

Solar Power Market by PV, CSP Technologies by Installations, Price, Cost, Trade Trends & Global Forecasts (2011 – 2016)

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Abstracts

Report Description

Solar energy is amongst the most reliable and clean energy resources, and proves to be a viable alternative to fossil fuels that are currently responsible for polluting the environment and contributing to global warming. Solar energy is generated through various technologies viz. solar PV, solar thermal, concentrated solar thermal/power, and concentrated PV.

In all the four technologies mentioned above, solar PV is the biggest market; followed by concentrated solar thermal (CSP/CST). In the last five years, solar PV registered 60% average annual growth rate and CSP achieved 8%. Currently, the market for solar PV is bigger than CSP; thanks to huge investment, research and development, initiatives taken by the governments, and a number of projects in the pipeline. However, CSP technologies are expected to grow at a faster rate in future as new markets such as China, India, Brazil, Canada, Germany, and France open up. During 2011 – 2016, the CSP market is expected to grow at a CAGR of 44.9% and the solar PV market by 29.9%. At the end of 2016, cumulative installed capacity of CSP and solar PV is expected to be 8.6 GW and 219 GW respectively.

The most important factors that stimulate the growth of solar power market on the whole are unpredictable fossil fuel prices, need for disassociation of dependence on fossil fuel imports from areas of political volatility, environmental concerns over the green house gas emissions associated with fossil fuel use, government incentives, other support programs making solar power more cost competitive, and shift in consumer preference.



Many governments have set clean energy targets, and are trying to achieve them by switching over to renewable energies such as sun. Loads of developments are taking place at the global level; for instance, European countries are focusing the most on both, PV and CSP technology, whereas areas such as Germany, Italy, and Czech Republic have shown substantial growth in terms of PV installation. Spain has witnessed growth mainly in the CSP market.

Europe is the largest market; followed by Asia-Pacific and then North America. Germany alone shares almost 44% of the global solar PV market. Spain is one of two countries (U.S. and Spain) getting CSP installations. In Asia-Pacific, the major installations are taking place in countries such as China, Japan, and Australia. The rest of the world (ROW) region comprises Brazil, Middle East, and Israel; which are gaining attention from the major players of the PV and the CSP market considering the potential that these regions hold.

In support of strong regulatory environment, at the end of 2010, global solar power constituting solar PV and CSP cumulative installed capacity reached 40.5 GW. In 2010 itself, the capacity increased by 70% from 23.8 GW at the end of 2009. Out of 40.5 GW installed capacity, 39.7 GW was contributed only by solar PV. In 2010, global solar PV's installed capacity grew by 72.6%, a number closed with global solar power installed capacity growth. During 2009, installed capacity of solar power grew by 44% from 16 GW at the end of 2008 to 23.8 GW at the end of 2009. The growth rate rose from 44% in 2009 to 70% in 2010 since investments in solar energy increased with the end of global financial turmoil.

In 2010, Europe contributed the highest in the global solar energy market with new installations of 13.4 GW; followed by Asia-Pacific with 2.0 GW and Europe with 1.1 GW. The global solar power annual installation is expected to reach 46.8 GW in 2016 from 19.8 GW in 2011 with a CAGR of 18.7% during the same period. During 2011 – 2016, rest of the world (ROW) constituting Brazil, Israel, and Middle East will explore solar energy and start installations and will experience a CAGR of 18.8% from 2011 to 2016.

Markets covered

Global solar energy market research report breaks the into two major segments; i.e. technology and geography. Applications are also covered under "technology" segment. Each market segment is analyzed in terms of capacity and value and forecasted for 2011 – 2016.



Technology/type: covers concentrated solar thermal (CSP), crystalline solar photovoltaic (cSi), and thin film solar photovoltaic. These types/technologies are further divided by sub types/technologies. Applications by respective technology/type are covered under technology chapter.

Geography: covers Europe, North America and Asia–Pacific, and major countries in those regions including Germany, Italy, Czech Republic, Spain, France, Greece, U.S., Japan, China, and Australia. The countries not covered under above three regions are included in rest of the world (ROW) region.

Stakeholders

The intended audience will be:

Solar ingot/wafer, cell, and module manufacturers

Solar PV equipment suppliers

Solar thermal system manufacturers and suppliers

Solar power plant owners and/or operators

Institutional investors/shareholders

Research institutes and companies

National and local governments

Environmental research institutes



Contents

1 INTRODUCTION

- 1.1 KEY TAKE-AWAYS
- 1.2 REPORT DESCRIPTION
- 1.3 MARKETS COVERED
- 1.4 STAKEHOLDERS
- 1.5 KEY QUESTIONS ANSWERED
- 1.6 RESEARCH METHODOLOGY
 - 1.6.1 SECONDARY SOURCES USED TO COLLECT DATA
 - 1.6.2 KEY DATA POINTS FROM PRIMARY SOURCES
 - 1.6.3 ASSUMPTIONS

