EGMONT PAPER 111

RENEWABLE ENERGY COMMUNITIES
IN THE EUROPEAN ENERGY POLICY:
AN EVIDENCE OF CLEAN ENERGY
FOR ALL EUROPEANS, NOT BY ALL

Loïc Cobut



ABOUT THE AUTHOR

Loïc Cobut is a Teaching Assistant and Doctoral Researcher in Political Science at the Centre de Recherche en Science Politique (CReSPo) and the Institute for European Studies (IEE) of the Université Saint-Louis — Bruxelles. He is conducting a Thesis on the (non) emergence of renewable energy cooperatives in Wallonia, in its Belgian and European context. His main research interests are in EU energy and climate governance, EU renewable energy policy and renewable energy communities. He has published, with colleagues, Focusing on non-state actions instead of non-state actors in the context of sustainability transitions (Global Policy, 2019) and Global Environmental Complexity and the Limits of the EU's External Regulatory Actorness (with Amandine Orsini, in Supranational Governance at Stake. The EU's External Competences caught between Complexity and Fragmentation, Edited by Mario Teló and Anne Weyembergh, Routledge, May 2020).

ABOUT THE EGMONT PAPERS

The Egmont Papers are published by Egmont – The Royal Institute for International Relations. Founded in 1947 by eminent Belgian political leaders, Egmont is an independent think-tank based in Brussels. Its interdisciplinary research is conducted in a spirit of total academic freedom. A platform of quality information, a forum for debate and analysis, a melting pot of ideas in the field of international politics, Egmont's ambition – through its publications, seminars and recommendations – is to make a useful contribution to the decision-making process.

Table of Contents

Abs	stract	2
Inti	roduction	3
1.	What are renewable energy communities (RECs): from the literature	
	to the Clean Energy Package	5
	Definitions from the literature	5
	Provisions from the Clean Energy Package	6
2.	Theoretical and conceptual framework	9
	Polycentric governance	9
	Empowerment	10
3.	Analysis	12
	Polycentric governance in the clean energy package	12
	Empowerment in the Clean Energy Package	16
	Perspectives from Belgium	18
4.	Discussion and recommendations	21
5.	Acknowledgments	24
6	Bibliography	24

ABSTRACT

In 2016, the European Commission recognized the role of renewable energy communities (RECs) in the Clean Energy Package (CEP). This package has been accompanied by a narrative of citizen empowerment while the EU energy and climate governance since the Paris Agreement has become more polycentric, seeking to further include non-state actors in the fight against climate change.

This policy paper takes the opportunity of these evolutions to present RECs and the concepts of polycentric governance and empowerment based on existing academic literature. It combines these two concepts to analyse the evolution of the renewable energy governance of the EU through the CEP. The analysis is conducted in a reflexive manner that sheds light on the analytical inputs and limits of these concepts. More particularly, it pinpoints the limits of the EU interpretation of empowerment and polycentricity, namely by exploring the place given to RECs and their struggle with energy incumbents. In a nutshell, this paper considers both the outcome of the CEP and what it tells about the renewable energy governance of the EU itself.

Ultimately, it provides with recommendations for a future revision of the renewable energy policy of the European Union as well as for the coming transposition of the measures that were delivered by the CEP.

INTRODUCTION

The energy transition includes a variety of actors, spanning from centralized energy incumbents - such as EDF in France, ENEL in Italy, E-ON in Germany, etc. - to the involvement of active citizens in renewable energy cooperatives or communities (RECs). In 2016, the European Commission recognized for the first time the role of RECs in proposed legislative measures of the Clean Energy for all Europeans Package (CEP) (Rescoop.eu, 2016). These actors are interesting as they "point to a way of reorganizing economic and political life in a manner that enables citizens to gain autonomous income, self-esteem, social security, and also work in favor of a more equal distribution of power in our societies" (Krieger, Kropp and Kulke, 2017, 1). There are two main ways to look at the rising interest of the EU towards them.

First, the Paris Agreement has strengthened "the connection between international governance on the one hand and non-state and subnational governance on the other" (Van Asselt and Zelli, 2018, 36). Non-state actors such as RECs are presented as a key pillar of this agreement as they are expected to complement and support the multilateral process (Chan et al., 2015). In this context, scholars in international studies have developed the concept of polycentric governance to analyse the multiplication of interactions between a growing range of actors.

Second, some say the European Union (EU) sees in them an opportunity to (re)connect to its citizens and to include a social dimension in the energy transition: "Rather than being perceived as an agent of globalization and a remote, undemocratic power center, the European institutions and policy-makers have an opportunity to be seen by European citizens as a source of protection and support, through the promotion of decentralized power generation and the protection of prosumers on energy markets, especially against major incumbents" (Krieger, Kropp and Kulke, 2017). In its narrative, the Commission looks at European people as actors of the energy transition and not solely as energy consumers. It seeks to "empower" them.

