Bridging the Funding Gap:
The financing challenge for European cleantech and renewable energy
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This new Taylor Wessing report, *Bridging the Funding Gap: The financing challenge for European cleantech and renewable energy*, addresses the financing challenges confronting companies and project developers in the cleantech and renewable energy sector. The findings are based on a survey of over 200 senior executives active in the European cleantech and renewable energy industry. The survey and report were written in collaboration with Clean Energy pipeline, the specialist data and research provider owned by VB/Research. Transaction data and statistics included in the report have been extracted directly from Clean Energy pipeline’s databases (www.cleanenergypipeline.com).

The survey was conducted between June and September 2010 and was completed by six different types of respondents: project developers; corporates; venture capital investors; private equity investors; debt providers; and financial advisers. Among the respondents, 80% were senior-level executives including chairpersons, senior executives or divisional heads. Surveyed respondents were split among Western Europe (69%), Southern Europe (8%), Northern Europe (5%), Central and Eastern Europe (4%) and other non-European countries accounting for the remaining.

**Definitions**

**Cleantech:** includes advanced materials and technologies, agriculture, energy efficiency, energy storage, environmental services and remediation, green transportation, recycling and waste and water treatment.

**Renewable energy:** includes biofuels, biomass, clean coal, geothermal, hydro, hydrogen generation, marine, micro-generation, solar and wind.

**Deals tracked by Clean Energy pipeline include:**

**Investments:** early-stage venture capital (up to Series C) and late-stage venture capital investments (Series D or equivalent and above), private equity development capital investments (investments by private equity funds, hedge funds and corporates) and buyouts, as well as other investments, which include minority partnerships and PIPEs.

**Mergers & Acquisitions (M&A):** all corporate M&A transactions (mergers, acquisitions and minority investments) as well as private equity transactions such as buyouts, public-to-private deals and secondary buyouts.

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**Geographical breakdown of respondents**

- Western Europe: 69%
- Southern Europe: 8%
- Northern Europe: 5%
- Central and Eastern Europe: 4%
- Other:

**Note:** Western Europe includes 60% of respondents based in the UK and 15% of respondents based in Germany.

**Breakdown by type of respondent**

- **Project Developers:** Companies developing cleantech assets or renewable energy projects (e.g. wind farms, waste water treatment plants).
- **Corporates:** Companies operating within the cleantech and/or renewable energy sector but the development of cleantech assets or renewable energy projects is not their core business.
- **Venture Capital Investors:** Companies providing mostly early-stage funding in the cleantech and/or renewable energy sector.
- **Private Equity Investors:** Companies providing mostly late-stage funding in the cleantech and/or renewable energy sector (e.g. private equity fund, infrastructure fund, hedge fund).
- **Debt Providers:** Companies providing debt finance to cleantech assets or renewable energy projects, and/or companies operating in the cleantech or renewable energy sector (e.g. overdraft / term loans, project finance, revolving credit).
- **Financial advisors:** Companies providing advisory services to companies operating in the cleantech and/or renewable energy sector (e.g. investment bank, financial advisory firm, consultant).

**Source:** Clean Energy pipeline
Project Finance: all transactions (debt, equity and government funding) related to the financing of renewable energy power projects, manufacturing plants, infrastructure and carbon capture and storage projects.


For the purpose of the report, deals have been tracked until the end of 3Q10.

To supplement the survey results, interviews were conducted with the following senior executives:

Taylor Wessing
Carsten Bartholl, Partner
Dominic FitzPatrick, Partner
Marc-Oliver Kurth, Partner
Simon Walker, Partner


BSJP Legal
Christian Schnell, Partner

BSJP Legal is a Polish law firm. In May 2009 Taylor Wessing established a strategic alliance with BSJP Legal.

ABO Wind AG
Andreas Höllinger, Member of the Management Board

ABO Wind is a Germany-based developer of wind energy and bio-energy projects in Europe.

Climate Change Capital
Alex Betts, Partner

Climate Change Capital is an investment manager and advisory group focused on companies, projects and technologies that provide products or services facilitating climate change mitigation or adaptation.

Deutsche Bank
Dominik Thumfart, Head of Renewable Energy, Asset Finance and Leasing, Origination

Deutsche Bank’s Asset Finance and Leasing division covers renewable energy project development, bridging finance, structuring and arranging long-term project financing.

Dexia
Clémentine Tassin, Director, Global Project Finance

Dexia provides project finance focused on infrastructure and the renewable energy sector. Dexia also supplies finance to corporates.

Emerald Technology Ventures
Gina Domanig, Managing Director

Emerald Technology Ventures is a cleantech venture capital investment manager focused on technologies in energy, advanced materials and water.

Enel Spa
Francesco Starace, Renewable Energy Division Director and Chairman of Enel Green Power

Enel Green Power is Enel Group’s dedicated renewable energy division with a presence in Europe, North America and Latin America.

Good Energies
George Coelho, Managing Director

Good Energies is a global investor in the renewable energy and energy efficiency industries, across the entire company life cycle.

PNE Wind AG
Martin Billhardt, Chairman of the Board of Directors

PNE Wind AG implements onshore and offshore wind farm projects primarily in Germany. The company has subsidiaries and representations in Hungary, Bulgaria, Turkey, the UK, Romania, USA and Canada.

Rabobank International
Marcel Gerritsen, Global Head of Renewable Energy and Infrastructure Finance

Rabobank International is a provider of diverse financing solutions for renewable energy projects in Europe, Asia and the Americas.

Silicon Valley Bank
Oscar Jazdowski, Head of Origination in the UK

Silicon Valley Bank provides financing solutions, treasury management, corporate investment and international banking services for companies in the technology, life science, venture capital, private equity and premium wine industries.
In April 2009 the EU adopted the Renewable Energy Directive and an important part of the regulatory framework for achieving the EU’s target to cut carbon emissions by 20% by 2020 and to source 20% of its energy from renewable sources within the same timeframe was put in place. However, at the time, long-term bank finance for renewables had become increasingly scarce and venture capital and private equity investment in these sectors (as well as other sectors) in the EU fell dramatically from 2008 levels. The gap between the funding requirement to achieve these targets and the available funding was becoming very apparent.

Since then, the introduction of “green” stimulus measures and the intervention of the European Investment Bank, KfW and others to support lending to the sector has undoubtedly helped. Investment in the sectors picked up during the last part of 2009 and early 2010 but fell again in Q3 2010. Project finance terms have eased a little but bank lending remains constrained. Raising equity continues to be challenging, particularly for early-stage companies.

Taylor Wessing has a long-term involvement in the cleantech and renewables sectors and provides expert legal advice across the investment cycle, from early-stage fund raising and venture capital through commercialisation to full-scale project development and finance. We advise companies, investors and financiers in the cleantech and renewable energy sectors across Europe.

This report looks behind the headline figures concerning investment in cleantech and renewables. The scope of this report reflects the breadth of our practice. We set out to examine the issues that determine the availability of finance and the concerns of those involved in these sectors from the differing perspectives of corporates, investors, developers and lenders, i.e. the types of entities that we advise.