2 EXECUTIVE SUMMARY

3 MARKET OVERVIEW

- 3.1 INTRODUCTION
- 3.2 GLOBAL RENEWABLE ENERGY SCENARIO
 - 3.2.1 SOLAR ENERGY
- 3.3 BURNING ISSUES
 - 3.3.1 OVERCAPACITY TO REDUCE PROFIT MARGIN
 - 3.3.2 FALLING PRICES OF SOLAR PV
- 3.4 WINNING IMPERATIVE
 - 3.4.1 VERTICAL INTEGRATION OF PV COMPONENTS
- 3.5 MARKET METRICS
 - 3.5.1 DRIVERS
 - 3.5.1.1 Environmental concerns
 - 3.5.1.2 Growing energy consumption
 - 3.5.1.3 Increasing investment in clean energy
 - 3.5.1.4 Low operating and maintenance cost
 - 3.5.2 RESTRAINTS
 - 3.5.2.1 Higher electricity cost as compared to other sources
 - 3.5.2.2 Low capacity factor than the other sources of energy
 - 3.5.3 OPPORTUNITIES
 - 3.5.3.1 Renewable energy substituting nuclear reactors
 - 3.5.3.2 Development of remote regions
 - 3.5.3.3 Space solar power (SSP) generation



3.6 MARKET SHARE ANALYSIS

3.6.1 SOLAR PV MODULE MANUFACTURERS

- 3.6.1.1 Crystalline PV module manufacturers
- 3.6.1.2 Thin film PV module manufacturers
- 3.6.1.3 Solar PV cell manufacturers
- 3.6.2 CONCENTRATED SOLAR POWER (CSP)
- 3.7 VALUE CHAIN
 - 3.7.1 SOLAR PV SYSTEM
 - 3.7.2 CONCENTRATED SOLAR POWER (CSP)
- 3.8 FIVE FORCES ANALYSIS
 - 3.8.1 DEGREE OF COMPETITION
 - 3.8.2 ENTRY BARRIERS
 - 3.8.3 THREAT OF SUBSTITUTES
 - 3.8.4 THREAT OF SUPPLIERS
 - 3.8.5 THREAT OF BUYERS
- 3.9 COST & PRICE ANALYSIS
 - 3.9.1 SOLAR PV SYSTEM COST BREAK-UP
 - 3.9.2 SOLAR PV SYSTEM PRICE, COST & PROFIT MARGIN
 - 3.9.2.1 Historical prices & cost trends of global PV system
 - 3.9.3 SOLAR THERMAL SYSTEM COST BREAK-UP
 - 3.9.4 SOLAR THERMAL SYSTEM PRICE TREND
- 3.1 PATENT ANALYSIS, BY COMPANIES, REGION, & TECHNOLOGY TRENDS

4 SOLAR POWER MARKET, BY TECHNOLOGIES

- 4.1 INTRODUCTION
- 4.2 GLOBAL SOLAR PV MARKET
 - 4.2.1 SOLAR PV MARKET, BY TECHNOLOGIES
 - 4.2.1.1 Crystalline and thin film PV technologies comparison
 - 4.2.1.2 Raw materials
 - 4.2.1.2.1 Silicon
 - 4.2.1.2.2 Gallium arsenide (GaAs)
 - 4.2.1.2.3 Cadmium telluride (CdTe)
 - 4.2.1.2.4 Copper indium diselenide/copper indium gallium diselenide (CIS/CIGS)
 - 4.2.1.3 PV installation by technology market forecast, 2016
 - 4.2.1.3.1 Crystalline PV
 - 4.2.1.3.2 Thin film PV
 - 4.2.2 ADVANCED TECHNOLOGIES IN SOLAR CELL
 - 4.2.2.1 Organic solar cells



- 4.2.2.2 Dye-sensitized solar cells
- 4.2.2.3 Thin film multi-junction solar cells
- 4.2.3 SOLAR PV MARKET, BY APPLICATIONS
- 4.3 GLOBAL CSP MARKET
- 4.3.1 CSP TECHNOLOGIES
 - 4.3.1.1 Parabolic troughs
 - 4.3.1.2 Linear Fresnel reflectors
 - 4.3.1.3 Solar towers
 - 4.3.1.4 Parabolic dishes
- 4.3.2 COMPARISON BETWEEN CSP TECHNOLOGIES
- 4.3.3 CSP INSTALLATIONS MARKET FORECAST, 2016
- 4.3.4 MARKET SHARE ANALYSIS OF CSP MARKET, BY TECHNOLOGIES, 2016

5 SOLAR POWER MARKET, BY GEOGRAPHY

- 5.1 INTRODUCTION
- 5.2 NORTH AMERICA
 - 5.2.1 SOLAR PV MARKET
 - 5.2.2 CSP MARKET
 - 5.2.3 U.S.
 - 5.2.3.1 Import-Export Scenario
 - 5.2.3.2 Policies
 - 5.2.3.2.1 Residential Renewable Energy Tax Credits
 - 5.2.3.2.2 Energy Improvement and Extension Act 2008 Tax incentives
 - 5.2.3.2.3 San Francisco Solar Energy Incentive Program
 - 5.2.3.2.4 California solar initiative
 - **5.2.4 CANADA**
 - 5.2.4.1 Policies
 - 5.2.4.1.1 EcoENERGY For Renewable Power
 - 5.2.4.1.2 Ontario Feed-In Tariff Program
 - 5.2.4.1.3 Clean Energy Fund Renewable Energy & Clean Energy Systems

Demonstration Projects

- 5.3 EUROPE
 - 5.3.1 SOLAR PV MARKET
 - 5.3.2 CSP MARKET
 - 5.3.3 GERMANY
 - 5.3.3.1 Current scenario with respect to solar power
 - 5.3.3.2 PV installations market forecast, 2016
 - 5.3.3.3 Import-export scenario