This policy paper investigates those two visions through the concepts of polycentric governance and empowerment. By looking to understand why, if and how those two concepts of are embodied in the outcome of the CEP, this paper offers an innovative and reflexive contribution on the recent development of the governance of the EU renewable energy policy. More precisely, these concepts help to understand the mode of governance that will flow from the implementation of the new EU renewable energy policy.

In section 1, this paper provides with REC definitions from academic literature and the Clean Energy Package. In section 2, it defines and uncovers the concepts of polycentric governance and empowerment. The novelty of this paper is to bring those concepts together around RECs, which have been made recently more visible

through the CEP. In the analysis (section 3), I argue that looking for the presence or absence of polycentric governance and empowerment in the outcome of the CEP is a vehicle to examine the post-Paris Agreement European governance landscape. In this section, the case of Belgium will be used to reflect on these concepts and on the REC-related provisions of the CEP. Ultimately, in section 4, a discussion of the analysis leads to deliver tailor-made policy recommendations for the transposition of the provisions delivered by the CEP as well as recommendations for a future revision of the EU renewable energy policy and its governance mode.

In terms of methodology, this paper is based on a variety of sources, ranging from existing academic and practitioner literature to official documents, position papers from the advocacy offices of energy incumbents and RECs. The RECs' advocacy office has also been interviewed in order to collect more information on their strategy. The positions of these actors will help to understand the interests that were represented during the CEP legislative process.

1. WHAT ARE RENEWABLE ENERGY COMMUNITIES (RECs): FROM THE LITERATURE TO THE CLEAN ENERGY PACKAGE

Definitions from the literature

Scholars and practitioners use different terms to refer to RECs, such as renewable energy sources cooperatives, local energy communities, citizen energy communities, community-based energy projects, grassroots energy projects, etc. In the framework of this paper, it is the term "renewable energy communities" that will be used as it appears to be the most-comprehensive expression.

There are now many angles through which RECs have been analysed and the topic does not yet seem to be saturated. As Creamer and colleagues (2019, 1) put it "the intervening decade has firmly established CRE [Community Renewable Energy] as an academic field: fleshed out with a bulwark of empirical examples, theoretical reflections and methodological tools". This section does not aim to provide a systematic literature review on RECs. Rather I present only the core definition aspects of RECs from the literature and, then, the main provisions from the CEP.

To this day, the European federation for renewable energy sources cooperatives (Rescoop.eu or Rescoop Europe) that represents the interest of these cooperatives at the EU level, counts a growing network of 1500 members (Rescoop.eu, 2020). In 2010, around 180 photovoltaic energy cooperatives were present in Germany (Holstenkamp and Ulbrich, 2010). In 2016 in Denmark, 70% of wind turbines (Sahovic and Pereira da Silva, 2016, 48) are owned by nearly 900 cooperatives (Vansintjan, 2017). The Rescoop.eu federation members have signed the Rescoop.eu Charter, that is based on the cooperative definition, related values and the seven principles of the International Co-operative Alliance (ICA). According to the ICA, a cooperative is "an autonomous association of persons united voluntarily to meet their common economic, social, and cultural needs and aspirations through a jointly owned and democratically-controlled enterprise" (ICA, 2017). The values defined by the ICA are those of self-help, self-responsibility, democracy, equality, equity and solidarity. The seven principles are the following: voluntary and open membership, democratic member control, member economic participation, autonomy and independence, education, training and information, cooperation among cooperatives, concern for community (ICA, 2017). On top of that, the Rescoop.eu Charter adds its own ecological principles that stress the need to protect the environment and social, and ethical principles that highlight the importance to support local economy and prosumers, to ensure financial transparency, to restrict the exclusive pursuit of financial profit, to encourage fair trade and to access to common goods (Rescoop.eu, 2013).

Walker and Devine-Wright (2008, 498) have been among the first scholars to develop a differentiation of community renewable energy based on two dimensions that are useful in order to situate RECs in the renewable energy production system. The first dimension is based on a process dimension that is "concerned with who a project is developed and run by". The second is an outcome dimension, "concerned with how the outcomes of a project are spatially and socially distributed - in other words, who the project is for". In their research, they have found that some RECs are rather focused on the process while others are rather focused on the outcome, while some other are not focused on a specific dimension. In contrast to these RECs, a project like a wind farm project developed by a conventional energy utility, with "minimal direct involvement of local people and [...] developed by a distant and closed institution, that generates energy for the grid rather than for use in the locality and that produces economic returns for distant shareholders [...]" (498) would be situated at the opposite side of RECs.

Walker and Devine-Wright (2008, 499) argue that flexibility in the meaning of RECs has enabled experimentation, projects with particular context, and has reflected heterogeneous models. On the other hand, they observe that projects that are labelled community but "end up being positioned towards the middle of our process/outcome diagram rather than firmly in the top right quadrant [...] can become more locally divisive and controversial if benefits are not generally shared among local people" (Walker and Devine-Wright, 2008, 499).

