



## FEBRUARY 2017 NEWSLETTER

# Lights, Shadows & Opportunities in the Solar Industry

### SUMMARY

1. Quote of the Month
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## 1. Quote of the Month

*"Affordable, effective, and visually appealing solar has been one of the most talked-about promises in the roofing industry."-- Anthony Ruffine, GAF vice president of renewable energy & strategic marketing.*

(GAF, one of the largest roofing manufacturers in North America with revenue of USD 3bn, has launched a breakthrough integrated solar roof – DecoTech. The firm is the operating subsidiary of Standard Industries Inc.)

*"We heard from established solar contractors who want to add the DecoTech product to their line, as well as roofing contractors who see the potential to build their businesses with an innovative offering that integrates smoothly with their existing business." Mr Ruffine added.*

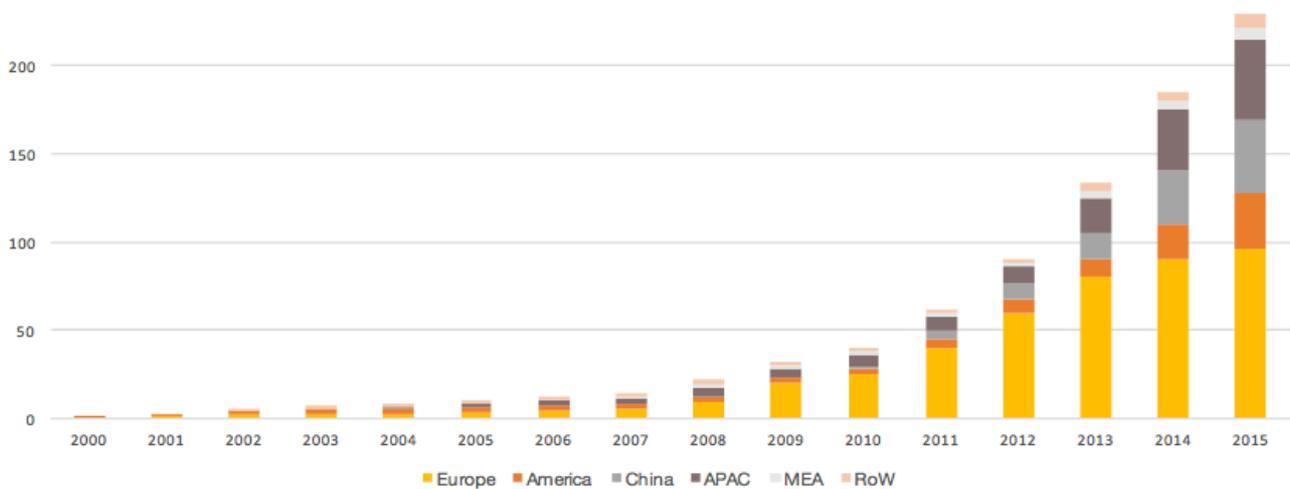
Indeed, solar panels installed on top of roofs have been replaced by integrated technology solutions over time, mainly due to the more complex shopping dynamics that characterise customers' needs. Since the late 90s, efficiency-driven solutions have bowed to evolving patterns, according to which the marginal utility of the consumer diminishes if the aesthetics standards are not met.

## 2. Construction & Tech Mix

2006 was the watershed for several clean-energy projects. Not only it became harder to model how much companies would be granted in terms of public subsidies, but also commercial banks started to feel the pinch of possibly decreasing returns associated to renewable investments due to an apparent imbalance between demand and supply.

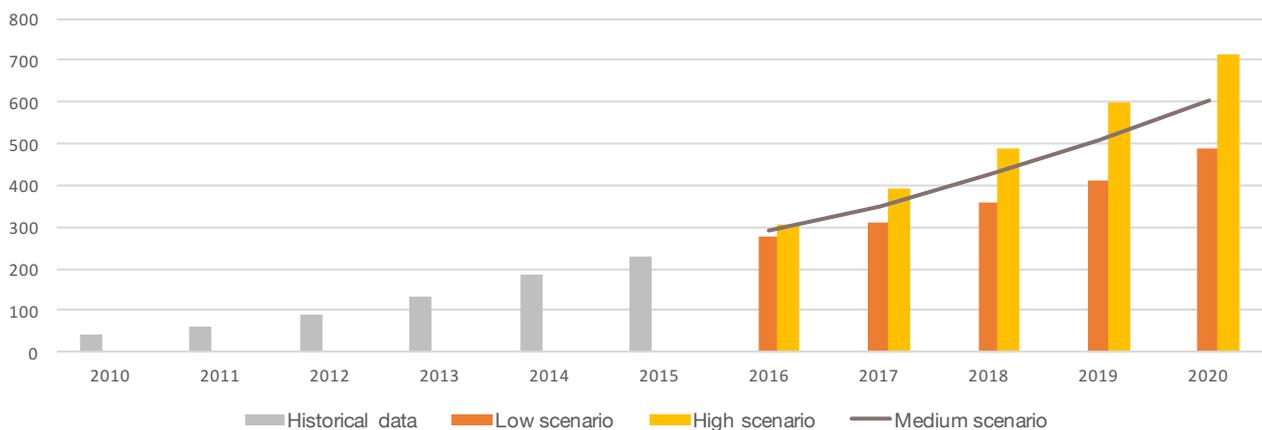
Back then, however, the household had already bought into the clean-energy story after years of sustained growth, while sustained growth rates have ensued to these days and are likely to persist over the medium term, based on several market projections we sighted.

