



# Global and China Photovoltaic Inverter Industry Report, 2016-2020

Jul. 2016

## **STUDY GOAL AND OBJECTIVES**

This report provides the industry executives with strategically significant competitor information, analysis, insight and projection on the competitive pattern and key companies in the industry, crucial to the development and implementation of effective business, marketing and R&D programs.

## **REPORT OBJECTIVES**

- ◆ To establish a comprehensive, factual, annually updated and cost-effective information base on market size, competition patterns, market segments, goals and strategies of the leading players in the market, reviews and forecasts.
- ◆ To assist potential market entrants in evaluating prospective acquisition and joint venture candidates.
- ◆ To complement the organizations' internal competitor information gathering efforts with strategic analysis, data interpretation and insight.
- ◆ To suggest for concerned investors in line with the current development of this industry as well as the development tendency.
- ◆ To help company to succeed in a competitive market, and

## **METHODOLOGY**

Both primary and secondary research methodologies were used in preparing this study. Initially, a comprehensive and exhaustive search of the literature on this industry was conducted. These sources included related books and journals, trade literature, marketing literature, other product/promotional literature, annual reports, security analyst reports, and other publications. Subsequently, telephone interviews or email correspondence was conducted with marketing executives etc. Other sources included related magazines, academics, and consulting companies.

## **INFORMATION SOURCES**

The primary information sources include Company Reports, and National Bureau of Statistics of China etc.

## Abstract

As the core device of PV system, PV inverter can convert DC to AC. PV inverters are divided into on-grid inverters and off-grid inverters. In 2015, the global PV inverter shipment hit 56.0GW, a year-on-year surge of 44.7%, mainly thanks to rapidlygrowing demand in the United States and China. The global PV inverter shipment is expected to be 66.0GW in 2016 and over 90GW in 2020.

China is a major PV inverter market in the world. In 2015, its PV inverter shipment reached 26.5GW, accounting for 47.3% globally and soaring by 99.2% over the previous year. In 2016-2020, China's PV inverter shipment is expected to show a CAGR of about 13.0%.

In recent years, PV inverter prices have shown a ceaselessdownward trend in the wake of the decline in PV power generation prices. In 2015, the average price of centralized inverter in China fell to 0.2 Yuan/W, and the string inverter price 0.5 Yuan/W or so. In the short term, the prices will keep dropping.

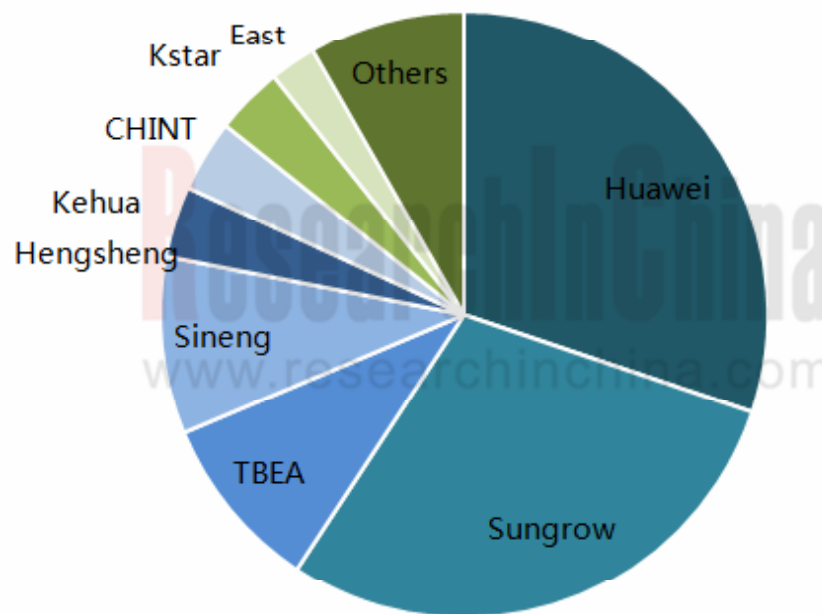
The development of PV inverters mainly relies on the construction of PV power plants. In 2015, Chinese PV power plants added 15.16 million kilowatts of installed capacity, of which ground PV power plants accounted for 90.6% and distributed PV power plants 9.4%. Distributed power plants can not only take advantage of the surface of buildings, but also act as effective interfaces between smart grid and micro grid, so they are encouraged by national policies; in 2020, the installed capacity will reach 70GW.

World renownedPV inverter manufacturers include Germany-based SMA, Switzerland-based ABB, Israel-based SolarEdge, Japan-based TMEIC, China-based Huawei, Sungrow Power Supply, TBEA, etc. In 2015, Huawei ranked first by PV inverter shipment, while SMA was the champion by sales.

CR5 of the highly concentrated Chinese PV inverter market was up to 81.9% in 2015. Wherein, Huawei ranked first in China with 30.2% market share.

**SMA's** PV inverters have a wide power range from 700W to 1,120MW. In 2015, its PV inverter shipment amounted to 7.3GW, representing a 43.7% increase over the same period of last year.

## Competitive Landscape of Photovoltaic Inverter Market in China, 2015



Source: Global and China Photovoltaic Inverter Industry Report, 2016-2020 by  
ResearchInChina

**Huawei** entered the PV field in 2012 and became the largest PV inverter manufacturer by shipment in China and the world in 2015. In January 2016, the company decided to cooperate with Sino-American Silicon Products Inc. in the field of solar PV inverters.

**Sungrow Power Supply Co., Ltd.** shipped 8.9GW of PV inverters in 2015, including 7.73GW in China. In May 2016, it launched China's first integrated medium-voltage system -- 3MW SG3000HV-MV box-type medium-voltage inverter in Shanghai.

**Shenzhen KSTAR Science and Technology Co., Ltd.** decided to set up Anhui Kstar Science and Technology Co., Ltd. in June 2016, and planned to build at least 300MW PV inverter and electric vehicle charging facilities as well.

Global and China Photovoltaic Inverter Industry Report, 2016-2020 by ResearchInChina mainly cover the followings:

- Market size, market structure, supply and demand, market prices and competitive landscape of the global PV inverter industry;
- Market environments, market size, supply and demand, market structure, market prices, competitive landscape and development factors of China PV inverter industry;
- Market overview, market size and market structure of main PV inverter upstream industries (IGBT, transformer, integrated circuit, resistor, capacitor, etc.) and downstream applications (PV power plants, etc.);
- Operation, layout in China, revenue structure and PV inverter business of 12 foreign and 17 Chinese PV inverter companies.

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