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Industry report

Energy, Environment & Cleantech

Developments in the energy, environment & cleantech industries
EEC Industry Group
November 2016 edition

M&A leads the way from survival to growth!

- General consensus in global and major energy markets forecast that energy commodity prices are going to remain depressed still for a while. **In this context, M&A activity is expected to get momentum** in the next 3 to 5 years as company restructure asset portfolios, seek scale economies, look to diversify the business and act opportunistically.

- While the spike in M&A activity has been characterized and supported by large M&A transactions, **deal-making is increasing across all company sizes.** In particular we see a strong appetite for companies in the industrial services linked to the energy and environment sectors.

- **The signing of the final contracts for the construction of the Hinkley Point C nuclear power station in UK** by the French-Chinese consortium EDF Energy- CGN relaunches the construction of new nuclear power plants in UK and Europe

- **We see strong tailwinds downstream most of the supply and value chains** and in particular in the power supply customer-tailored services, conventional and renewable asset maintenance, energy efficiency in commercial and retail markets and in the WEEE recycling business.

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OPINION - The Donald and the Brexit

Winds of protectionism are blowing, what's the impact on energy markets?

The results of the US election on November 9 that saw Donald Trump to become the new US President and the outcome of the June 23 referendum in UK that leads the country to terminate its membership in the EU (Brexit) are both historical events that went soundly against expectations. While they raised a large number of questions they also showed a clear indication there is a desire of protectionism in both countries (and likely not only there) that could affect cross-border economic activities and trade agreements.

A key question for us is wondering whether and in which direction these winds of protectionism can affect commodity prices, capital markets and M&A deal-making in the energy and environment space. Of course quoting an overused but fitting expression it's still too early in both the cases to provide factual answers or to make solid assumptions supporting clear scenarios.

However already at this stage we can try to develop a rationale to anticipate key likely implications of both these events on a local and global scale for the energy and the environment sectors.

The Donald

As regards the situation in US, Donald Trump during his campaign declared to strongly support the fossil fuel industry and that he would remove regulatory and policy restrictions in order to unleash its full potential. As a result energy stocks of oil & gas and coal companies skyrocketed after his election. While there is little scope for surprise in the reaction of equity markets, given their sensitivity to declarations of intentions, the dynamics of commodity markets is rather different and often independent of government policy.

Indeed the fossil fuel exploration and production activities are dictated much more by economic considerations than by regulatory restrictions. Their profitability is directly linked to the energy commodity prices.

We are inclined to consider that the threat of a rapid ramp up of the US shale oil & gas production, coming from the potentially reinforced new energy security policies, will rather discourage OPEC members from implementing any planned cut to production, having as effect to make prices to keep remaining at depressed levels still for a while.

Concerning renewables and sustainable businesses, it is well known Donald Trump is not a supporter of environmental and climate change policies. His administration could reduce the incentive mechanisms for alternative energy (as Production and Investment Tax Credit) and have an initial negative impact on its currently burgeoning market. However, on the medium term this could even result in an accelerated dropping of the costs associated with wind and solar installations leading these technologies to become everywhere competitive without subsidies sooner than expected.

On the front of climate change commitments, Donald Trump threatened to cancel the COP 21 Paris Agreement that formally entered into force on November 4. Nevertheless at the time of writing, it does look like Trump could reconsider his position on climate change issues given also what they generate in terms of occupation and related economic activity. Therefore we are very cautious in drawing potential scenarios on this topic.

The effects of Donald Trump election on the M&A activity are difficult to anticipate but if any they are more susceptible to involve large M&A transactions rather than deals in the mid-market. Indeed this could be a good news as on one side it would work against the current going-on market concentration in the oil & gas and power industries and on the other would foster deal-making across all the other company sizes.

The Brexit

As regards the Brexit, it's important to stress the referendum outcome has not an immediate implementation. First the Parliament must vote on whether the government can trigger the Article 50 of the Lisbon Treaty to leave the EU, and then a negotiation process of up to 2 years, that is extendable, will take place during which UK and the remaining 27 Member States will negotiate the .steps for UK exit from EU. Following the referendum the sterling and the FTSE-100 had an immediate fall in response to the completely unexpected result, although the stock market has since then fully recovered and FTSE-100 moved higher than on year beginning. The commodity prices in energy markets were not very much affected by the referendum and the Brent price remained stable.

In line with some industry analysts we see little rationale for the fundamental structure of the upstream oil & gas industry including its licensing system and for the strategy of its market players to be significantly affected by the Brexit.

The UK has been one of the first countries to liberalize its own electricity supply industry (ESI), passing from a monopolistic vertical integrated system to a competitive electricity market fully opened in its wholesale and retail segments. Margaret Thatcher government in 1990 established the first explicit market mechanisms to trade in electricity with the creation of the Electricity Pool of England and Wales.

The liberalization of the ESI in UK was totally independent of any requirement under the EU legal framework and actually it was used as a model to shape EU Directives and Regulations on electricity and gas markets. As a consequence, we think it's very unlikely the Brexit would bring any sensible change at what are considered pioneer and highly competitive power and gas markets, at least on the short-medium term.

The end of September contract for the construction of the Hinkley Point C nuclear power station shows as the path to energy security does not prevent international framework contracts in front of the Brexit controversial protectionism winds.

The EU renewable energy Directives fixe targets in terms of percentage of electricity to be produced from renewables and have shaped the relative UK energy policies. While the removal of these targets could give rise to some turmoil and uncertainty in the renewable energy sector, UK has its own national commitments for cutting greenhouse gas emissions (Climate Change Act 2008) and current government after the referendum reiterated these commitments.

In conclusion while we perceive stronger winds of protectionism in US than in UK, in both the cases the effects on the international energy and environment space look less dramatic than anticipated by many stakeholders and mainly in US they could even result in good news for the midmarket M&A deal-making.

Giuseppe SANGIOVANNI
Chairman of the EEC Industry Group

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- ✓ Locations on every continent
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The Energy, Environment & Cleantech (EEC) Industry Group presentation

What is our specialization?

We are investment bankers with a major expertise in the sectors of energy, environment and sustainable technologies or cleantech.

