Making wind energy profitable: citizen involvement in Germany and France

Successfully financing \textit{(real)} citizen wind parks in Germany. What really counts.
- Potential of financing

- Citizen projects mean transparency

- Examples of completed citizen projects (PV, local heating, wind)

- Wind park: using locally generated energy

- Financing: risks / specifications

- Cooperation partners: Who bears project development risks?

- Advantages for banks (citizens’ wind park)
Who is iNeG?

- iNeG is a cooperatively run and organised engineering firm

- Our (42) partners are mainly VR credit unions and citizens’ energy cooperatives (Bürgerenergiegenossenschaften)

- Founded in 2007 on the basis of customers’ strong desires to ensure neutral consulting for VR Banks, local utilities companies, farmers, city authorities, industry and citizens

- iNeG is a completely independent company, which ensures that all consultancy services provided to the 63 citizens’ energy cooperatives are offered in a neutral way.
There are more than 800 energy cooperatives in Germany

...iNeG’s projects include
- photovoltaic plants (PV),
- biogas plants/combined heat and power plants with local heating networks and
- wind energy plants,
which community-based banks have financed with more than € 500 mill. over the past 7 years.

... In 2013, VR banks alone provided around € 11.3 bill. financing for the areas of energy, water and mining.
Citizens’ projects mean transparency

- Landowners / investors / banks… are equal partners in every phase of the project (involvement of the BANK is possible)
- “We” carry out the project together

- Initiator: BANK or citizens

- Costs /deadlines/procedures are revealed at an early stage/regularly.
  - Project development
  - Expert reports / permit applications
  - Contracts of sale / maintenance contracts

Cost benefits: considerably reduced production and operating costs!

- Direct communication with:
  - Landowners
  - Investors / citizens
  - Banks
Citizens’ Wind park – participation model

Citizens’ Wind park GmbH & Co. KG
30% farmers, 30% XXX, 40% citizens
> € 5,000 / share

Citizens’ Wind Cooperative
€ 1,000 to €5,000 per citizen

WTG 1

WTG 2

WTG 3

WTG 4 … WTG 16

+ Cooperative members are supplied with their ‘own’ electricity for the medium to long term (tax-exempt reimbursement in the form of goods)
Some features of project financing

- A self-contained, economically and legally **insulated investment plan**
- **Debt is serviced** exclusively from the project’s **future revenues**
- The borrower is usually a **special purpose vehicle** created specifically to carry out the project
- Compared with classic corporate financing, there may be **higher equity capital requirements**, depending on the type of project
- The **term** depends on the **economic lifetime** of the assets financed
- The **property** to be **financed** serves as **collateral**
Financing: strategic specifications / risk parameters

- Equity capital investment: 10% + X of the investment costs

- Debt service coverage ratio (DSCR) per year 110% + X

- Park’s efficiency taken into account

- Basic submission of two independent expert reports on wind, minus 16% discount (10% security + 6% technical loss / availability / stakeholders’ own consumption)

- Pledge of a liquidity reserve of 50% of the following year’s debt service payments

- No prototypes
Legal relations between project participants

All contracts / relations affect the financing contracts = commitment of the bank required at an early stage!
Customised financing solutions

- **Term 14-17 years**: usually depending on a full service contract (with guarantees)

- **Securities, e.g.**:
  - Easements for properties
  - Assignments
    - Contract of sale / usage rights
    - Insurance (e.g. interruption of operations)
    - Maintenance contract
    - Revenues

- **Identify expenses and stipulate them contractually, e.g.**
  - Depreciations / capital costs
    - Wind plants, foundations, cables, grid connection, planning, land improvements, company founding, compensation, interim financing,…
  - Management, insurance, property
  - Maintenance costs,…

- Important I: **Liquidity** planning for at least the **loan period** (about 15 years)
- Important II: **Profitability** calculation for the **total loan period** (about 20 years)
Central financing parameters

