



Company Profile

2014.01

About Hareon Solar



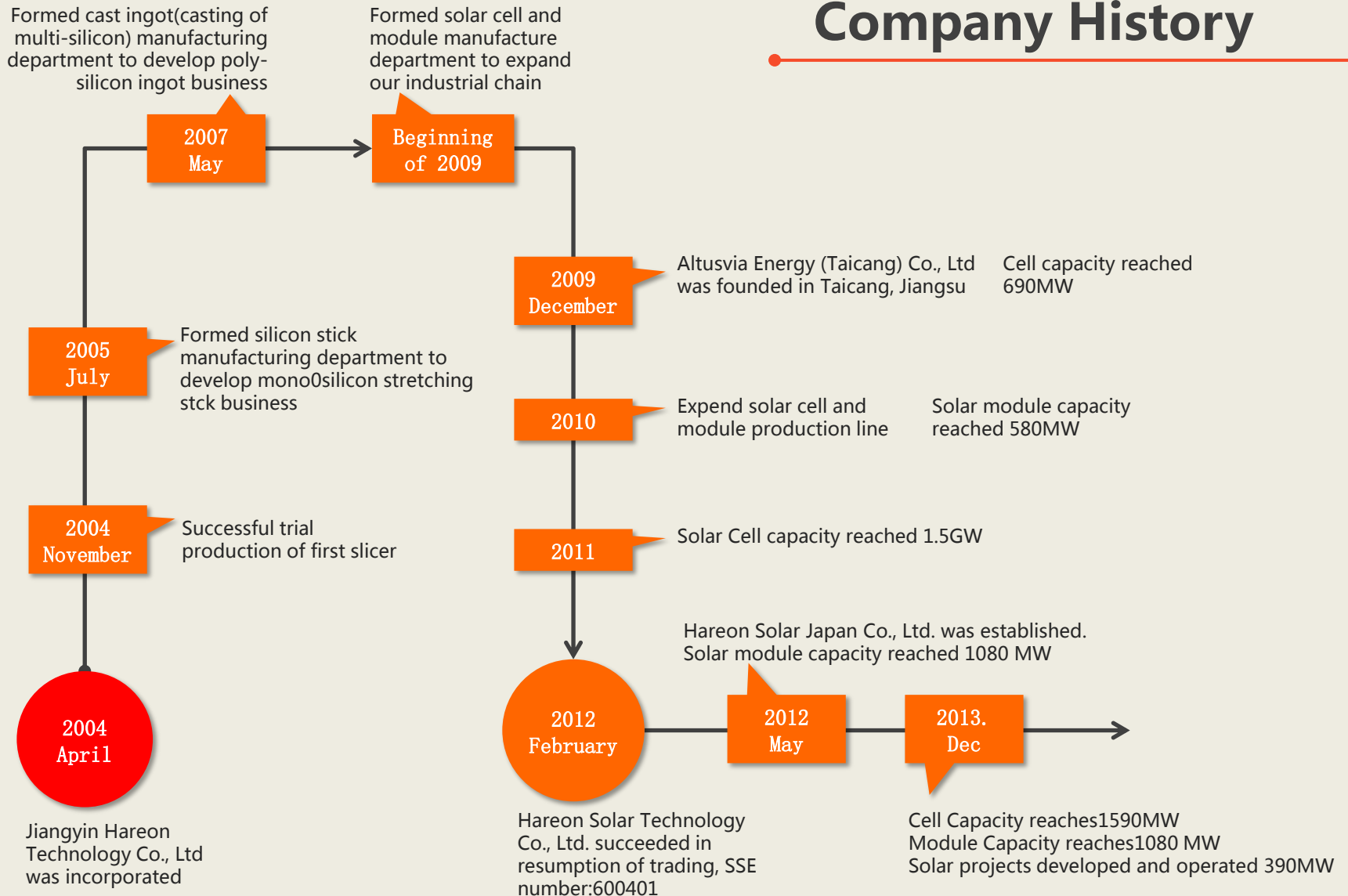
Hareon Solar Technology Co., Ltd. (**Hareon**) devotes its efforts to developing green and clean renewable energy sources. It is a fully integrated solar company exhibiting prowess throughout the industry value chain, renowned for the quality of its production and services.

Hareon, as one of the largest silicon cell and module production enterprises in China, is focused on high-end research and development, producing and selling silicon ingot, rod, wafer, cell and solar modules that exceed customer expectations.