Leveraging sound technical competences we adopt a highly specialized approach that implies an on-going monitoring of sector news, trends, and market fundamentals. We also constantly analyze the most recent innovations developed in the business and the latest significant M&A transactions.

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An M&A long dated experience matched with a strong international dimension underpinned by several cross-border transactions finalized each year within the M&A Worldwide network.

In-depth knowledge, track record and proven competences on a technical, economic and financial ground in most market segments within the energy, environment and cleantech space.

Legitimacy, recognition and power of recommendation to strategic and financial investors.

KEY TRENDS and HOT POTATOES

A new era of low energy prices

In line with industry consensus we believe prices are going to remain low in the next 3 to 5 years, or longer, either on global oil markets, macro-regional natural gas markets and major international electricity markets. In oil & gas, the strategy of major OPEC members to tackle the aggressive US shale industry is very likely to continue keeping the market in oversupply. In power markets, the on-going implementation of energy efficiency measures and smart grid technologies are reducing demand while at the same time the overall increase of the share of renewables in electricity generation is lowering prices.

PE funds targeting the upstream in Oil & Gas

In the current scenario of persisting low oil prices upstream oil & gas players face the need for capex freezing and cost reductions, difficulties of financing through banks and capital markets and depressed valuations. This led PE funds to focus on large investments in this sector segment where they potentially represent the only available source of capital and where the look for value creation through efficient asset management and the financing of new growth opportunities.

Bullish on HVAC&R service providers

The emerging Cold Economy, the growing emphasis put on energy efficiency targets and the consolidation in the industrial services business led to an intense M&A activity focused on specialized companies providing heating, ventilation, air conditioning and refrigeration (HVAC&R) services and solutions. Big group branches and large-medium independent companies are aggressively targeting smaller companies specialized in this field with the result of boosting valuations.

The booming of predictive maintenance

Increasing competition makes industrial players to target quality and cost reductions giving to maintenance a growing important role. Maintenance function has moved from repairing to anticipate and prevent operating faults. This in turn meant to move from curative maintenance, to preventive maintenance and more recently to predictive maintenance (PdM) thanks to the development of Internet of Things (IoT) applications and Big Data analytics. Predictive maintenance uses real time monitoring (though sensors) to suggest maintenance interventions only when it's required thus optimizing costs. In the energy industry we see a lot of interest for PdM solutions and the growing of new companies specialized in these solutions

Digital utilities look at downstream services

Utilities are striding into the digital dimension using IT solution for the implementation of smart grids that use smart meters and advanced metering infrastructure to allow a two-way communication between the customer and the utility. This widely enlarge the scope for providing new downstream products and services to customers which is what utilities are looking for through organic and external growth given the revenue and profitability erosion of their conventional generation assets in the new low price era.

Focus on the Oil & Gas sector

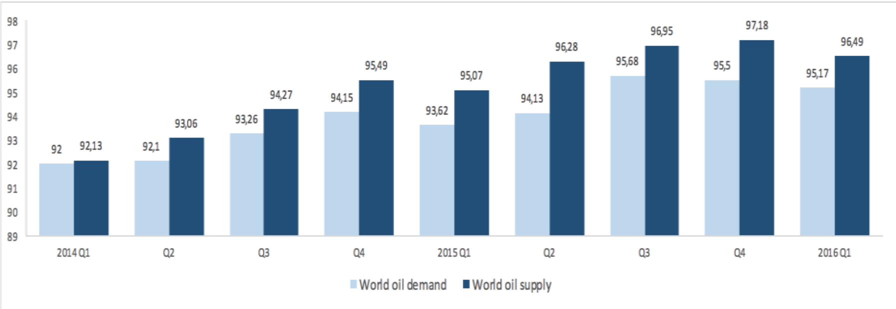
Recent evolution of the macroeconomic context

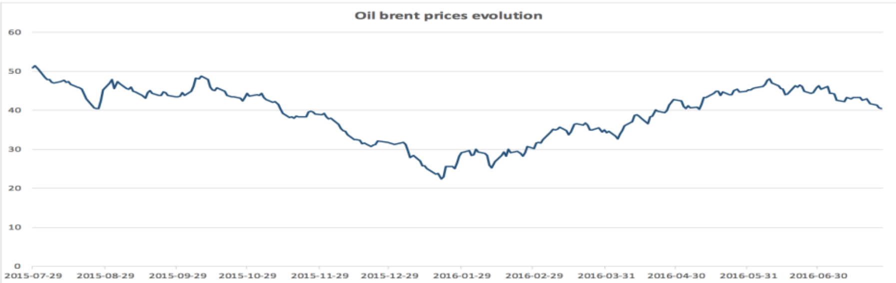
Last 3 years were marked by crude oil and gas prices' collapse in a high-volatility environment. Despite a slight recovery of crude oil prices above $40 per barrel, future developments remain uncertain. Since 2014, the sector is in overcapacity because of lower demand, driven by slower growth in China, the first oil consumer in the world. Prices are expected to stabilize, or even drop again, since Middle East oil producers have no intention of reducing their production. As an example, Saudi Arabia is only concerned about its market share and keep extracting the most possible, without caring about the impact on prices whereas US production is declining step by step.

Immediate consequences are revenues and net income collapses for upstream oil companies. The logical continuation will be, and it has already been announced by a lot of oil giants, investments and jobs cut in 2016 and early 2017, until the horizon clarifies. According to PwC, capital expenditures could be reduced by 30-40% while $200 billion worth of projects have been cancelled. If we trust companies' announcements, about 200,000 jobs might disappear. These short-term reactions point out the problem of equipment replacement and modernization to ensure future business cycles.

Moreover, global warming is at the center of all attentions: the COP21, held in December 2015 in Paris, assert the will to contain temperatures increase under 2°C and reach zero greenhouse gas emissions before 2100. This obviously means the progressive abandonment of fossil energies in favor of renewables. Then, oversupply could become a real trouble for companies with high reserves.

A diversification trend might emerge from this macroeconomic context, seeing upstream oil companies either go toward natural gas to transit in a low-carbon economy or buying out new clean technologies in order to weigh up their portfolio.





