

# **Internal Organisation of German Energy Cooperatives: An Analysis of 570 Statutes**

Björn Hoops<sup>1</sup>

The project “Private Law and the Energy Commons” investigates citizen-led initiatives to produce renewable energy as a group (hereinafter: energy communities) and examines how the laws of the EU and Member States, in particular in Germany and Italy, pose obstacles to their flourishing. The European Directives 2018/2001 (Renewable Energy Directive) and 2019/944 (Internal Electricity Market Directive) set requirements for the internal organisation of existing energy cooperatives that want to qualify as ‘Renewable Energy Community’ and, respectively, ‘Citizen Energy Community’. These requirements concern the purpose of the organisation, membership, the right to exit, control over the community, and the disbursement of profits. To lay an empirical base for an evaluation of whether the Directives and the laws of Member States pose obstacles to the flourishing of energy communities, I have examined how energy cooperatives shape their internal organisation in practice. Energy cooperatives are the most common legal form in Germany in which citizens come together to produce renewable energy. This document summarises the results of a desk review of 570 statutes of German energy cooperatives that actually produce renewable energy.

## **Methodology**

The statutes of German energy cooperatives are generally freely available online. To collect statutes, I searched for statutes on handelsregister.de, in addition to statutes that had been sent to me by energy cooperatives before the search. I used the following search terms: “Energie”, “Bürgerenergie”, “Bürgerenergiegenossenschaft”, “Bürgerwind”, “Bürgerwindpark”, “Energiegenossenschaft”, “Solargenossenschaft”, and “Bürgersolar”. The search has not produced the statutes of all energy cooperatives in Germany because the names of the energy cooperatives are more varied than can be covered by standard search terms. I then checked whether google produced any indication that the energy cooperative in question still existed and, on the cooperative’s website, if applicable, whether it produced renewable energy and embodied civic engagement. Subsequently, I made a desk review to analyse the statutes with respect to the following organisational aspects covered by the EU Directives: purpose of the

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<sup>1</sup> Björn Hoops holds the Chair of Private Law and Sustainability at the Faculty of Law of the University of Groningen, The Netherlands. From April 2022 to March 2024 he is Marie Curie Fellow at the University of Turin. This empirical research forms part of the project “Private Law and the Energy Commons”, which has received funding from the European Union’s Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No. 101024836.

cooperative, membership requirements, requirements for an exit through the cancellation or transfer of shares, voting rights in the general assembly, the appointment or dismissal of the board, decision-making powers of the different bodies, and the disbursement of profits. In addition, the cooperative's seat (the federated state in which it is registered), its year of foundation, and the statute's age were noted. Finally, I applied the descriptive statistics tools and correlation analysis tools of SPSS 28 to the data. The German Association of Cooperatives (*Deutscher Genossenschafts- und Raiffeisenverband e.V.*) reports 877 energy cooperatives,<sup>2</sup> of which between 70 and 75% produce energy.<sup>3</sup> A sample of 570 statutes of energy cooperatives that produce renewable energy is therefore representative.

## CHARACTERISTICS

The following tables show where the 570 energy cooperatives are registered, in which year they were founded and in what year the statute was last revised.

### Seat

Federated state	Number	Percentage (in %)
Baden-Württemberg	134	23.5
Bayern (Bavaria)	102	17.9
Berlin	4	0.7
Brandenburg	12	2.1
Bremen	2	0.4
Hamburg	2	0.4
Hessen (Hesse)	44	7.7
Mecklenburg-Vorpommern (Mecklenburg–Western Pomerania)	2	0.4
Niedersachsen (Lower Saxony)	83	14.6
Nordrhein-Westfalen (North Rhine-Westphalia)	86	15.1
Rheinland-Pfalz (Rhineland- Palatinate)	28	4.9
Saarland	7	1.3
Sachsen (Saxony)	13	2.3
Sachsen-Anhalt (Saxony- Anhalt)	4	0.7
Schleswig-Holstein	14	2.5
Thüringen (Thuringia)	31	5.4

<sup>2</sup> <https://www.dgrv.de/bundesgeschäftsstelle-energiegenossenschaften/#:~:text=Die%20877%20Energiegenossenschaften%20stehen%20mit,die%20breite%20Akzeptanz%20der%20Energiewende> (last accessed on 1 September 2023).