Since then, scholars have brought several nuances to these process and outcome dimensions. Creamer and colleagues (2019, 3) rather describes the relation between outcome and process as a "co-dependency", where a process leads to certain outcome and vice-versa. In the end, these two dimensions still proves themselves useful to present RECs.

It is also important to stress that RECs are not exclusively active in energy production. An increasing number of them are developing projects that deal with energy efficiency projects, urban mobility or district heating. This diversification of activities for RECs refer to their development, while the term "emergence" refers to the period, usually from several weeks to a few months, that covers the first meetings to the official and legal creation of the REC. That is when the cooperative label is given by the relevant administration. This paper covers both the emergence and the development of RECs.

Provisions from the Clean Energy Package

Two Directives of the CEP provide with two different definitions of RECs. More precisely, the Electricity Market Design Directive¹ (E-Directive) and the Renewable

The "elecricity market design Directive" is the term used by practitioners to refer to the Directive of the European Parliament and of the Council on common rules for the internal market in electricity.

Energy Directive² (RE-Directive). They deliver inconsistent language as the E-Directive includes a definition of citizens energy community and the RE-Directive includes a definition of renewable energy community. These definitions are presented hereunder and will be further analyse in the "Analysis" section.

Article 2 (11) of the E-Directive provides with a definition:

'Citizens energy community' means a legal entity that:

- is based on voluntary and open participation and is effectively controlled by members or shareholders that are natural persons, local authorities, including municipalities, or small enterprises;
- has for its primary purpose to provide environmental, economic or social community benefits to its members or shareholders or to the local areas where it operates rather than to generate financial profits; and
- may engage in electricity generation, distribution and supply, consumption, aggregation, storage or energy efficiency services, generation of renewable electricity, charging services for electric vehicles or provide other energy services to its shareholders or members."

Article 2 (16) of the RE-Directive provides with a similar definition. While the second and third points are the same in the RE-Directive, the first one includes the autonomy principle, absent above:

'Renewable energy community' means a legal entity:

 which, in accordance with the applicable national law, is based on open and voluntary participation, is autonomous, and is effectively controlled by shareholders or members that are located in the proximity of the renewable energy projects owned and developed by that legal entity;

Another element of the CEP that is meant to assist the emergence and development of RECs is the building of an enabling framework. This framework is present in the article 16 of the E-Directive and 22 of the RE-Directive. The provisions are summarized hereunder and will be presented in the "Analysis" section.

Article 16 (1) of the E-Directive states that "Member States shall provide an enabling regulatory framework for citizens energy communities [...]". This framework ensures several rights and obligations that flow from the definitions for these communities and its shareholders and members. The first consensual layer aims to *ensure* while the other layers stress that the framework *may provide* with other rights and obligations. There first layer is about legal requirements about market access while the second layer is about mere recommendations. The latter comes from the Council

The "renewable energy Directive" is the term used by practitioners to refer to the Directive of the European Parliament and of the Council on the promotion of the use of energy from renewable sources.

position which sought to give freedom to "Member States to allow or not energy communities openness for cross border participation as well as for the right to own, manage, establish, purchase or lease the distribution network in their area of operation" (Meeus and Nouicer, 2018, 79-80).

Article 22 (4) of the RE-Directive adds that such frameworks are to be based on the "assessment of the existing barriers and potential of development of renewable energy communities in their territories" (article 22 (3)). This means that they will have to provide with such a framework regardless of the outcome of the assessment. Then, the Commission will monitor national transposition via its normal procedures (EU pilots, formal notice, reasoned opinion, infringement, etc.). The article 22 (5) of the RE-Directive adds that "its implementation, shall be part of the updates of the Member States' integrated national and climate plans and progress reports [...]". These plans are now specified in the Regulation on Governance. Their goal is to steer Member States towards the objectives of the Paris Agreement.

This paper will focus on these provisions of the CEP. However, for completeness, at least three other key provisions for the development and emergence of RECs may be found in the CEP. First, as a part of the unbundling process of the electricity sector, the CEP has further focused on ensuring a same level playing field for all actors. In this regard, the access to the services of energy aggregators for RECs across the EU may be presented as a step forward. As stated above, RECs may "own, manage, establish, purchase or lease the distribution network in their area of operation". This has to be understood in a situation of direct action, where RECs are directly doing one or more of these activities. Direct market access has already been organized in previous Directives. It is article 22 (2c) of the RE-Directive and 16 (2a) of the E-Directive that bring a novelty for RECs as they allow them to be indirectly involved in these activities, through aggregators (Butenko, 2017, 15). This suggests that the recognition of RECs by the EU it is to be understood in a broader context where market access had first to be dealt with. A second provision will certainly come from the Governance Regulation. It concerns the development of National Energy and Climate Plans which are supposed to integrate a whole wing on citizen participation. A third provision will certainly come from the Energy Efficiency Directive. Energy efficiency projects are usually found at the development phase of RECs when members seek to optimise their energy consumption.

