Community Wind in Germany
Fabian Tenk, Project Coordinator

3rd International Community Wind Symposium 2018 and Community Power Forum
6 September 2018 / Bonn

In Cooperation with EnergieAgentur.NRW Genossenschaftsverband Verband der Regionen
Community Wind in North Rhine-Westphalia

Fabian Tenk, Project Coordinator
Germany’s Renewable Energy Act (EEG 2017)
German Auction Scheme Onshore Wind

• To receive a remuneration for 20 years a (successful) participation in an auction system is required

• Four auction rounds take place in 2018, (1 February/1 May/ 1 August/1 November), with a capacity of 700-670 gigawatts (GW) per round.

• Bidders should submit bids for fully developed projects (including BImSchG-approval)

• Bidders are required to lodge a guarantee of 30€/kW

• Bid = remuneration for 1kWh converted to a 100%-site
Germany’s Renewable Energy Act (EEG 2017) Compensation Arrangement

- The bid is placed for an 100% site
- Highest bid is 6.3 ct/kWh (in 2018)
- Afterwards conversion on project-specific wind yield
- Wind energy yield in the region of NRW is usually between 70-80%.

The bid will be adjusted by the following correction factors:

<table>
<thead>
<tr>
<th>Wind Energy Yield</th>
<th>70%</th>
<th>80%</th>
<th>90%</th>
<th>100%</th>
<th>110%</th>
<th>120%</th>
<th>130%</th>
<th>140%</th>
<th>150%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Correction Factor</td>
<td>1,29</td>
<td>1,16</td>
<td>1,07</td>
<td>1,00</td>
<td>0,94</td>
<td>0,89</td>
<td>0,85</td>
<td>0,81</td>
<td>0,79</td>
</tr>
</tbody>
</table>

**Example**

Wind yield: 70% → correction factor 1,29

With a bid of 6,30 ct/ kWh the project gets the following remuneration: 6,30 ct/kWh × 1,29 = 8,127 ct/ kWh
Germany’s Renewable Energy Act (EEG 2017)
Compensation Arrangement

- Bid acceptance for most competitive bids until capacity limit for each round is reached ("pay as bid").

- After bid acceptance: implementation deadline of 30 Month (after 24 month contractual penalty occur).

- Successful projects receive remuneration for 20 years.

- Germany's Renewable Energy Act (EEG 2017) Compensation Arrangement:
  - 670 MW: 6,3 Ct/kWh
  - 580 MW: 6,2 Ct/kWh
  - 450 MW: 6,1 Ct/kWh
  - 390 MW: 6,0 Ct/kWh
  - 230 MW: 4,0 Ct/kWh
  - 0 MW
A. Possibility to participate in the auctioning process without a prior approval under the Federal Emission Control Act (BImSchG approval).

B. A bid bond of only € 15 per kW due by bid submission (instead of € 30/ kW; other half required only if bid is successful).

C. Community projects are granted the highest awarded bid as the remuneration level (uniform pricing-principle) in contrast to other actors, who receive exactly their bid (if successful).

D. Community Wind entities have an extended deadline for commissioning by 24 months.
Germany‘s Renewable Energy Act (EEG 2017)
2nd and 3rd Onshore Wind Auction

Aug. 2017

Tendered quantities: 1.000MW
Highest bid acceptance: 4.29 Ct/kWh

Nov. 2017

Tendered quantities: 1.000MW
Highest bid acceptance: 3.82 Ct/kWh

On average around 70% of submitted bids were unsuccessful in the three rounds of 2017.
A. A minimum of ten shareholders of the bidding project have to be natural entities.

B. Each member’s share of **voting rights** must not be higher than 10% and all natural entities have to hold at least 51% of all **voting rights**.

C. A minimum of 51% of the **voting shares** has to be held by shareholders who live in the administrative district in which the wind farm will be erected.
Germany’s Renewable Energy Act (EEG 2017)
Bidders strategies in 2017

Trade register excerpt of a successful project in Germany’s 2nd onshore wind auction (Aug. 2017)

Results of Germany’s 2nd onshore wind auction (Aug. 2017)
A. Possibility to participate in the auctioning process without a prior approval under the Federal Emission Control Act (BImSchG approval)

B. A bid bond of only € 15 per kW due by bid submission (instead of € 30/ kW; other half required only if bid is successful).

C. Community projects are granted the highest awarded bid as the remuneration level (uniform pricing-principle) in contrast to other actors, who receive exactly their bid (if successful).