Hareon is a major developer of high quality solar power plants providing long term sustainable returns to serious investors.

Hareon distributed photovoltaic system can transform solar energy into electricity directly through solar modules. Our distributed photovoltaic system is developing rapidly in the field of commercial and residential use because of its flexibility, reliability and convenience

Company History



Sales Network



Hareon Solar has sales network covered all over the world. Products are being exported to Germany, Spain, Italy, France and other European countries as well as the United States, Korea, India, Australia, Japan and other emerging photovoltaic markets. In the United States, Germany, Switzerland, Italy, South Korea, Japan have set up branches, and established many wholly-owned or invested solar project firms national wide and abroad.

Manufacture Sites



Hefei

Cell



**Jiangyin
Huangtang**

Wafer / Module



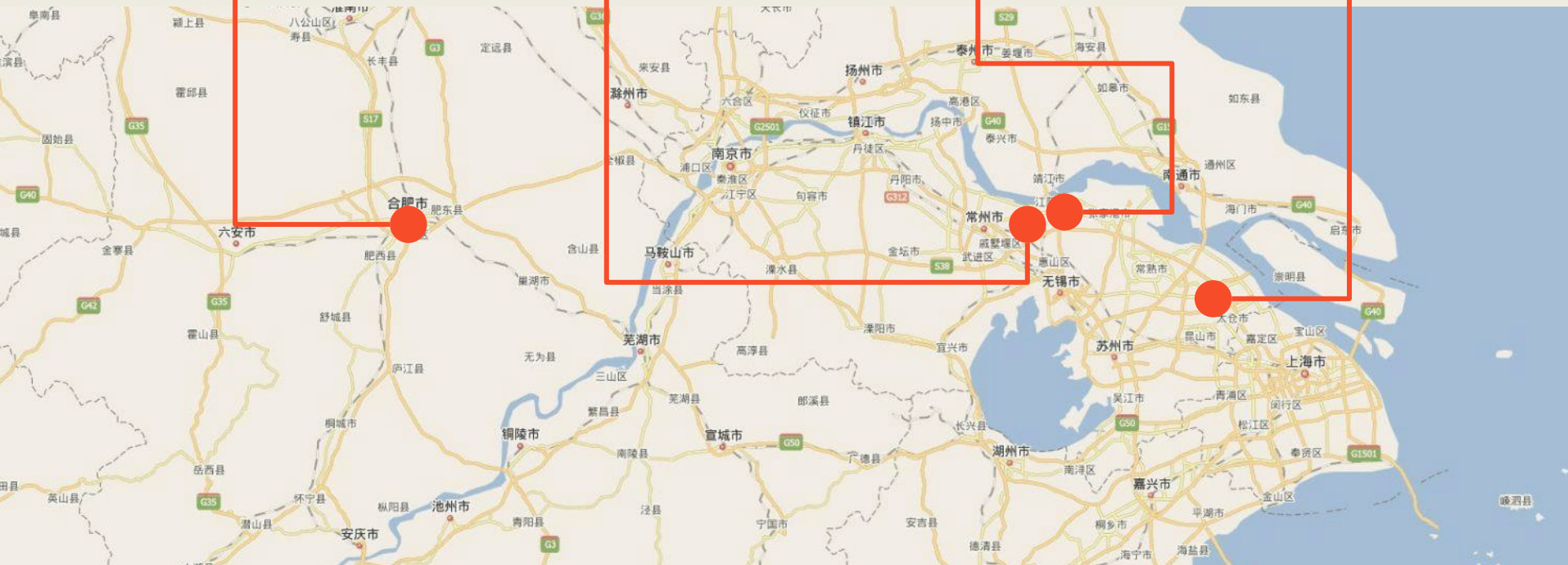
Jiangyin Xinqiao

Cell / Module



Taicang

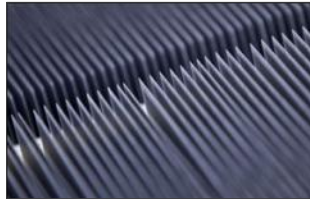
Cell / Module / R&D



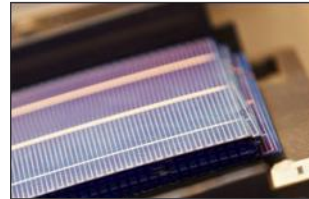
Products & Capacity



Polysilicon



Wafer



Solar Cell



Solar Module



Solar System

Wafer

Cell

Module

Project

2013

508MW

1590MW

1080MW

394MW

2014

508MW

1590MW

1020MW

600MW

※Actual grid connected

Research & Development

Major achievements include

Since its founding, Hareon Solar has attached great importance to self-sufficiency, by conducting its own, independent development of technologies and innovative new products. The company has created a world-class R & D center that reflects its vertical integration—in its advanced laboratories it invents and develops products for every stage of the production of PV products, from silicon ingots, wafers, cells, modules, to complete PV systems. The team works closely with leading scientific research institutes worldwide, and maintains a leading position in the latest developments in photovoltaic technology.

Recognized as “Provincial Engineering and Research Center” by Jiangsu DRC in 2010.

Recognized as “National High Efficiency Crystalline Solar Cell R&D Center” by NDRC in 2011.

Included in the 2013 National “863 Program” for Ink-Jet printing technology.

Filed 287 photovoltaic patents through end of 2013.

Demonstrated multi-crystalline cell efficiencies up to 19.0%.

Demonstrated mono-crystalline cell efficiencies up to 20.04%.