2. THEORETICAL AND CONCEPTUAL FRAMEWORK

Polycentric governance

In 2009, Elinor Ostrom initiated a further development of the concept of polycentric governance (Ostrom, 2009). Based on her research, scholars have started to further develop this concept to analyse the current multiplication of interactions between a growing range of actors from different levels.

Essentially, polycentric governance reflects new forms of governance emerging "spontaneously from the bottom-up, producing a more dispersed and multilevel pattern of governing" (Jordan, Huitema, Schoenefeld et al., 2018, xi; see also Ostrom, 2010). They are taking place at different levels (local, regional, national, global) and in different sectors (transport, agriculture, building, energy supply and demand etc.). This approach "claims that individual action and cooperation can be realized through a multitude of actors – in their specific contexts and in policy arenas where free-rider incentives are non-existent, less prevalent, or easier to overcome than has been perceived on the global level" (Dorsch and Flaschsland, 2017, 50). Ostrom stressed that polycentricity allows to highlight that not "only the largest scale" is relevant but that it can be complementary to small – and medium – scale actors and actions (Ostrom, 2010). To this day, Dorsch and Flachsland (2017) and Jordan et al. (2018) have come up with propositions of key features of polycentric governance. The first have identified four features that are self-organisation, site-specific conditions, experimentation & learning, and trust as main features of polycentric governance. Then, Jordan, and colleagues, have identified five features that are local action, mutual adjustment, experimentation, trust and overarching rules.

This form of governance differs from multi-level governance in the sense that it attributes a stronger degree of autonomy to sub- and non-state actors whereas multi-level governance usually assumes a stronger involvement of governmental actors in both the setting and implementation of policies (Wurzel et al., 2017, 13). It assumes that "relatively decentralized systems [...] may function effectively [...] because the diversity and multiplicity in polycentric systems allow room for experimentation [...]" (Kim, 2019). It also differs from other related concepts such as regime complexity (Orsini et al., 2013; 2019), fragmentation (Biermann et al., 2009) in the way that "it is more directly concerned with the role of non-governmental units and/or situations in which jurisdictions overlap" (Jordan, Huitema, Schoenefeld et al., 2018, 20).

In section 3, this paper looks for the absence or presence of these features in the E-and-RE-Directives, through the provisions on the recognition of RECs and the enabling framework for RECs (see legal provisions in section 1).

Empowerment

"No sooner did empowerment books and articles appear than critical reactions to them emerged" (Boje and Rosile, 2001, 90). This sentence underlines that the concept of empowerment has always been debated in academia, especially in the 1990s. At the time, critical theorists have exposed the paradox of empowerment, stating that human relations empowerment plan has more led to disempowerment than empowerment (Boje and Rosile, 2001). This point will present different interpretations of empowerment and concludes with the paradox of empowerment.

Different interpretations of empowerment may be found in the literature. Many of them include both a descriptive and a normative perspective. Managers often see empowerment as "giving people the power to make decisions" (Randolph, 2000, 95). Others "emphasize that power cannot be shared or delegated, [...] power is a self-developing capacity and it is thus impossible to empower others" (Follet, 1941 in Boje and Rosile, 2001 and in Avelino, 2009, 380). Pigg (2002, 109) offered another view as he stressed that power can rarely be the subject of an effective direct transfer; "instead, one can transfer power resources to another". Empowerment in more psychological terms is also defined as intrinsic motivation (Conger and Kanungo, 1988; Thomas and Velthouse, 1990).

When empowerment relies on intrinsic motivation, "the effort being invested [...] is not dependent on control or rewards imposed by others". It "comes from positive experiences that individuals derive directly from activities. The extent to which individuals are intrinsically motivated, i.e. empowered, to undertake certain activities depends on the extent to which they cognitively assess those activities along the following four dimensions: (1) Impact: 'I can make a difference'; (2) Competence: 'I am good at what I do'; (3) Meaning: 'I care about what I do'; (4) Choice: 'I can determine what I do'." (Avelino, 2017, 512). The author also underlines that "the less impact, competences, meaning or choice individuals think they have with regard to their daily tasks, the less intrinsically motivated they are, and the more dependent they become on extrinsic motivation (e.g. financial rewards or formal control)" (Avelino, 2009, 378).

Pigg (2002, 108) argues that three dimensions of empowerment exist and are interdependent: "self-empowerment through individual action, mutual empowerment that is interpersonal, and social empowerment in the outcomes of social action". The third dimension relies on a non-personal aspect (Pigg, 2002). This dimension looks at empowerment as "a process of removing structural barriers in political, social, and economic systems so that disadvantaged populations can have greater control over their own destinies" (Pigg, 2002, 114; Fridemann, 1992).