In the last 10 years alone, scientists, entrepreneurs and governments scrambled for clean-tech solutions, and many solar energy-related technologies evolved to a stage of maturity, but the builders inevitably lagged, given that they were unprepared to exploit shifting trends, in most cases. In a way, many of them felt squeezed between an excess of demand and a lack of confidence to get projects through the implementation phase on a larger scale. The chart below shows trends since the turn of the century, with forecasts pointing to a still significant CAGR until 2022.



(Exhibit 1. Evolution of global total solar photovoltaic installed capacity 2000-2015)

(Source: Solar Power Europe)



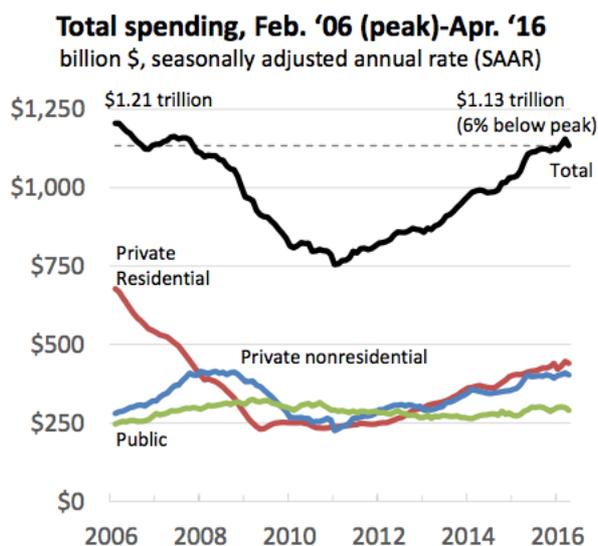
(Exhibit 2. Global Total Solar PV Market Scenarios until 2020 in GW)

(Source: Solar Power Europe)

For the construction industry, it has always been a balancing act between traditional projects management dynamics and innovation driven by social awareness as well as

sustainability. From a typical supplier/contractor relationship, builders and solar companies have now shown a willingness to become partners, working closely on projects that can be scaled up.

Other trends, as the chart below shows, are also very encouraging.



(Exhibit 3. Construction spending in the US market 2006-2016)

(Source: The Associated General Contractors of America)

Oliver Koehler, founder and CEO of SunTegra, recently noted that “solar shingles have been around for many, many years but typically they have had issues with cost (...) our vision was to provide an integrated product at a reasonable price point.”

Tesla’s boss shares the same view, arguing that “It’s not a thing on the roof. It is the roof”, and it is easy to speculate that Mr Elon Musk learned something from the rise of SunTegra which started to install integrated solar roof earlier than Tesla.

As with GAF, which essentially transformed traditional roofing systems into solar roofing solutions, other roofing contractors are also looking for innovative offerings to integrate smoothly their suppliers’ products into their own existing business lines.

In this context, the current market share of the PV segment is tiny compared to the entire solar energy market, but its appeal to the broader public, recent trends show, will likely make it a hot property in a rapidly expanding market.

Here are some key market drivers:

1. Large customers potential: solar roofing solutions are well-known and accepted by the public.
2. Public incentives backing solar energy and relatively relaxed regulations could continue to shore up returns.
3. Value-added technology differentiation will determine the leaders and the laggards globally.
4. Many partnerships are still in their infancy and more deal will likely happen between constructors and solar firms.

### **3. Lights and shadows?**

While the US market is under the spotlight, other markets also offer a truly unique opportunity even for smaller companies.

In South-east Asia, China, of course, is another attractive market, although there are very few foreign companies competing there. Our preliminary research identified ReneSolar as being a pioneer in the solar industry; it entered the Chinese market in 2010, and currently has the biggest market share in solar roofing solutions.

Hurdles stem from a combination of factors that mitigate the appeal of the Chinese market.

1. Limited potential for new customers in big cities. High density rates in major Chinese cities can be found where skyscrapers are located, and those buildings are not suitable for current solar roof modules. ReneSolar only targets larger, sizeable detached houses or villas, usually in the countryside, while buildings in the big cities are usually already equipped with solar panel.
2. Heavily regulated: companies need several approvals from the Chinese government to enter the market, while giving up control of any venture there.

3. In 2015, there were roughly 700 PV companies in China, according to GlobalData, which could enter the market.
4. Expensive given the average income for households and companies.

However, there remain big opportunities in Chinese market. China is the largest market for solar energy, with installed photovoltaic solar capacity standing at 43 gigawatts (GW) in 2015. More broadly, tech developments as well as international partners all along the supply chain are being sought.

