

## Investing at pool market in Iberian Peninsula, notes Suddeutsche invest intervention:

There are recent and profound changes in the sector at European and global levels that justify a turnaround in investment strategy. The regulatory change in UK, one of the most active markets in recent years, has ground to a halt the production of investment opportunities in photovoltaic, affecting not only investment flows, expanding the focus to other countries / markets, but also it affects the price of commodities and collateral services. This last point is of vital importance for achieving construction prices that allows the investment with the expected returns.

In recent months the panel price has maintained a steady downward trend, which is expected to be sustained over time because it responds to a problem of overcapacity.

The other important factor is the risk of exchange rate. In recent years' monetary policies of central banks have resulted in significant variations in exchange rates. The latest in UK, where the pound is touching low records against the euro. Some of our investors, here with us today, have bought projects in UK in the past two years with the pound above 1.40 €. To this day it has 25% less value in their local currency. It is also true that monetary policies have created a favorable environment for the financing.

In SDI we have started 18 months ago, a research on the European generation markets the best business opportunity combining the criteria rate, radiation / production and development process. The first part of this study was very simple, looking at the map euro zone; the Iberian market has more potential radiation, is a large market, and has the ability and experience. In addition, the regulatory environment is clearer and the sustainability of the system is no longer the primary concern.

Based on this, we started working with Solaer, technologic partner, the study of which photovoltaic PV technology have a better balance between production-capex. And here we mean poly / thin / cadmium telluric, fixed / 1XT /

2XT, etc. and bankability, cost and complexity of construction, expertise and maturity of the technology...

So we start in the Iberian market, the main recipient of daylight hours in the Euro zone, a way that this technology was destined to walk. The huge potential of this country in solar energy makes us responsible to find profitable ways to make feasible the competitive exploitation of this resource.

I will not list the advantages from the environmental point of view, nor on the obvious advantages of energy or geopolitical independence.

In our talk today we want to focus on profitable business and sustainable exploitation of this resource. We are convinced that the technological learning curve has reached the point of balance with the market price of production. Regardless of the commitments made by Spain in terms of Co2, photovoltaics is ready in some specific areas of Spain to compete with traditional power generation.

Competition in this new era of photovoltaic generation business, the reference will be the same parameters as any traditional business, security of supply, quality and price. The competitive advantage of the absence of supply risk is obvious, I can assure you that the day that the sun does not rises in the morning, the last of Your concerns will be the return on this investment. The value is in the location, planning, operation and maintenance, replacing the current model, where the value is to be entitled to a regulated tariff, leaving in a secondary position the quality and efficiency of generation.

In Spain, especially after the last reorganization of the sector, management efficiency and excellence in maintenance have no incentive, having the risk for the current photovoltaic facility to be an asset intended for aging, and lack of competitiveness.

Until now the investment model in PV was based on premiums to the generation, which makes easily predictable cash flows, and therefore profitability / valuation of long-term asset and most important financing with acceptable agreements (covenants). In the Spanish market, these cash flows have been anything but predictable.

The new model implies a market risk and therefore becomes more complex, the analysis of the cash flows of the assets. For this reason, we have had a few of difficulties to introduce our traditional investors in this new business.

There are different models to mitigate this risk. I will not go into detail on the auction system and its implications for the business model. Of course it is one of the best ways to give stability to cash flows and to finance investment.

Leaving aside government auctions, the strategy to mitigate risk is a power purchase contract with a market operator the longest period possible.

At present the limit for these contracts is around 10 years. These contracts, also named PPA's, are one solution to enable more affordable coverage ratios required in subsequent funding.

These contracts are complex regarding the rating of market operator and production guarantees required.

In these contracts a party undertakes the obligation to deliver a certain amount of energy in a defined time, and the counterparty agrees to pay a set price. It is therefore obvious that the ratings of the companies involved play a major factor in the value of the contract and the associated risk.

For investor who does not want bank financing, but want to limit the market risk, there are alternatives that can ensure a floor on the price of energy for a premium, or a margin of fluctuation in the rate beyond which not take losses or profits are shared.

These contracts have the particularity not to need guarantees because the collateral is the price of energy and has no connection with the production of the plant.

There is also a hybrid solution PPA's the early years and PPA's only covering part of the production etc. However, for full equity investor who does not need bank finance and assume the predictions of our colleague Antonio, of Pöryr, he will later explain energy price predictions, the most profitable option is to assume market risk and sell energy to market or short-term contracts, between one month and one year like is very common in UK.

The possibility of retrofit the parks, improve its technology, optimize maintenance, opens expectations for improvement in future cash flows that can become significant.

Other improvement over traditional business, is that no matter when the investment exit is calculated, the PV investment maintains a timeless residual value, and only influenced by the state of the installation and the price of energy or prediction of future prices in that moment.

In Feed in tariff parks the remaining years of tariff is the key for the assessment.

As a summary, we have a new business model based on production, sustainable from the point of view of the overall system because it adapts to market prices, with the possibility of stabilizing cash flows for a period. The expected returns on these investments as we would see in our example are very attractive.

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