Then, critical theorists have exposed to the so-called "paradox of empowerment". As Avelino (2009, 380; Hardy and Leiba-O'Sullivan, 1998, 469; Boje and Rosile, 2001,

102) explains "critical theorists argue that attempts to empower 'others' create a dependency relationship which (by definition) reinforces the dualism between 'the powerful' and the 'powerless', and that this process is actually disempowering". Critical theorists have warned against the illusions of power (Boje and Rosile, 2001), against the difference between "feeling empowered" and "being empowered" (Jacques, 1996, 141). Current research needs to start from the observation that "the empowerment disempowerment controversy is at the heart of a century and a half of debates over the democratization of capitalism" (Boje and Rosile, 2001, 91). Avelino (2009, 387-388) has also stressed the necessity to take this paradox into consideration when doing research in the context of transition: "it is necessary to integrate empowerment insights within a policy design". She continues: "the challenge is to be sensitive to the empowerment-paradoxes that emerge and to avoid that the disempowering effects come to prevail over the empowering ones."

Soon after its emergence in the 1990s, critical theorists have made it clear that empowerment had to be thought along power asymmetries between actors. In this context, it is important to understand the reasons why and how empowerment plans are still developed at the EU level. This concept may also be useful to look at power asymmetries between the energy incumbents and new actors such as RECs, and eventually consider the evolution of these asymmetries through the CEP.

The following section builds on the presentation of this theoretical and conceptual framework to analyse the definitions of RECs and the enabling framework for RECs from the CEP. Then, the case of Belgium will provide with perspectives to this analysis.

3. ANALYSIS

Polycentric governance in the clean energy package

This concept appears to be useful as it may help to understand the decentralizing energy model that the EU is shaping. The fact that the CEP recognizes RECs and that it offers them an enabling framework could lead one to conclude that the CEP reflects polycentric governance. Such a preliminary conclusion could stress that indeed, features of polycentric governance such as local action, experimentation, mutual adjustment, trust, site-specific knowledge, self-organization and overarching rules are rather implicit in the functioning of RECs. RECs could be presented as an evidence of polycentricity as all these features are easy to spot. Indeed, RECs are active at the local level and building a REC requires self-organisation and site-specific knowledge, at least technical knowledge about the local potential of renewable energy sources. The Rescoop.eu network functions as a hub to share knowledge, which shows how trust and mutual adjustment operate locally and transnationally. One of the blind spots of polycentric governance is how the concept of experimentation is understood, despite its centrality (Voss and Schroth, 2018). Yet, scholars have referred to this concept to discuss the emergence of RECs, namely in the Danish case and its "culture of experimentation" (Kooij et al., 2018, 55). Ultimately, the RECs related provisions from the CEP could represent overarching rules.

All in all, a link could easily be made between RECs and all features of polycentric governance. As a result of the CEP, new non-state actors would be expected to enter the energy sector following the implementation processes especially in Member States where new actors still struggle to emerge. Yet, it is possible to use those features of polycentric governance to further analyse E-and-RE-Directive provisions. Obviously, the aim of the European legislators has certainly never been to integrate every specific polycentric governance features in those Directives. The aim of the following section is rather to look at the contributions and the limits of these Directives and reflect on them with a polycentric governance lens.

1. Renewable and citizens energy community recognition

The main difference between the E-and-RE-Directives definitions is that the autonomy principle has been dropped in the definition of "citizens energy community" from the E-Directive. In other words, autonomy for citizens in citizens energy communities is more relaxed than for citizens in renewable energy communities. Dropping out the autonomy aspect of a project that is supposed to be closer to citizens is considerable. Charbonnier says that the concept of autonomy cannot solely be diminished to its legal meaning. It is also a guiding ideal for modern societies. He explains that autonomy, whether individually or collectively, also represents

the realization of liberty and emancipation. By entering EU law through two definitions, RECs are likely to be interpreted in different manners across the EU and by cutting the autonomy principle from one of them, it is the auto-institution of renewable energy communities, its ability to appear as a sui generis reality within the energy sector, that is jeopardized (Charbonnier, 2020).

The ICA explains that cooperatives are autonomous when they ensure democratic control by their members if they enter into agreements with other organizations (ICA, 2019). This principle aims to maintain the autonomy of the cooperative when agreements with other organisations are conducted or when capital from external sources is raised (ICA, 2019). The fact that this principle is removed from the definition of citizens energy communities means that the interpretation of what is autonomy for these communities is wider. This inconsistency might make it easier for actors that do not share the same internal governance rules about autonomy to fit in the definition.