As you will see from this report, clear and stable regulation continues to be a very important factor. With many sources of renewables not yet being economic without subsidies or other support mechanisms, the prospect of retrospective changes to incentivisation programmes in Spain earlier this year did little to inspire investor confidence and the concerns about the risk of regulatory change continue among investors and funders alike.

Early-stage companies developing new solutions to reduce carbon emissions and bring on alternative energy technologies are facing particularly difficult conditions. As many investors are looking to invest at a later stage, the challenge of crossing the “valley of death” (which companies need to cross to move from proof of concept to scale commercialisation) appears to be increasing. Some technologies are simply too capital intensive for venture capital and insufficiently de-risked for private equity or bank lending. Other forms of support for companies at this stage of development will need to be developed in order to capitalise innovation.

The increasing need to move finance around the markets is also evident. Even though many corporates identified private equity and venture capital funds as being the most likely source of capital for them in the next 18 months, these funds need an exit. The effective functioning of capital markets will need to be part of the solution. Given the finite (and reduced) bank lending capacity, the ability to refinance bank debt through bonds or similar instruments is a pre-requisite to making further lending available.

The development of solutions for these challenges and the role of governments, intergovernmental or state sponsored banks in supporting them will require a great deal of engagement with those who are involved in these sectors. We welcome the opportunity to be part of the debate on these issues and to work with our clients to overcome these challenges.

We hope that this report brings some stimulating insights for a wide-ranging and informed debate on issues that will have a fundamental impact on us all.
Not so different after all
The business models for European corporates and project developers are markedly different, yet their concerns and obstacles in raising finance and the views of their potential financiers are strikingly similar. There is a clear agreement on the crucial role of governments, their policies and support mechanisms as corporates and developers suffer from a comparable ‘early-stage’ funding gap. Irrespective of the nature of the underlying investment or project, investors and debt providers are essentially attracted to the same mature, low-technology risk sub-sectors.

Whether they like it or not, governments are in for the long haul
As a starter, a government’s integral role in formulating its country’s regulatory framework, within which cleantech and renewable energy can be developed, is the linchpin to attract corporates, project developers, investors and debt providers.

For financiers, a reduction in government funding can make a serious impact on their investment strategy. What is even more critical, for companies and investors, is to remove uncertainties related to national regulatory policy and support frameworks. During the next 18 months, surveyed debt providers are specifically targeting countries that have long-term financial incentives in place, such as feed-in tariffs – more than two thirds expect to provide debt financing in France, Germany, Ireland, Italy, Spain and the UK. In contrast, they are waiting on the sidelines in Eastern Europe. Corporates and project developers are similarly influenced by government initiatives – over 70% of surveyed corporates and project developers indicated that regulatory stability and availability of public funding, grants and incentives are vital factors in choosing where they operate. What is worrying is that only a third of surveyed respondents believe government funding will increase and an equal proportion actually expect it to decrease.

Corporates and project developers are both witnessing an ‘early-stage’ funding gap
From a corporate’s perspective, the importance and scarcity of early-stage capital is acute. Firstly, there is pent up demand after an early-stage funding drought that has seen average quarterly early-stage venture capital investment since 4Q08 at 40% below total quarterly investment registered in 3Q08. This situation has been compounded by many non-specialist venture capital investors targeting later-stage, less risky investments and the disappearance of many private equity investors who had previously invested at an unusually early-stage to gain exposure to the sector. This lack of funding and a weak economic environment has hampered the growth of many corporates making them unsuitable targets for private equity investors. It is hardly surprising that the majority of surveyed corporates indicated that raising equity over the past 12 months has been harder or moderately harder than a year ago. Today, corporates are looking to strategic investors, sector specialist venture capital funds, the venture debt community and government to secure their funding.

From a project developer’s perspective, life has not been much easier, particularly at the ‘early’ pre-construction stage of a project. The two issues that deter investors most frequently are uncertainties over planning and consenting processes, and uncertainties over securing a satisfactory off-take / power purchase agreement (PPA). Investors also remain very concerned about a project’s ability to secure the requisite construction funding post the permitting stage. These ‘concerns’ have made securing external equity for pre-construction stage projects (including land acquisition, front-end engineering design works and the permitting process) particularly difficult.

This is putting significant pressure on independent developers. Only well-capitalised developers are able to maintain control of their projects at the pre-construction stage, essentially by injecting much more equity. Developers without sufficient capital are likely to pursue co-development opportunities with joint venture partners, even if they would prefer to remain independent. In the short to medium term, this is likely to lead to consolidation within the industry. The alternative to maintain flexibility and independence is to rely on a variety of hybrid debt solutions (credit lines, bridge financing and mezzanine) although these come with their own health warning.
Securing debt is much harder for corporates

On-balance sheet debt remains highly elusive for most corporates in the sector, with uncertainties over their ability to raise equity funding to support future growth proving to be one of the most significant obstacles. Nonetheless, the vast majority of corporates are determined to try to raise some form of debt financing not least because it is cheaper than equity. The reality is that few corporates in the sector have developed cash generative businesses that can be leveraged. For those that can secure debt financing, loan terms are expected to be relatively short and margins between 200 bps and 350 bps over the base rate depending on the quality of the business seeking financing.

From the project financing perspective, the debt funding gap is less acute. Project developers themselves are divided as to whether financing conditions have improved or deteriorated during the past year. Banks may only be prepared to commit to a project once the developer’s equity is secured. However, it is generally agreed that if the project is good enough there is no debt funding gap. That certainly is not the case for corporates.

The likely sector winners

In the corporate world, investors have a clear preference for the solar sector, energy efficiency and energy storage. In contrast, the more capital intensive sub-sectors, and in particular the marine sub-sector, are likely to continue to be sidelined by investors and debt providers.

In terms of financing cleantech assets or renewable energy projects, confidence in technologies produced or deployed is paramount. Projects that depend on technologies mature enough to generate stable cash flows (such as solar and onshore wind) will continue to attract private equity investors and debt providers during the next 18 months. On the flip side, developing projects or assets in the biofuels, marine and green transportation sub-sectors that rely on technologies still being tested for large commercial applications are expected to prove much harder to finance.
The corporate’s perspective

Changed investment landscape fuels importance of venture capital
Irrespective of their development stage, surveyed corporates agree that they cannot depend on one single funding source. Today, the most important funding sources for European corporates are early-stage funding (up to Series C rounds), project finance and grants/subsidies (Figure 1).

What is particularly striking from the survey is the importance that revenue-generating corporates place on early-stage capital – by a ratio of 2:1 these companies expect to rely more heavily on early-stage funding as opposed to later stage or development capital, both areas where private equity funds are traditionally more active.