- 5.3.3.4 Germany's policy of nuclear phase out by 2022
- 5.3.3.5 Policies
 - 5.3.3.5.1 Renewable Energy Program
 - 5.3.3.5.2 Amendment of the Renewable Energy Sources Act
- 5.3.4 ITALY
 - 5.3.4.1 PV installation market forecast, 2016
 - 5.3.4.2 Policy
 - 5.3.4.2.1 New Feed-in Premium for Photovoltaic Systems
- 5.3.5 CZECH REPUBLIC
 - 5.3.5.1 PV installations market forecast, 2016
 - 5.3.5.2 Policy
 - 5.3.5.2.1 Tax Exemption for Renewable Energy Users
- 5.3.6 SPAIN
 - 5.3.6.1 PV installations market forecast, 2016
- 5.3.7 FRANCE
- **5.3.8 GREECE**
- 5.4 ASIA-PACIFIC
 - 5.4.1 SOLAR PV MARKET
 - 5.4.2 SOLAR CSP MARKET
 - 5.4.3 JAPAN
 - 5.4.3.1 PV installations market forecast, 2016
 - 5.4.3.2 Post nuclear disaster scenario
 - 5.4.3.3 Export scenario
 - 5.4.3.4 Policy
 - 5.4.3.4.1 Subsidy for Residential PV Systems
 - 5.4.4 CHINA
 - 5.4.4.1 PV Installations Market Forecast, 2016
 - 5.4.4.2 Export scenario
 - 5.4.4.3 Policy
 - 5.4.4.3.1 Building Integrate Solar PV Program
 - 5.4.5 AUSTRALIA
 - 5.4.5.1 PV installations market forecast, 2016
 - 5.4.5.2 Policies
 - 5.4.5.2.1 Queensland Solar Bonus Scheme
 - 5.4.5.2.2 South Australian Feed-In Tariff Scheme
 - 5.4.5.2.3 Victorian Feed-In Tariff Scheme
 - 5.4.5.2.4 Solar Flagships Program
 - 5.4.5.2.5 Solar Credits
 - 5.4.5.2.6 Residential Net Feed-In Tariff For Western Australia



5.4.5.2.7 New South Wales Solar Bonus Scheme

5.5 ROW

- 5.5.1 SOLAR PV MARKET
- 5.5.2 CSP MARKET

6 COMPETITIVE LANDSCAPE

- 6.1 MERGERS & ACQUISITIONS
- 6.2 NEW PRODUCTS, DEMONSTRATIONS, AND R&D
- 6.3 PARTNERSHIPS, COLLABORATIONS & JOINT VENTURES
- **6.4 EXPANSIONS**
- 6.5 INVESTMENTS
- 6.6 OTHER COMPETITIVE DEVELOPMENTS

7 COMPANY PROFILES

- 7.1 ABENGOA SOLAR SA
 - 7.1.1 OVERVIEW
 - 7.1.2 PRODUCTS & SERVICES
 - 7.1.3 FINANCIALS
 - 7.1.4 STRATEGY
 - 7.1.5 DEVELOPMENTS
- 7.2 ACCIONA ENERGIA SA
 - 7.2.1 OVERVIEW
 - 7.2.2 PRODUCTS & SERVICES
 - 7.2.3 FINANCIALS
 - 7.2.4 STRATEGY
 - 7.2.5 DEVELOPMENTS
- 7.3 AREVA
 - 7.3.1 OVERVIEW
 - 7.3.2 PRODUCTS & SERVICES
 - 7.3.3 FINANCIALS
 - 7.3.4 STRATEGY
 - 7.3.5 DEVELOPMENTS
- 7.4 BORREGO SOLAR SYSTEM INC
 - 7.4.1 OVERVIEW
 - 7.4.2 PRODUCTS & SERVICES
 - 7.4.3 FINANCIALS
 - 7.4.4 STRATEGY



7.4.5 DEVELOPMENTS

7.5 BRIGHTSOURCE ENERGY INC

- 7.5.1 OVERVIEW
- 7.5.2 PRODUCTS & SERVICES
- 7.5.3 FINANCIALS
- 7.5.4 STRATEGY
- 7.5.5 DEVELOPMENTS
- 7.6 CANADIAN SOLAR INC
 - 7.6.1 OVERVIEW
 - 7.6.2 PRODUCTS & SERVICES
 - 7.6.3 FINANCIALS
 - 7.6.4 STRATEGY
 - 7.6.5 DEVELOPMENTS
- 7.7 ESOLAR INC
 - 7.7.1 OVERVIEW
 - 7.7.2 PRODUCTS & SERVICES
 - 7.7.3 FINANCIALS
 - 7.7.4 STRATEGY
 - 7.7.5 DEVELOPMENTS
- 7.8 EVERGREEN SOLAR INC
 - 7.8.1 OVERVIEW
 - 7.8.2 PRODUCTS & SERVICES
 - 7.8.3 FINANCIALS
 - 7.8.4 STRATEGY
 - 7.8.5 DEVELOPMENTS
- 7.9 FIRST SOLAR INC
 - 7.9.1 OVERVIEW
 - 7.9.2 PRODUCTS & SERVICES
 - 7.9.3 FINANCIALS
 - 7.9.4 STRATEGY
 - 7.9.5 DEVELOPMENTS
- 7.1 GINTECH ENERGY CORP
 - **7.10.1 OVERVIEW**
 - 7.10.2 PRODUCTS & SERVICES
 - 7.10.3 FINANCIALS
 - 7.10.4 STRATEGY
 - 7.10.5 DEVELOPMENTS
- 7.11 KYOCERA SOLAR
 - **7.11.1 OVERVIEW**



