

# Wind Energy Investment Destinations: Established or Emerging Markets?

And by BKW ?

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22.05.2015 St-Gallen

# BKW Group

# Information on BKW



## Company

- **International energy and infrastructure company** employing some 3.500 employees
- Founded in 1898 having its headquarter in Berne (Switzerland)

## Activities

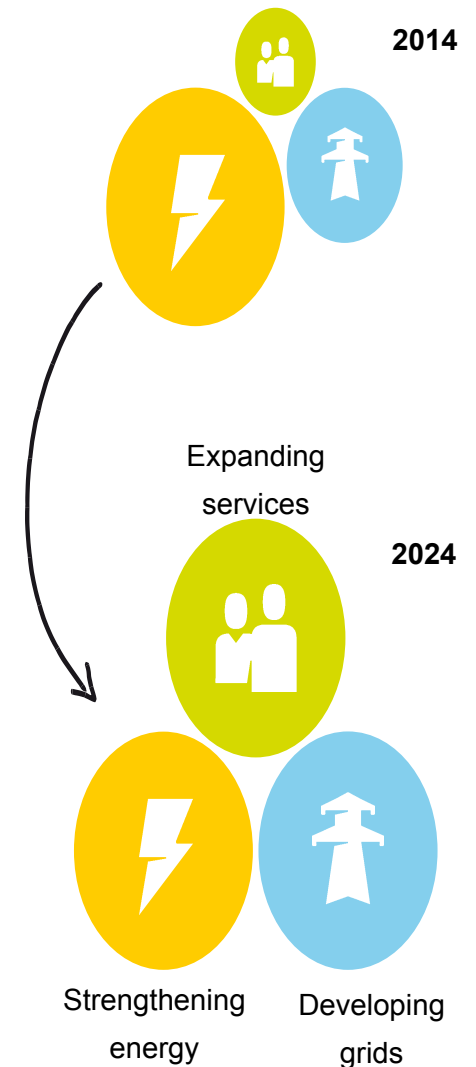
- Planning, construction and operation of **power plants and grids**
- **Supply** of more than one million people with electricity
- Present **on wholesale energy market** in Europe

## Shareholders

- Listed at **SIX Swiss Exchange**
- **Canton Berne as major shareholder** (52.54%), minor shareholders are Swiss Groupe E AG (10.00%) or German E.ON Energie AG (6.65%)

## Strategy

- Become a **leading provider of comprehensive energy services** in Switzerland



## Investments until 2024

New investments in renewable energy

approx. 1 billion CHF

Expansion of service business

approx. 1 billion CHF

Maintaining infrastructure

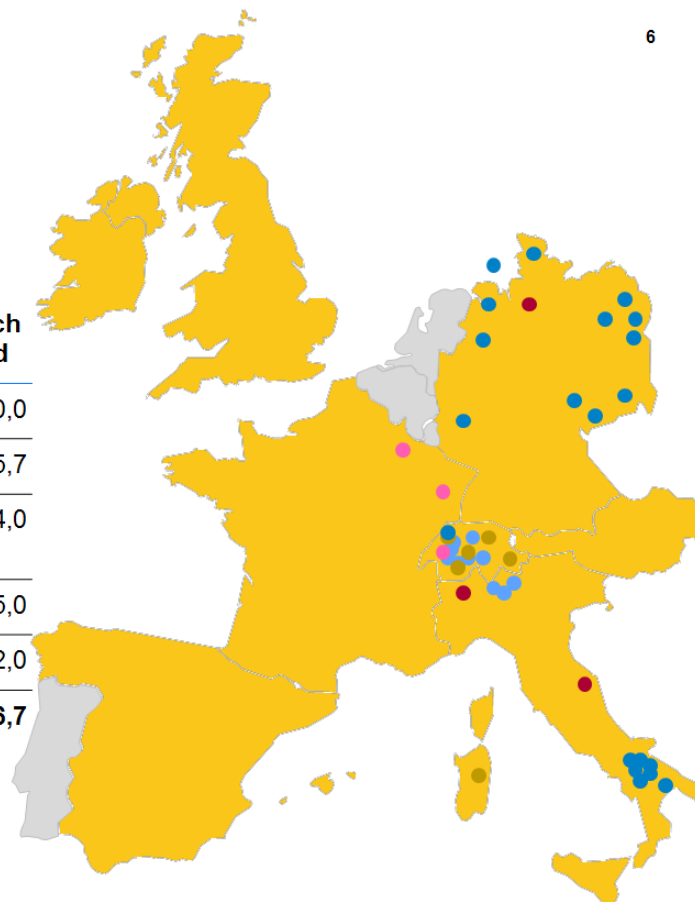
approx. 2 billion CHF (1 billion for grids)

} ca. 4 Mia.