This dependence on early-stage funding is principally due to three factors. Firstly, many companies in the sector have grown less quickly than anticipated during the past two years, leaving them more reliant on earlier stage investors. Late-stage investment or development capital is not yet regarded as a viable option because today only a small proportion of businesses in the cleantech and renewable energy sector have grown to a point where they demonstrate the cash generative and profitable profile typical of a private equity investment. This is confirmed by Alex Betts, Partner at Climate Change Capital: “There is still quite a high supply of capital for the relatively few really good companies.”

Secondly, the investment objectives of ‘early-stage investors’, essentially venture capital funds, have changed. More venture capital funds are reinvesting in their successful portfolio investments as they grow rather than relying on larger equity investors to provide development capital. In parallel, many venture capital funds are fleeing the early-stage arena in search of more mature investment opportunities. Lastly, private equity funds have altered their investment criteria and effectively left the early-stage arena – in doing so, they have left the field open to the venture capital community.

... but the funding environment remains demanding
Unsurprisingly, the majority of surveyed corporates confirmed that raising equity over the past 12 months has been harder or moderately harder compared to a year ago (Figure 2). Historic data confirms the scale of the equity drought in Europe. During the past two years the average early and late-stage investment per investor per round (excluding buyouts and development capital) decreased - between 3Q09 and 2Q10 the average investment (Eur2.8 million) was 24% lower than during the previous four quarter period (Eur3.7 million). Over the same timeframe the average funding round declined by 20% in size.

In the current funding environment, many corporates in the sector are only viable targets for venture capital investors. However, a majority of surveyed corporates (65%) still consider private equity funds as potential investors (Figure 3). Why are corporates still determined to approach private equity investors? This is best explained by the fact that between 3Q08 and 3Q09, 34% of transactions undertaken by private equity investors in the sector were early-stage investments. Pre-commercialisation stage companies are more realistic, with almost 60% targeting high net worth individuals (HNWI) for investment.
The fragile private equity markets are impacting corporate debt financing

Uncertainty over government incentives and support mechanisms is the most common obstacle to raising debt funding for the majority of surveyed corporates (Figure 4). Almost as important are uncertainties over a company’s ability to raise equity funding to support its future growth plans - an obstacle to raising debt for 47% of surveyed corporates. As a result, only 9% expect to secure balance sheet backed loans as their principal source of funding, while 45% prefer project debt. Alex Betts explains: “Banks’ balance sheets remain under pressure, and there are still discussions on banks’ capital adequacy. These uncertainties still make banks cautious.”

Once again, this underlines the relatively early-stage nature of most European corporates in the sector. Very few companies are financially capable of supporting recourse debt financing. Until the sector matures, securing senior debt is likely to remain difficult.

Despite the challenges, a substantial share of corporates remain determined to raise debt financing, not least because it remains a much cheaper alternative to equity. Almost 50% of respondents intend to increase their balance sheets’ debt to equity ratio over the next 18 months even if they know that agreeing terms will be challenging. Those with experience in raising debt indicated that unacceptably tough terms (relating to margins, debt service coverage or loan-to-value) are all very common problems.

Our view is that the market is in flux – sentiment about the availability of debt is improving (45% of all respondents expect the number of corporate loans to increase over the next 18 months). However, securing debt funding on satisfactory terms remains closely correlated with the ability of a company to evidence a sustainable and profitable business model. Unsurprisingly, surveyed corporates expect to pay widely differing margins on corporate loans (between 200 bps and 350 bps over the prevailing base rate) depending on the size and the maturity of their business. Most corporate loans are expected to be provided over a three to five year period.
Government support and strategic investment play a vital role

Almost 40% of corporate respondents highlighted government support, including grants and subsidies, as a major source of funding (Figures 1 and 3). Surveyed companies typically choose to operate in countries where they have good knowledge of the local market. That said, over 70% of surveyed corporates indicated that regulatory stability and availability of public funding, grants and incentives including feed-in tariffs, are vital factors.

Corporates are also looking to strategic investors to mitigate sector risk, including specialist renewable energy companies (39% of corporate respondents) and utilities (22%). Along with capital it brings instant credibility, provides confirmatory technical due diligence and, more often than not, improved access to the end-consumer. By way of example, one of the largest European late-stage fundraisings in 2Q10, secured by Think Global AS (USD 40 million), the Norwegian electric car company, received the backing of 14 different investors including three corporates (CG Holding AS, General Electric Company and Sundt AS).

Gina Domanig, Managing Director at Emerald Technology Ventures, notes: “We encourage our portfolio companies to get money from corporates.” Domanig is also unperturbed about potential conflicts of interest commenting: “Corporates typically do not invest very much and therefore do not generally have much power as a shareholder.”
Venture capital and Private equity ... continued

The investors’ viewpoint

Investors have a very clear wish list

Besides satisfying legal requirements that include limiting conditions (such as preference rights, anti-dilution protection and active management power) and completing financial / commercial due diligence, investors spend significant time assessing the quality of the target company’s management team (Figure 5). As Alex Betts states: “Building market positions and changing how industries behave is challenging and you obviously need very strong management teams to deliver positive results.”

Venture capital respondents, typically relatively early-stage in the fundraising process, regard the availability of alternative funding sources for a target company’s growth plans as an important factor in making an investment decision. Venture capital investors commonly reserve between 25% and 50% of their un-invested funds for their portfolio companies. That does not stop them from being nervous about making heavy financial commitments during the early-stages of an investment, at a time when alternative funding sources are limited and exit opportunities unclear.

Private equity investors prefer companies that operate low-risk technologies and/or are able to benefit from governmental incentives and support mechanisms. The availability of other sources of funding is slightly less important for private equity funds, although they do require visibility on future capital requirements. Alex Betts comments: “We want to know whether our financial capability, along with our co-investors’ capability, is sufficient to support the company without having to think about other investors or an IPO”.

Over a third of surveyed venture capital and private equity investors declined to proceed on a deal last year because the forecast period until revenue generation was too long. Capital efficiency is crucial and any capital investment needs to be justified and milestone-driven. Gina Domanig adds: “Milestones demonstrating commercial success, such as securing large orders or strategic relationships, which would lead to faster market penetration, are probably the most significant. It all has to do with growth and shortening the time to profitability.”

With regard to exit strategy, most venture capitalists plan to hold their investments longer than private equity investors - five to seven years compared with three to five years for private equity investors. Trade sales are assumed to offer the most probable exit route with the majority of financial advisers forecasting increased M&A activity during the next 12 months. The outlook for exits via an IPO looks less probable. Marc-Oliver Kurth, Partner at Taylor Wessing, explains: “There are some companies on the watch list for an IPO. All of them have an interesting growth story and realistic prospects to become some of the most important players in their market. I see the most promising IPO candidates in the field of wind energy, especially in the field of wind energy converters and turbines or other technology driven manufacturers acting as suppliers with key technology.”

Investors continue to gravitate towards later-stage deals

The state of the global economy over the past year has not discouraged the majority of surveyed investors from investing - c.70% of surveyed investors confirmed their intention to maintain their investment levels in the sector. Funding is therefore available but early-stage companies are not necessarily going to be the direct beneficiaries.
Simon Walker, Partner at Taylor Wessing, explains: “Some cleantech investors are now coming into the cleantech area with a view that real opportunities arise only when the product starts to be commercialised.”

