



Turning renewables into a success

Bangkok, 20 October 2016



r.e.sponsible for your success

BayWa r.e.	about us
Projects	r.e.flecting our know-how
Service	r.e.levant for your project
PV trade	r.e.liable for our partners
Energy trading	r.e.newables for your energy
Future	r.e.inventing power

Our mission:

Making energy better

-
- Accessible and affordable for everyone.
 - Emission-free and environmentally compatible.
 - Reliable and manageable.
 - Decentralised and, of course: renewable.
-

These are the aims that inspire our 950 plus staff
as they go about their daily business
ensuring the success of our customers.

BayWa r.e. in figures – dynamic growth and sustainable profitability



TURNOVER 2015

€ 1 billion
Euro

EBIT 2015

€ 61.8 million
Euro

EMPLOYEES

950
(As at March 2016)

FOUNDED

2009

Gathering our combined market experience
under the BayWa r.e. umbrella

EXPERIENCE

In excess of
1380 MW
from solar, wind power, bio-energy
and geothermal energy

COMPANY

Wholly owned subsidiary
of BayWa AG

Dynamic growth under the umbrella of a stable parent company



TURNOVER 2015

€14.9 billion
Euro

EBIT 2015

€158.1 million
Euro

EMPLOYEES

16,600
(As at end 2015)

FOUNDED

1923

CORE SEGMENT

Agriculture, energy,
construction

LOCATIONS

More than 3000
locations
in 28 countries

The way ahead lies in a sound energy mix



WIND ENERGY



We provide experience in the development and realisation of wind farms with an installed capacity of over **1000 MW**.



SOLAR ENERGY



We have brought solar farms with an output of more than **470 MWp** to the grid.

We have supplied our installers with solar modules with a total output of **1000 MWp**.



BIOENERGY



We have already developed and set up 30 biogas and biomethane plants with a total output of approx. **37 MW**.



GEOHERMAL ENERGY



We started on the development of geothermal projects back in **2004**. And this experience helps us to advise our customers.

Approx. 2,028 MW under our operations management

Solutions for our customers' requirements

Generating renewable energy



Solutions for:

Investors and project developers, power supply utilities and city technical services, public facilities, industry and commerce, land, home and roof owners and farmers

Investing in renewable energy



Solutions for:

Institutional investors, power supply utilities and city technical services

Trading in renewable energy



Solutions for:

Plant operators, industry and commerce, farmers, private households

Operating plants successfully



Solutions for:

Operators of wind farms, solar plants and bio-energy installations

Buying PV components



Solutions for:

Solar installers, project engineers, city technical services, builders merchants and manufacturers of prefabricated houses

Operating sustainably



Solutions for:

All customers interested in sustainable orientation of their business and their energy consumption

Specialised business units for an integrated service

Projects



Project development
and implementation



Services

Engineering and
technical consulting



Operations management
and plant maintenance



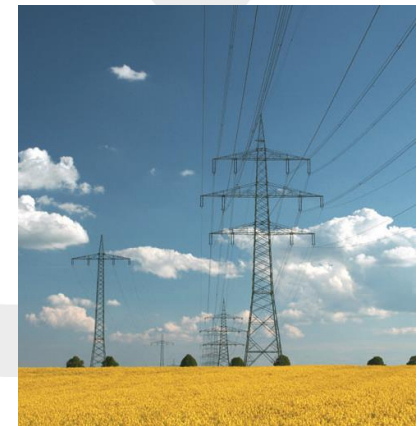
PV trade



Systems and components

Energy trading

Energy
(power, gas, heat)



Milestones to becoming a global player

INTERNATIONAL EXPANSION



Start of renewables business in **Germany** and **Spain** with initial acquisitions by BayWa AG

Expansion of project business and entry into the **French market** through acquisition of a majority shareholding in RENERCO AG

2009

Formation of a holding company to bundle activities in the **PV projects, wind power projects, bio-energy and geothermal energy** business sectors

Entry into the **US market** of PV trade in solar components through acquisition of Focused Energy LLC

Entry into **the business of trading in solar components** through acquisition of MHH Solartechnik GmbH

2010

Expansion of **bio-energy** portfolio through acquisition of Schraden Biogas GmbH

Entry into the **Italian** market of trading in solar components through acquisition of TecnoSpot GmbH

Entry into the **Austrian and Eastern European** markets through acquisition of ECOwind GmbH

Entry into the **UK** market through the foundation of Dulas MHH Ltd.