Research & Development

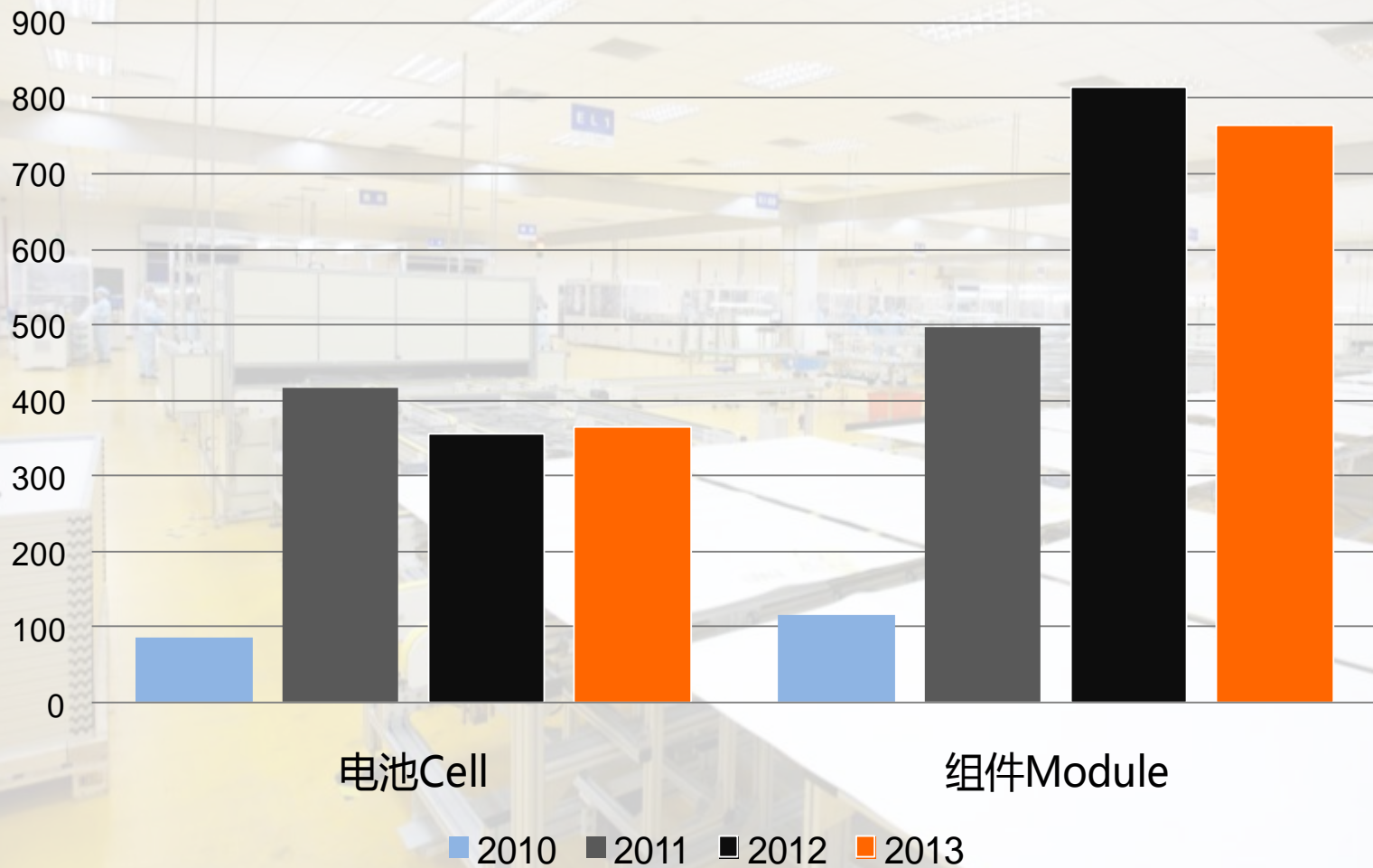
Laboratories

Hereon has established an advanced Research and Development center, including a physical characterization lab, wet chemistry lab, and reliability testing lab. The labs are equipped with today's most advanced testing equipment, and provide testing and consulting services for industrial technology development.

Pilot Lines

Hereon's R&D department has set up two pilot production lines, enabling our scientists to run trials to observe, generate data, and test the development of new cell technologies. The pilot lines reduce risk and facilitate the transition from R&D to mass production.

Business Performance





2013

Global Leading PV Manufacturer

Hareon Solar added to Bloomberg New Energy Finance (BNEF) Tier-1 List

2013 Cell Capacity	Company Name	Compare with 2012
1	Yingli Green Energy	+1
2	JA Solar	+1
3	Trina Solar	+1
4	Neo Solar Power (w/DeiSolar)	+3
5	First Solar	-4
6	Motech	-
7	Jinko Solar	+4
8	Gintech	+2
9	Canadian Solar	-1
10	Hareon Solar Technology	-1

SOURCE: 2013 NPD Solarbuzz

Business Category

Solar Cell



Solar Module



Solar Project



High Efficient Solar Cell

High conversion efficiency and stable output

Unique texturing process improves cell short-circuit current

Advanced diffusion technology results in more uniform sheet resistance, reducing cell series resistance and improving conversion efficiency

Advanced PECVD technology provides uniform, dark blue silicon nitride antireflection coating

High resolution screen printing and improved finger pattern makes soldering and laser-cutting easier

High Performance Solar Module

- Certified to IEC 61215 and 61730 standards
- Specified module BOM supports installations around the world
- Passed tests to meet market requirements for all-weather conditions: PID, salt-mist, ammonia resistance, hail, and sand