<sup>3</sup> Ö. Yildiz, J. Rommel, S. Debor, L. Holstenkamp, F. Mey, J.R. Müller, J. Radtke & J. Rognli, 'Renewable energy cooperatives as gatekeepers or facilitators? Recent developments in Germany and a multidisciplinary research agenda', 6 *Energy Research & Social Science* 2015, 59-73, 62.

*Year of foundation (381 data points)*

Range	Number	Percentage (in %)
Before 2000	1	0.3
2000-2007	4	1
2008-2023	376	98.7

**Year foundation**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1919	1	,2	,3	,3
	2003	1	,2	,3	,5
	2005	1	,2	,3	,8
	2007	2	,4	,5	1,3
	2008	11	1,9	2,9	4,2
	2009	50	8,8	13,1	17,3
	2010	51	8,9	13,4	30,7
	2011	65	11,4	17,1	47,8
	2012	71	12,5	18,6	66,4
	2013	50	8,8	13,1	79,5
	2014	14	2,5	3,7	83,2
	2015	11	1,9	2,9	86,1
	2016	9	1,6	2,4	88,5
	2017	6	1,1	1,6	90,0
	2018	5	,9	1,3	91,3
	2019	3	,5	,8	92,1
	2020	6	1,1	1,6	93,7
	2021	11	1,9	2,9	96,6
	2022	12	2,1	3,1	99,7
	2023	1	,2	,3	100,0
	Total	381	66,8	100,0	
Missing	System	189	33,2		
Total		570	100,0		

*Connections with age of cooperative (correlation analysis)*

Correlated	Direction	Correlation Coefficient (Spearman)	p-level
Appointment of board of directors by supervisory board	Negative	-0.134	0.99

Information and education as goal	Positive	0.142	0.99
Financial motives as goal	Positive	0.139	0.99
Minimum investment	Positive	0.102	0.95

The SPSS correlation analysis produces some significant correlations between the age of the cooperative and other examined aspects. The choice for the Supervisory Board of the cooperative to appoint the Board of Directors is negatively correlated with the age of the cooperative. The younger the cooperative, the less likely it is for the Supervisory Board to appoint the Board of Directors. Also, there are positive correlations between the age of the cooperatives and the goals of the cooperative laid down in the statute. The younger the cooperative, the more likely it is for a statute to contain financial goals and/or information and education as goals. A weaker significant positive correlation exists between the age of the cooperative and the minimum amount members need to invest. The younger the cooperative, the more members will have to pay to be admitted.

*Year of statute (551 data points)*

		Frequency	Percent	Valid Percent	Cumulated Percent
Valid	2007	3	,5	,5	,5
	2008	10	1,8	1,8	2,4
	2009	44	7,7	8,0	10,3
	2010	41	7,2	7,4	17,8
	2011	63	11,1	11,4	29,2
	2012	85	14,9	15,4	44,6
	2013	63	11,1	11,4	56,1
	2014	24	4,2	4,4	60,4
	2015	25	4,4	4,5	65,0
	2016	22	3,9	4,0	69,0
	2017	15	2,6	2,7	71,7
	2018	23	4,0	4,2	75,9
	2019	23	4,0	4,2	80,0
	2020	23	4,0	4,2	84,2
	2021	42	7,4	7,6	91,8
	2022	39	6,8	7,1	98,9
	2023	6	1,1	1,1	100,0
	Total	551	96,7	100,0	
Missing	System	19	3,3		
Total		570	100,0		

### *Connections with age of statute (correlation analysis)*

Correlated	Direction	Correlation Coefficient (Spearman)	p-level
Information and education as goal	positive	0.188	0.99
Financial motives as goal	positive	0.159	0.99

Similar to the age of the cooperative, the age of the statute seems to be a good predictor for the inclusion of certain goals in the statute. The younger the statute, the more likely it is to include information and education and/or financial goals as a purpose of the cooperative.