In mb/day

Implications on M&A activity

The macroeconomic context has had a sharp influence on M&A activity in oil & gas because companies prefer to keep afloat their portfolio rather than snap growth operations. The year 2015 recorded a 17% drop in deals value compared to 2014 as well as a 33% decrease in deals volume, especially affecting upstream deals.

Upstream

Low prices and volatility make it hard to survive for mid and small size upstream oil companies, causing liquidity issues and strong assets devaluations.

On the short-term, transactions should focus on high-quality assets slightly impacted by current conditions and that remain attractive. For distressed companies, enterprise values are now lower than in 2015 and oil giants will consolidate even more to take advantage of it. But we could observe a lot of transactions from upstream companies in the aim to diversify their portfolio and lessen risks.

Nonetheless, near future should not see huge deals such as the Royal Dutch Shell – BP Group transaction. Well-capitalized groups will more likely adjust and adapt their assets to face the uncertainty and divest from non-profitable units.

Midstream

As the key element of midstream oil business is to maintain a good level of cash flow, deal activity should be driven by upstream companies willing to recover from revenues and margins cuts, in America. Also, technology and data management become a strong competitive component to differentiate and shorten delivery delays, requiring a significant investment capacity.

In Europe as well as in some other developed countries like Australia investors look for quality infrastructures and downstream storage assets to manage overcapacity.

Downstream

Low prices are pushing companies to leverage large volumes to contain the erosion of their margins and make economies of scale.

In terms of transactions, oil companies are seeking capital returns which means that non-essential downstream operations will be sold. They neglect non-core regions to focus on countries that guarantee solid growth.

Oilfield services

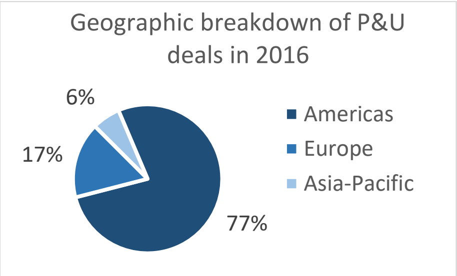
This segment will probably be characterized by financial and strategic issues. In 2015, differences in valuations between buyers and sellers were excessive to be overcome and to achieve great number of deals. This gap should resorb as prices are expected to remain at low levels for a significant period of time.

Also, the sector might see an upsurge of joint ventures or alliances which are often followed by full acquisition or merger. Indeed, they allow companies to first mutualize competencies and assets while keeping independency and then the acquisition or merger endorses its success. Two major examples illustrate this trend: in 2012 Schlumberger and Cameron created a JV and merged in 2015, more recently Technip and FMC Technologies merged after one year and a half of JV.

Review of deal trends and investments in the Energy, Environment & Cleantech space

Power & Utilities

After a great year in 2015 and a strong Q1 2016, the sector pursued its dynamic during the Q2 2016 reaching $43.5 billion of deals value. The period showed important disparities within the regions, explained by different market conditions. However, one trend seems to be common to every region: as revenues from the sale of electricity are declining, solid utilities make investments in cross-sector new technologies. We can particularly mention energy services, such as buildings efficiency, and battery storage.



Americas

The combination of low interest rates and weak growth on the US market has led to a sharp consolidation. Strategic buyers are no longer afraid to get into debt and utilities continue to consolidate and to underpin the convergence of electric and gas utilities.

Canadian utility companies are involved in most of the mega deals in the sector, seeking geographic diversification through cross-border operations, due to high regulation constraints. As an example, one of the largest transactions was the ITC Holdings Corporation acquisition by Fortis Inc in the electricity distribution business, for a total amount of $11,305M.

Europe

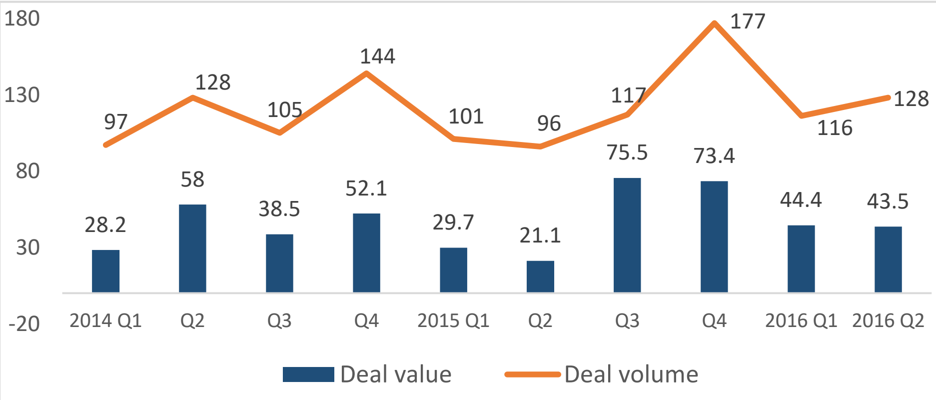
Low M&A activity in Power & Utilities is the consequence of new strategies from oil and gas upstream companies which are currently investing in renewables, wind and solar power in particular.

Most of deals have implied financial investors, detecting continuous growth and potential as Europe backed by France is promoting the transition to a low-carbon economy.

Asia-Pacific

No large deals have been recorded in the region, which reached its lowest M&A activity level for the last five years.

However, there are signs of recovery for the rest of the year as electricity demand is increasing in Southeast Asia, attracting foreign investments. In addition, energy reforms in key countries (India and Japan in particular) should quickly impact and motivate investors. Finally, solar energy is taking more and more importance thanks to many cross-border partnerships.



Renewables / Cleantech

According to Clean Energy Pipeline new investments in the global clean energy sector (including venture capital, private equity, project finance, mergers and acquisitions, public markets and green bonds activity) totaled $75.3 billion for Q2 16, a 30% quarterly increase. Despite the recent surge, investments in Q2 16 were far lower from the $90 billion recorded in the corresponding period last year.