D. Community Wind entities have an extended deadline for commissioning by 24 months.
Germany’s Renewable Energy Act (EEG 2018)
Auction Results in 2018

<table>
<thead>
<tr>
<th>Auction date</th>
<th>February</th>
<th>May</th>
<th>August</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tendered quantity (MW)</td>
<td>700</td>
<td>670</td>
<td>670</td>
</tr>
<tr>
<td>Quantity of bids (MW)</td>
<td>989</td>
<td>604</td>
<td>667</td>
</tr>
<tr>
<td>Thereof community projects</td>
<td>20%</td>
<td>18.8%</td>
<td></td>
</tr>
<tr>
<td>Quantity of accepted bids (MW)</td>
<td>709 (71%)</td>
<td>604 (100%)</td>
<td>667 (100%)</td>
</tr>
<tr>
<td>Highest allowed bid (ct/kWh)</td>
<td>6.30</td>
<td>6.30</td>
<td>6.30</td>
</tr>
<tr>
<td>Ø- accepted bid (ct/kWh)</td>
<td>4.73</td>
<td>5.73</td>
<td>6.16</td>
</tr>
<tr>
<td>Lowest accepted bid (ct/kWh)</td>
<td>3.80</td>
<td>4.65</td>
<td>4.00</td>
</tr>
<tr>
<td>Highest accepted bid (ct/kWh)</td>
<td>5.28</td>
<td>6.28</td>
<td>6.30</td>
</tr>
</tbody>
</table>

→ Success rate for community projects was 100% in last two auctions
→ 30.6% of successful bids in August were placed by NRW actors
How do Community Wind Actors in NRW perceive the Market Conditions in 2018?

Survey among 21 CEOs and Board Members of Community Wind Entities in NRW (May 2018)
More than ¾ of participants are dissatisfied with the auction system
Survey Among NRW Community Wind Actors (May 2018)

ASSESSED RISKS

- **HIGH UPFRONT INVESTMENT**
  - Existential Risk: 50%
  - High Risk: 20%
  - Moderate Risk: 25%
  - No Risk: 5%

- **LACK OF SUPPORT BY MUNCIALITY**
  - Existential Risk: 10%
  - High Risk: 40%
  - Moderate Risk: 35%
  - No Risk: 15%

- **OUTDATED BIMSCHG-APPROVAL**
  - Existential Risk: 10%
  - High Risk: 35%
  - Moderate Risk: 20%
  - No Risk: 5%
  - Abstention: 30%

- **CITIZEN'S PROTEST**
  - Existential Risk: 5%
  - High Risk: 45%
  - Moderate Risk: 35%
  - No Risk: 15%

- **NEGATIVE POWER PRICES**
  - Existential Risk: 10%
  - High Risk: 25%
  - Moderate Risk: 45%
  - No Risk: 10%
  - Abstention: 10%

- **PENALTY FEE**
  - Existential Risk: 5%
  - High Risk: 20%
  - Moderate Risk: 55%
  - No Risk: 15%
  - Abstention: 5%
Survey Among NRW Community Wind Actors (May 2018)

Are improved frameworks needed?

- EEG: 65%
- More stable frameworks: 65%
- More support by authorities: 55%
- BImSchG-Genehmigung: 50%
- Prospektpflicht: 40%
- Windenergieerlass: 40%
- Landesentwicklungsplan: 30%
- Baugesetzbuch: 15%
- Building code: 10%
- Enthaltung: 0%
- Nein: 0%
**Survey Among NRW Community Wind Actors (May 2018)**

How necessary is the implementation of the following measurements?

<table>
<thead>
<tr>
<th>Measure</th>
<th>Highly necessary</th>
<th>Rather necessary</th>
<th>Not necessary</th>
<th>Abstention</th>
</tr>
</thead>
<tbody>
<tr>
<td>De minimis rule</td>
<td>5%</td>
<td>10%</td>
<td>35%</td>
<td>50%</td>
</tr>
<tr>
<td>Community power fund</td>
<td>15%</td>
<td>40%</td>
<td>45%</td>
<td>10%</td>
</tr>
<tr>
<td>Improved advisory services</td>
<td>15%</td>
<td>40%</td>
<td>45%</td>
<td>75%</td>
</tr>
<tr>
<td>Mandatory contribution for municipalities</td>
<td>15%</td>
<td>45%</td>
<td>75%</td>
<td>10%</td>
</tr>
</tbody>
</table>

- **Highly necessary**
- **Rather necessary**
- **Not necessary**
- **Abstention**
Survey Among NRW Community Wind Actors (May 2018)

How satisfied are you with the North-Rhine-Westphalian Government when it comes to Wind Energy Policies?

90% of participants are dissatisfied with the NRW government
Plans of the state government of NRW...

- Legally secured implementation of a minimum distance rule for wind turbines of 1,500m from residential areas
- Abolition of the obligatory creation of wind priority zones for municipalities
- Abolition of a "privileged status" for wind energy in forests
- On federal level: Abolition of a "privileged status" for wind energy in the German Building Regulations (BauGB)
Survey Among NRW Community Wind Actors (May 2018)

Reasons for dissatisfaction with the NRW- and federal government

- Strong political signal for renewables and climate protection is missing
- Atmosphere of legal uncertainty and constantly changing frameworks
- Prospectus requirements limit citizens engagement
- High planning cost and risks, heavy workload deter community power or push them in cooperation with external investors
- No solution has yet been found for old turbines which drop out of remuneration (EEG) as of 2020
Conclusion

What has worked well?

- Community based organisations are still (partly) successful in auctions
- Special conditions for community power as clear signal for all that community power is politically intended

What has worked not so well?

- Community power under increasing pressure: increase in requirements, constantly changing legal frameworks
- Increase in market concentration („Cannibalisation of the market“): small players withdraw from the market or do not enter the market any more/ few big players remain
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