### **PURPOSE**

Under the EU Directives, a renewable or citizen energy community must serve the economic, environmental, or social interests of the members or their local community. Under the German Cooperative Act (*Genossenschaftsgesetz*), a cooperative may serve the pecuniary or economic interests of the members or their cultural or social interests (§ 1, sub-section I). The analysis has found the following economic, environmental, or social purposes in the statutes: lower energy prices for the members and/or others; local economic development and/or energy security; the generation of renewable energy, emission reduction, and/or climate protection; alleviating poverty, strengthening social cohesion, and/or support for social institutions; information and education; and/or the sale of energy and/or other financial motives. The following table summarises the results of the analysis of the statutes in this respect.

#### *Goals under the statute (several answers possible)*

Goal	Included in statute	Percentage included (in %)
Lower energy prices for members and/or others	13	2.3
Local economic development and/or energy security	54	9.5
Renewable energy, emission reduction and/or climate protection	521	91.4
Alleviating poverty, strengthening social cohesion, supporting social institutions	9	1.6
Information and education	328	57.5
Sale of energy and/or other financial motives	360	63.2
None of those purposes or only financial motives	21	3.7

Under the Cooperative Act and all statutes, the General Assembly may change the purposes of the cooperative. Under the Cooperative Act, a majority of  $\frac{3}{4}$  is required to change the object of the cooperative (§ 16, sub-section II, sentence 1), and the statute may provide for qualified majorities regarding other aspects (§ 8, sub-section 1, No. 4). The table shows the required majorities under the statutes for a change of the purpose(s) of the cooperative.

		Change of purpose			Cumulated
		Frequency	Percent	Valid Percent	Percent
Valid in	67	1	,2	,2	,2
%	75	569	99,8	99,8	100,0
	Total	570	100,0	100,0	

## MEMBERSHIP

Under the EU Renewable Energy Directive, non-local authorities may not become members. Under the German Cooperative Act, any restriction on the membership pertaining to the location of the residence of a natural person or the seat of a legal person must be laid down in the statute (§ 8, sub-section I, No. 2). If the residence or seat is moved to another district, the member will have a special right to cancel their shares (§ 67). The following table shows whether the statutes of 570 energy cooperatives restrict the admissions of non-local people and entities:

### *Restriction of membership to local people and entities*

	Number	Percentage (in %)
Yes, expressly	94	16.5
Yes, indirectly (a heating community or due to other membership requirements)	27	4.7
Subject to approval by General Assembly	2	0.4
Subject to approval by Board of Directors	127	22.3
Subject to approval by Board and Supervisory Board	5	0.9
Subject to approval by Supervisory Board	5	0.9
No	310	54.4

Under the Renewable Energy Directive, large enterprises and energy companies may not become members. The following tables show whether the statutes of 570 energy cooperatives exclude such groups from membership.

*Exclusion of public authorities (possible: in addition to requirement of being local)*

	Number	Percentage (in %)
Yes	10	1.8
No	560	98.2

*Exclusion of energy companies (possible: in addition to requirement of being local)*

	Number	Percentage (in %)
Yes	36	6.3
Subject to approval by Board of Directors and Supervisory Board	3	0.5
Competition with energy cooperative as ground for expulsion	254	44.6
No	277	48.6

*Exclusion of other companies (possible: in addition to requirement of being local)*

	Number	Percentage (in %)
Yes, irrespective of size	11	1.9
No	559	98.1

*Other relevant membership requirements*

	Number	Percentage (in %)
Only clients of a certain energy supplier or bank (who are major shareholders)	4	0.7
Only employees of major shareholder, in particular energy supplier	2	0.4
Only consumers of energy generated by community	9	1.6

## SHARES

Under the Renewable Energy Directive, Member States must ensure that renewable energy communities are open to vulnerable and low-income citizens. The following tables show the descriptive statistics of the minimum amount new members have to invest in shares of the 570 examined energy cooperatives.