Although, in the recital of the E-Directive, it is stated that "decision-making powers within a citizen energy community should be limited to those members or shareholders that are not engaged in large-scale commercial activity and for which the energy sector does not constitute a primary area of economic activity". One must keep in mind that Directives recitals are interpretative tools and they can be "taken into account to resolve ambiguities in the legislative provisions to which they relate" (Baratta, 2014, 9). Although, as Baratta underlines when referring to a decision of the European Court of Justice³, it has "no binding legal force and cannot be relied on as a ground for derogating from the actual provisions of the act in question" (Baratta, 2014, 9).

These definitions lead to three other observations. First, the two definitions from the E-and-RE-Directives show that both Directives "bundle together a diverse set of actors" that all "fall within the scope of the notion of community energy drawn up by the Directive" (Savaresi, 2019, 492). This way of proceeding creates legal uncertainty when it comes to defining the eligibility of candidates to these defined actors which is wider in the E-Directive than in the RE-Directive. Second, polycentric governance calls to consider local action and the CEP certainly tried to better include local energy actors. However, the term local appears but is not spatially defined. In practice, what is local may vary from a Member State to the other. It also remains unclear whether it would make sense or not that people that want to be involved in a project that is spatially defined at the local level are kept out because of where they live. Early in the legislative process, Butenko (2017) already stressed that size requirements, concentration and geographical scope were not clear. Third, another loophole lies in the expectations that RECs will "provide environmental, economic or social commu-

³ Case C-162/97, Nilsson, [1998] ECR I-7477, para. 54.

nity benefits for its shareholders or members or for the local areas where it operates, rather than financial profits". As Savaresi (2019, 504) explains: "this requirement [...] expects community projects to deliver more than just electricity and financial returns. Yet the Directive does not specify how such environmental, economic, or social benefits ought to be defined, measured or reported".

These definitions may also be seen as the result of a struggle between two coalitions of actors, with RECs on one side and energy incumbents on the other. During the CEP policy making process, energy incumbents represented by EURELECTRIC (2017b) the Union of the Electricity Industry that gathers the national electricity associations have advocated for a wide definition of RECs in order for their industrial cooperative models, which essentially accommodates the ownership design to their interests (as further developed in the case study of Belgium), to fit in the scope of the definition. They are trying to find their role in all aspects of the European energy policy, eventually by protecting their existing structures and by being involved in new ones. They aimed to fit themselves both during the drafting of these definitions and during the implementation process (EURELECTRIC, 2019), especially via citizens energy communities that dropped the concept of autonomy.

As a conclusion for this point, these articles from the E-and-RE-Directives may actually be perceived as evidence that the renewable energy governance of the EU has become more polycentric. RECs share many similarities with actors of polycentric governance as they are active across many geographical scales in Europe, some of them being fully autonomous or working in tandem with energy incumbents through hybrid forms of governing (Jordan, Huitema, Van Asselt et al., 2018, 361). However, a limit of using the concept of polycentric governance to comment on the evolution of the renewable energy governance of the EU is that it does not allow to perceive power asymmetries that flow from overarching rules, reflected in this case by the ambiguity that energy incumbents sector will make their best to benefit from energy decentralisation processes, in any of its form.

2. Enabling framework for renewable energy communities

The provisions (see section 1) related to this framework offer a basis for the emergence and development of RECs. Although, it will be up to the Member States to decide to which degree they want this framework to effectively speed and facilitate the development of RECs.

In this case, the advocacy strategy of Rescoop.eu was to ask for a framework that distinguishes cooperatives in line with the Rescoop charter from other REC models (Rescoop.eu, 2019). EURELECTRIC and the Council of European Energy Regulators (CEER), did not advocate for such a framework. However, they wanted to make sure that RECs would be "subject to appropriate network charges" (CEER, 2018, 1). EURELECTRIC, (2017a, 22) stressed that "any kind of positive discrimination of local

energy communities at the expense of other consumers and actors in the energy system must be avoided". It is uncertain if such a framework represents a positive discrimination in the sense of an unfair competition. Essentially, those actors are acting under the logic of the internal market where initiatives may be attacked as soon as interests enter in conflict.

In some parts of Europe, for instance in Wales and in Scotland, similar frameworks already exist and include small start-up grant systems, technical support systems, and legal assistance (Haf et al., 2018). In the Netherlands, Brisbois (2020, 22) explains that a Climate Accord from June 2018 includes "a non-binding provision that 50% of all renewable energy moving forward would be community owned".

This framework reminds of one of Dorsch and Flachsland's feature of polycentric governance that is site-specific conditions. It matches with this feature as it might, depending on Member States' assessment, allow for site specific conditions to be recognized. This framework could indeed understand and recognize heterogeneous preferences of actors (by asking "what kind of framework do they want?"), heterogeneous competencies and constraints (by asking "who can do what?") and their interactions (Dorsch and Flachsland, 2017, 53). Such a site-specific approach is not only normative; site specific conditions are also based on the fact that "the locally or regionally diverging preference structures resulting from different conditions and historical experiences can lead to differences in the preferred – and politically feasible – designs of mitigation policies that take these specific measures into account" (Dorsch and Flachsland, 2017, 54).