Debt Service Coverage Ratio

- 110% or 115%

Equity capital: 10–20%

Term: 14–17 years

- 100% redeemable loan
- 2 years max. pre-amortisation period
- Reserves of at least 50% of debt payments for the following year
Risks involved in project financing

Project development risk: € 80,000 – € 240,000  (Investors)
Project development (construction) risk: € x mill (loan guarantee)

Project operations risk: Wind frequency  (investor)
Technical availability  (guarantor)
Reimbursement/ revenues (EEG, 20 yrs)
Process steps and responsibilities

**Processes**
- Site analysis
- Profitability prognosis
- Securing the site
- Licensing agreements
- Construction plan
- Negotiations with energy supplier
- Site analysis
- Obtaining expert opinions
- Conclusion of insurance policies
- Conclusion of purchasing and maintenance contracts
- Company
- Permits
- Determining the financing structure
- Articles of association
- Monitoring
- General contractor
- Grid connection
- Finding investors
- Raising equity capital
- Company founding
- Determining the financing structure
- Articles of association
- Monitoring
- General contractor
- Grid connection
- Documentation
- Technical management
- Business management

**Who**
- Project developer (e.g. iNeG)
- Project developer
- Project developer
- Project developer
- Project developer
- Investor
- Project developer
- Project developer
- Project developer
- Investor
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- Project developer
- Project developer

**Years**
- 1
- 5
- >6
Completed (financed) citizens’ wind parks

Citizens’ wind park I, near Oldenburg
2012, 700 limited partners: € 25 mill. equity capital
(24 x 3 MW`WTG, Total investment: approx. € 120 mill.)

Citizens’ wind park II, near Oldenburg
2001–2011, 823 limited partners: € 12.5 mill. equity capital
(19 x 2 MW`WTG, Total investment: approx. € 50 mill)
Will citizens want to invest?

Distribution of invested capital

Signing: 2010

Community: approx. 3,400 residents

Investment amount: approx. 18 mill. Euros equity capital: 25% = 4.5 mill. Euros
In planning: 12 WTG 36 MW (€ 60 mill. : financing secured)

Citizen participation
> 30%
Who bears the risk of project development?

EWE and the bank share the project development risk (about € 120,000 – 240,000)
Dividends for the region (4–6 WTG)

Average annual dividend approx. €/a 1 mill.

- Ausschüttung Bürger/Flächeneigentümer
- Pacht
- Gewerbesteuer

Total dividend approx. €/20 a 19.93 mill.

Profits/dividends are usually invested in the region!
Citizens wind park: advantages from a bank’s point of view

- Fast(er) approvals (acceptance by the community)
- Transparency
  - Investors are known to the bank
  - Citizens from the region invest = responsible handling of the project
  - Bank can get involved in the planning phase of project development (in drafting contracts, WTG plant type, etc.)
- Marketing of citizens’ shares = positive image for the bank
- The bank itself can participate in the project

- Citizens’ energy cooperative = safe – insolvency-proof – legal form
  - Many partners (citizens)
  - Goal is not to maximise profits; profit target of 6-8% on equity capital
  - Exclusively “safe/conservative” investments
  - It’s about benefiting citizens (i.e. with cheaper electricity and heating)
  - “One member, one vote” instead of equity stake determining influence
  - Highly resistant to bankruptcy due to regular audits by independent auditors
Wind / local heat / photovoltaics

- A regional BANK’s interests can be well represented in the project
- The regional BANK can participate in the project
- Results in high levels of acceptance among local residents

- High level of profitability = secure return on capital
- Implementation period (1-5 years)

There are customised financing solutions available for all types of citizens’ projects!

Commitment of the BANK at an early stage is required.
Interested in developing projects?
Talk to us!

Matthias Partetzke
IngenieurNetzwerk Energie eG
Arkadenstrasse 5 · 49186 Bad Iburg · Deutschland
Tel.: +49 5403 7243970 · Fax: +49 5403 7243989
info@ineg-energie.de · www.ineg-energie.de