Private equity investors have indicated a clear intent to target established profitable businesses. Over 60% will increase their capital allocation towards companies at the expansion stage or mature companies (Figure 6). In the past, private equity funds have considered investing in pre-revenue companies. We now expect them to make a systematic withdrawal from this type of investment. Nearly 40% of surveyed private equity investors that used to include early-stage opportunities within their investment strategy now intend to decrease their allocation towards companies at any stage prior to commercialisation. Furthermore, private equity investors are hardening their investment criteria – they want to avoid technology risk (95% of surveyed private equity investors stated that low technology risk is an important or very important factor in their investment decision) and an investee company must be able to demonstrate sustainable revenues that permit an investor to envisage an exit within their standard time period.

This shift to more mature investments is also occurring among early-stage investors. During the next 18 months, surveyed venture capitalists will increase their investment in companies with a proven technology (30% - pre-commercialisation stage; 39% - revenue generating companies; and 46% - companies in expansion mode) (Figure 7). In parallel, certain respondents (c.17%) intend to reduce their investment in companies with unproven technologies (including research and development, prototype testing and demonstrator projects).

Specialist venture capital funds will dominate investment in early-stage companies

Not all venture capital funds are recalibrating their investment strategy and deserting the early-stage arena. George Coelho, Managing Director at Good Energies, states: “That is mostly the case for generalist funds that do not focus entirely on clean technology and invest in other areas. There are fewer players on the early-stage investment market and this is why it is interesting for Good Energies.”

Only 25% of surveyed venture capital funds intend to avoid the crowded later-stage investment sector and increase their allocation in companies at the prototype testing or demonstration project phase (Figure 7). However, the proportion of venture capital funds targeting the prototype testing or
demonstration project phase almost doubles to 45% for funds with a portfolio allocation to the sector above 75%. Specialist funds have the dedicated resources and knowledge to analyze complex cleantech and renewable energy technologies and solutions, which puts them at a distinct advantage over generalist funds.

The funding environment for early-stage companies may improve if there is a consistent run of exits. As Simon Walker notes: “When venture capitalists start to see exit opportunities and, more generally, when the fundraising market improves, they will feel more confident in investing in earlier stage companies.”

Valuation is the major deal-breaker
Interviewees agree that valuations have softened over the past two years, but price is still a major sticking point when it comes to getting the deal done. George Coelho notes: “Today’s valuations are not bargains, but fairly healthy, as there is an appetite for deals and plenty of competition. Getting a fair price is still the most important part of the negotiation.”

Surveyed venture capital and private equity investors are targeting a Return on Investment (ROI) in the range of 4x and between 2x and 3x respectively. These returns are proving difficult to achieve - over 60% of venture capital and private equity investors indicated that high valuations deterred them from investing during the past year. Limiting conditions, including preference rights, anti-dilution protection or pay-to-play clauses, which are important for financial investors (Figure 5) are proving difficult to agree too. Gina Domanig notes: “We spend a lot more time in Europe haggling about things that in North America are just normally accepted as standard.”

Mature, capital efficient sub-sectors will attract the most investors
Venture capital and private equity investment is expected to concentrate on solar and energy efficiency companies, followed by onshore wind and energy storage businesses.

The solar sub-sector will continue to attract a large slice of venture capital and private equity investment (91% and 85% indicated an interest in those sectors respectively) (Figure 8). Although this industry is one of the more mature within the sector, venture capital investors will target complementary technologies or solutions that can increase the efficiency and competitiveness of solar energy compared to other energy sources once tariffs or subsidies decrease. This is particularly relevant in countries including Germany, the Czech Republic and Italy that recently altered their feed-in tariffs and Spain which proposed a retroactive reduction in tariffs for photovoltaic energy operators this summer.
Private equity investors will target the following sub-sectors in order of preference: solar (85%); onshore wind (70%); biomass (60%); and recycling and waste sub-sectors (55%). These industries rely on mature technologies where commercialisation has already been demonstrated. In contrast venture capital funds will concentrate on energy efficiency companies - an almost unanimous 96% of surveyed venture capital investors indicated an interest in this sector. Energy efficiency technologies are typically IT-rich but less capital intensive than most sub-sectors within the sector, providing an attractive haven for investors concerned with capital preservation. Energy storage will also attract venture capital investors for two principal reasons: a growing interest in green transportation; and utilities’ need for large-scale energy storage solutions to manage their growing dependence on renewable energy as well as peak energy loads. Interestingly, almost 80% of surveyed venture capital investors will target investment opportunities in the micro-generation sub-sector over the next 18 months, compared to 25% of private equity investors.

Capital intensive industries, such as offshore wind and marine power, are forecast to face a continued struggle to secure the necessary funding to transform small-scale demonstration projects into full-scale commercial operations. Even after technological viability has been achieved, investors are concerned as to how these companies will scale up efficiently and leverage their size to become profitable. Companies active in these sub-sectors need to rely on diverse investor syndicates over multiple financing rounds alongside government financial support. Pelamis Wave Power Ltd is an excellent example - since 2002 the company has raised c.USD 50 million from 15+ investors including venture capital, corporate and private equity investors. This has been supplemented by government grants.

On-balance sheet debt is available in the biomass, wind and solar sub-sectors
Whilst every surveyed debt provider is keen to provide project debt for the cleantech and renewable energy sector, a significant proportion (75%) are also interested in offering non-project related lending. Surveyed debt providers are particularly interested in financing companies active in sub-sectors deploying mature technologies such as biomass (89%), onshore wind (78%), solar (67%), offshore wind (56%) and energy efficiency (56%) where tangible assets are readily available as collateral. Surveyed debt providers active in the sector can be segmented into two groups: the first group, representing the majority of respondents, comprises lenders that will allocate up to Eur50 million in non-project related lending, typically in individual financings up to Eur5 million; the second group covers lenders that will invest a total of Eur1 billion in tranches between Eur50 million and Eur100 million per transaction.

With respect to leverage most debt providers are targeting gearing below 65%, with margins ranging between 200 bps and 350 bps and maturities between two and three years. Earlier this year Clean Energy pipeline collaborated on KPMG’s report on global M&A activity in the cleantech and renewable energy sector. Debt providers interviewed for this project indicated that margins between 200 bps and 400 bps were standard for the industry.

Government support must hold firm
Support in the form of government funds matching financial investments or government-backed lending either through loans, grants or guarantees is essential. Unfortunately, the market is not convinced that governments will or can maintain their current level of support during the next 18 months. Only a third of all surveyed respondents believe government funding will increase (Figure 9) and an equal proportion actually expect it to decrease.

Policy frameworks need to be clear and stable to appeal to venture capital and private equity investors. Alex Betts comments: “Investors’ confidence decreases when the framework that they are operating in is shifting.” This has created innovation ‘hot spots’ for venture capital and private equity investors in the UK, Germany, The Netherlands and Nordic countries, particularly Sweden and Denmark.