Taking into account site specific conditions reminds that the EU is built on the subsidiarity principle, which states that the EU can only act if the "objectives of proposed action cannot be sufficiently achieved by Member States, either at central or at regional and local level" (article 5 of the Treaty on the European Union). This principle is an evidence that interactions across levels of governance is assumed. In this regard, this enabling framework makes sense. Its precise role and the question of accountability is however likely to be diluted across levels. This design refers back to a recent critique of polycentric governance that underlines its unaccountable aspect. Indeed, this sort of framework aims to support the development of non-state actors that are taking on the responsibility for addressing climate change (Jordan et al, 376). The signal sent by the EU, that no mandatory design and controls are bound to this framework, ultimately means that these non-state actors will not be accountable in the collective efforts to meet climate targets. The question of knowing who it will be is implicitly sent to the national transposition process. At present, the accountability of this framework appears to be diffused somewhere between the national and the EU level. As Brisbois (2020, 18) puts it "accountability of this type is referred to as "external" and is a common characteristic of polycentric government arrangements". The decentralised governance of electricity that is partially initiated

with this provision shows that another revision of the EU renewable energy policy is required to define the roles and responsibilities of energy actors and related frameworks. As Brisbois (2020, 21) puts it, there is a need for a structure, such as the EU, that encompasses central coordination and the role of local actors, that balances "local and larger [energy] system concerns and ensures policy coherence across scales".

Empowerment in the Clean Energy Package

Officially, the EU has worked to better include citizens in its integration process. Famous milestones of this process include the first election of the European Parliament in 1979 and the legal recognition of the EU citizenship in the Maastricht Treaty in 1992. In the energy sector, the EU has also looked to empower citizens, namely through RECs.

In order to explain the emergence of a REC from an EU level stimulus, one can look at the last four EU "energy packages". One of the first conditions that can explain why a REC may emerge is the implementation of the unbundling and liberalization processes, enshrined in EU secondary law since the 90s. In short, the first electricity Directive (1996/92/EC) stated in the recital that, one of its objectives was to "constitute a further phase of liberalization [...] of the internal market in electricity". This directive lies down the milestones to follow to unbundle electricity activities such as generation, transmission and distribution activities. Access to the electricity system was also organized under this Directive in order for new actors to use existing infrastructures. A second package of legislation came out of the EU legislative process in 2003. According to Dupont (2017, 18), "persistent problems of implementation, and the dominance of large incumbents in the energy market led to this legislation being amended (twice) in the 2000s". The third package came out in 2008-2009, for a legal consolidation of the two first packages.

In November 2016, the European Commission released the CEP. During the presentation of the package, both Maros Sefcovic (former Vice-President for the Energy Union) and Miguel Arias Canete (former Commissioner for Climate Action and Energy) stressed that the package "will equip all European citizens and businesses with the means to make the most of the clean energy transition" and that the proposals "set the right conditions to empower consumers". The Commission's press release also underlined that "consumers are active and central players on the energy markets of the future" (European Commission, 2016). This shows that the EU does not stick to a single terminology when it comes to refer to the normative process of "citizen empowerment". While some official EU discourses use those exact terms, other words such as "inclusion of citizens", "give a better place to citizens" or "put consumers at the center" also appear and reflect the same normativity, that the EU promotes a transition model that is as open as possible to citizens and communities.

There is a clear change in the way the EU perceives citizens, whose role evolved from a passive one into a more proactive one (Butenko, 2017). However, besides this change of perception, it remains difficult to read through the EU's empowerment narrative. In an interview with Rescoop.eu while the CEP was being discussed, the lack of coherence in the long-term strategy of both the EU and Member States with regard to citizen empowerment was pinpointed:

"We had no recognition of energy communities or active consumers before at all. Up until now, empowerment has literally been: 'you need the information so you can understand your bill so that you can then switch supplier' [...]. That is a fraction of what we are talking about. So, we needed something more. People are joining energy communities without any formal acknowledgment. They do so in a very unstable regulatory policy environment because the Member States themselves, even the ones that have developed some policies around this, they don't have any strategy behind it" (interview with Rescoop.eu, 2018).

The empowerment of citizens by EU institutions is intangible and abstract. It is not legally defined. The EU renewable energy policy mirrors the "social empowerment" dimension that helps to understand that empowerment may be about removing barriers that prevent disadvantaged and powerless populations from having greater control over their destinies and from recognizing the value that those population have (Pigg, 2002). Nevertheless, as developed above, the E-and-RE-Directives essentially leave this question to the national level.