2011

Expansion of US business to include **wind power projects** through acquisition of WKN USA, LLC

Entry into **maintenance and service business** for rotor blades through acquisition of L&L Rotorservice GmbH



Roll-out of an international brand strategy as "BayWa r.e. renewable energy"

Entry into the **Danish** market through the foundation of BayWa r.e. solar systemer ApS

2012

Reorganisation of central functions as a management holding company

Entry into the **Swiss** market through acquisition of Solarmarkt GmbH

2013

Entry into the end customer business in energy trading through integration of **green electricity and sale of gas** at BayWa AG

Entry into the **Swedish and Northern European** markets through acquisition of a majority shareholding in HS Kraft AB

Opening of an office in Edinburgh for the **projects and services** areas

2014

Expansion of **solar project business** through acquisition of the solar project activities of Martifer in the USA

Entry into the **Japanese market** through the foundation of a subsidiary for solar projects

Entry into the **South East Asian market** through foundation of subsidiaries for solar projects and distribution in **Thailand** and **Singapore**

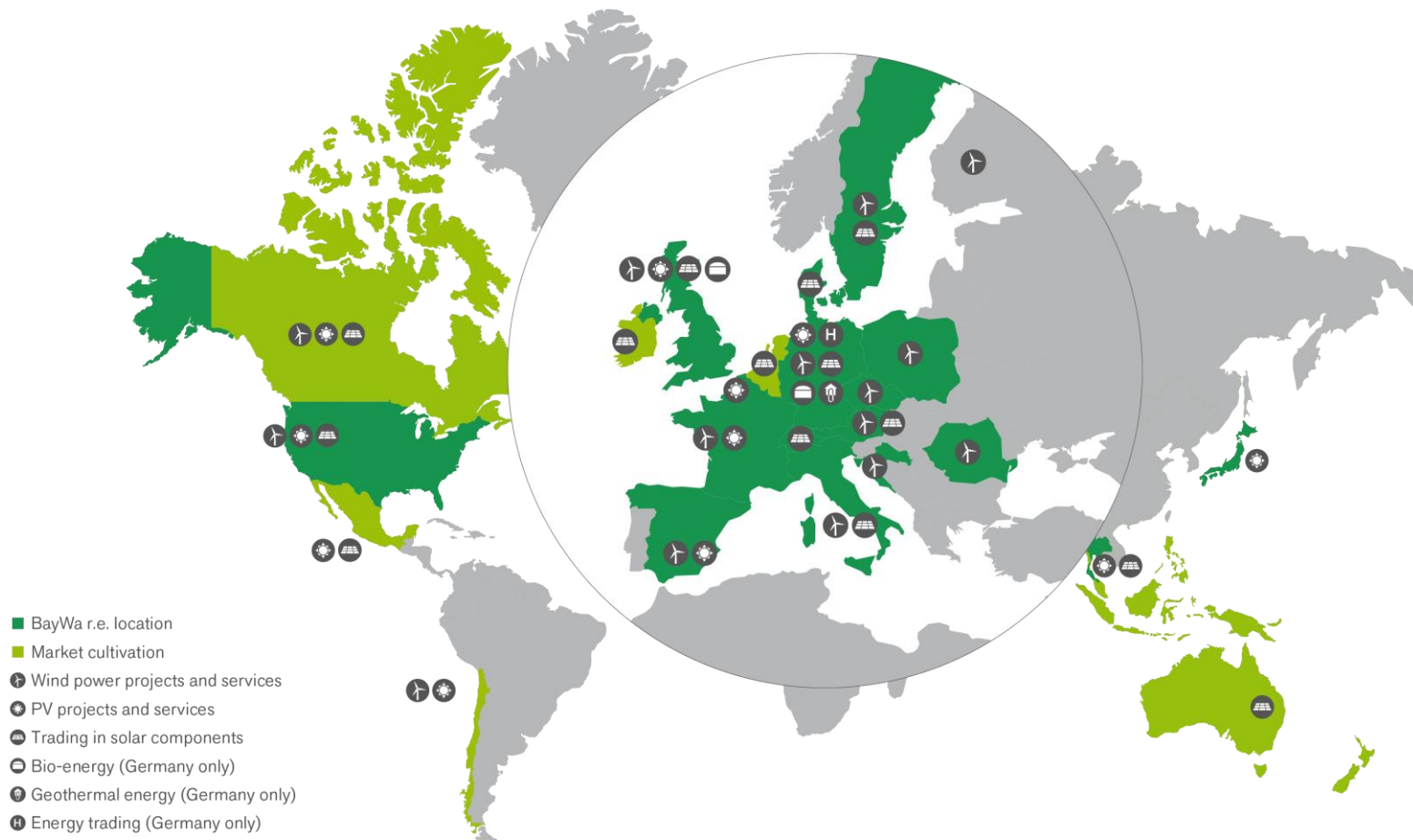
2015/16

Entry into the **Benelux markets** of PV trade in solar components through acquisition of Solar-Center

EXPANSION OF BUSINESS SECTORS



Utilising potential worldwide



PROJECTS

r.e.flecting

our know-how

Our services for successful energy projects

- Green field project planning
- Site analysis and assessment
- Securing land and planning permissions
- Turnkey construction
- Project management
- Project finance