A potential alternative early-stage financing solution
For early-stage cleantech and renewable energy companies, the majority of which are cash flow negative and lack assets, funding solutions beyond equity remain limited. Yet the capital intensive nature of the sector creates a clear case for debt funding even for early-stage companies. As Oscar Jazdowski, Head of Origination in the UK at Silicon Valley Bank, states: “Venture capitalists realised that it was all well and good to finance the initial technology developments and the pilot plant. However, funding the growth between the pilot and the larger-scale production or generation facility was out of the scope of most venture capital firms.”
Venture debt providers dominate this space, offering finance based on the ability of a company to meet its development milestones so it can continue to raise additional equity. One of the most important considerations for venture debt financiers is the quality and expertise of the venture capitalist investors and their partners supporting a company. “That has become increasingly important over the past few years” says Oscar Jazdowski, “as a number of venture firms have morphed into cleantech funds without benefiting from substantial experience in the sector.”

Debt tenors for early-stage companies are short and certainly no longer than three years. While this is shorter than the desired term of most corporates (between three and five years) there is limited room for negotiation. Oscar Jazdowski puts it succinctly: “Companies with high requirements of debt and long payouts will struggle the most to raise venture debt.”

The sector needs fresh funding sources
Pension funds represent a crucial future source of funding for European cleantech and renewable energy companies. Gina Domanig explains: “Unless pension fund allocation to venture and private equity funds improves, young companies will always have a difficult time raising money compared to their counterparts in North America.”

More than a quarter of surveyed corporates regard pension funds as potential investors, although allocation from European state pension funds to the sector remains modest compared to the US: Gina Domanig notes: “Pension funds need an incentive or even regulation to increase allocations to venture and private equity. In some instances, they are restricted from doing so, so lifting those restrictions would be helpful.”

Figure 9.
Over the next 18 months, what financing activity do you expect from the following categories of institutions in the cleantech and renewable energy sector? (Select one answer for each category) (Respondents: All categories)

<table>
<thead>
<tr>
<th>Category</th>
<th>Increase funding</th>
<th>Decrease funding</th>
<th>Stay the same</th>
<th>No activity</th>
<th>Do not know</th>
</tr>
</thead>
<tbody>
<tr>
<td>National governments (e.g. through grants, subsidies, tradable certificates, tax credits)</td>
<td>33%</td>
<td>33%</td>
<td>27%</td>
<td>6%</td>
<td>2%</td>
</tr>
<tr>
<td>High Net Worth Individuals / family offices</td>
<td>55%</td>
<td>9%</td>
<td>25%</td>
<td>9%</td>
<td>2%</td>
</tr>
<tr>
<td>Infrastructure funds</td>
<td>52%</td>
<td>10%</td>
<td>19%</td>
<td>10%</td>
<td>2%</td>
</tr>
<tr>
<td>Independent Power Producers (IPPs)</td>
<td>47%</td>
<td>10%</td>
<td>22%</td>
<td>1%</td>
<td>20%</td>
</tr>
<tr>
<td>Utilities</td>
<td>50%</td>
<td>14%</td>
<td>25%</td>
<td>10%</td>
<td>1%</td>
</tr>
<tr>
<td>Sovereign wealth funds</td>
<td>41%</td>
<td>13%</td>
<td>24%</td>
<td>22%</td>
<td>1%</td>
</tr>
<tr>
<td>Specialist renewable energy companies</td>
<td>61%</td>
<td>6%</td>
<td>20%</td>
<td>13%</td>
<td>1%</td>
</tr>
<tr>
<td>Banks</td>
<td>54%</td>
<td>27%</td>
<td>33%</td>
<td>7%</td>
<td>1%</td>
</tr>
<tr>
<td>Private equity funds</td>
<td>57%</td>
<td>14%</td>
<td>25%</td>
<td>1%</td>
<td>9%</td>
</tr>
<tr>
<td>Venture capital funds</td>
<td>49%</td>
<td>20%</td>
<td>25%</td>
<td>5%</td>
<td>1%</td>
</tr>
</tbody>
</table>

Source: Clean Energy pipeline
The project developer’s perspective

Developers are increasingly reliant on their own equity capital

Raising capital has not been simple during the past year - 60% of surveyed developers claimed that raising equity and/or debt funding for their projects became more difficult over the past 12 months (Figure 10). This will force many surveyed project developers (57%) to increase or maintain their own equity participation in their projects over the next 18 months.

While surveyed project developers indicated that uncertainties relating to incentives and support mechanisms (57%) have been very common obstacles to raising equity, they also suggested that challenges associated with setting up a project, for example, over planning and consenting processes were in themselves obstacles to securing finance (43%) (Figure 11). Project developers also indicated that securing additional funding to finance project construction post permitting up to the operational stage is another major concern for private equity investors – 37% of surveyed project developers stated that uncertainties over the availability of other sources of funding to sustain the company’s growth plans and pipeline of projects were very common obstacles to securing private equity investment over the past 12 months. These difficulties have made securing external equity...
for pre-construction stage projects (including land acquisition, front-end engineering design works and the permitting process) very difficult, and particularly so until construction debt is in place. As Dominic FitzPatrick, Partner at Taylor Wessing, explains: “Many project developers have had lock up increasing amounts of equity to develop projects. They need to refinance this to free capital to develop further projects. It can be a slow and painful process.” He adds: “Apart from small-scale solar project developers attracted to the UK by Feed-in Tariffs, the number of independent developers is probably declining. Some of them are facing real funding issues, particularly at the early-stage.”

Partnerships and hybrid funding solutions are becoming increasingly prevalent

Out of necessity rather than choice, the majority of surveyed developers are now entering into discussions with joint venture partners to co-develop and co-fund their projects. Only developers with a strong balance sheet or financial support from a parent company can reasonably expect to maintain control of their projects either by investing more of their own equity or resorting to alternative debt solutions. Ideally project developers prefer to remain independent as Andreas Höllinger, Member of the Management Board at ABO Wind AG, explains: “It is usually our own money, credit lines or bridge financing from banks and mezzanine financing from small investors. We prefer to develop our projects on our own because such activity requires us to be quick and to have perfect control of the process. Until the permit is secured we want to decide which projects to continue and which to leave.”

Independence is not without risks and can engender a dangerous over-reliance on short-term hybrid financing solutions (e.g. credit lines, mezzanine, bridge financing). Martin Billhardt, Chairman of the Board of Directors at PNE Wind AG, notes warily: “Companies with aggressive financing strategies are more vulnerable to market changes. Managing financing maturities and sustainable equity portions is very important.”

