ij supporting the development of infrastructure
Opinion

A renewable source of profit

Thomas Rottner - Platina Partners

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There are few havens for private equity at the moment but renewable energy, once the reserve of tree huggers and optimistic engineers, is rightly considered a promising area in the current climate.

A relatively stable return on investment, predictable cash flows, and immunity from other sectors are particularly attractive features right now.

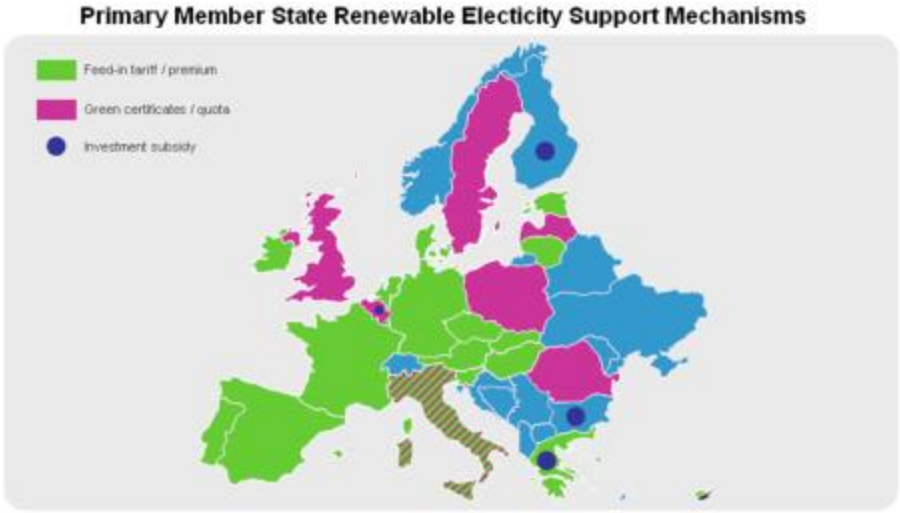
The market is still young but it has grown rapidly to become one of the fastest growing areas, further benefiting from being relatively immune from the credit squeeze. It's a complex area but there is a compelling case for investing, particularly in renewable electricity generation assets.

In electricity generation wind, hydro and solar plants use a 'free' resource and so have high operating margins. This factor, combined with the predictable support regimes in place in many countries and the increasing scale of renewable electricity projects and portfolios make it an attractive sector to an infrastructure investor.

The 'modern' renewable energy industry (excluding large-scale hydro plants) began in the late 1980s and has since accelerated as governments have sought to reduce greenhouse gas emissions and diversify energy supply through the use of subsidies and support regimes.

The majority of capacity has been installed in Europe, but the USA, China and India have been catching up rapidly having collectively installed over 16,000MW in 2008.

It is only within the last decade, however, that private equity has been investing in renewables. One of the key triggers for this interest within Europe was the enactment in 2001 of the EU Renewables Directive which established non-binding targets for member states to increase the proportion of electricity generated from renewable sources within the EU from 14 per cent in 2001 to 22 per cent of electricity by 2010.
Even in the current financial climate, investing in renewable electricity generation continues to be highly attractive. In fact, the combination of government support mechanisms to encourage additional investment, predictable output and low technical risk of the major technologies provide an especially attractive environment in which to commit capital during these times of economic stress.

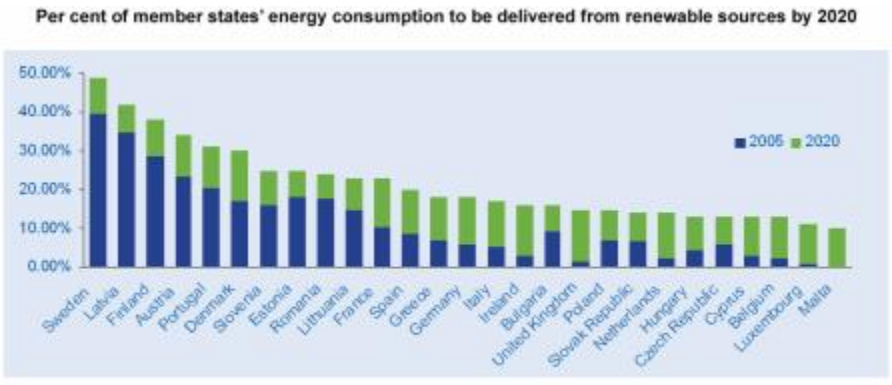


Source: European Commission Renewable Energy Factsheets, January 2008

Many of the EU member states have feed-in tariffs or premiums in place which ensure that projects receive government-backed revenues and makes them highly attractive in today's market. The impetus behind this support is the objective of governments to reach the targets set out within the 2001 Directive.