Americas

In 2015, for the first time, solar deals in volume exceeded wind counts in the US (115 vs 48 according to Deloitte US). As discussed further, solar power should seriously expand in the next few years thanks to an inciting tax policy while the wind industry face uncertainty about incoming tax credits.

Future M&A activity should see an explosion of renewables companies' acquisitions by large groups to both diversify their investments and benefit from new technologies, particularly in energy efficiency and storage.

Europe

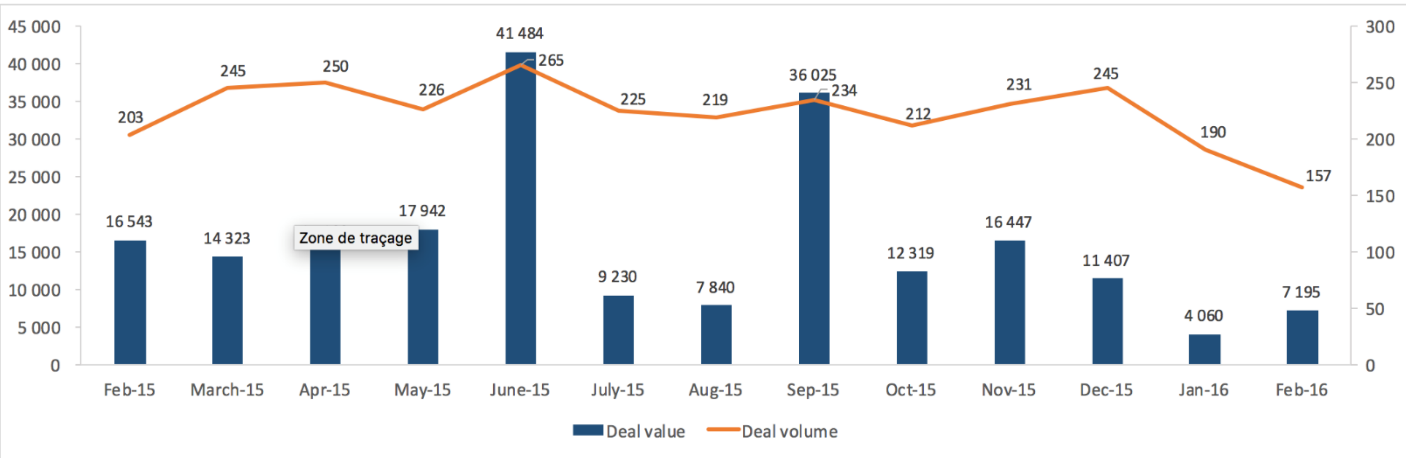
European countries almost only focus on wind and solar power, which are the most promising as technologies are already mastered. In 2015, new investments in renewable energies were 90% dedicated to these sources.

However, some other energies have really great potentials in the region such as marine in France and the UK. It could lead to ongoing investments and transactions on markets that are still looking for their leaders.

Asia-Pacific

The region, mostly driven by Chinese investments, installed the most renewable power in the world. Wind, solar, hydropower and bio-power particularly benefited from this dynamism.

But the main axis of development is surely both heating and transport sectors in which Asia is the most demanding area. Those two markets are huge and still need to green their sources together with improving their energy efficiency.



Nuclear power

Americas

As a result of the increasing use of shale gas resources, coal consumption significantly fell in the US in 2015 and nuclear plants lost their competitiveness. The American nuclear fleet is composed of many 30 years old units that require important investments to be kept safe and operational on the long-term. While until now the political situation, economic environment and energy prices were driving toward a weakening of the nuclear branch, (five unit having been retired and three more to come before 2020, barely offset by the planned construction of new reactors), the focus on energy security of the new administration of Donald Trump is susceptible to inject a new boost in the nuclear energy industry.

In South America, nuclear power is expanding through Chinese funding for two new reactors in Argentina (plus one finished in 2015) and one in Brazil. In Argentina, nuclear currently represents 10% of the energy mix and should keep up going.

Europe

In the last years the nuclear industry has been under pressure as the increasing market share of renewables reduces power prices on spot markets which has led to many assets devaluations and budget restrictions preventing new generation installations. While most historic nuclear countries are going to decommission many reactors (Germany wants to dismantle all its reactors by 2022 and France plans to reduce its nuclear dependence from 75% to 50% of electricity production by 2025), the ratified construction of the Hinkley Point C nuclear power plant in UK is relaunching the nuclear new build in west Europe.

In southwest England, at Hinkley Point C, the recently signed contract targets the construction, of two European Pressurized Reactors (EPR) for a combined value of 21.3 billion euros that. It has been entrusted to a joint-venture composed of EDF and China General Nuclear (CGN).

In Central and East Europe the industry continues to develop with reactors under construction in Slovakia and expected projects in Bulgaria, Czech Republic, Poland and Hungary.

Asia-Pacific

Asia is probably the most promising region for nuclear power. China, still deeply mired in its pollution problems, keep developing its nuclear fleet in order to reduce greenhouse gas emissions and improve air quality, 30GW from nuclear will be built during the next decade.

India also has to be watched as the government is willing to promote new nuclear infrastructures with the help of Russian, American and French companies.

Overview of current trends in venture capital and private equity investments

After a long period of decrease due to many glaring failures, venture capital and private equity investments commence to see the end of the tunnel. In 2015, the sector rose by 34%, reaching $3.4 billion of new investments and demonstrated the transformation toward innovative technologies.

Solar power monopolizes the attention

In terms of opportunities, largest private equity companies neglect traditional energies to invest in renewable energies start-ups developing new technologies. Three types of power (solar, wind and biofuels) are currently regrouping 90% of these investments, but the biggest piece of the cake comes to solar. Driven by a huge cost reduction, it has the best potential to attract future users and very well-known private equity companies, such as Blackstone Ardian or yet Carlyle, have anticipated it.

