



The next big thing or too big for us? New business models for renewable energy cooperatives – barriers in the perception of cooperatives' members

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Owners of RE facilities in Germany

Ownership of installed capacity per 10/2013



Source: trend:research; Leuphana Universität Lüneburg



Fast growth of RECs until 2014



Sources: Klaus Novy Institut 2014, DGRV 2016, Leuphana 2016



Factors influencing REC growth in Germany





Barriers for further growth



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Research questions

- Which potential business models do members and management contemplate for their REC?
- How do they judge these business models for their REC, especially: which barriers do they see?



Empirical investigation



Case selection:

a) Existing RECs in Baden-Württemberg, Nordrhein-Westfalen, Niedersachsen and Rheinland-Pfalz.

Broad coverage: Size, urban vs. rural context, business type, etc.

a) One failed REC (has been dissolved)



Cases

No.	Number of members	Setting	Business type	Share price	Founded in	Cooperations (e.g. with local utility)
1	53	Big city	PV	100 EUR	2013	no
2	78	Small city	PV	500 EUR	2012	no
3	82	Rural	PV	250 EUR	2010	no
4	109	Small city	PV	1.000 EUR	2011	yes
5	119	Big city	PV	100 EUR	2012	no
6	140	Rural	PV	100 EUR	2010	no
7	146	Big city	PV	250 EUR	2011	no
8	148	Big city	PV (wind)	50 EUR	2010	no
9	160	Small city	PV (wind, hydro)	250 EUR	2011	no
10	166	Rural	District heating, biogas	500 EUR (x5)	2011	no
11	247	Rural	PV	100 EUR	2009	no
12	267	Big city	PV	100 EUR	2012	no
13	281	Small city	PV	500 EUR	2009	yes
14	469	Rural	PV	500 EUR	2009	yes
15	597	Rural	PV, district heating, e-mobility	500 EUR (x2)	2008	no



Characteristics of most German RECs





A typical REC in Baden-Wuerttemberg



- Founded in 2010
- 174 members
- 5 PV installations
- Total capacity: 142 kWp



Only 35% of RECs earned more than EUR 10 k p.a.



■ <=-50.001€

- -50.000€- -10.001€
- ∎ -10.000€- -5.001€
- -5.000€- 0€
- ∎ 1€- 5.000€
- 5.001€- 10.000€
- ∎ 10.001€- 50.000€
- ■>=50.001€

Source: Debor 2014



Business model structure

Main elements	Value propo- sition	Customer interface	Infrastructure	Revenue model / financial model
Sub- elements		Target customers / customer segments	Key activities	Revenue streams
		Customer relation- ships	Key resources	Cost structure
		Channels	Key partners	

Source: Osterwalder 2004, Osterwalder et al. 2005



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Business model "green electricity retail"

Main elements	Value propo- sition Green power	Customer interface	Infrastructure	Revenue model / financial model
Sub-	from local	Target	Key activities	Revenue streams
elements	sources	customers Own members / regional consumers	Production, marketing	Sales, price per kWh
		Customer relationships <i>Based on reg.</i> <i>context</i>	Key resources RE installations, regional network	Cost structure
		Channels Internet / directly	Key partners Utilities / service providers for administration	



Regional electricity brands by RECs

Unser erster Kunde - spontan begeistert von unserem Ökostrom-Angebot



Ziele

Beteiligungsangebot

Geschenkgutschein

Ökostrom

Tarifkalkulator

Projekte

realisiert

neu: Thre Idee ...

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Generalversammlung

Wir über uns

Leitbild und Satzung

Prinzipien

Vorstand

- Aufsichtsrat
- Meilensteine



Ökostrom von der BERMeG

Für ihr Elektroauto und den Haushalt nutzen Bärbel und Werner Kunz aus Mörfelden-Walldorf jetzt Ökostrom von der BERMeG.

Spontan begeistert von unserem Angebot wollen sie damit die Energiewende in der Region voranbringen.

Ökostrom jetzt von der BERMeG beziehen



Die BERMeG ist jetzt auch Strom-Anbieter. Wir liefern 100 Prozent Ökostrom für die Region mit unserem Spezialtarif BERMeG ÖKO 100 und sogar bundesweit mit unserem BÜRGERSTROM-Tarif.

Prüfen Sie unser Angebot, klicken Sie auf den folgenden Link zur Berechnung Ihrer persönlichen Stromkosten und wechseln Sie danach bequem online zu unserem günstigen Ökostrom.

Aktuelles

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Die BERMeG wird sich an der NEG beteiligen, der Eigentümerin des Gas- und Stromnetzes

der Stadt Mörfelden-Walldorf. Bürgerinnen und Bürgern wird dadurch über eine Mitgliedschaft ... mehr

Aktive Schule Frankfurt am Main



Auf dem Flachdach der Schule wurde im April 2016 eine

Photovoltaikanlage mit 10 kWp durch die BürgerEnergieRheinMain eG realisiert. REPMaC batraibt dia DV-Anlaga und

Source: http://www.bermeg.de/portal/01.05.html



Business model "wind project minority investment"

Main elements	Value propo- sition Investment in	Customer interface	Infrastructure	Revenue model / financial model
Sub- elements	renewables with limited risk	Target customers / customer segments <i>None</i>	Key activities Taking a minority stake in large wind projects Raising capital from	Revenue streams Dividends from the investment
		Customer relationships <i>None</i> Channels <i>None</i>	Key resources Local network for raising capital Financial know-how Key partners Project developers,	Cost structure



Other potential activities for RECs





Barriers





Strategies for overcoming the identified barriers

- Cooperation strategies / partners
 - (Municipal) utilities
 - Other RECs
 - Project developers
 - Housing cooperatives
- Professionalization, employing salaried management
- Careful handling of ethical concerns



Outlook: RECs potential future role

- Probably many mergers and closures of RECs in the next years
- RECs can be attractive partners for utilities in building local green energy brands (customers value local origin and RECs as producers)
- District heating and maybe storage are also potential growth options



EWS: a successful REC from the South West







Source: https://www.ews-schoenau.de





Other ISR research projects

- Marketing of green electricity
 - Content analysis of green energy providers' websites
 - ~480 providers under review, >600 products analysed
- Willingness to pay for green electricity
 - Neuroscience-based
 - Differentiation between different types of RE
- Green energy cooperatives (ongoing)
 - Marketing / business models
 - Conflicts
- Employees' initiatives for green energy in the workplace

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