

# Solar PV Report Ed 1 2011

## Market Intelligence

The past year and a half was characterised by downstream acquisitions. Solar manufacturers acquired project developers and project pipelines. Most notable of which was First Solar's acquisition of NextLight, a major renewable energy developer with a pipeline of 1.1 GW of utility scale PV projects. Manufacturers are slowly moving their operations overseas to cheaper markets, but often keep an assembly facility in major markets because of their low labour costs. Big oil incumbents seem to be giving up on Solar with BP no longer manufacturing solar cells, except through joint ventures or by outsourcing contracts, and Shell having sold its assets in 2006.

Wind developers have started to enter the sector, including Chinese developers - China Huaneng, Datang New Energy, Huadian, Longyuan and Spain's Acciona Energy- along with the Korean manufacturing giants, Samsung and Hyundai.

Once again 2009 was the year for Chinese manufacturers, which produce cells at low cost, and crystalline silicon manufacturers, due to low silicon prices. As expected, Spain installed only the bare minimum of projects, 69 MW. Other European countries experienced record growth, but this may be short lived due to the expectation that the countries will reduce feed-in tariffs at the end of the year. Germany reduced tariffs at the start of the year and plans to reduce them again in July.

Silicon shortages no longer affect the PV sector; instead inverter shortages are delaying grid-connected projects. Manufacturers of inverters reduced capacity in 2009 in response to the downturn and can't keep up with current demand from the electronics and PV industry. Reported delivery times for some inverter manufacturers were as high as 30 weeks in the first quarter of 2010.

Another shortage is due to affect the sector: limited supplies of gallium, indium and tellurium, used in thin film cells. As cadmium telluride cells dominated the thin film market in 2009, with 77% market share, a tellurium shortage may have the bigger impact on the sector than a shortage of the other metals. Reduced supply of any of these metals is likely to affect the cost advantage of thin film over the more efficient crystalline silicon cells, limiting growth in the thin film sector.

## Highlights

NRG expects 2011 will be another high growth year for the American, Chinese, India, Italian and French markets with resurgence in the Japanese market, due to generous subsidies and strong political will. Small markets, like Slovakia, that have generous feed-in tariffs may do well. Grid-connected projects will experience strong growth.

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