Government support is still critical

In addition to equity finance and loans, a significant proportion of surveyed project developers expect to benefit from grants and subsidies (38%). Nearly 70% of surveyed project developers indicated that availability of public funding, grants and incentives is important when choosing to develop a project in a specific geography. The location of their current project portfolios bears this out demonstrating a clear bias towards the UK (54%), France (34%), Germany (34%), Italy (31%) and Spain (26%). In terms of sector, the majority of surveyed project developers were active in solar (46%), biomass (37%) and onshore wind (29%).
Lending and leverage - it’s all about the quality of the underlying project

Interestingly, while the majority of surveyed project developers indicated that raising debt got harder during the past year (58%), a sizeable percentage of respondents (35%) actually found it easier. Francesco Starace, Renewable Energy Division Director and Chairman of Enel Green Power, explains this divergence of opinion: “A sustainable business strategy requires quality projects. If the quality of the project is good, there is no funding gap.”

So what is deterring lenders from lending? The top three most common obstacles project developers faced over the past year, when approaching lenders, were: uncertainties over policy frameworks relating to incentives or support mechanisms (very common for 52% of the respondents); uncertainties over securing a satisfactory offtake / PPA (42%); and uncertainties over planning and consenting processes (41%) (Figure 12).

Understandably leveraging strategies vary widely depending on the quality of each individual project and the financial clout of the project developer. This explains why almost as many project developers intend to reduce gearing (33%) as those seeking to increase it (50%). Surveyed developers also fall into two different camps when it comes to leverage, mainly preferring to target gearing below 65% (43%) or between 75% and 80% (22%). Loan tenors are expected to be in the ten to fifteen year range, although some developers are pushing for maturities over fifteen years.

Lack of clarity on pricing terms

Respondents (corporate, developers, lenders and investors) are unsure whether margins will stay the same (29%), decrease (26%) or increase (23%) over the next 18 months. The majority of respondents are expecting to secure margins below 300 bps with the most significant grouping in the survey pointing to pricing either below 200 bps (21%) or between 250 bps and 300 bps (21%). However, lower quality assets with less recognised project developers can expect to suffer significant margin inflation, potentially in excess of 350 bps (Figure 13).

Figure 13.
What margin above the prevailing national base rate: Was applied to the loan when your company last raised debt financing for your cleantech assets and renewable energy projects? Are you expecting to secure on loans within the next 18 months? (Select one answer) (Respondents: Project Developers)

Source: Clean Energy pipeline
The financier’s viewpoint

Equity and debt providers share similar concerns

Identifying and allocating project risk is an integral part of any investment due diligence process. “Increasingly, there is going to be a focus on the underlying fundamentals of a project. The focus will go beyond the public subsidies available”, states Dominik Thumfart, Head of Renewable Energy, Asset Finance and Leasing, Origination at Deutsche Bank. “Investors and debt providers will increasingly look at the quantitative and qualitative parameters of a project” he added.

Private equity investors and debt providers share similar concerns prior to making an investment in a project. These include: whether an offtake contract or PPA agreement is in place (this is the most important issue for 100% of debt providers and very important for 70% of private equity investors); the availability of the necessary infrastructure including grid access; the track record of the project developer; the availability of clear planning and consenting processes; as well as a clear policy framework relating to incentives and support mechanisms (Figure 14).

Whilst the management team is crucial, project finance providers highlight the importance of working with a project developer with an established track record. Typically, project developers that lack credentials are required to inject a higher proportion of equity upfront to demonstrate their commitment to a project. Dominic FitzPatrick adds: “Banks are openly rationing finance to either large projects, which will help them reach their lending targets, or to customers who are capable of generating a large amount of business for the banks.”

Partnering with reliable third parties either at the construction or operation stage is also an important criterion for lenders - securing Engineering, Procurement and Construction (EPC), Operation and Management (O&M) or Turnkey contracts, as well as level of defect and performance warranties is very important for 78% of debt providers, compared to 31% of private equity investors. Talking specifically about operation and maintenance contracts, Clémentine Tassin, Director, Global Project Finance at Dexia notes: “We do not necessarily require long-term O&M agreements but at least five year agreements that can then be extended.”

Private equity investors’ targeted ROI makes their role unclear

Private equity investors have a low tolerance for risk but they are not prepared to reduce their target returns. Most surveyed private equity funds interested in investing in the sector are targeting a similar return from their project finance and corporate investments - 61% expect a ROI between 2x and 3x for their project investments over the next 18 months (Figure 15) with a preference for investing in constructed projects. The reality is that the ROI from operating a constructed renewable energy project is simply too low to generate their standard returns. This mismatch between risk and return makes the role of private equity unclear.

Marcel Gerritsen, Global Head of Renewable Energy and Infrastructure Finance at Rabobank, explains: “The number of private equity players in the renewable project space is very limited. They would have raised dedicated renewable energy equity funds from investors keen to get lower returns but also lower risks.” There is little room for non-specialist private equity funds to invest in assets in this sector that match their typical...
desired risk / return criteria. Carsten Bartholl, Partner at Taylor Wessing, sees the market slightly differently: “I have seen an increasing number of private equity investors getting more interested in manufacturers of solar panels, wind turbines or other equipment for the renewable energy industry. By investing in a company later upstream in the lifecycle of a plant, the investor has the opportunity to develop the company, expand its market, maybe leading the company to become one of the market leaders, therefore providing more leverage to its investment.”

Securing greater returns may push more private equity investors towards pre-construction, earlier-stage, permitted projects. Although private equity appetite decreases the earlier the stage of development, 65% of surveyed respondents indicated that they will consider investing at the construction stage and 41% will get involved in projects at the permit application stage (Figure 16). However, there is almost no interest in earlier stage project-based investments - only 6% of surveyed private equity investors were interested in financing projects at the land acquisition or pre-planning and conceptual development stage. Martin Billhardt explains: “They finance permitted projects through construction, make them turnkey, operate them for two years and then exit the project. Over a five to seven year holding period, I expect private equity investors to secure similar IRRs to what they are used to.”

Funding is available for commercially proven technologies
Confidence in technologies deployed in a project is paramount. Commercially unproven and feedstock dependent technologies will continue to be handled with caution. Financiers continually emphasise the importance of deploying technology that is reliable to ensure that production targets are achieved. A senior banker at a leading European project finance bank comments: “With small increments in the development of the technology, we can probably understand and assess the risk. However, if there is a significant change in that technology or if the technology has a limited track record, it makes it very hard for us to lend money.”

Projects that depend on technologies mature enough to generate stable cash flow (such as solar and onshore wind) will continue to attract private equity investors and debt providers during the next 18 months (Figure 17). According to surveyed debt providers, solar and onshore wind projects are likely to be financed on similar terms - loan tenors of ten to fifteen years, leverage at c.75% - 80% and
Margins between 200 bps and 300 bps over the prevailing base rate.

In contrast, projects or assets in the biofuels, marine and green transportation sectors that rely on technologies still in testing for large commercial applications only interested a third of surveyed private equity and debt providers (Figure 17).