- Meets fire rating regulations
- 0 to +5 W positive power tolerance, ensuring competitive power generation
- Current sub-binning in 0.1 A bins, reducing mismatch losses in the system
- IP67 rated junction box supports multi-angle installation

Business Category – Solar Module

90% power output over 12 yrs

80% power output over 25 yrs

Free from defects in materials and workmanship for 10 years

No more than 3%
peak power degradation in
1ST YEAR

No more than 0.7% peak
power degradation in coming
24 YEARS

Free from defects of
materials and workmanship for
10 YEARS



Business Category – **Module Sales**

Module Sales



Solar Projects



Partners



Module Sales

Module Sales



Location: WA Australia
Installation date: 2013
System Type: Commercial Rooftop
Module Type: Mono 250W
System Size: 40KW



Tasmania Australia
2013
System Type: Residential Rooftop
Module Type: Mono 200W
System Size: 5.4KW



VIC Australia
2013
System Type: Commercial Rooftop
Module Type: Mono 250MW
System Size: 30KW



Module Sales

Germany
2010
Ground
Mono 180W
132KW
DOMUILUX Leuchten GmbH



Germany
2010
Ground
Multi 230W
2.2MW
P+M



Albuquerque New Mexico
2010
Ground
Multi 220W
2.50KW
Nicor Solar



Germany
Mono 180W
7.2 KW



NSW
Mono 185W
3KW



Victoria
Mono 185W
2.2KW



Tarranto, Italy
2009
Ground
Mono 180W
1.05MW
Finsolare.r.I Project



Rotthalmünster, Germany
2009
Ground
Mono 175W
1.5MW
EEPro GmbH



Singleton NSW
2010
Ground
Mono 185W
10KW
Installation Partner: Sunarise



NSW
Mono 185W
1.5 KW



NSW
Mono 175W
5KW



NSW
Mono 170W
10.2KW

Solar Projects

Strategy-Solar Projects

Diligence, A Commitment to
Quality & Performance, Strong Partners



Overseas Solar Projects



Location	System Size (MW)		
	Operating	Under Construction	Total
Italy	13.08	/	13.08
U.S.A	/	0.5	0.5
Bulgaria	90.68	/	90.68
Romania	4.1	55	59.1
Japan	2.3	/	2.3