- 7.11.2 PRODUCTS & SERVICES
- 7.11.3 FINANCIALS
- 7.11.4 STRATEGY
- 7.11.5 DEVELOPMENTS
- 7.12 LDK SOLAR CO. LTD
 - 7.12.1 OVERVIEW
 - 7.12.2 PRODUCTS & SERVICES
 - 7.12.3 FINANCIALS
 - 7.12.4 STRATEGY
 - 7.12.5 DEVELOPMENTS
- 7.13 MOSER BAER INDIA LTD
 - 7.13.1 OVERVIEW
 - 7.13.2 PRODUCTS & SERVICES
 - 7.13.3 FINANCIALS
 - 7.13.4 STRATEGY
 - 7.13.5 DEVELOPMENTS
- 7.14 MOTECH INDUSTRIES INC
 - **7.14.1 OVERVIEW**
 - 7.14.2 PRODUCTS & SERVICES
 - 7.14.3 FINANCIALS
 - 7.14.4 STRATEGY
 - 7.14.5 DEVELOPMENTS
- 7.15 NEXTERA ENERGY SOURCES LLC
 - **7.15.1 OVERVIEW**
 - 7.15.2 PRODUCTS & SERVICES
 - 7.15.3 FINANCIALS
 - 7.15.4 STRATEGY
 - 7.15.5 DEVELOPMENTS
- 7.16 NOVATEC SOLAR
 - **7.16.1 OVERVIEW**
 - 7.16.2 PRODUCTS & SERVICES
 - 7.16.3 FINANCIALS
 - **7.16.4 STRATEGY**
 - 7.16.5 DEVELOPMENTS
- 7.17 RENESOLA LTD
 - **7.17.1 OVERVIEW**
 - 7.17.2 PRODUCTS & SERVICES
 - 7.17.3 FINANCIALS
 - **7.17.4 STRATEGY**



7.17.5 DEVELOPMENTS

7.18 SCHOTT SOLAR AG

- 7.18.1 OVERVIEW
- 7.18.2 PRODUCTS & SERVICES
- 7.18.3 FINANCIALS
- 7.18.4 STRATEGY
- 7.18.5 DEVELOPMENTS
- 7.19 SHARP CORP
 - 7.19.1 OVERVIEW
 - 7.19.2 PRODUCTS & SERVICES
 - 7.19.3 FINANCIALS
 - 7.19.4 STRATEGY
 - 7.19.5 DEVELOPMENTS
- 7.2 SIEMENS AG
 - 7.20.1 OVERVIEW
 - 7.20.2 PRODUCTS & SERVICES
 - 7.20.3 FINANCIALS
 - 7.20.4 STRATEGY
- 7.20.5 DEVELOPMENTS
- 7.21 SOLARWORLD AG
 - **7.21.1 OVERVIEW**
 - 7.21.2 PRODUCTS & SERVICES
 - 7.21.3 FINANCIALS
 - **7.21.4 STRATEGY**
 - 7.21.5 DEVELOPMENTS
- 7.22 SOLARRESERVE LLC
 - **7.22.1 OVERVIEW**
 - 7.22.2 PRODUCTS & SERVICES
 - 7.22.3 FINANCIALS
 - 7.22.4 STRATEGY
 - 7.22.5 DEVELOPMENTS
- 7.23 SUNPOWER CORP
 - **7.23.1 OVERVIEW**
 - 7.23.2 PRODUCTS & SERVICES
 - 7.23.3 FINANCIALS
 - **7.23.4 STRATEGY**
 - 7.23.5 DEVELOPMENTS
- 7.24 SOLAR MILLENNIUM AG
 - **7.24.1 OVERVIEW**



7.24.2 PRODUCTS & SERVICES

7.24.3 FINANCIALS

7.24.4 STRATEGY

7.24.5 DEVELOPMENTS

7.25 SUNTECH POWER HOLDING CO. LTD.

7.25.1 OVERVIEW

7.25.2 PRODUCTS & SERVICES

7.25.3 FINANCIALS

7.25.4 STRATEGY

7.25.5 DEVELOPMENTS

7.26 SUNWAYS AG

7.26.1 OVERVIEW

7.26.2 PRODUCTS & SERVICES

7.26.3 FINANCIALS

7.26.4 STRATEGY

7.26.5 DEVELOPMENTS

7.27 TATA BP SOLAR INDIA LTD

7.27.1 OVERVIEW

7.27.2 PRODUCTS & SERVICES

7.27.3 FINANCIALS

7.27.4 STRATEGY

7.27.5 DEVELOPMENTS

7.28 TESSERA SOLAR

7.28.1 OVERVIEW

7.28.2 PRODUCTS & SERVICES

7.28.3 FINANCIALS

7.28.4 STRATEGY

7.28.5 DEVELOPMENTS

7.29 TRINA SOLAR LTD

7.29.1 OVERVIEW

7.29.2 PRODUCTS & SERVICES

7.29.3 FINANCIALS

7.29.4 STRATEGY

7.29.5 DEVELOPMENTS

7.3 YINGLI GREEN ENERGY HOLDING CO. LTD

7.30.1 OVERVIEW

7.30.2 PRODUCTS & SERVICES

7.30.3 FINANCIALS

7.30.4 STRATEGY



7.30.5 DEVELOPMENTS

APPENDIX

U.S. PATENTS EUROPE. PATENTS JAPAN PATENTS



List Of Tables

LIST OF TABLES

TABLE 1 SOLAR POWER: NEW INSTALLATIONS, BY GEOGRAPHY, 2009 – 2016 (MW)