In addition to the development and implementation of our own projects, we also build turnkey projects as a third party service.

To date, we have developed and realised wind farms with an installed output of

1000 MW.

We have successfully put

470 MWp

of solar energy into the grid.

We have already set up and commissioned 30 biogas and biomethane plants with an output of

ca. 37 MW.



2000 MW

in further project rights have already been secured in Europe, America and Japan.

Reference project: Solar energy

PROJECT:

Aston Clinton

Bierton, Buckinghamshire, UK



START OF CONSTRUCTION: January 2015

PROJECT COMPLETED: March 2015

PROJECT SUCCESS:

Construction in record time
of just 3 months

OUTPUT:

24 MWp

STATUS:

Sold



Reference project: Solar energy

PROJECT:

Homestead

Towcester, Northamptonshire, UK



START OF CONSTRUCTION: January 2015

PROJECT COMPLETED: March 2015

PROJECT SUCCESS:

**Construction in record time
of just 3 months**

OUTPUT:

27 MWp

STATUS:

Sold



Reference project: Wind power

PROJECT:

Stroupster

Wick, UK



START OF CONSTRUCTION: November 2013

PROJECT COMPLETED: June 2015

PROJECT SUCCESS:

The fourth successful sale of
an onshore wind farm from
BayWa r.e.'s UK portfolio

OUTPUT:

30 MW

STATUS:

Sold



Reference project: Wind power

PROJECT:

Brahms
New Mexico, USA



START OF CONSTRUCTION: **October 2013**

PROJECT COMPLETED: **February 2014**

PROJECT SUCCESS:

**Third large-scale project in
the USA: constructed in just
5 months**

OUTPUT:

19.8 MW

STATUS:

Sold



Reference project: Bioenergy

PROJECT:

Pessin

Brandenburg, Germany



START OF CONSTRUCTION: June 2014

PROJECT COMPLETED: July 2015

PROJECT SUCCESS:

One of Germany's largest
biomethane plants

OUTPUT:

700 Nm³/h biomethane
0.4 MW of electricity

STATUS:

In the process of being sold



Photo: Michael Kretzschmar

SERVICE

r.e.levant

for your project

Our services from planning to operation

Operations management



- Plant operation monitoring
- Control, maintenance and repair work
- Commercial management

Service & maintenance



- Analysis, reconstruction and optimisation of rotor blades, including logistics
- Low-loader transportation, procurement and disposal
- Outstanding:



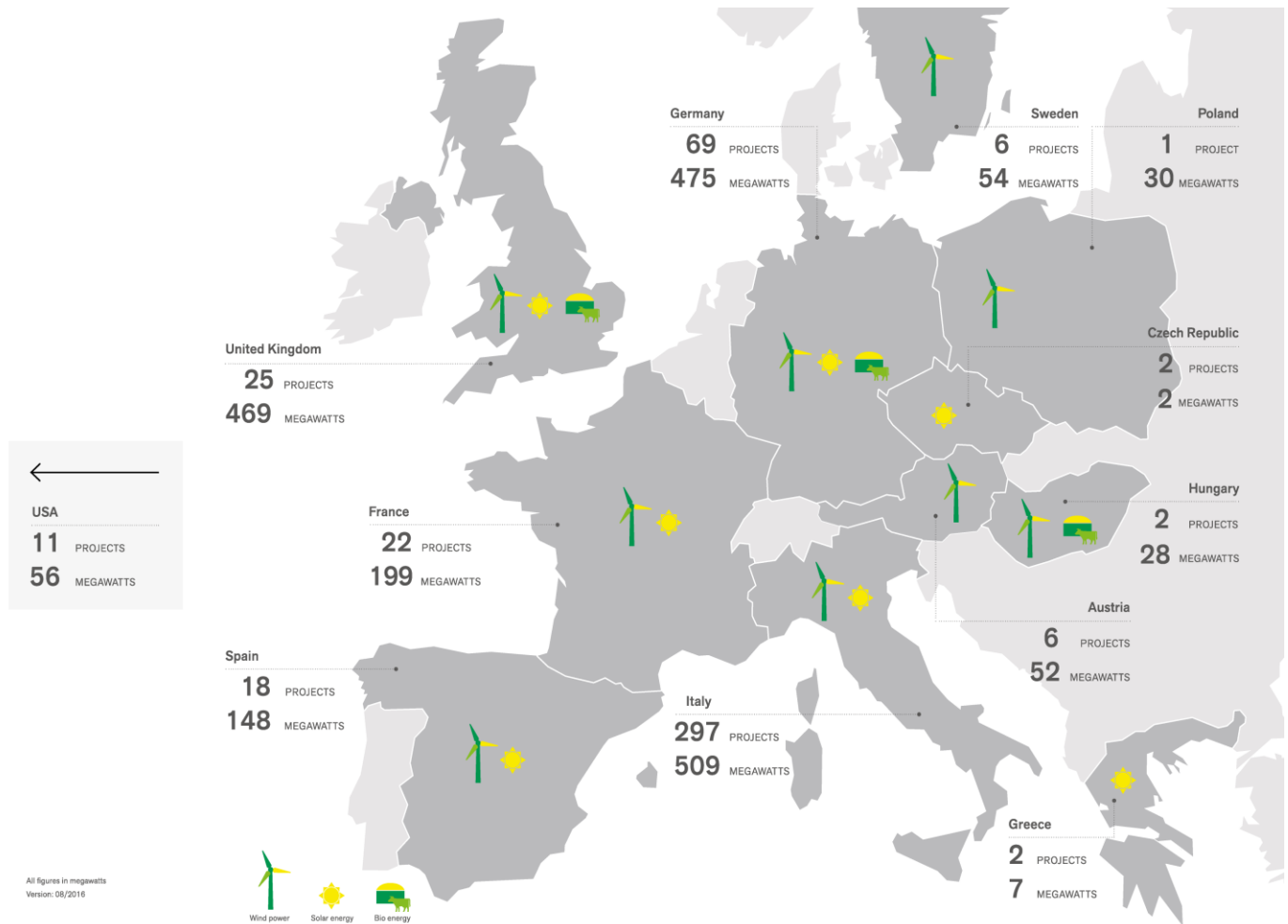
Planning & consulting



- Technical planning
- Supervising and acceptance testing
- Feasibility studies
- Energy yield assessments
- Due diligence
- LiDAR measurements
- Optimization and troubleshooting