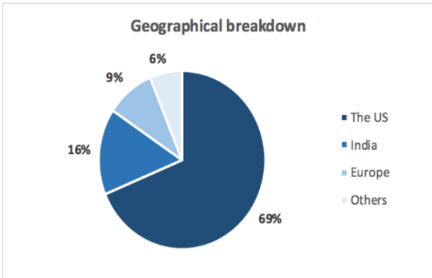
At the contrary, wind power new investments remain stable as it is considered as a mature energy. By opposition to solar power, R&D expenditures are undertaken by large wind manufacturers. However, a recent noticeable deal was the creation of Ostro Energy, by the private equity company Actis, for an investment of $230 millions, more than 50% of the total in this energy in 2015.

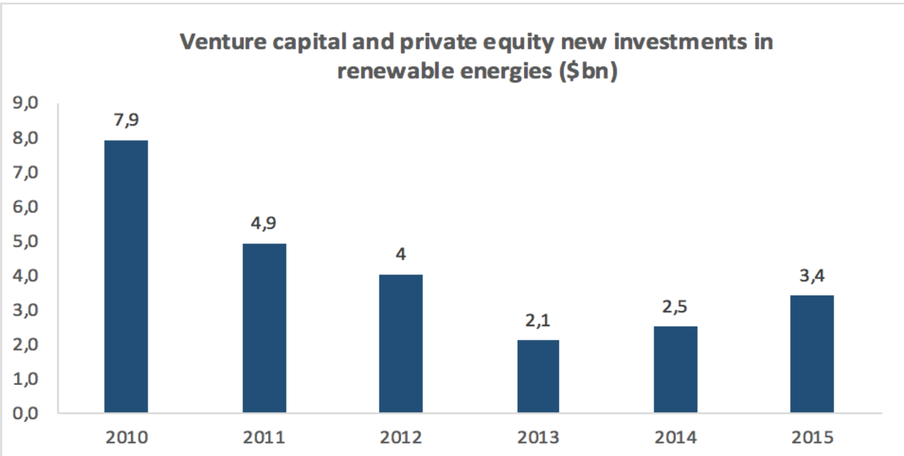
The US and India account for the majority

From a geographical prospective, private equity players are almost exclusively investing in the US and Indian markets, supported by high-growth in renewable energies.

Second most populated country in the world, India has committed into rigorous objectives after the COP21, coupled with underdeveloped energy infrastructures. As a result, lot of start-ups are setting up in the country to benefit from such opportunities, bringing private equity companies to invest, even more than in the entire Europe. To respond to the current lack of capacity, equity investments are project-oriented rather than technology-oriented.

In spite of low amounts invested, Europe is still attracting capital through many small deals in less developed energy sources such as marine, small hydro or yet geothermal.





COUNTRIES ON THE RADAR

France

In December 2015, France organized the COP21 which gathered 195 countries and lead to an agreement to maintain global warming below 2°C by 2100. Also in 2015, France adopted the Energy Transition Law (ETL) with ambitious objectives:

- Reduce greenhouse gas emissions
- A 30% decrease of fossil energies by 2030
- Lower the nuclear share to 50% of electricity production
- 40% of electricity production from renewables by 2025

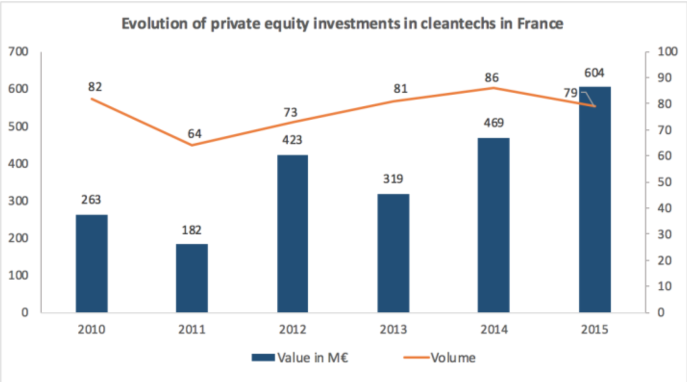
It is obvious that cleantech will play a key role in the next few years as great opportunities will emerge from both the COP21 and the ETL: energy efficiency in buildings, wind power, marine energy, waste management, clean transports…

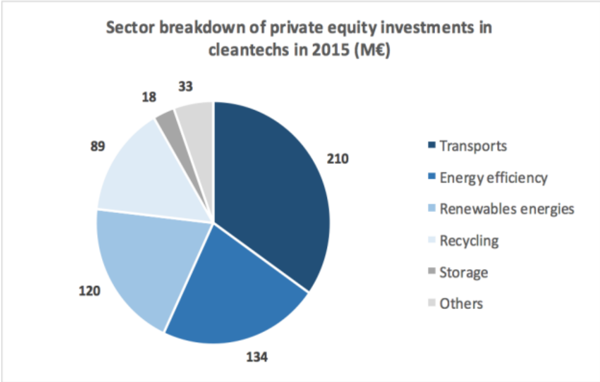
In fact, it has already begun, reflected by private equity dynamism in cleantech. Indeed, 2015 was the best year recorded in private equity investments in this sector in France, with 604M€, and 2016 should be even better. Investors have identified several high potential segments such as transports, energy efficiency and renewable energies as we can observe according to the breakdown.

Among all these opportunities, marine energy could enjoy the benefits of its potential as France would like to become a worldwide leader in this technology. Several projects have already been granted and more test sites are in development. Large groups invest in the tidal marine while mid-size companies seek the tidal river.

A huge merger

The mega merger between Technip and FMC Technologies has fueled discussions. The new structure will be based in London and should maintain both top management. It seems that this consolidation is a reaction to the prices drop and the need to remain influent on the market. This strategic alliance gives rise to an oil services giant accumulating $20 billion in both revenues and order book.





COUNTRIES ON THE RADAR

Germany

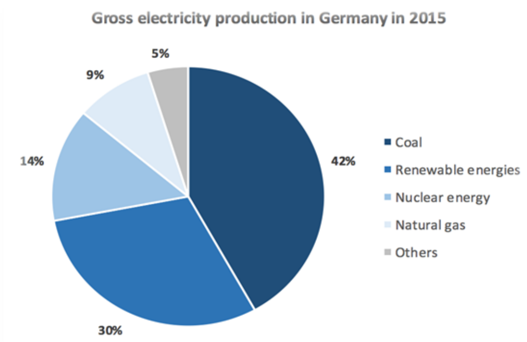
The German energy policy seems to be two-speeds. The desire to reduce its use of coal power was expressed on numerous occasions but still, in 2015, the country produces 42% of its electricity from this source of energy. On the other hand, around 30% came from renewables thanks to high-quality technologies and investments in wind and solar.