TABLE 2 RENEWABLE ENERGY GROWTH VS CLEAN ENERGY TARGETS TABLE 3 MAJOR PLAYERS IN GLOBAL SOLAR PHOTOVOLTAIC MARKET, BY INSTALLATIONS, 2010 (GW)

TABLE 4 CRYSTALLINE MODULE PRODUCTION, BY COMPANIES, 2010 Q3 (MW) TABLE 5 SOLAR THIN FILM PRODUCTION, BY COMPANIES, 2010 Q3 (MW) TABLE 6 SOLAR CELLS ANNUAL PRODUCTION, BY COMPANIES, 2008 – 2010 (MW)

TABLE 7 MAJOR PLAYERS IN GLOBAL CSP MARKET, BY PRODUCTION CAPACITY, 2010 (GW)

TABLE 8 VALUE CHAIN BY MANUFACTURING CAPACITY: CRYSTALLINE SILICON SOLAR PV, 2009

TABLE 9 MAJOR PLAYERS IN SOLAR PHOTOVOLTAIC SUPPLY CHAIN TABLE 10 GLOBAL PATENTS ON SOLAR PHOTOVOLTAIC TECHNOLOGIES, BY COMPANIES, 2007 – 2010

TABLE 11 NUMBER OF PATENTS FOR SOLAR PHOTOVOLTAIC TECHNOLOGIES, BY GEOGRAPHY, 2007 - 2010

TABLE 12 U.S: PATENTS FOR PHOTOVOLTAIC, BY TECHNOLOGIES, 2007 - 2010 TABLE 13 EUROPE: PATENTS FOR SOLAR PHOTOVOLTAIC, BY TECHNOLOGIES, 2007 – 2010

TABLE 14 JAPAN: PATENTS FOR SOLAR PHOTOVOLTAIC, BY TECHNOLOGIES, 2007 – 2010

TABLE 15 SOLAR POWER: CUMULATIVE INSTALLED CAPACITY, BY TECHNOLOGIES, 2009 – 2016 (MW)

TABLE 16 SOLAR PV ANNUAL INSTALLATIONS, BY GEOGRAPHY, 2009 – 2016 (MW)

TABLE 17 SOLAR PV MODULE MARKET REVENUE, BY GEOGRAPHY, 2009 – 2016 (\$MILLION)

TABLE 18 COMPARISON BETWEEN CRYSTALLINE AND THIN FILM SOLAR PV TABLE 19 SOLAR PHOTOVOLTAIC INSTALLATIONS, BY PRODUCT TYPES, 2009 - 2016 (MW)

TABLE 20 SOLAR PHOTOVOLTAIC INSTALLATIONS, BY PRODUCT TYPES, 2009 – 2016 (\$MILLION)

TABLE 21 COMPARISON BETWEEN DIFFERENT THIN FILM PV TYPES



TABLE 22 SOLAR THIN-FILM PHOTOVOLTAIC MARKET, BY PRODUCT TYPES, 2009 – 2016 (MW)

TABLE 23 SOLAR THIN-FILM PHOTOVOLTAIC MARKET, BY PRODUCT TYPES, 2009 – 2016 (\$MILLION)

TABLE 24 ADVANCED SOLAR CELL TECHNOLOGIES, BY CELL EFFICIENCY

TABLE 25 TYPES & SIZES OF SOLAR PV, BY APPLICATIONS

TABLE 26 GLOBAL SOLAR PV ANNUAL INSTALLATIONS, BY APPLICATIONS, 2009 – 2016 (MW)

TABLE 27 GLOBAL SOLAR PV MODULE MARKET, BY APPLICATIONS, 2009 – 2016 (\$MILLION)

TABLE 28 CUMULATIVE INSTALLATIONS, BY GEOGRAPHY, 2009 - 2016 (MW)

TABLE 29 COMPARISON BETWEEN CSP TECHNOLOGIES

TABLE 30 OPERATING, UNDER CONSTRUCTION & UNDER DEVELOPMENT CSP PROJECTS, BY COUNTRY, 2010

TABLE 31 GLOBAL CSP NEW INSTALLATIONS, BY COUNTRY, 2009 - 2016 (MW) TABLE 32 GLOBAL CSP NEW INSTALLATIONS' REVENUE, BY COUNTRY, 2009 - 2011 (\$MILLION)

TABLE 33 SOLAR CSP MARKET SHARE, BY TECHNOLOGIES, 2009 - 2016 (%) TABLE 34 SOLAR ENERGY ANNUAL INSTALLTIONS, BY GEOGRAPHY, 2009 – 2016 (MW)

TABLE 35 NORTH AMERICA: SOLAR ENERGY INSTALLATIONS, BY TECHNOLOGIES, 2009 – 2016 (MW)

