0.7x	1.5x

- The multiples increase disproportionately the installed capacity reaches 200 MW – the additional value amounts to approx. EUR 0.5 mln per MW

Multiples with consideration of scale effect	Approved	Under construction	Installed capacity <200MW	Installed capacity >200MW
EV/MW base case	**0.4x**	**0.8x**	**1.2x**	**1.7x**
EV/MW upper boundary	0.5x	0.9x	1.5x	2.4x
EV/MW lower boundary	0.3x	0.6x	0.8x	0.9x
Wind park developer XY	**Approved**	**Under construction**	**Installed capacity <200MW**	**Installed capacity >200MW**
Portfolio in MW	800	400	0	200
EV/MW coefficient	0.4x	0.8x	1.2x	1.7x
Vaue of project according to stage	320	315	0	334
company value in million Euro				**969**

  - Small projects have lower multiples than large projects with an installed capacity > 200 MW

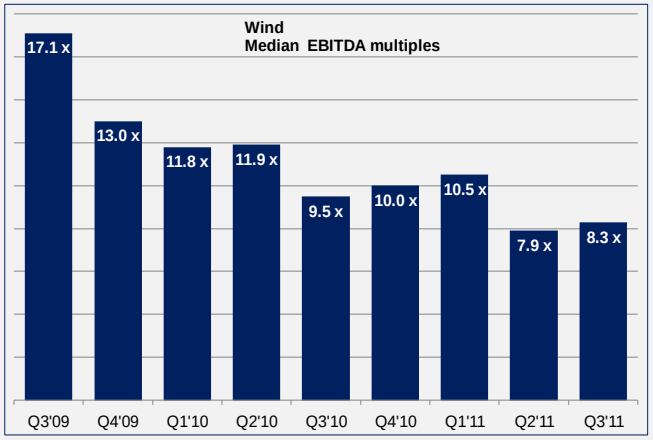
Source: Deloitte, Valuing wind and solar farm developers, January 2011 – 2nd edition

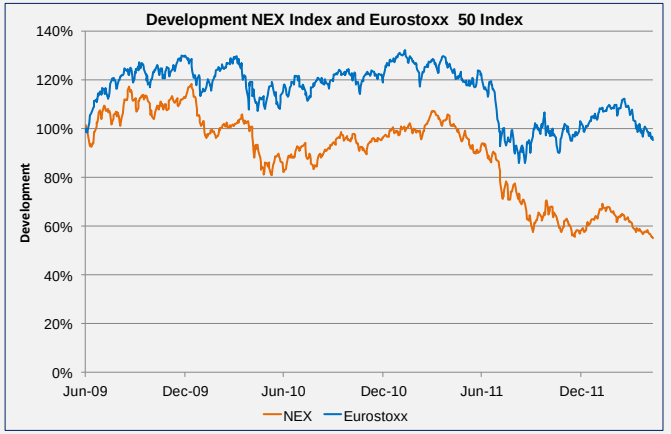
Multiples of publicly listed companies can be accessed on a daily basis and mirror the fluctuations and development in the market

Multiples of publicly listed companies in the wind industry

- Multiples of publicly listed companies refer e.g. to EBITDA Multiples
- Comparability of companies should always be ensured due to clear rules of the peer-group
- Falling stock prices cause the decrease of the enterprise values and also the EBITDA-multiples
- This is also clearly visible in the NEX index, showing global companies operating in the renewable energy industry
- NEX dropped in the Q3'11 to the lowest levels after a significant drop in the Q2'11
- Especially, the austerity measures and the danger of subsidy cuts bluer the prospects of the sector

in EUR mln	Reported	Country	Market	Enterprise	Multiples		EBITDA	Reported	Stock Performance	
Wind	Date		Cap	value (EV)	EV/sales	EV/EBITDA	Margin	P/E	Q3'11	LTM
Enel Green Power SpA	30/06/2011	ITA	8'585	12'533	4.9 x	8.3 x	59.3%	21.5 x	(5.8)%	na
Vestas Wind Systems A/S	30/06/2011	DNK	2'479	3'058	0.4 x	4.1 x	9.9%	7.6 x	(29.2)%	(55.8)%
EDP Renovaveis SA	21/12/2010	ESP	3'568	6'803	6.6 x	9.4 x	70.8%	28.2 x	(9.7)%	(1.4)%
Gamesa Corp Technologica SA	30/06/2011	ESP	820	639	0.2 x	2.6 x	7.9%	14.4 x	(37.3)%	(34.1)%
Repower Systems AG	31/03/3011	DEU	1'310	1'065	0.9 x	9.0 x	9.8%	21.5 x	12.2%	29.3%
Nordex SE	30/06/2011	DEU	272	251	0.2 x	4.0 x	6.0%	17.5 x	(40.2)%	(45.7)%
Hansen Transmissions International NV	31/03/2011	BEL	503	522	1.4 x	12.7 x	10.9%	na	89.3%	35.6%
Terra Energy S.A.	30/06/2011	GRC	203	215	3.7 x	7.8 x	47.7%	21.8 x	(29.0)%	(30.1)%
Alerion Clean Power S.p.A.	30/06/2011	ITA	169	471	8.3 x	14.5 x	56.8%	na	(18.9)%	654.9%
Theolia SA	30/06/2011	FRA	120	355	4.3 x	~~135.6 x~~	3.2%	1.5 x	(24.8)%	(24.8)%
Weighted average					***4.0 x***	***7.8 x***	***46.2%***	***19.6 x***		
Median					***2.5 x***	***8.3 x***	***10.4%***	***19.5 x***		





Source: Deloitte, Renewable Energy Industry Update, Third Quarter 2011

Robust demand for renewable energy projects will ensure strong M&A-activities in the future

Outlook for 2012

- Robust demand for projects and secured financing will ensure high M&A activities in 2012
- At the end of 2012, tax credits for renewable energy projects will expire in the USA and in Europe, subsidies will be threatened by austerity measures. The volatility of the prices might increase. Current prices are beneath the historical lows
- Wind turbine manufacturers have to go through a period of consolidations within and between the industry and only a few global players will survive. Overcapacities and price pressure are fundamental reasons for this development. In 2011, the demand amounted to 43 GW while there have been production capacities of 120 GW.
- Sovereign debt crisis in Europe will continue and hence limit investments in geography and technology
- Increasing interest in Eastern Europe
- In the long term view, the market for renewable energies is going to develop robustly and positively. Therefore M&A activities will also benefit from this development, especially through:
  - Favorable financing conditions and absence of alternative investment opportunities
  - Environmental regulations of industrialized nations / climate protection
  - Decreasing production costs / increasing competitiveness of renewables
  - Raising interest of customers / end consumers of renewable energy

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