Minimum nominal value of share(s)

N	Valid	570
Average		661,05
Median		500,00
Standard Deviation		1123,286

**Minimum nominal value of share(s)**

		Frequency	Percent	Valid Percent	Cumulated Percent
Valid in EUR	1	1	,2	,2	,2
	5	3	,5	,5	,7
	10	2	,4	,4	1,1
	40	1	,2	,2	1,2
	50	12	2,1	2,1	3,3
	60	1	,2	,2	3,5
	75	1	,2	,2	3,7
	90	1	,2	,2	3,9
	100	140	24,6	24,6	28,4
	120	1	,2	,2	28,6
	125	1	,2	,2	28,8
	150	1	,2	,2	28,9
	200	26	4,6	4,6	33,5
	250	53	9,3	9,3	42,8
	300	19	3,3	3,3	46,1
	400	1	,2	,2	46,3
	500	167	29,3	29,3	75,6
	550	1	,2	,2	75,8
	600	1	,2	,2	76,0
	800	1	,2	,2	76,1
	1000	93	16,3	16,3	92,5
	1500	8	1,4	1,4	93,9
	2000	10	1,8	1,8	95,6
	2500	5	,9	,9	96,5
	3000	3	,5	,5	97,0
	5000	10	1,8	1,8	98,8
	6000	3	,5	,5	99,3
7000	1	,2	,2	99,5	
10000	3	,5	,5	100,0	
Total	570	100,0	100,0		



The payment in instalments may make it easier for low-income and vulnerable people to join the energy cooperative. The following table shows whether the examined statutes permit this.

*Payment in instalments possible?*

	Number	Percentage (in %)
Yes	33	5.8
No	537	94.2

***Connections with minimum nominal value (correlation analysis)***

Correlated	Direction	Correlation Coefficient (Spearman)	p-level
Payment in instalments	Positive	0.121	0.99
Restriction on membership pertaining to residence or seat	Positive	0.100	0.95
Emission reduction as goal	Negative	-0.226	0.99
Financial motives as goal	Positive	0.136	0.99

***Connections with payment in instalments (correlation analysis)***

Correlated	Direction	Correlation Coefficient (Spearman)	p-level
Minimum nominal value of shares	Positive	0.121	0.99
Restriction on membership pertaining to residence or seat	Positive	0.112	0.99
Emission reduction as goal	Negative	-0.138	0.99

There is a significant positive correlation between the possibility of paying the nominal value of one's shares in instalments and the minimum nominal value that new members have to invest in the cooperatives. This indicates that the higher the required investment, the more likely it is for energy cooperatives to accept payment in instalments. There are also significant positive correlations between membership restrictions regarding a member's residence or seats and the required minimum investment as well as the possibility to pay in instalments. It thus seems that energy cooperatives that give preference to locals are more likely to require a higher investment and allow for a payment in instalments. This may be due to the fact that heat communities are usually confined to a certain area and generally have higher costs to be borne by members. Interestingly, the goal of emission reduction correlates with lower minimum investments and

fewer opportunities to pay in instalments, while financial motives correlate with higher minimum investments.

*Additional fees entrenched in statute?*

In addition to the nominal value of their shares, members may have to pay additional charges, such as processing fees. The following table shows whether and, if so, to what extent the examined statutes provide for additional charges.