Partners



Solar Projects Cases

WA Australia

40KW


Location WA Australia

Investment Partner	Hareon(Switzerland) holding corporation
Land Size	260 square meters
System Type	Ground
Power Company	EVN
EPC Partner	EEPro GmHH
Construction Period	Oct. 2011~Dec. 2011

Solar Projects Cases

Karlovo project, Bulgaria

4.89MW



Location	Karlovo, Bulgaria
Investment Partner	Hareon(Switzerland) holding corporation
Land Size	13.6 hectare
System Type	Ground
Power Company	EVN
EPC Partner	EEPro GmhH
Construction Period	October 2011 – December 2011

Solar Projects Cases

Kolarovo project, Bulgaria

5.88MW



Location Glavinitsa, Bulgaria(Kolarovo)

Investment Partner	Hareon(Switzerland) holding corporation
Land Size	17.4 hectare
System Type	Ground
Power Company	EON
EPC Partner	ABB,Conecon
Construction Period	December 2011 – March 2012

Solar Projects Cases

Pobeda, Bulgaria

50.61MW

Second largest ground system solar projects in Bulgaria

Location Dolna Mitropolia, Bulgaria (Pobeda)

Investment Partner	Hareon(Switzerland) holding corporation
Land Size	101,7 hectare
System Type	Ground
Power Company	NEK
EPC Partner	ABB,Conecon
Construction Period	December 2011 – May 2012

Solar Projects Cases

Cassano, Italy

13.08MW



Location Cosenza Calabria, Italy

Investment Partner Hareon Solar GMBH

System Type Green House

Power Company ENEL


EPC Partner Greenvision Ambiente Photo-Solar Srl

Construction Period September 2011 – March 2012

Solar Projects Cases

Cherganovo, Bulgaria

29.30MW



Location	Kazanluk, Bulgaria (Cherganovo)
Investment Partner	Hareon(Switzerland) holding corporation
Land Size	60 hectare
System Type	Ground
Power Company	NEK
EPC Partner	ABB, Conecon
Construction Period	April 2012 – June 2012

Solar Projects Cases

Kama, Fukuoka, Japan

2.3MW

Location	Kama, Fukuoka, Japan
System Size	2.3 MW
System type	Ground
Utility Company	Kyushu Electric Power
EPC	Fuji Electric NSENGI
Module Type	SCHOTT POWER POLY 245W
PCS	Fuji Electric PCS DC 1000
Mounting system	NISSO PRONITY
grid-connected time	March. 2014
Power generate/year	1115 kWh/kW/year
FIT (JPY)	42 JPY/kWh

Solar Projects Cases

Futami, Japn

1.87MW

Location Futami Japan

Investment Partner	JSP
Land Size	3000 square meter
System Type	Ground
Power Company	四国電力会社
EPC Partner	轟組
Construction Period	2012 – Sept , 2013

National Projects

Operating Projects

158.056

Under Construction

348.97

Pipeline

629

Total **1136.026**MWp

Solar Projects Cases

Huangtang, Jiangyin Province

1.07MW

Location Huangtang, Jiangyin Province

Investment Partner Hareonsolar

System Type Rooftop

Land Size 8000m²

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Solar Projects Cases

De Lin Ha, Qinghai Province

20.40MW



Location De Lin Ha, Qinghai Province

Investment Partner Guodian Hareon Joint venture

System Type Ground

Land Size 480000 m²

Solar Projects Cases

Taixing, Jiangsu Province

8.97MW

Location Taixing, Jiangsu Province

Investment Partner Hareon Solar

System Type Rooftop

Land Size 83000m²

Solar Projects Cases

Jiangyin, Jiangsu province

3.792MW

Location Jiangyin, Jiangsu province

Investment Partner Hareon Solar

System Type Rooftop

Land Size 31777m²

Solar Projects Cases

Wuwei, Gansu Province

50MW



Location Wuwei, Gansu Province

Investment Partner Altusvia Wuwei

System Type Ground

Land Size 1066666m²

Solar Projects Cases

2nd phase Solar project, Germu,
Qinghai Province

20MW



Location	Germu, Qinghai Province
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Investment Partner	Guodian Hareon Joint Venture
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System Type	Ground
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Land Size	480000 m ²
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Solar Projects Cases