But Germany recently revised its legislation about its energy mix, resulting in an objective of 40-45% of renewable power by 2025 which can be analyzed as unambitious, given the potential. The lack of clear guidelines worries industry players as the new plan scheduled that new competitive tenders for onshore wind will only begin in mid-2017. Three or four "rounds" will take place each year, starting with 2.9GW capacity that will be adjusted depending on the deployment of other energies. Initially, the plan mentioned a minimum of 2GW of new installments per year that was removed in the new draft, increasing uncertainty in a business where investors foresee on the long-term.

As Germany was one of the most ambitious country in terms of emissions reduction during the COP21, we can wonder whether the sector will be punished by the implementation of this market-based system. Heating sector and transports are specifically targeted as renewables' contribution is still low in both.

Energy efficiency and transition

The 20% energy consumption reduction by 2020 and 50% by 2050 will engage Germany in a massive transition. But energy efficiency appears to be another great lever. And it does not start from zero since its industry has a worldwide reputation of energy-savings and green products innovations. However, Germany still needs to enhance its policy to push forward the sector, as investments grants remain at low levels and interest loans are not yet inciting enough.



A day 100% renewable in May 2016

On 15th of May 2016, clean power supplied 100% of Germany's electricity demand, leading to even negative prices during 15 minutes. Renewables, mostly wind and solar, produced 45.5 GW. However, conventional power plants were still supplying 7.7GW but German exports capacity compensated.
It highlights that increasing amounts of renewables might lead to oversupply and so, encourages the development of energy storage business as seen in Denmark the year before, when renewables supplied 140% of the country's demand.

COUNTRIES ON THE RADAR

Brazil

The combined effects of the Brazilian Real depreciation against the dollar, a 10% inflation and a negative GDP growth offer many great opportunities for foreign investments, especially in electric power and oil and gas.

As it has become harder to access to capital, Brazilian energy giants are selling assets to match their capex and debt commitments. As an example, Petrobras announced a huge divestment plan for the next five years including onshore fields, natural gas and petrochemical units. Other well-known industry players will follow, selling installations in wind, solar or hydro power, for a total capacity estimated at 15GW.

More than just short term opportunities, Brazil's energy sector is currently growing rapidly, particularly in renewables. The country should soon become a net energy exporter as the demand is significantly increasing. Both consumption and production of renewables are expected to gain market share in the energy mix: solar power might offer some interesting investments for international companies, but it needs the economy to stabilize in order to guarantee projects feasibility.

In December 2015, Brazil approved a ten years' energy schedule that forecast $350 billion inflows in the sector by 2024: it must enable the country to triple its wind capacity and use at least 3.5% of solar power. Everything is done to bring new investors.

Argentina

After facing a huge crisis in the early 2000, Argentina has entered into a new phase with the recent election and its new government, which made energy one of its high priority.

Despite the beginnings of a major energy policy under the previous government that set the sourcing of electricity from renewables to 8% in 2017 and 20% in 2020, the country still needs to drastically enhance the sector efficiency. As Argentina is expected to know a sustain 5% growth of electricity demand and is still a net energy importer, it must accelerate the development of the branch whereas it has one the largest shale gas reserves in the world.

Today, renewables are accounting for approximately 2% only in the energy mix. The difference between the total capacity potential of 2,000GW, estimated by the new Minister of Energy and Mining, and the installed 225MW of wind farms and 10MW of solar capacity is uplifting. And yet, Argentina has outstanding weather conditions: 70% of the country is exposed to a 6 m/s wind that would generate excellent returns and its western region receive twice the amount of solar radiation than Germany, one of the leader in this technology.

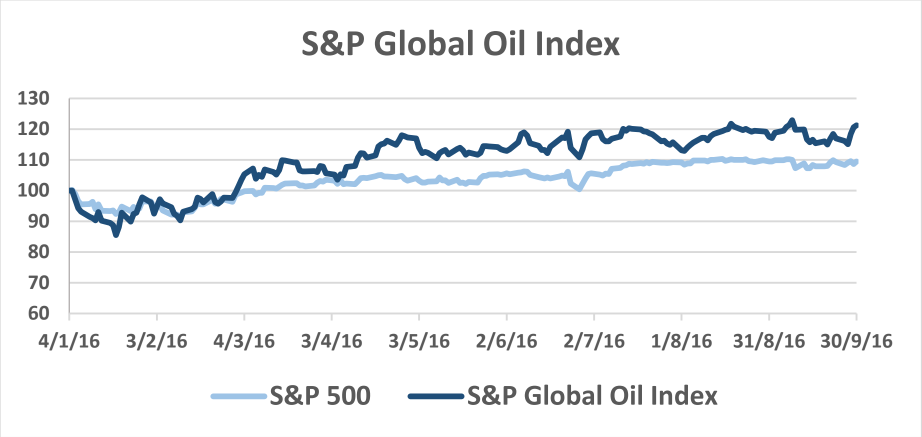
The government has announced that it will use competitive tenders to attire investors but it first needs a regulation refresh to facilitate the process. A total capacity of 10GW is scheduled to be offered over the next 10 years, with priority given to renewables projects.