EUR	Number	Percentage (in %)
10	1	0.2
50	2	0.4
100	1	0.2
150	1	0.2
2,500	1	0.2
None, but may still be possible	564	98.9

**MAXIMUM AMOUNT OF SHARES**

The starting point is that each members acquires one share. § 7a(1) of the Cooperative Act stipulates that the statute may foresee the possibility of members acquiring more than one share and conditions and/or a certain ceiling for such acquisitions. The following table shows how 570 statutes regulate this aspect:

Rule	Number	Percentage (in %)
One share per member	14	2.5
Extra shares subject to approval by Board of Directors or another body	292	51.2
Number of extra shares is theoretically unlimited, subject to availability	50	8.8
Acquisition of extra shares is subject to a ceiling	214	37.5

**RIGHT TO EXIT**

Under the EU Directives, members of energy communities have a right to exit the community. Under the Cooperative Act, the right to transfer shares is the default option (§ 76, sub-section 1), but the statute may restrict or bar it altogether. The following table shows whether the statutes foresee the right to transfer shares, with/without the approval by the Board of Directors.

## Right to transfer shares, possibly subject to approval by Board

		Frequency	Percent	Valid Percent	Cumulated Percent
Valid	No	1	,2	,2	,2
	Yes	569	99,8	99,8	100,0
	Total	570	100,0	100,0	

Alternatively, the members may exit by cancelling their shares. The Cooperative Act and all the statutes guarantee this right (§ 68, sub-section 1). None of the statutes provides for a cancellation fee. However, there always applies a notice period. Under the Cooperative Act, the rule is that this notice period is at least three months long, but may never exceed five years (60 months), according to § 68, sub-section II, sentences 1 and 2 (with an exception to this rule in sub-section III). The following tables show the descriptive statistics of the length of the notice period.

### Notice period in case of cancellation (in months)

N	Valid	570
Average		28,12
Median		24,00
Standard deviation		17,698

### Notice period in case of cancellation (in months)

		Frequency	Percent	Valid Percent	Cumulated Percent
Valid in months	3	19	3,3	3,3	3,3
	6	30	5,3	5,3	8,6
	9	2	,4	,4	8,9
	12	106	18,6	18,6	27,5
	15	4	,7	,7	28,2
	18	3	,5	,5	28,8
	24	247	43,3	43,3	72,1
	36	43	7,5	7,5	79,6
	48	4	,7	,7	80,4
	60	112	19,6	19,6	100,0
	Total	570	100,0	100,0	

### *Notice period*

Months	Number	Percentage (in %)
≤ 12	157	27.5
13-24	254	44.6
> 24	159	27.9

## **DECISION-MAKING**

Cooperatives are known for the principle of one person, one vote in the General Assembly. Under the Cooperative Act, the statute may assign up to three votes to a member, unless more than 75% of members are businesses or cooperatives (§ 43, sub-section 3, No. 1). The following table shows the extent to which the statutes of the 570 examined cooperatives stick to the principle of one person, one vote.

### *Voting rights in General Assembly*

	Number	Percentage (in %)
One person, one vote	559	98.1
Zero votes for investing members	3	0.5
The more shares, the more votes (up to 3)	8	1.4

In the governance structure of the cooperative, the Cooperative Act provides for three bodies: the General Assembly of members, the Board of Directors, and the Supervisory Board (§ 9, sub-section 1). The Supervisory Board can be omitted if the cooperative has fewer than 20 members. The starting point is that the General Assembly appoints the Board of Directors (§ 24, sub-section II, sentence 1) and the Supervisory Board (§ 36, sub-section 1, sentence 1), which supervises the Board of Directors. The statute can assign the appointment of the Board of Directors to another entity than the General Assembly. The Board of Directors is particularly important because it has the authority to manage and represent the cooperative, and only in small cooperatives may the General Assembly give binding instructions to the Board of Directors (§ 26, sub-section I; § 27, sub-section I). For this reason, the main avenue for the General Assembly to have influence on the management of the cooperative is the appointment of the Board of Directors. The following table shows which body appoints the Board of Directors under the examined statutes:

### *Appointment of Board of Directors*

Entity	Number	Percentage (in %)
General Assembly	102	17.9
Supervisory Board	465	81.6
Third parties (municipal banks or energy suppliers)	3	0.5