Operations management with BayWa r.e. – based on technological and international experience

We currently manage 2,028 MW in 12 countries



TRADING IN SOLAR COMPONENTS

r.e.liable
for our partners

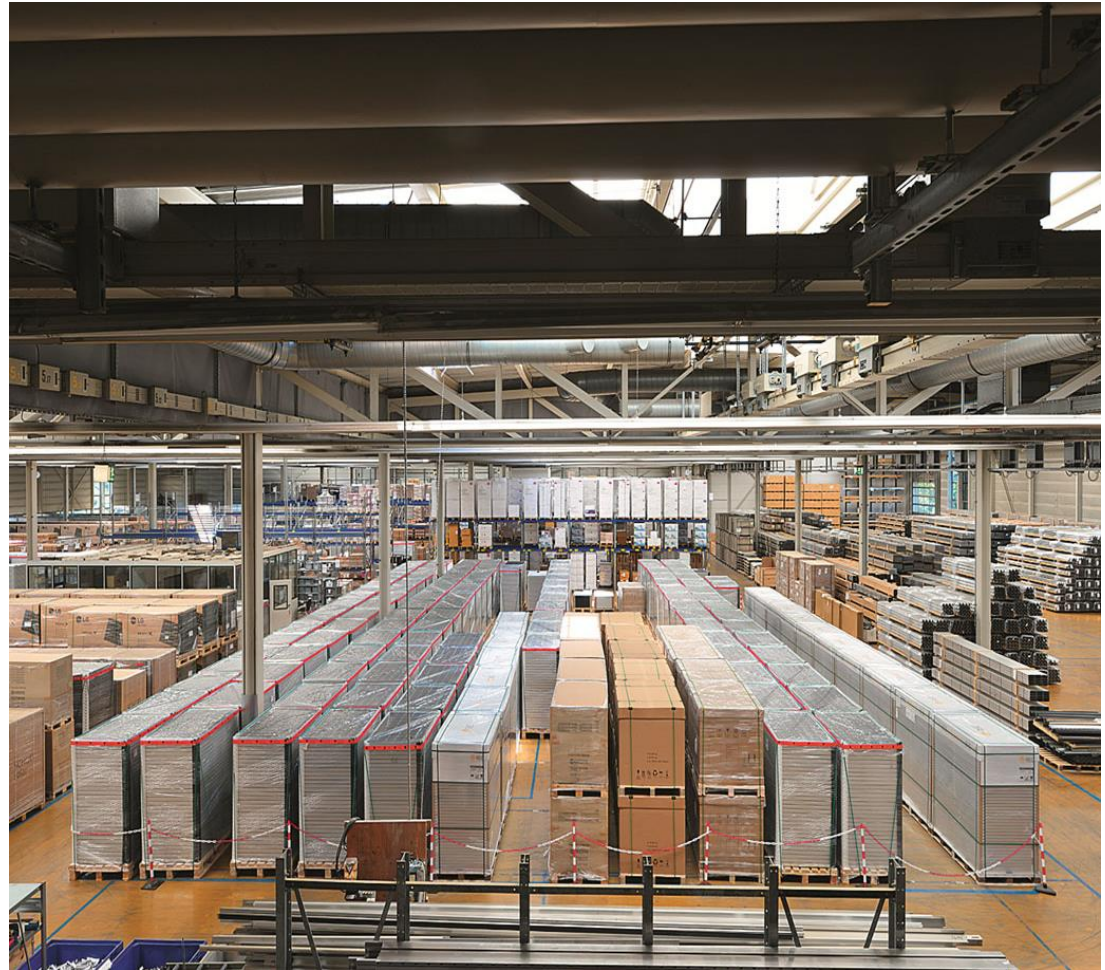
Trading in solar components: Based on experience