In December 2008 member states agreed the objective of delivering 20 per cent of EU final energy consumption from renewable energy sources by 2020 - a considerable increase from the 7 per cent and 8.5 per cent of energy derived from renewable sources in 2006 and 2007, respectively [1]. Within this overall 2020 target it is estimated that about 34 percent of overall electricity consumption in the EU could come from renewable sources by 2020 [2].

To achieve these targets, all member states will need to significantly increase the share of renewables in the energy mix as illustrated in the graph below. How this will translate into additional investment will depend on the level of support on offer, the ease of obtaining consents to construct and the speed of connecting to the grid.



Source: Proposal for a directive of the European Parliament and of the Council on the promotion on the use of energy from renewable sources, 23 January 2008

To date, wind has been the major beneficiary of member state support regimes and has resulted in installed European capacity increasing from 17,241MW at the end of 2001 to 56,535MW by the end of 2007 [3]. Over the last five years, about 30 per cent of all new electricity generating capacity installed in the EU has been wind energy [4] with the key countries being France, Germany, Italy, Spain, and the UK.

Yet despite this rapid growth, the wind sector is expected to continue to attract a significant proportion of new investment, capturing a predicted share of 15 per cent of the EU's electricity generation by 2020.

Growth in solar generation capacity will be focussed on those member states which have sufficient solar resource combined with appropriate support regimes.

Historically, Germany has dominated the sector, but other countries such as Spain and Italy have been catching up rapidly as a result of attractive tariffs.

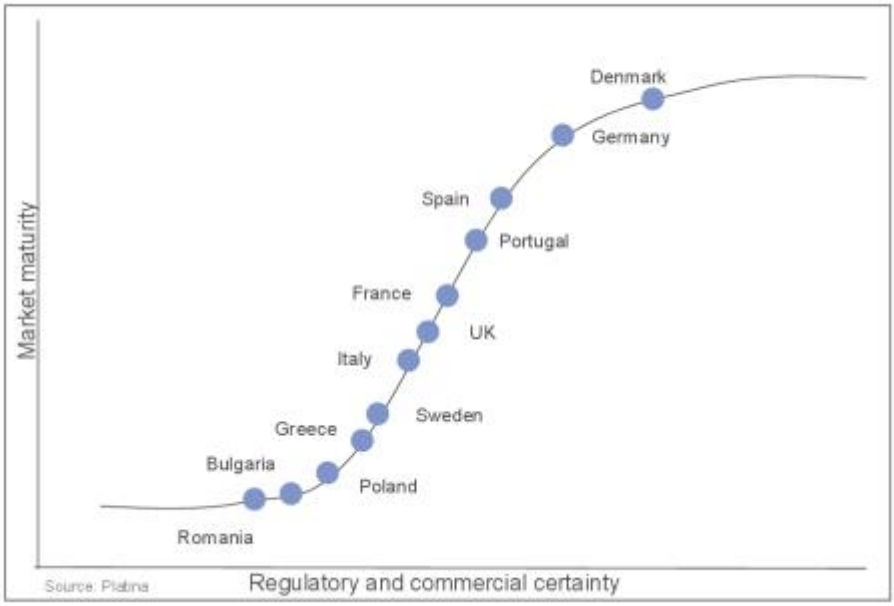
Compared to wind and solar, biomass is a more complicated investment due to the logistical challenges of ensuring sufficient low cost feedstock is available throughout the life of the plant. Although biomass generation capacity is expected to grow significantly, analysis undertaken for the European Commission has indicated that support levels will need to increase in a number of member states if new build plants are to be viable [5].