Despite the substantial interest shown by financiers in financing biomass projects (more than half of surveyed private equity providers and 100% of surveyed debt providers indicated interest in biomass projects), closing debt financings for biomass projects is being hampered by feedstock supply risks. High volatility in commodity prices makes securing long-term supplies of quality feedstock difficult underlining the importance of joint ventures or in-house production of feedstock. Dominik Thumfart explains: “The only projects we are looking at in the biomass sector are the ones that are vertically integrated, where the electricity plant has access to its own source of feedstock supply, preferably through in-house production, or at least through joint ventures or long-term supply agreements with credit-worthy partners.” Andreas Höllinger emphasises the importance of securing the involvement of a feedstock supplier even for small-scale projects. “We try to integrate the suppliers or farmers in the project, involving them in the operation and management.”

Biomass debt financing deals are expected to be more expensive with margins ranging between 250 bps to 450 bps over the prevailing base rate. Leverage in biomass projects is expected between 65% and 75%. While most lenders are prepared to offer between ten and fifteen-year maturities, 25% of respondents will not even provide loans over a ten year period.

Investors slowly getting comfortable with offshore wind projects

Although a number of offshore projects are operational, their long-term viability and the level of operation and maintenance necessary for them to remain productive and profitable is currently unproven. Marcel Gerritsen comments: “The number of banks that are comfortable with this fairly new sector is still limited because these projects are inherently more risky from a construction perspective. However, there may be enough banks available to finance deals which are operational.”

Two thirds of surveyed debt providers are considering financing offshore wind projects over the next 18 months. Those that are comfortable with lending to offshore wind projects will accept leverage in the 65% to 70% range. Margins in the...
sector are predicted between 300 bps and 350 bps over a period of 15 to 20 years.

The offshore wind sector, with projects often valued above the Eur1 billion mark, will continue to be supported by club deals. Among surveyed debt providers there is no consensus as to whether underwritten deals will return over the next 18 months. Ultimately, it will depend on how quickly confidence in banks’ balance sheet returns and whether liquidity premiums decline. A senior banker at a leading project finance bank points out: “I think general confidence is coming back. Post-Lehman’s collapse, the trend was for club deals but we are starting to see the re-emergence of underwritten deals.” Dominik Thumfart disagrees: “It is too early to say as there is no liquid transparent market for hard underwriting at the moment. It is still very much a market dominated by club deals.”

While a majority of debt providers showed an appetite in financing offshore wind projects, the sub-sector is much less popular with private equity investors. As a starter, construction risk in this sub-sector is substantial and often relies on multi-contracting models rather than single comprehensive EPC contracts. That said, the investment required to develop offshore wind projects is substantial, making private equity pre-investment required to develop offshore wind projects located in France, Germany, Ireland, Italy, Spain and the UK. Countries where incentive schemes are not yet clearly defined, including Hungary, Romania and Bulgaria are being placed on the back burner. Christian Schnell, Partner at BSJP Legal, comments: “The main difference is that there is no proper or comprehensive legislation in place in the latter category of countries.” Today, most projects in Eastern Europe are funded by the developers themselves and/or public funding.

Despite current market uncertainty, Eastern Europe is expected to implement long-term feed-in tariffs and support mechanisms to meet the 2020 renewable energy targets. “These countries will have to move into feed-in tariff systems and I expect this will happen in the near future”, comments Christian Schnell. In anticipation of this, several commercial banks and investors have already positioned themselves to take advantage of changes in legislation. He adds: “There are a lot of projects which are in the hands of typical large German or Spanish developers but they are not yet developed.”

Above all, government incentives need to be maintained. Any reduction in government support such as feed-in tariff cuts has a significant effect on the appetite of investors and debt providers. Equally damaging are uncertainties surrounding national government policies including budget cuts, such as those envisaged in the UK public sector.

Most respondents expect government support to level off in the future as technology improvements reduce the cost of components. According to Clean Energy pipeline, the price per MW to develop solar photovoltaic projects in Europe decreased by 11% to Eur5.53 million in 2010 from Eur6.21 million in 2009. A senior banker at a leading European project finance bank comments: “There is a growing track record and body of knowledge in respect of some technologies. From that point of view there is a justification in accepting lower tariffs.”

Despite being under review in several European countries, feed-in tariff frameworks have resulted in an increase in renewables in the overall energy mix. Assuming tariffs remain attractive enough, projects will continue to attract debt financing albeit at lower historical levels. Dominik Thumfart explains: “There is a clear positive correlation between transparency of risks, project costs and revenues, and the availability of financing. As soon as there is some lack of transparency and a perceived increased level of risk in one particular asset category, you will clearly see that the supply of either equity or debt diminishes.” For example, the majority of surveyed debt providers believe that retroactive changes in the feed-in tariff, as those considered in Spain for solar installations, could severely damage lenders’ confidence and even cause existing projects to default. Dominik Thumfart notes: “There is a high risk that this could affect a project’s cover ratio dramatically such that it deteriorates to a point where the borrower defaults. There is no way around that. I think that any retroactive change destroys trust and good faith amongst project financiers, forcing them to restructure transactions.”

Implementing and maintaining clear government policies and support mechanisms is essential. Over the next 18 months, over two thirds of surveyed debt providers will consider lending to projects located in France, Germany, Ireland, Italy, Spain and the UK. Countries where incentive schemes are not yet clearly defined, including Hungary, Romania and Bulgaria are being placed on the back burner. Christian Schnell, Partner at BSJP Legal, comments: “The main difference is that there is no proper or comprehensive legislation in place in the latter category of countries.” Today, most projects in Eastern Europe are funded by the developers themselves and/or public funding.
Clémentine Tassin agrees that these potential changes could cause serious long-term harm to the sector: “We may slow down activities in this area as we wait for the government’s final decision and for the situation to stabilise.”

Margins remain artificially high although the number of lenders should increase
Margins on debt have started to fall after the sharp increases observed during the height of the credit crunch. Nonetheless, debt remains pricey compared to pre-crisis levels.

The banking crisis reduced competition among banks and with it any incentivisation to transfer base rate decreases even when lending to high quality projects. This has been compounded by the abnormally high level of sovereign risk in Europe and an overall lack of liquidity in the markets. However, this may soon change as a senior project financier notes: “Assuming these concerns are resolved, I could envisage a further 50 bps to 100 bps fall in pricing in 18 months’ time.”

The return of competition among banks may ease terms further. According to Marcel Gerritsen this trend is already in process: “Over the last three to six months maturities have moved closer to where they were before the crisis. Given that long-term funding for banks is still very scarce, this must be a sign that the European banking market is crowded, forcing competition in certain segments of the market.”

More than 75% of surveyed debt providers indicated that they have increased their financing target over the past year in the sector and over 40% of all respondents predict an increase in the number of lenders willing to fund the sector during the next 18 months. Only 17% of respondents anticipate a decrease in the number of lenders.

However, these positive developments may be undermined by the revised Basel III bank reform, ratified on 12 November 2010 which aims to strengthen banks’ liquidity. Projects in countries where the economy is languishing and where banks consider themselves over-exposed will struggle to raise debt financing. Those projects that secure debt in these countries will almost inevitably suffer higher margins given the scarcity of debt.