25 years of success in the market

- More than 25 years' experience of trading in high quality products
- One of the largest system suppliers of PV plants
- 239 employees worldwide (end of 2015)
- More than 19,200 m² of storage area worldwide
- Outstanding: Top PV Supplier 2016



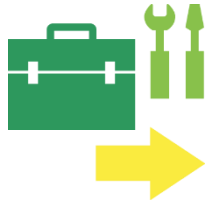
- Reliable partner – from concept to installation
- Sold output 2016:
Modules > 246 MW
Inverters > 385 MW
Storage systems > 1600



Trading in solar components: A systematic approach

OUR ACTIVITIES

Installer sales



- Consultation
- Engineering service/sizing
- Partnership scheme
- Logistics and warehousing
- Finance

e-commerce



- e-shop*
 - e-service
- * Some countries

Partner sales*



- Concepts
- Lead generation
- Logistics
- Processing

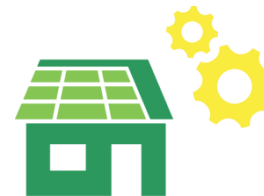
* For city technical services, builders merchants, manufacturers of prefabricated houses

Plant components and system kits



- Modules
- Inverter
- Power storage system
- Heat pump
- Full range of installation equipment

Installation systems



- Pitched roof
- Flat roof
- Façade
- Open area

novotegra
by BayWa r.e.

Creotecc
by BayWa r.e.

ENERGY TRADING

r.e.newables

for your energy

Following through: Energy trading with BayWa r.e.

Renewable energy trading



- Energy trading in electricity from renewables
- Management of contracts currently for more than 100 MW (approx. 250 GWh annually) in the areas of solar, wind & CHP units

Biomethane trading



- Biomethane trading in the CHP, fuel and heating markets
- Buying, trading and selling physical biomethane and biomethane certificates
- Nomination and energy data management
- Portfolio and grid management
- Recording proof of origin in the [German Energy Agency] dena biogas register

r.e.mix Green Power and Green Gas



- 100 % Green Power and Green Gas from Germany
- Composition of an individual energy mix made of solar, water and wind energy or a variable share of Green Gas
- Price guarantee for 12 or 24 months
- Free hotline and online customer portal

FUTURE

r.e.inventing power

Markets change – and we play our role

Our success is reflected in our customers' success. And the success of the energy transition, both in the German domestic market and internationally.

EXAMPLE:

Our trading in solar components

We don't just sell products. With our partnership schemes, we actively help customers achieve commercial success.



The strongest partners under the sun

Ensuring long-term success means actively developing the market. Expanding on successful business models and always being open to new models.

EXAMPLE:

Together

With city technical services, we turn end customers into energy generators. And everyone involved benefits.

Being involved in the same industries as those that we partner is possible because of our shared objectives.

EXAMPLE:

Beegy

A joint venture with an energy company and technology specialists to tap into market potential in the newly interconnected world of energy.



r.e.think
r.e.levant
r.e.lation
r.e.newable
r.e.liable
r.e.cycle
r.e.duce
r.e.flect
r.e.sponsible
r.e.spect

Responsible: Daniel Gaefke
Daniel.Gaefke@baywa-re.com

BayWa r.e. (Thailand) Co., Ltd.
93/1 GPF Witthayu Towers, Room No.1702,
17th Floor Witthayu Road, Lumpini, Pathumwan
10330 Bangkok, Thailand
Telephone +66 2 020 5750
www.asia.baywa-re.com