TABLE 36 NORTH AMERICA: SOLAR ENERGY MARKET REVENUE, BY TECHNOLOGIES, 2009 – 2016 (\$MILLION)

TABLE 37 NORTH AMERICA: SOLAR POWER INSTALLATIONS, BY COUNTRY, 2009 – 2016 (MW)

TABLE 38 NORTH AMERICA: SOLAR POWER MARKET REVENUE, BY COUNTRY, 2009 – 2016 (\$MILLION)

TABLE 39 NORTH AMERICA: SOLAR PV INSTALLATIONS, BY COUNTRY, 2009 - 2016 (MW)

TABLE 40 NORTH AMERICA: SOLAR PV MARKET REVENUE, BY COUNTRY, 2009 - 2016 (\$MILLION)

TABLE 41 U.S: SOLAR POWER INSTALLATIONS, BY STATES, 2010 (MW)

TABLE 42 U.S: SOLAR POWER INSTALLATIONS, BY TECHNOLOGIES, 2009 – 2016 (MW)

TABLE 43 U.S: SOLAR POWER MARKET REVENUE, BY TECHNOLOGIES, 2009 – 2016 (\$MILLION)

TABLE 44 U.S: NATIONAL WEIGHTED PV SYSTEM AVERAGE PRICE (\$/WATT)

TABLE 45 U.S: PV WAFER, CELL & MODULE PRODUCTION, 2010 (MW)



TABLE 46 SAN FRANCISCO: SOLAR ENERGY INCENTIVES, BY PROPERTY SIZE

TABLE 47 CANADA: SOLAR POWER MARKET, 2009 - 2016

TABLE 48 EUROPE: SOLAR POWER INSTALLATIONS, BY TECHNOLOGIES, 2009 – 2016 (MW)

TABLE 49 EUROPE: SOLAR POWER MARKET REVENUE, BY TECHNOLOGIES, 2009 – 2016 (\$MILLION)

TABLE 50 EUROPE: SOLAR POWER ANNUAL INSTALLATIONS, BY COUNTRY, 2009 – 2016 (MW)

TABLE 51 EUROPE: SOLAR POWER MARKET REVENUE, BY COUNTRY, 2009 – 2016 (\$MILLION)

TABLE 52 EUROPE: SOLAR PV ANNUAL INSTALLATIONS, BY COUNTRY, 2009 - 2016 (MW)

TABLE 53 EUROPE: SOLAR PV MARKET REVENUE, BY COUNTRY, 2009 - 2016 (\$MILLION)

TABLE 54 GERMANY: NEW SOLAR PV INSTALLATIONS, BY CAPACITY, 2010

TABLE 55 GERMANY: NEW SOLAR PV INSTALLATIONS, BY APPLICATIONS, 2010

TABLE 56 GERMANY: SOLAR PV MARKET, 2009 - 2016

TABLE 57 GERMANY: FEED-IN TARIFF ON ROOF TOP SOLAR PV INSTALLATIONS

TABLE 58 ITALY: SOLAR PV NEW INSTALLATIONS, BY REGION, 2010 (MW)

TABLE 59 ITALY: SOLAR PV CUMULATIVE INSTALLATIONS, BY CAPACITY, 2010

TABLE 60 ITALY: SOLAR POWER MARKET, 2009 - 2016

TABLE 61 ITALY: DECREASE IN FEED-IN TARIFF, 2011

TABLE 62 CZECH REPUBLIC: SOLAR PV MARKET, 2009 – 2016

TABLE 63 SPAIN: SOLAR POWER NEW INSTALLATIONS, BY TECHNOLOGIES, 2009 - 2016 (MW)

TABLE 64 SPAIN: SOLAR POWER MARKET, BY TECHNOLOGIES, 2009 - 2016 (\$MILLION)

TABLE 65 ASIA-PACIFIC: SOLAR PV NEW INSTALLATIONS, BY COUNTRY, 2009 - 2016 (MW)

TABLE 66 ASIA-PACIFIC: SOLAR PV MARKET REVENUE, BY COUNTRY, 2009 - 2016 (\$MILLION)

TABLE 67 JAPAN: SOLAR POWER MARKET, 2009 – 2016

TABLE 68 JAPAN: ELECTRICITY PRODUCTION, BY ENERGY SOURCES, 2008

TABLE 69 CHINA: SOLAR PV MARKET, 2009 – 2016

TABLE 70 CHINA: SOLAR PV MODULE CAPACITY EXPANSION, BY COMPANIES, 2009 – 2010 (MW)

TABLE 71 AUSTRALIA: SOLAR PV NEW INSTALLATIONS, BY STATES, 2010 (MW)

TABLE 72 AUSTRALIA: SOLAR PV NEW INSTALLATIONS, BY TYPES, 2010 (MW)

TABLE 73 AUSTRALIA: SOLAR ENERGY MARKET, 2009 – 2016



TABLE 74 ROW: SOLAR PV MARKET, 2009 - 2016

TABLE 75 MERGERS & ACQUISITIONS, 2008 - 2011

TABLE 76 NEW PRODUCTS, DEMONSTRATIONS, AND R&D, 2008 – 2011

TABLE 77 PARTNERSHIPS, COLLABORATIONS & JOINT VENTURES, 2008 - 2011

TABLE 78 EXPANSIONS, 2008 - 2011

TABLE 79 INVESTMENTS, 2008 – 2011

TABLE 80 OTHER COMPETITIVE DEVELOPMENTS, 2008 - 2011

TABLE 81 ABENGOA SOLAR: MARKET REVENUE, 2009 – 2010 (\$MILLION)