#### 4. Investment Case

Here we highlight an investment case of solar company that is looking to raise fund to enter the US market. MPD Partner is the sole advisor in the deal.

### Chapter 1 – Investment Case Overview

This investment case gives investors the opportunity to participate in the meaningful upside offered by [redacted] via its subsidiary [redacted] is the parent company for the purpose of this information memorandum.

The group is looking to raise cash by issuing new stock to expand its operations in the US, selling equity capital in its operating arm Stateside while giving away control of its subsidiary. MPD ranks [redacted] in the top quartile for companies at a similar stage of business maturity, given a multitude of value-drivers that could deliver significant upside to new investors, if execution of the business plan proves flawless.

The group has conceived an integrated roof system, which it builds. It has developed a new, innovative idea based on roofing and photovoltaic panel integration, where high and clean tech features bring energy savings to their customers.

[redacted] has booked several orders in Europe of late, boosting its projected revenue trajectory – the book value of these orders through to 2017 is €2.3 million on an aggregate basis, management told MPD Partners at a pre-due diligence stage. As it continues to grow domestically, savvy executives have decided to focus on the US market, targeting new projects in Massachusetts and New York.

[redacted] is in the process of setting up a [redacted] in the US that would operate as an independent, partially owned subsidiary, of which the parent company would retain a minority interest following a successful fundraising.

The total fundraising is expected to amount to up \$9,000,000 (\$9 million).

After private conversations with [redacted] management, MPD Partners believes that it is realistic to assume that US revenues in year one might hit the \$2.7 million mark, under a base-case scenario.

### Public Subsidies

China joined the goldrush before the credit crunch hit: its massive production drove down the prices of solar panels, disrupting the supply chain and forcing hundreds of producers to quit the race on both sides of the Atlantic (**the bankruptcy of Germany's Q-Cells** is a case in point).

The US government tried to contain the damage, imposing duties on Chinese producers, given that their products were priced unfairly to undercut the competition. Consequently, such policies boosted internal production in the US, which is now among the largest manufacturers behind China, Singapore, Taiwan and Malaysia.

Tab.7 shows the average price per component as of Q216.

- The price of polysilicon is up due to a low inventory level;
- Wafer and cells prices dropped to \$0.20/W and \$0.30/W in the wake of falling demand and lower module prices;
- Module prices are strongly affected by antidumping duties applied to the Chinese manufacturers of cells. The US Department of Commerce has set a 29.5% cumulative levy for Chinese suppliers.

Profit & Loss Statement (in CHF)	FY2013	FY2014	FY2015	FY2016e
Revenues	110'489	277'103	375'172	985'826
Other Revenues	2'500	-	114'486	86'981
<b>Total Revenues</b>	<b>112'989</b>	<b>277'103</b>	<b>489'658</b>	<b>1'072'808</b>
	100.00%	100.00%	100.00%	100.00%
<b>COGS</b>	<b>177'247</b>	<b>320'957</b>	<b>197'668</b>	<b>719'125</b>
	156.87%	115.83%	40.37%	67.03%
Gross Profit	- 64'258	- 43'854	291'990	353'682
Gross Margin	-56.87%	-15.83%	59.63%	32.97%
Costs for services	258'453	255'659	431'868	607'815
Costs for lease of third-party assets	-	-	-	-
Other Opex	-	-	43'594	22'925
Personnel Expenses	525'358	344'674	97'377	257'599
Total Operating Expenses	783'811	600'333	572'838	888'339
	709.40%	216.65%	152.69%	90.11%
<b>EBITDA</b>	<b>- 848'069</b>	<b>- 644'187</b>	<b>- 280'848</b>	<b>- 534'656</b>
EBITDA Margin	-750.58%	-232.47%	-57.36%	-49.84%
D&A + Writedowns + Provisions	54'889	67'120	103'944	100'614
<b>EBIT</b>	<b>- 902'958</b>	<b>- 711'307</b>	<b>- 384'791</b>	<b>- 635'270</b>
EBIT Margin	-799.16%	-256.69%	-78.58%	-59.22%
Financial Income (Change)	-	-	-	54'147
<b>Earning before extraordinary items</b>	<b>- 904'397</b>	<b>- 713'124</b>	<b>- 390'634</b>	<b>- 689'417</b>
	-800.43%	-257.35%	-79.78%	-64.26%
Extraordinary Income (Change)	12'803	191'920	-	53'237
<b>EBT</b>	<b>- 891'595</b>	<b>- 521'204</b>	<b>- 390'634</b>	<b>- 742'654</b>
EBT Margin	-789.10%	-188.09%	-79.78%	-69.23%
Taxation	-	600	-	5'905
Tax Rate (on EBT)	0.00%	-0.12%	0.00%	-0.80%
<b>Net Income</b>	<b>- 891'595</b>	<b>- 521'804</b>	<b>- 390'634</b>	<b>- 748'559</b>
Net Income Margin	-789.10%	-188.31%	-79.78%	-69.78%

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