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The **S**outh Tyrol **E**nergy **A**ssociation

Energy Cooperatives in Europe – Chances and Risks

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Agenda

1. Overview Situation in Europe
2. European market studies in detail (examples)
3. Risks and Chances
4. Discussion



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Overview Situation in Europe – Market structure

➤ Differences in the cooperative systems

- Especially in the energy sector: There are up to 850 energy cooperatives in certain countries; in others, the number of cooperatives barely reaches double figures
- The structure of (cooperative) associations varies
- Service structures, e.g. for project financing (e.g. investment funds), are not at all common

➤ Subject matter of activities of energy cooperatives

- Focus on the generation of energy from renewable sources (particularly “younger” cooperatives)
- Focus on supplying to cooperative’s own members and the marketing of energy
- Traditional Energy Cooperatives also own the grid



Overview – Development of grid operation cooperatives in Europe

- A small number of cooperatives involved in grid operation have existed in Europe since the 1920s
- Established in areas suitable for generating hydropower
 - E.g. mountainous regions in Northern Italy
- European grid operation cooperatives are smaller than those in the US
 - National regulations have impeded their expansion
- The “young” energy cooperatives emerged within the framework of liberalization (with some exceptions). They do not own any grids and therefore focus on energy generation



Overview Situation in Europe– Legal framework

➤ No uniform legal framework conditions

- Big differences as to the complexity of the legal framework: some countries have separate cooperative laws, others merely provide for short sections on cooperatives within their codes relating to general corporate law
- Differences with regard to the provisions on liability and the limitation of liability for the cooperative members, particularly with regard to the dissolution and insolvency of the cooperative
- Different requirements regarding the minimum number of cooperative members and the share capital

➤ Uniform general principles:

- Voluntary and open membership
- Democratic decision-making by the members
- Economic participation of the members



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Belgium – Market situation (1)

- In 2015, approx. 60,000 people invested in energy cooperatives
- Energy cooperatives operate more than 350 energy generation installations, particularly photovoltaic and wind energy installations
- Current legislative situation in Wallonia: 25% of the newly constructed wind energy installations are to be offered for participation to cooperatives and municipalities



Belgium – Market situation (2)

- Association of energy cooperatives: REScoop.be
 - Two sub-associations: Wallonia and Flanders
 - 20 energy cooperatives in total
 - Promotion of cooperatives in the area of renewable energy
 - Representation of interests; no service structures, financing or similar

- Market players
 - Ecopower: 50,000 members; generation of renewable energy (approx. 100 million kWh/year), supply to members
 - Courant d'air: approx. 1,000 members; so far primarily financial participation in smaller wind farm projects (cooperation with investors and similar)



Denmark – Market situation

- In 2014: 28.5% of the Danish energy consumption was covered by electricity generated from renewable sources
- Strong position of energy cooperatives:
 - 600 cooperatives in the area of renewable heat generation
 - 250 cooperatives in the wind energy sector operating 80% of the installations
 - Middelgrunden Vindmøllelaug: first cooperative operating an offshore wind farm, approx. 40,500 members
- Association: Danmarks Vindmølleforening (Danish Wind Turbine Owners' Association)
 - Representation of interests and technical consulting
 - Focus on wind energy, not primarily the cooperative system
 - Still, many (wind energy) cooperatives are members of the association



Germany – Market situation (1)

- **Approx. 860 energy cooperatives**
 - 86% electricity generation/marketing, 1% electricity grid operation, 19% heat grid operation; electricity generation by, in particular, photovoltaic installations plus wind energy and biomass installations

- **Prokon Regenerative Energien e.G.**
 - Former insolvent GmbH (German limited liability company) was transformed into a cooperative

- **Greenpeace Energy e.G.**
 - 23,000 members; exclusive supply of electricity generated from wind and hydropower

- **Elektrizitätswerke Schönau e.G. (EWS)**
 - Supplies 160,000 customers with biogas and electricity generated from renewable sources



Germany – Market situation (2)

- Associations on federal and state level
- Federal association – DGRV (German Cooperative and Raiffeisen Confederation): 5,600 cooperatives, of which 860 are energy cooperatives
 - DGRV operates the national head office of energy cooperatives “Bundesgeschäftsstelle Energiegenossenschaften”, contact for policymakers, authorities, associations and the general public
- Federal association – Genossenschaftsverband e.V.: 2,200 cooperatives, of which 230 are energy cooperatives
- Associations at state level, among others
 - Bürgerenergie Bayern e.V.
 - Rheinisch-Westfälischer Genossenschaftsverband e.V. (RWGV)
 - Genossenschaftsverband Weser-Ems e.V.



France – Market situation

- The final consumption of energy generated from renewable sources currently amounts to 14%
- In 2014: energy generation from photovoltaic installations amounted to 5.3 GW, from wind energy installations: 9.2 GW
- Currently approx. 60 energy cooperatives in the area of renewable energy
 - Enercoop: 10 affiliated cooperatives, supply of approx. 25,000 customers
 - Cooperative Multicarte: local cooperative, sets up photovoltaic installations
 - Énergie Partagée S.C.A (partnership limited by shares / fund): support of “citizen energy” projects by way of investments
 - Currently 10 projects in which almost 5,000 investors contributed capital amounting to approx. EUR 10 million



Italy – Market situation

- Energy cooperatives focus on energy generation (particularly hydropower) and grid operation
- Strong associations:
 - Confederazione Cooperative Italiane (Confcooperative): umbrella association of energy cooperatives, 77 members
 - South Tyrolean Energy Association (SEV): 305 members, operator of 119 hydropower installations, 40 thermal power stations, 157 photovoltaic installations and 55 grid operators



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Summary: Situation of Energy Cooperatives in Europe

- Big differences in the cooperative landscape and the cooperative structures / structure of associations
- Service structures are not well established
- Mostly focus on the generation of renewable energy and marketing



Risks and Challenges for Energy Cooperatives in Europe

- “Service structures” – i.e. consulting, project financing etc. – are not at all common
- Grid takeovers are difficult for market participants which are not yet well-established (financing)
 - Therefore cooperatives rarely engage in grid operation
- Auctions in the area of renewable energy are increasing, which poses a problem for cooperatives
 - Uncertainties regarding project implementation
- There is virtually no public awareness about cooperative activities in the energy sector (e.g. lack of media coverage and of expert publications)



Chances and Solutions for Energy Cooperatives in Europe

- In most countries generation of renewable energy is supported by state and politics
 - Cooperatives may force the acceptance of local energy projects (e.g. wind farms) due to the participation of their members/residents
- Decentralization of energy supply is a good approach with regard to the renewable energy
 - Cooperatives may strengthen the decentralization by providing energy to their members
- Cooperatives should establish professional service structures for them
 - Economic and legal knowledge
 - Financing, Business Development and Project Development
 - Promotion of cooperatives in the energy sector



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Thank you for your attention!

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