TABLE 82 ACCIONA ENERGIA: MARKET REVENUE, BY SEGMENT, 2009 - 2010 (\$MILLION)

TABLE 83 AREVA: MARKET REVENUE, BY RENEWABLE ENERGY SEGMENT, 2009 - 2010 (\$MILLION)

TABLE 84 AREVA: MARKET REVENUE, BY SOLAR POWER SEGMENT, 2009 - 2010 (\$MILLION)

TABLE 85 CANADIAN SOLAR: MARKET REVENUE, 2008 - 2010 (\$MILLIION)

TABLE 86 CANADIAN SOLAR: MARKET REVENUE, BY GEOGRAPHY, 2008 - 2010 (\$MILLION)

TABLE 87 EVERGREEN SOLAR: MARKET REVENUE, 2009 - 2010 (\$MILLION) TABLE 88 EVERGREEN SOLAR: MARKET REVENUE, BY GEOGRAPHY, 2009 - 2010 (\$MILLION)

TABLE 89 FIRST SOLAR: MARKET REVENUE, 2008 - 2010 (\$MILLION)

TABLE 90 FIRST SOLAR: REVENUE ANALYSIS, BY SEGMENTS, 2008 - 2010 (\$MILLION)

TABLE 91 FIRST SOLAR: MARKET REVENUE, BY GEOGRAPHY, 2008 - 2010 (\$MILLION)

TABLE 92 GINTECH: MARKET REVENUE, 2009 – 2010 (\$MILLION)

TABLE 93 KYOCERA SOLAR: MARKET REVENUE, 2010 - 2011 (\$MILLION)

TABLE 94 LDK SOLAR: MARKET REVENUE, 2008 - 2010 (\$MILLION)

TABLE 95 LDK SOLAR: MARKET REVENUE, BY SEGMENTS, 2008 - 2010 (\$MILLION)

TABLE 96 LDK SOLAR: MARKET REVENUE, BY GEOGRAPHY, 2008 – 2010 (\$MILLION)

TABLE 97 MOSER BAER: MARKET REVENUE, 2009 - 2010 (\$MILLION)

TABLE 98 MOTECH INDUSTRIES: MARKET REVENUE, 2009 - 2010 (\$MILLION)

TABLE 99 MOTECH INDUSTRIES: MARKET REVENUE, BY SEGMENTS, 2009 - 2010 (\$MILLION)

TABLE 100 NEXTERA: MARKET REVENUE, 2008 - 2010 (\$MILLION)

TABLE 101 RENESOLA: MARKET REVENUE, 2008 – 2010 (\$MILLION)

TABLE 102 RENESOLA: MARKET REVENUE, BY SEGMENTS, 2008 - 2010



(\$MILLION)

TABLE 103 SHARP CORPORATION: MARKET REVENUE, BY SEGMENT, 2009 - 2010 (\$MILLION)

TABLE 104 SIEMENS AG: MARKET REVENUE, BY SEGMENT, 2009 - 2010 (\$MILLION)

TABLE 105 SOLARWORLD: MARKET REVENUE, 2009 - 2010 (\$MILLION)

TABLE 106 SOLARWORLD: MARKET REVENUE, BY SEGMENTS, 2009 - 2010 (\$MILLION)

TABLE 107 SOLARWORLD: MARKET REVENUE, BY GEOGRAPHY, 2009 - 2010 (\$MILLION)

TABLE 108 SUNPOWER CORP: MARKET REVENUE, 2008 - 2010 (\$MILLION)

TABLE 109 SUNPOWER CORP: MARKET REVENUE, BY SEGMENTS, 2008 – 2010 (\$MILLION)

TABLE 110 SOLAR MILLENNIUM: MARKET REVENUE, 2009 - 2010 (\$MILLION)

TABLE 111 SUNTECH: MARKET REVENUE, 2008 - 2010 (\$MILLION)

TABLE 112 SUNTECH: MARKET REVENUE, BY SEGMENTS, 2008 - 2010 (\$MILLION)

TABLE 113 SUNTECH: MARKET REVENUE, BY GEOGRAPHY, 2008 – 2010

TABLE 114 SUNWAYS AG: MARKET REVENUE, 2008 - 2010 (\$MILLION)

TABLE 115 SUNWAYS AG: MARKET REVENUE, BY SEGMENTS, 2009 - 2010 (\$MILLION)

TABLE 116 SUNWAYS AG: MARKET REVENUE, BY GEOGRAPHY, 2009 – 2010 (MILLION)

TABLE 117 TRINA SOLAR: MARKET REVENUE, 2008 - 2010 (\$MILLION)

TABLE 118 TRINA SOLAR: MARKET REVENUE, BY GEOGRAPHY, 2008 - 2010 (\$MILLION)

TABLE 119 YINGLI: MARKET REVENUE, 2008 – 2010 (\$MILLION)

TABLE 120 YINGLI: MARKET REVENUE, BY SEGMENTS, 2008-2010 (\$MILLION)

TABLE 121 YINGLI: MARKET REVENUE, BY GEOGRAPHY, 2008 - 2010 (\$MILLION)