Even though wind and solar assets have high capital costs, the benefit derived from EU support regimes and high operating margins enables them to generate a relatively stable return on investment, and regular cash flows, which are particularly attractive features in the currently volatile financial climate.

In any industrial investment, the potential returns are typically highest when the risk is also highest. In the context of renewable electricity generation assets, the highest potential returns are available to investors who invest in early stage development assets in a rapidly maturing market. This is because as a market matures, increasing numbers of investors will enter and initially pursue de-risked assets (operating projects) which will be in scarce supply.

As the installed capacity grows and the supply of assets increases then the spread of returns for investors at the different stages in an asset's life (development, post-consent contracting, construction and operation) will begin to normalise. Of course, with renewable energy there is the added complication of the level of support on offer through which governments are able to increase or reduce the attractiveness of a particular sector.

Relative maturity of selected EU member states' 'new' renewable electricity generation sectors:



As the diagram above illustrates, Denmark and Germany are the most mature markets for renewable electricity generation (for onshore wind). Over time, they have adjusted their support mechanisms to normalise the potential returns on offer, reflecting that they have

largely met or exceeded their targets. However, Germany has ambitious targets for the installation of offshore wind generation capacity and as a consequence has recently improved the support available for that segment.

Similarly, the UK is still a relatively immature market and yet has big targets to try to achieve - 15 per cent by 2020. It has an attractive support regime, although not for all segments of the sector. The UK government is making a big push to encourage investment in the offshore wind sector which it views as its best hope of achieving its 2020 targets. Accordingly, it has proposed that adjustments be made to the support regime in order to attract more investment to offshore.

As the market continues to mature an increasing number of opportunities to aggregate larger portfolios will arise. It is therefore predicted that renewable-focused private equity funds will have the opportunity to participate in consolidation moves which may involve merging investments with investments held by third parties.

Outlook for financing

Although the EU is in recession following the global credit crisis, the outlook for renewable energy financing is still looking brighter than it is for many other industries. In fact, it is one of the few sectors in which banks are still willing to entertain the notion of long-term financing or indeed any financing at all. This is testament to the fact that renewable electricity generation projects represent real assets with high operating margins and stable cash flows based on government backed tariffs which makes them attractive to both debt and equity investors.

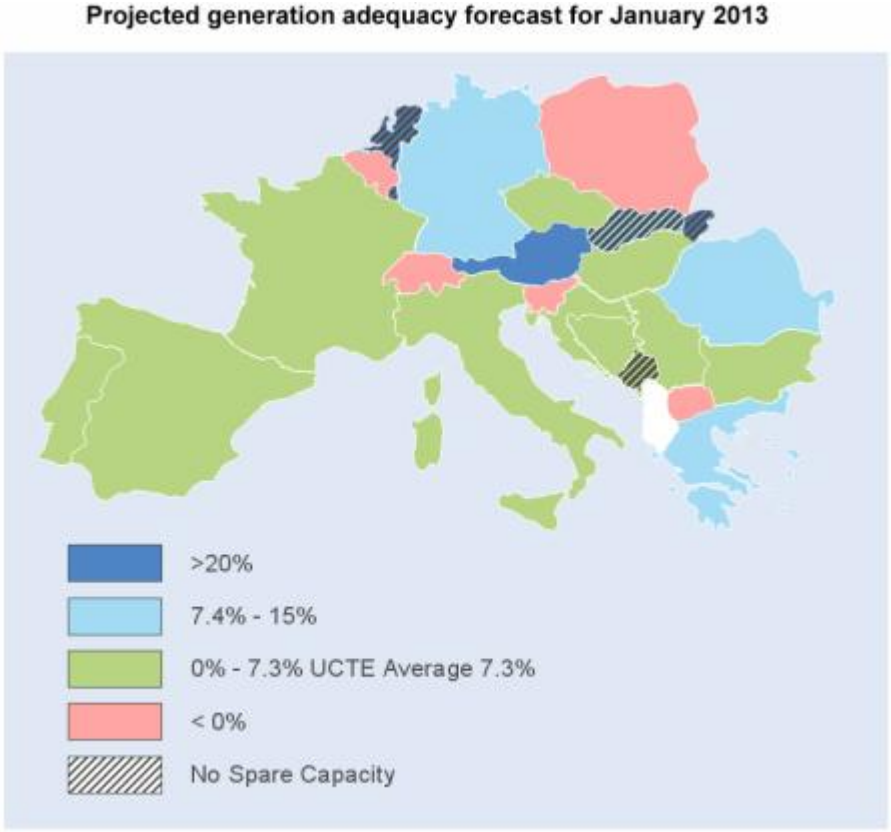
It is also reasonable to assume given the quasi-government revenues, predictable nature of the cash flows, low technical risk and lack of correlation with other sectors of the economy that the renewable electricity generation sector will be able to benefit further from any recovery in the credit markets.