## Activities in Europe

Energy source	Installed capacity MW	Of which abroad %	Of which abroad
● Hydro energy	1.592,8	52,3	60,0
● Wind energy	393,1	12,9	375,7
● Solar energy, biomass & heat energy	8,2	0,3	4,0
● Nuclear energy	789,0	25,9	245,0
● Thermal energy	262,0	8,6	262,0
<b>Total</b>	<b>3.045,2</b>	<b>100,0</b>	<b>946,7</b>

■ Participation at wholesale energy market



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# Wind Portfolio

# Wind Portfolio Germany



## Assets in Operation

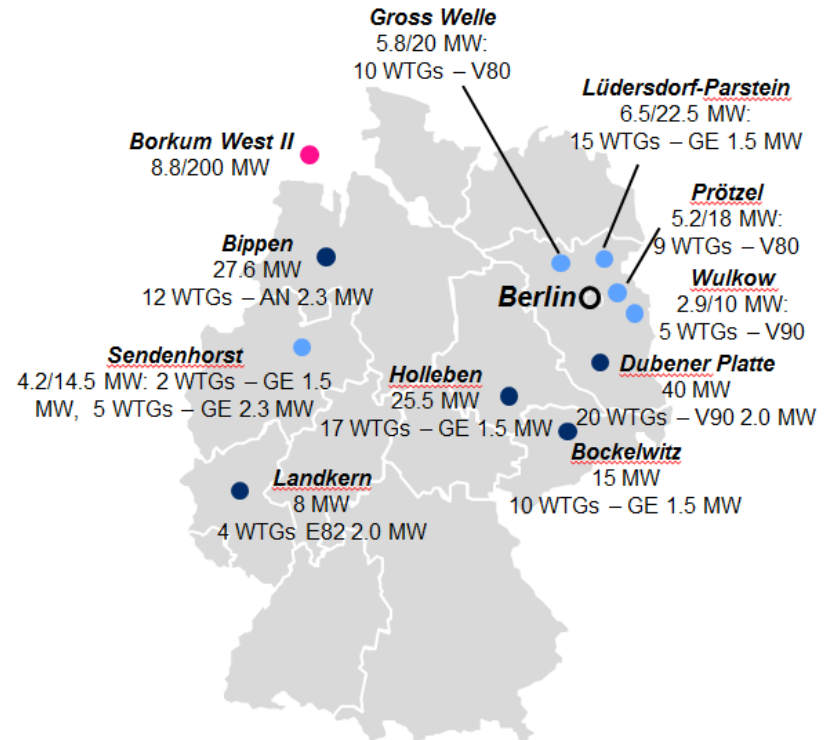
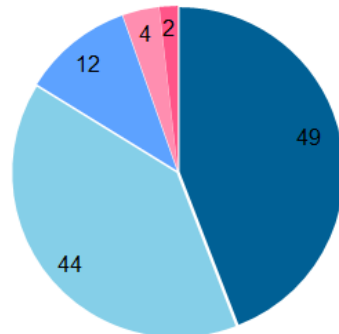
- Installed capacity of 201,1 MW, of which 140.7 MW owned by BKW
- 109 wind turbine generators (WTG), of which 73 owned by BKW
- 10 wind farms, of which 5 as associated companies

## Anlagen under Construction

- 1 wind farm

## Used Technology

- GE (1.5 / 2.3): 49
- Vestas (V80/V90): 44
- Siemens (AN Bonus): 12
- Enercon (E82): 4
- Areva (M5000): 2



### Group Companies

● In operation

HelveticWind = cooperation between BKW and Swiss local utilities

### Associated Companies

● HelveticWind

● BorkumWest II

## Assets in Operation

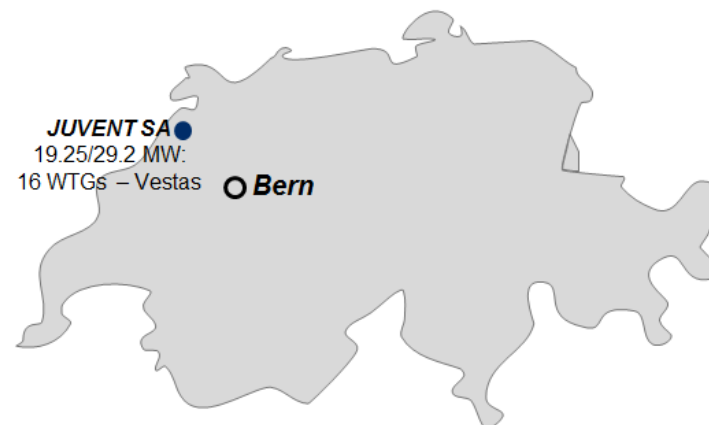
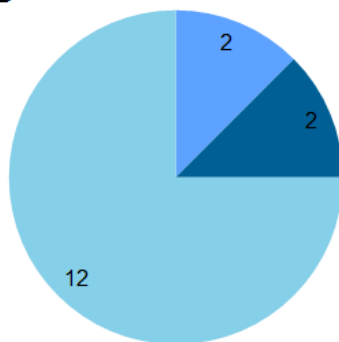
- Installed capacity of 29.2 MW, of which 19.25 MW owned by BKW
- 16 wind turbine generators (WTG)
- 1 wind farm