### *Connections with the General Assembly as Appointing Body (correlation analysis)*

Correlated	Direction	Correlation Coefficient (Spearman)	p-level
Emission reduction as goal	Negative	-0.183	0.99
Minimum nominal value of shares	Positive	0.198	0.99
Notice period for cancellation	Negative	-0.228	0.99
Payments in instalments possible	Positive	0.100	0.95

### *Connections with the Supervisory Body as Appointing Body (correlation analysis)*

Correlated	Direction	Correlation Coefficient (Spearman)	p-level
Emission reduction as goal	Positive	0.149	0.99
Minimum nominal value of shares	Negative	-0.195	0.99
Notice period for cancellation	Positive	0.212	0.99

There are significant correlations between the body that appoints the Board of Directors and other aspects. There is a significant negative correlation between the General Assembly as appointing body and the length of the notice period for the cancellation of one's shares as well as emission reduction as a goal of the cooperative. Importantly, there is a corresponding positive correlation between the Supervisory Board as an appointing body and these aspects. In other words, where the Supervisory Board appoints the Board of Directors, the statute is more likely to feature longer notice periods and emission reduction as a goal. Also, there are positive correlations between the required minimum investment and the possibility of payments in instalments in the cooperative and the General Assembly as the appointing body, with one corresponding negative correlation between the required minimum investment and a Board of Directors appointed by the Supervisory Board. This suggests that cooperatives with wealthier and, probably, fewer members with a need for flexibility and the intention to pursue other goals than climate protection choose for the General Assembly as appointing body.

*Additional requirements for appointment of Board of Directors?*

The Cooperative Act stipulates that only natural persons may sit on the Board of Directors (§ 9, sub-section II, first sentence). Concerning the composition, the Cooperative Act prescribes a certain representation of women (§ 9, sub-section III). In addition to the appointing body, statutes may provide for additional requirements. The following table shows the extent to which the 570 statutes make use of this leeway:

	Number	Percentage of 570 (in %)
(Part of the Board) Proposal by Supervisory Board	1	0.2
(Part of the Board) Proposal by sister company	3	0.5
(Part of the Board) Proposal by municipality, municipal bank and/or energy supplier	2	0.4
(Part of the Board) Representative of municipality, municipal bank and/or energy supplier	14	2.5
Age requirements (ceiling)	43	7.5
Skills requirements (legal or more general)	2	0.4

In addition to the appointment, the immediate dismissal of the Board of Directors is an important power to influence the management of the cooperative. The following table shows which body may immediately dismiss the Board of Directors. The Cooperative Act merely provides for the power of the Supervisory Board to dismiss members of the Board of Directors provisionally (§ 40).

*Dismissal of Board of Directors (more than one answer possible)*

	Number	Percentage (in %)
General Assembly	131	23
Supervisory Board	446	78.2
SB and GA together	1	0.2

The following tables show which body may decide on the acquisition, financing and operation of renewable energy facilities.

*Decision on acquisition of, and construction on, land*

	Number	Percentage (in %)
General Assembly	2	0.4
Board of Directors	188	33
Board and Supervisory Board	374	65.6
Board and General Assembly	6	1.1

*Decision on acquisition of new renewable energy facility*

	Number	Percentage (in %)
General Assembly	1	0.2
Board of Directors	387	67.9
Board and Supervisory Board	176	30.9
Board and General Assembly	6	1.1

*Decision on financing new renewable energy facility*

	Number	Percentage (in %)
General Assembly	2	0.2
Board of Directors	201	35.3
Board and Supervisory Board	361	63.3
Board and General Assembly	6	1.1

**Maintenance of facilities**

	Frequency	Percent	Valid Percent	Cumulated Percent
Valid Board	570	100,0	100,0	100,0

**DISBURSEMENT OF PROFITS**

All of the examined statutes say that profits may be disbursed as dividends to the members. The Cooperative Act (§ 48, sub-section I, sentence 1) and all the statutes stipulate that it is the General Assembly that decides on the disbursement.