Outlook for 2009 and beyond

Following the agreement between the member states on the 2020 targets, the pressure to increase renewable electricity generation capacity remains. Europe has established itself as the world leader in cutting greenhouse gas emissions - a position from which it will be reluctant to move back.

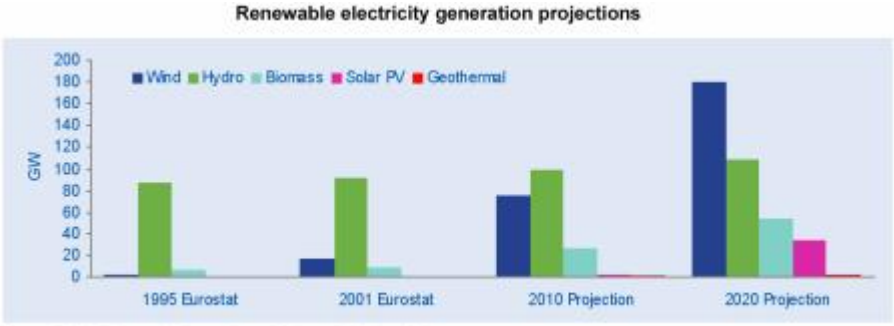
In addition, member states are also faced with the retirement of significant amounts of old generating capacity over the next ten to 15 years. The long lead times to plan and construct new conventional and nuclear plants and the need to reduce Europe's dependency on imported gas will continue to make the short construction times for renewable capacity attractive to politicians.

The need for new electricity generation capacity is shown by the projected reserve margin for the major European countries which illustrates how retirements could lead to a number of member states having limited spare capacity to meet demand unless new capacity is commissioned (a 10 per cent reserve margin being the critical threshold). The appropriate level of reserve margin can only be maintained by a significant investment programme in both conventional and renewable electricity generation plants (with the bulk of the predictable generation coming from conventionally fuelled plants).



Source: UCTE

In terms of technologies, the bulk of the investment in new renewable electricity generation capacity is expected to be in wind (both onshore and offshore), solar photovoltaic and biomass because the technologies utilised are proven, capable of being project financed and able to deliver strong and predictable cashflows. The projected growth in renewable electricity generation capacity is shown in the graph below:



Source: EREC, Renewable Energy Target for Europe 20% by 2020

Reaching a target of 34 per cent of electricity being generated from renewable resources is estimated to require around €330 billion of investment over the period between 2005 and 2020. One of the reasons that this political support is likely to continue is to ensure energy security within Europe so that, quite simply, the lights stay on. Continuing political support is one of the main reasons that investment growth will continue in this sector.

In conclusion, renewable energy is a fantastic sector to be in at the moment, especially from an investment perspective. It is still a relatively young market that has thus far had a successful track record. A gold rush of new investment into renewable power over the past 18 months has led the United Nations to conclude that clean energy could provide almost a quarter of the world's electricity by 2030. As political support is maintained renewable electricity generating assets continue to be economically attractive and the financial markets are sitting up and taking note.

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Notes:

[1.] Communication from the Commission by 2020, Europe's climate change opportunity, 23rd January 2008
[2.] Optres - Assessment and optimisation of renewable energy support schemes in the European electricity market, February 2007
[3.] European Wind Energy Association
[4.] European Wind Energy Association
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