TOP 10 MAJOR DEALS

Date announced	Acquirer	Target name	Target country	Synopsis
19/05/16	Technip	FMC Technologies	France/US	The two companies announced a mega merger from which will emerge an energy engineering worldwide leader of $20 billion revenues and order book. Both top management should remain in place and synergies are estimated at $400 million in 2019. The new set will move its head-office to London.
02/04/16	China Yangtze Power	Sanxia Sinsha River Chuanyun	China	China Yangtze Power Co Ltd (Yangtze Power), a unit of the Chinese state-owned China Three Gorges Corp, acquired the entire share capital of Sanxia Jinsha River Chuanyun Hydroelectric Development Co Ltd. The transaction amounted for $14,011 million, divided in a $5,896 million payment and the issuance of 3.5 billion Yangtze Power's new ordinary shares valued at $8,115 million based on the last closing price prior to the stock suspension.
01/04/16	Schlumberger	Cameron International Corp.	US	Schlumberger Ltd merged with Cameron International Corp, a Houston-based manufacturer of oil and gas field machinery and equipment, for a total $12.766 million in a stock swap transaction. Schlumberger offered $14.44 in cash and 0.716 new ordinary shares for every Cameron share. Based on Schlumberger's closing stock price of $72.52 on 25th August 2015, each Cameron share was valued at $66,36. On completion, Schlumberger and Cameron shareholders owned 90% and 10% of the merged entity, respectively.
31/05/16	Great Plains Energy	Westar Energy	US	Great Plains Energy’s acquisition of Westar Energy illustrate the phase of consolidation of the US utility market. The transaction has an Enterprise Value of $12.2 billion including $3.6 billion of debts. Great Plains total capacity will jump from 6,400 megawatts to 13,000 megawatts.

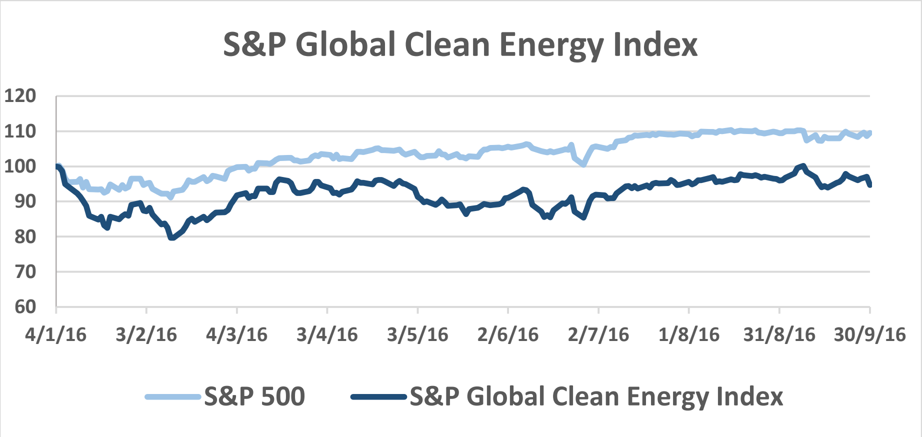
Date announced	Acquirer	Target name	Target country	Synopsis
09/02/16	Fortis Inc.	ITC Holdings Corporation	US	ITC, the largest independent electric transmission company in the US, has been acquired by Fortis, a leader in electricity and gas utility business. The transaction is estimated at $11,305 million: ITC shareholders will receive 0.752 of Fortis common share for each ITC share and $22.57 in cash, this corresponds to a 33% premium at the closing price on 8th of February 2016.
23/03/16	Exelon Group	Pepco Holdings Inc.	US	Exelon Group and PEPCO Holdings completed their merger, becoming the leading utility company of US mid-Atlantic region. The new structure regroups 6 electric and gas utilities, 3 from Exelon and 3 from PEPCO. As a result of the merger, PEPCO stock was suspended and its shareholders received $27.25 per share, for a total transaction amount of $6,829 million.
17/02/16	Range Resources Corp.	Memorial Resource Development Corp.	US	Range Resources announced the acquisition of Memorial Resources, its largest operation recorded. The enterprise value was $4.4 billion, including $1.1 billion of debts. Memorial Resources stock was valued at $15.75 per share, whether a 17% premium to the closing price on May 13th.
31/03/16	Enel SpA	Enel Green Power SpA	Italy	After selling Enel Green Power, a renewable energy developer, to the public in 2010, Enel SpA, the biggest italian utility, issued $3.3 billion to repurchase it. The operation will allow Enel SpA to consolidate the remaining stake it doesn't own. It will also enable the company to sustain its growth.
06/07/16	SunEdison Inc.	Invenergy Wind Projects	US	SunEdison, through TerraForm Power, acquires$2.5 billion of wind projects from Invenergy which is the largest independent owner of wind power plants in the US. The total capacity of this acquisition is 930 megawatts and TerraForm will hold 90% of the projects, the rest for Invenergy.
04/04/16	State Power Investment Corporation	Pacific Hydro Pty Ltd	Australia	State Power Investment, China state-owned company, acquired Pacific Hydro, wind farms and hydropower specialist. The deal was valued at nearly $3 billion including debt. State Power Investment bought it from fund manager IFM Investors. The target operated 19 hydropower and wind farms in Australia for a total capacity of 900 megawatts.

S&P ENERGY INDEXES



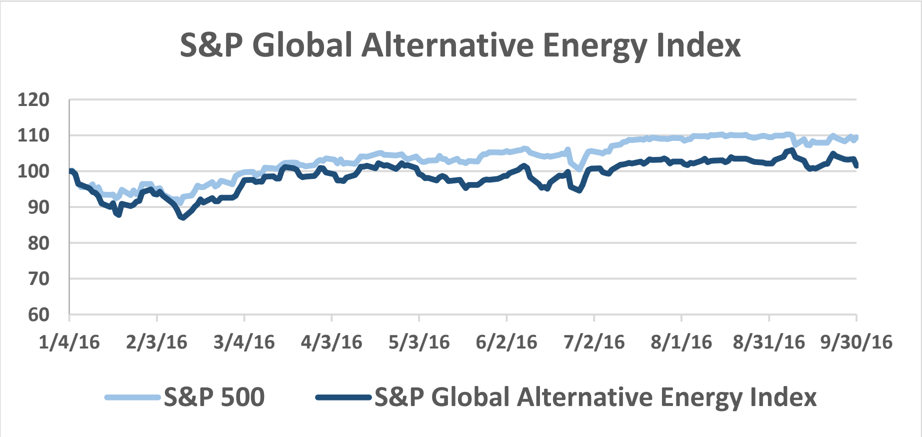
S&P Global Oil Index

This index measures the performance of 120 of the largest, publicly-traded companies engaged in oil & gas exploration, extraction and production from around the world.