List Of Figures

LIST OF FIGURES

FIGURE 1 PARENTAL STRUCTURE OF SOLAR ENERGY

FIGURE 2 GLOBAL SOLAR ENERGY INSTALLED CAPACITY, 2009 – 2016 (GW)

FIGURE 3 GHG EMISSION IN ELECTRICITY PRODUCTION, BY SOURCES, 2010

FIGURE 4 OPERATIONS & MAINTENANCE COSTS, BY ENERGY SOURCES, 2009

FIGURE 5 COST OF ELECTRICITY GENERATION: SOLAR VS OTHER SOURCES, 2009

FIGURE 6 CAPACITY UTILIZATION FACTOR, BY ENERGY SOURCES, 2009 (%)

FIGURE 7 MARKET SHARE OF KEY PLAYERS IN GLOBAL SOLAR PHOTOVOLTAIC MARKET, 2010

FIGURE 8 CRYSTALLINE PV MODULE MANUFACTURER'S MARKET SHARE, BY PRODUCTION VOLUME, 2010 Q3 (%)

FIGURE 9 THIN FILM MODULE MANUFACTURER'S MARKET SHARE, BY PRODUCTION VOLUME, 2010 Q3 (%)

FIGURE 10 SOLAR CELLS MANUFACTURER'S MARKET SHARE, BY PRODUCTION, 2008 VS 2010

FIGURE 11 MARKET SHARE OF KEY PLAYERS IN GLOBAL CSP MARKET, 2010

FIGURE 12 SOLAR PV VALUE CHAIN

FIGURE 13 CONCENTRATED SOLAR THERMAL (CSP) VALUE CHAIN

FIGURE 14 PORTER'S FIVE FORCES MODEL FOR SOLAR ENERGY MARKET

FIGURE 15 SOLAR PHOTOVOLTAIC SYSTEM - COST BREAK-UP. 2010

FIGURE 16 SOLAR PV MODULE - SELLING PRICE, COST & PROFIT MARGIN, 2007 – 2010 (\$/W)

FIGURE 17 PV MODULE COST COMPARISON, BY GEOGRAPHY, 2010 (\$/W)

FIGURE 18 PRICE & COST TREND, BY GEOGRAPHY, 2009 – 2016 (\$/W)

FIGURE 19 SOLAR THERMAL SYSTEM - COST BREAK-UP, 2010

FIGURE 20 CONCENTRATED SOLAR THERMAL - PRICE TRENDS, 2008 – 2016 (\$/WATT)

FIGURE 21 SOLAR PV TECHNOLOGIES

FIGURE 22 CROSS SECTION OF A CDTE CELL

FIGURE 23 ORGANIC PV CELL

FIGURE 24 DYE-SENSITIZED SOLAR CELL

FIGURE 25 THIN FILM MULTI-JUNCTION SOLAR CELLS

FIGURE 26 PARABOLIC TROUGH CONCEPT

FIGURE 27 LINEAR FRESNEL REFLECTOR CONCEPT

FIGURE 28 SOLAR TOWER CONCEPT



FIGURE 29 PARABOLIC DISH CONCEPT

FIGURE 30 GLOBAL CSP INSTALLATIONS, BY TECHNOLOGIES, 2011 & 2016 (MW)

FIGURE 31 GLOBAL SOLAR POWER CUMULATIVE INSTALLED CAPACITY, 2009 – 2016 (MW)

FIGURE 32 SOLAR POWER INSTALLED CAPACITY MARKET SHARE, BY MAJOR COUNTRY, 2010

FIGURE 33 U.S: IMPORT MARKET SHARE, BY EXPORTERS, 2006 – 2010 (%)

FIGURE 34 SOLAR PV EXPORT TO THE U.S., BY IMPORTERS, 2006 – 2010 (%)

FIGURE 35 GERMANY: CUMULATIVE SOLAR PV INSTALLED CAPACITY, 2009 – 2016 (MW)

FIGURE 36 GERMANY: SOLAR PV ELECTRICITY PRODUCTION, 2004 – 2010 (GWH)

FIGURE 37 GERMANY: ELECTRICITY PRODUCTION, BY SOURCES, 2010 (%)

FIGURE 38 ITALY: SOLAR PV CUMULATIVE INSTALLED CAPACITY, 2009 – 2016 (MW)

FIGURE 39 SPAIN: SOLAR POWER CUMULATIVE INSTALLED CAPACITY, BY TECHNOLOGIES, 2009 - 2016 (MW)

FIGURE 40 JAPAN: SOLAR PV CUMULATIVE INSTALLED CAPACITY, 2009 – 2016 (MW)

FIGURE 41 JAPAN: SOLAR PV SHIPMENTS, 2004 – 2010 (GW)

FIGURE 42 CHINA: POWER GENERATION, BY SOURCES, 2009

FIGURE 43 COMPETITIVE DEVELOPMENTS, 2008 - 2011

FIGURE 44 MERGERS & ACQUISITIONS, 2008 – 2011

FIGURE 45 NEW PRODUCTS, DEMONSTRATIONS, AND R&D, 2008 - 2011

FIGURE 46 PARTNERSHIPS, COLLABORATIONS & JOINT VENTURES

FIGURE 47 EXPANSIONS, 2008 - 2011

FIGURE 48 INVESTMENTS, 2008 - 2011



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