Utilities and IPPs may work with investment funds to meet their commitments
Nearly 70% of respondents expect utilities and Independent Power Producers (IPPs) to increase or maintain their funding in the cleantech and renewable energy sector over the next 18 months. However, Marcel Gerritsen is uncertain as to where this funding is going to be sourced: “If we look at the pipeline of projects of utilities and their balance sheet / capex budgets, there seems to be a big gap in the ability of European utilities, apart from a few, to put enough equity into their projects pipeline.” Assuming Gerritsen is correct, they will need to source funding from equity providers, such as infrastructure funds, or via the public markets.

Francesco Starace is more confident in the ability of IPPs and utilities to be self-financing: “I believe the best strategy at the moment is for utilities to finance most of the growth with cash flows. Things hopefully will change for the better in the future. Each company has to look very clearly into its strategic aims, its strengths and its operating performances. External equity providers are typically extracting value from projects and tend not to contribute knowhow.”

Infrastructure funds and the bond market – great hopes for the future?
More than half of all respondents (including project developers, corporates, venture capital and private equity investors, debt providers and financial advisers) expect infrastructure funds to increase their investment activity in the cleantech and renewable energy sector. Historically, infrastructure funds have only funded operating assets. However, as these funds start to get to grips with more mature technologies, infrastructure funds may start to get involved at the construction stage.

“Technology has improved,” explains Martin Billhardt, “I believe it is becoming attractive for infrastructure funds to invest at the construction stage.”

“I think the market should try to investigate how to attract institutional investors in the renewable energy market” notes Marcel Gerritsen going on to explain that the bond market still has a significant role to play. He adds: “The potential debt funding that can be arranged via the project bond market is infinitely bigger than the loan / bank debt market.” However, such a financial product, which is typically used to refinance a project post its early years of operation need to be structured in such a way to appeal to bond investors. The issue as Dominic FitzPatrick points out is: “whether it can be self-standing or whether it will need additional financial support from an institution like the Green Investment Bank or a European equivalent”.

Utilities and IPPs may work with investment funds to meet their commitments
Nearly 70% of respondents expect utilities and Independent Power Producers (IPPs) to increase or maintain their funding in the cleantech and
Cleantech and renewable energy market analysis

European investment stalls after steady recovery

Global investment in cleantech and renewable energy companies by venture capital and private equity funds declined by 20% to Eur3.5 billion in 3Q10, from Eur4.3 billion in 2Q10. This reflects sentiment in the sector, which has been undermined by a series of reviews of government subsidies in various key countries worldwide. In parallel exits look a little harder - M&A activity slowed in 3Q10 and the IPO market remains tricky.

European investment was not spared and decreased by 35% in 3Q10. Venture capital investment suffered the most, falling by 73% to Eur82.9 million, its lowest level since 3Q08 (Figure 18). Interestingly corporate represented 20% of investors in European transactions. Corporate investors included companies such as Dow Venture Capital, Itochu Corp., Pentair Inc. and Rhodia Group.

The fall-off in venture capital activity meant that private equity development capital and buyouts collectively accounted for over 90% of total European investment activity in the sector, at Eur197.6 million and Eur784.8 million respectively. The largest European private equity transactions this quarter were: a GBP 50 million investment in the UK-based wind developer e-Gen Ltd by Rockfield Energy Investments; and the buyout of Tyco Waterworks Europe GmbH announced by Triton Beteiligungsberatung GmbH for USD 245 million. These transactions resulted in over 60% of European investment being allocated to the wind (36%) and the water and waste water treatment sub-sectors (25%). Only 7% was invested in European energy efficiency companies, compared to 29% globally.

Globally M&A activity dropped markedly in 3Q10, totalling Eur5.9 billion across 139 completed transactions, compared to Eur11.7 billion (152 transactions) in 2Q10. Nearly 40% of global volumes related to European transactions, with the wind sector (39% of transactions) and the solar sector (21%) dominating activity. Wind farms are currently being acquired at a global average of Eur1.3 million per MW, a small decline on 2Q10’s trading multiple of Eur1.4 million per MW. A total of 22 wind farms changed hands in 3Q10. The majority were acquired by utilities or large industrial groups including Edison Spa, Sharp Corp. and IKEA Group. In contrast solar plants are being sold at a discount compared to last year with a recorded average of Eur1.9 million per MW versus Eur2.6 million in 2009. Overcapacity and regulatory uncertainties may play a part but in Germany this is mainly the result of the statutory annual decrease of the feed-in tariffs combined with a decrease in prices for solar panels.

New financial investment in renewable energy projects worldwide totalled Eur28.1 billion during 3Q10, a clear increase on the Eur22.5 billion invested in 2Q10 and Eur15.5 billion invested in 1Q10. The picture in Europe is less rosy - European project finance activity has declined by an average of 18% a quarter since 1Q10, totalling Eur5.5 billion in 3Q10.

In Europe, solar (38%) and wind (23%) combined accounted for 61% of total project finance activity in the sector in 3Q10, while hydro accounted for almost 25% (Figure 19). The significant proportion of hydro financing is due to the largest project financing during the quarter:
Vnesheconombank project provided RUB 34 billion (c.Eur863 million) for a 1,000MW hydro power plant owned by RussHydro.

During 3Q10 most cleantech and renewable energy indices recovered modestly from their June 2010 levels although they are still on average 7.4% lower than at the end of 1Q10 and continue to underperform the FTSE 100 and the NASDAQ. The First Trust ISE Global Wind Energy Index essentially remained stable amid concerns of oversupply in the wind market. Every other sector index tracked this quarter (Wilderhill NEX Index, HSBC Climate Change Index, Ardour Solar Energy Index, MSCI China Broad and the NASDAQ Clean Edge Green Index) gained between 11.5% and 27% during the past three months.

Clean Energy pipeline tracked 13 IPOs in 3Q10 totalling Eur1.6 billion, almost twice the amount recorded in 2Q10. One European company launched an IPO over the quarter: Elster Group SE, a German industrial manufacturer supplying gas, electricity, and water meters, raised USD 211 million on the New York Stock Exchange. No cleantech or renewable energy companies floated on a major European stock exchange in 3Q10.
Taylor Wessing has been advising on legal issues relating to climate change in key areas such as clean technologies, renewable energy, environment and planning and emissions trading for many years. We have also consistently worked to minimise the impact our own business has on the environment. We have implemented an Environmental Management System and are the first law firm to be awarded the internationally accepted standard, ISO 14001, by the BSI.

Our Energy and Environment Group brings together a team of lawyers with specialist expertise from across our international offices.

We provide expert legal advice across the investment cycle, from early-stage fundraising and venture capital through commercialisation to full-scale project development and finance, IPOs and mergers and acquisitions. Our clients in the cleantech and renewable energy sectors include early-stage companies, developers, utilities, investors and financiers. Our long-standing expertise in this field and the breadth of our practice means that we are able to offer our clients practical and commercial advice from the outset.