S&P Global Clean Energy Index

This index provides liquid and tradable exposure to 30 companies from around the world that are involved in clean energy related businesses. It comprises a diversified mix of clean energy production and clean energy equipment & technology companies.



S&P Global Alternative Energy Index

This index combines two indices from the energy thematic: the S&P Global Clean Energy Index and the S&P Global Nuclear Index. It is designed to provide liquid exposure to the leading publicly-listed companies in the global alternative energy business, from both developed and emerging markets.

Major deals advised by M&A Worldwide network in Energy, Environment & Cleantech

anteagroup
ANTEA Group
International company specialized in environment engineering and advisory
France

Has acquired

IRH Environnement
IRH Environnement
Environment engineering
France

2015

M&A Worldwide advised the seller

M&A WORLDWIDE

MESURE PROCESS
Mesure Process (MPH Group)
Oil & Gas distribution service provider
France

Has acquired

ERETI
Ereti
Gas piping EPC
France

2016

M&A Worldwide advised the buyer

M&A WORLDWIDE

ScholzAlu
ScholzAlu Stokach GmbH
Aluminium alloys
Germany

Has been acquired by

oetinger aluminium
Oetinger Aluminium Group
Supplier of aluminium alloys
France

2016

M&A Worldwide advised the seller

M&A WORLDWIDE

TG-LEC
Holding
France

Has acquired

énergia
Energia - DGEM
Renovation and installation of electrical facilities
France

2015

M&A Worldwide advised the seller

M&A WORLDWIDE

METALL RECYCLING BUTZBACH
Metal Recycling Butzbach GmbH
Recycling
Germany

Has been acquired by

Nord-Schrott
Nord-Schrott International GmbH
Metal Supply & Recycling
Germany

2015

M&A Worldwide advised the seller

M&A WORLDWIDE

TRADENER
COMERCIALIZAÇÃO DE ENERGIA
Tradener
Energy Trader
Brazil

Has acquired a minority stake of

SUNEW
Sunew Filmes Fotovoltaicos
Producer of Organic Flexible Photovoltaic Panels
Brazil

2015

M&A Worldwide advised the buyer

M&A WORLDWIDE

SPECIAL FOCUS:

Mesure Process is the subsidiary of the French group MPH that is specialized in the production and distribution of solutions for the measurement and the optimization of facilities and equipment in the oil & gas storage and distribution business.

The transaction comprised the acquisition of 100% of Ereti shares, held by the family, and an earn-out over a 3 year period. The transaction value is kept confidential.

Based in the South-West France, Ereti, a family-owned company, was one of the few independent EPC specialized in gas piping and gas-based heating and transport systems. Ereti EBITDA margin were 18% for FY15.

On a buy-side exclusivity basis we advised MPH on finalizing and implementing its external growth strategy targeting to strengthen the gas piping EPC segment for industrial, commercial and transport purposes.

Underpinned by persisting low prices and by environmental reasons natural gas is expected to play an increasingly important role in fueling vehicles (NGV) either in compressed (CNG) and liquid (LNG) form.

Major deals advised by M&A Worldwide network in Energy, Environment & Cleantech

Windpark Kulderhof GmbH & Co. KG
Wind Farm Operator
Germany

Has been acquired by

Starwind ApS
Capital Investor
Denmark

2015

M&A Worldwide advised the seller

BNDES
Development Bank
Brazil

Has provided project finance debt facility of R$ 606mm to

Paranaiba Transmissora de Energia
Power Transmission Line
Brazil

2015

M&A Worldwide advised the borrower

Caixa Econômica Federal
Public Banc
Brazil

Provided project finance debt facility of R$ 163mm to

Triângulo Mineiro Transmissora
Power Transmission Line
Brazil

2015

M&A Worldwide advised the borrower

Energia Consult GmbH
Wind Farm Operations
Germany

Has been acquired by

Starwind ApS
Capital Investor
Denmark

2015

M&A Worldwide advised the seller

ClearCarbon Consulting, Inc.
Energy Production & Distribution Services
USA

Has been acquired by

Deloitte
USA

2015

M&A Worldwide advised the seller

Tectrol
Energy Production & Distribution Services
Canada

Has been acquired by

CUI Global
Energy Production & Distribution Services
USA

2015

M&A Worldwide advised the seller

SPECIAL FOCUS:

Paranaíba Transmissora de Energia is the Special Purpose Entity (SPE) created to build and maintain a 953Km grid line through the states of Bahia, Goias and Minas Gerais, with total investments of BRL 1.1 Billion

The SPE won a 30-year concession in 2012 to allow the increased energy exchange between the North / Northeast and Southeast / Midwest electrical macro-regions in Brazil.

The 500 kV grid line is the first in Brazil to adopt a High Capacity Grid Lines technology that is able to achieve transmission capacities about 60% higher than normally used in lines with the same voltage level.

We structured and negotiated on an exclusivity basis with BNDES (Brazilian Development Bank) the post-auction financial modelling for the project and long-term project finance debt for a total of BRL 606 million, yielding an estimated leverage ratio of approximately 65%.

The Project Finance operation was the largest one granted by BNDES in 2015 for Grid Line projects and the top 4 in the electric segment, making it especially relevant in a shrinking credit environment lived by the country in 2015.

EEC Industry Group planned activities and regularly-discussed contents

Activities

Regular conference calls are organized on a monthly basis by the EEC group President (or Vice-President) to exchange on the sector trends, drivers and group initiatives

One-to-one discussions and meetings take place to address specific EEC cross-border opportunities among given members or for internal advisory purposes

The international M&AWW conventions constitute the framework where the general group members (not only the board) gather to get to know each other, review activities and propose actions

Documents production and exchange including sector material, deal opportunities and tombstones allow to share information and to feed the group database on its internal platform

Topics

1. **Sector trends**
2. **Major sector deals**
3. **Internal cross-border opportunities**
4. **Hot potatoes**
5. **Other issues**

Origination path to international deal-making in the EEC space

International exposure

Pitchs with international teams

Sector specific cross-border deals

Team & Contact

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