## Assets under Construction

- Repowering JUVENT II

## Used Technologies

- Vestas V52: 2
- Vestas V66: 2
- Vestas V90: 12





# Wind Portfolio Italy

## Assets in Operation

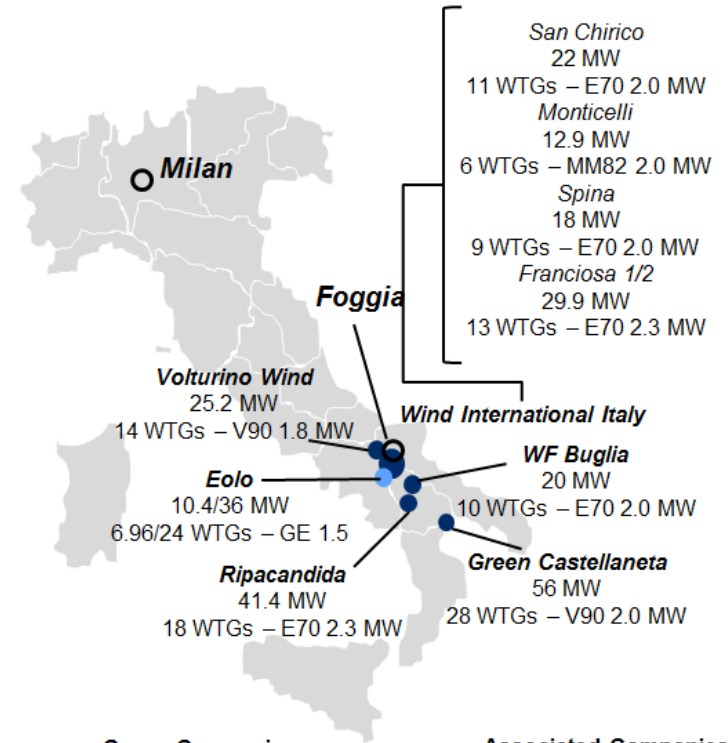
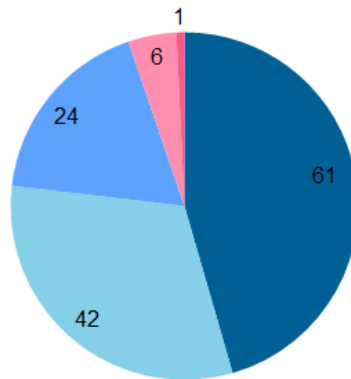
- Installed capacity of 261.4 MW, of which 235.4 MW owned by BKW
- 134 wind energy turbines (WTG), of which 117 owned by BKW
- 6 companies with 9 wind farms

## Assets under Construction

- 1 wind farm with 16 MW

## Used Technology

- Enercon (E70): 61
- Vestas (V90): 42
- GE (1.5): 24
- Repower Systems (MM82): 6
- PowerWind (PW 56): 1



### Group Companies

● In Operation








### Associated Companies

● HelveticWind

HelveticWind = cooperation between BKW and Swiss local youtilities

# Business Model and Strategy



	Development	Construction	Technical and commercial Management	Energy marketing	O&M services
<b>Today</b>   	<ul style="list-style-type: none"> <li>• <u>Switzerland</u>: Development of wind park projects (green field)</li> <li>• <u>Abroad</u>: identification of suitable projects</li> </ul>	<ul style="list-style-type: none"> <li>• <u>Switzerland</u>: Repowering of wind farms</li> <li>• <u>Abroad</u>: Purchase of approved projects / wind farms under construction</li> </ul>	<ul style="list-style-type: none"> <li>• <u>Switzerland</u>: TCM services and "hands-on" O&amp;M services</li> <li>• <u>Abroad</u>: Surveillance of external service providers</li> </ul>	<ul style="list-style-type: none"> <li>• Energy marketing for third parties via brokers and service providers</li> </ul>	<ul style="list-style-type: none"> <li>• Surveillance of external service providers</li> </ul>
<b>Tomorrow</b>    	idem	<ul style="list-style-type: none"> <li>• Construction and repowering of wind farms in Switzerland and abroad</li> </ul>	<ul style="list-style-type: none"> <li>• Internalization of TCM services and "hands-on" O&amp;M services</li> <li>• Sale of TCM services to third parties</li> </ul>	<ul style="list-style-type: none"> <li>• Internalization of energy marketing for third parties</li> </ul>	<ul style="list-style-type: none"> <li>• Internalization of all O&amp;M services</li> <li>• Sale of O&amp;M services to third parties</li> </ul>