

Analyzing the Global Market for Concentrated Solar Power 2016

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Abstracts

The concentrated solar power industry is bound to be one of the biggest and most efficient in the coming times ahead. If utilized to its full potential, it could end up providing for the world's 25% energy needs by 2050. Currently there is 679 MW of installed CSP capacity worldwide and more than 2000 MW under development.

The solar field makes for the largest share of the cost of any solar plant. Depending on the technology this cost could vary from around 43% for Tower and Fresnel technology, to almost 60% for Parabolic Trough and Dish Stirling CSP plants. The most significant cost reduction is likely to come about by innovation in solar field design, which could bring down the cost of energy (LOCOE) by 15 to 28% depending on the technology. Whilst much attention on the future of clean energy is focused on the competition from 'cheaper' fossil fuel alternatives, it should be noted that if a clean technology is actually the more profitable option, that becomes a massive driver for change. In a sense this is a positive feedback mechanism that comes into play as soon as a technology is competitive in even a few market segments.

Rather than simply subsidizing CSP, technology-neutral market-based measures should target the clean energy characteristics and strong correlation of generation to real time demand that CSP provides. Rewards linked to competitive market time of day pricing or equivalent firm capacity contributions should be considered. Towards this, energy sector agencies should build on this study and model future prices of both energy and ancillary services in the NEM, to calculate future CSP value under scenarios that include high penetration intermittent renewable resources.

The CSP industry must continue to focus on lowering cost through deployment and technology improvement, particularly efficiency. Those cost reductions must also be

clearly demonstrated to stakeholders. Major cost reductions will be achieved through capturing the lessons of early deployment. The CSP Industry should work proactively to leverage the lessons gained from publically funded early deployment to ensure they flow to the widest possible base within the constraints of competitive markets.

Concentrating solar power's relatively low cost and ability to deliver power during periods of peak demand - when and where it's needed - means that it can be a major contributor to the world's future needs for distributed sources of energy.

Aruvian Research analyzes the Global Market for Concentrated Solar Power. This research report is a comprehensive analytical compilation which analyzes the global market for CSP along with an analysis of the key markets.

The report begins by taking a look at solar power and the impact of global climate change as well as the challenge of carbon emissions facing the world. We move on to introduce the concept of concentrated solar power (CSP). We also explain the various types of CSP technologies available today.

An analysis of the global market for CSP includes an industry analysis through statistics, a look at industry size, power generation from CSP worldwide as well as the installed capacity of CSP in key markets. Investments in the industry are also looked at, followed by an analysis of the major industry trends and challenges.

Moving on to the analysis of key markets, we analyze CSP in Australia, China, India, South Africa, Spain and the US. For each market, we look at industry statistics, power generation from CSP, installed capacity of CSP, as well as the regulatory framework affecting the CSP industry in that country.

Competition in the industry and an analysis of the major players wraps up this analytical offering on the global concentrated solar power industry.

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