Dunhuang, Gansu Province

9MW



Location Dunhuang, Gansu Province

Investment Partner Guodian Hareon Joint Venture

System Type Ground

Land Size 236800m²

2012/08/01

Solar Project Plan

For the next 3 yrs

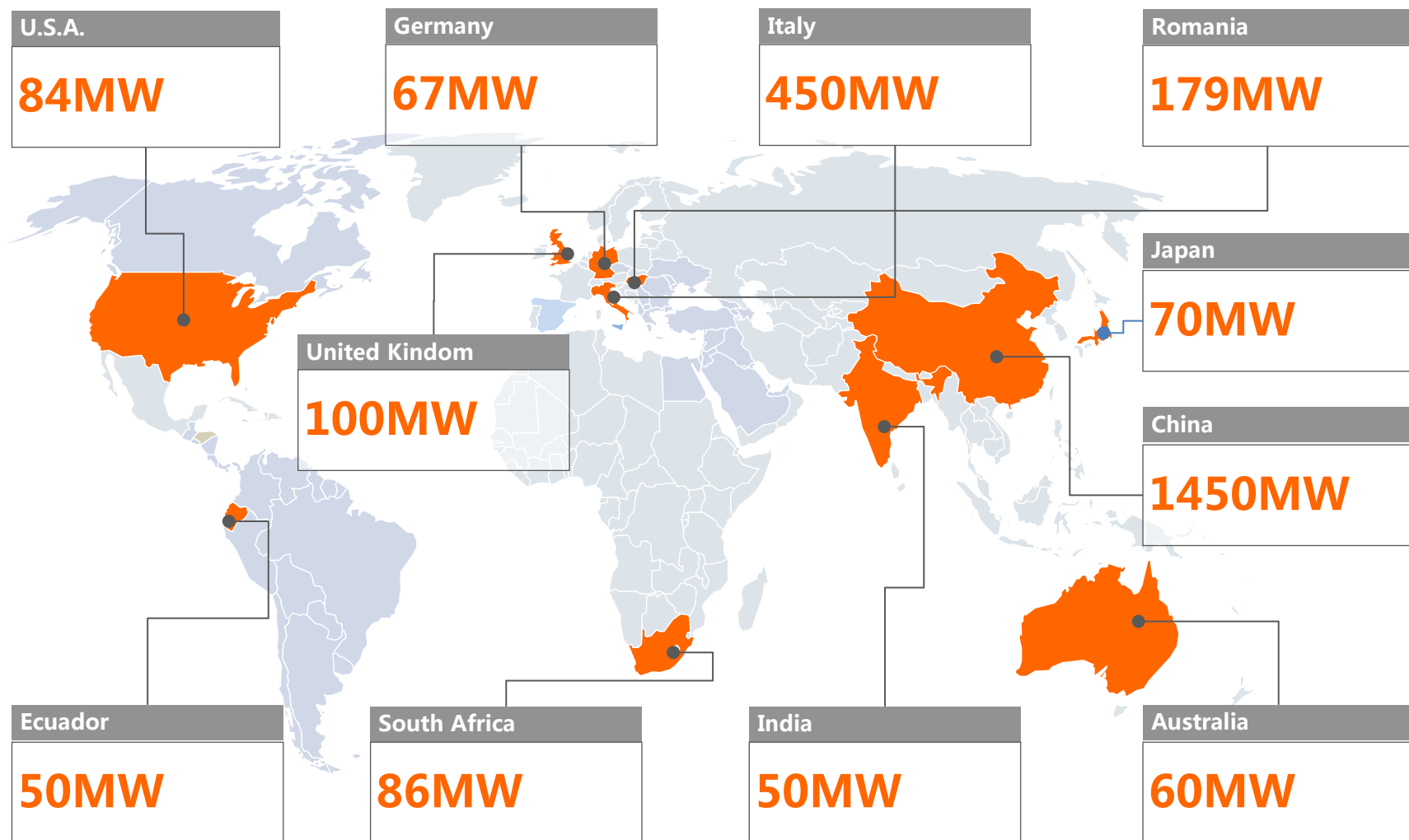
20 Billion

RMB will be invested in
solar projects within
Mainland China.

4 Billion

Euro will be invested
in solar projects
overseas.

Project Pipeline ~3GW



THANK YOU !