Such a top-down vision of empowerment holds a normative perspective of community development as it seeks "to connect dependent people with the resources necessary to make choices and negotiate more favourable outcomes with those who have traditionally controlled those resources. [...] In sum, empowerment is viewed [...] as social action designed to gain access to power held by others usually in the form of control over resources" (Pigg, 2002, 114). Indeed, the fact that the E-and-RE-Directives now provide with a certain amount of rules and obligations may facilitate REC's access to the "resources" of electricity market.

Nevertheless, the current energy context is marked by a phenomena that Johnstone et al. (2017) have called "deep incumbency", that Brisbois defined (2019, 151) as a situation "where state interests become so enmeshed with those of incumbent firms that it becomes difficult to conceptualize a functional regime in the absence of those companies." ⁴ This phenomena reminds that the liberalization process of the energy sector has not yet been fully accomplished in the EU. This element shows that struc-

Johnstone and colleagues observe this phenomena in the United Kingdom and Brisbois observes it in Ontario (Canada).

tural barriers to electricity market resources that conditions the emergence of RECs remain as the energy market is not yet fully open to new actors.

In parallel of developing a narrative on citizen empowerment, the EU developed elements of extrinsic motivation such as the fact that RECs were given the opportunity to be institutionally recognized. The EU can help local non-state actions to emerge through extrinsic motivation. However, calling it empowerment reveals a tension as it ignores the (dis)empowerment paradox presented above. The CEP contains little elements that refer to intrinsic motivations to start a REC. By trying to connect with citizens, the EU seeks to orchestrate (Abbott et al., 2015) RECs emergence from the top. However, the emergence of RECs is often explained by looking at the individual level. Scholars have already covered the subject of transitions by referring to the intrinsic motivation dimension via experimentation and innovation through grassroot projects (Smith et al., 2016). Other authors have also looked at people's motivation to start citizen-led initiatives in the energy sector (Bauwens, Gotchev and Holstenkamp, 2016; Holstenkamp and Kahla, 2016).

It is this interpretation of empowerment, based on extrinsic motivation and the removal of barriers that constitutes the EU empowerment of RECs. However, if the objective of the Commission is to empower such actors that contribute to the fight against climate change and have the potential to increase social benefits locally, then it would make sense to see more concrete mechanisms that would help go beyond empowerment paradoxes. Given those observations, the name of this legislative package is surprising: 'Clean energy for all'. Not *by all*. Whether the E-and-RE-Directives facilitate the energy transition to be done *by* active consumers, such as citizens involved in RECs or if it is rather done *for* citizens, in such a manner where incumbent operators would remain the main service providers is a question that should animate the future revision of the renewable energy policy of the EU.

Perspectives from Belgium

Belgium may serve as an example of what an implementation of the REC definitions of the CEP might engender. However, what follows is not a mirror of the future implementation of the E-and-RE-Directives. The definition from the E-Directive, which dropped the autonomy principle, is still likely to be more autonomous than what is present in Belgium, if, and only if, the recital is well respected across Member States. The case of Belgium rather mirrors the risk that represents a banalization of cooperative principles that is eventually reflected by the withdraw of the autonomous principle from the E-Directive.

Mathieu Vanwelde (2018) distinguishes the cooperatives that are citizen owned from those that are owned by energy incumbents. The first ones has usually received a cooperative label from the corresponding State agency (le Conseil National de la

Coopération). The second ones do not have this label and are named cooperative companies under the Belgian law although the respect of the ICA values and principles is optional (Defourny, et al., 2002).

On the one hand, citizen cooperatives fit with both definitions from the CEP. They are in line with the Rescoop.eu charter. In this model, cooperatives are 100% owned by citizens and the initiative comes from them, in a 'bottom-up' logic (Vanwelde, 2018). They need a strong citizen participation for the management of the cooperative but also welcome soft citizen participation. During the CEP policy making process, they were represented by Rescoop.eu that advocated for a detailed definition with references to the values and principles of the ICA.

On the other hand, Vanwelde (2018, 12) looks at cooperative companies as actors that perceive cooperatives as a financial tool to create investment opportunity for decentralized energy. It is the case of EDF Luminus with its "Wind Together" cooperatives, of Engie Electrabel with its "GoGreen" cooperatives and Lampiris with its "Lampiris coop" projects in Belgium, all of which are part of energy incumbents. Their strategy is to protect the current energy model and to find their role in a new energy decentralized system. These cooperatives are not owned and managed by citizens but by energy incumbents. The logic in action is 'top-down' as the initiative comes from the industry (Vanwelde, 2018, 2). They offer what Vanwelde (2018, 14-15) defines as "soft citizen participation", which is "made compatible with the dominant economic system". One may also note that other industrial actors, that do not belong to the energy system and are then not encapsulated in the Directive's recital, create such cooperatives as well (e.g. the Eoly cooperatives launched by the Colruyt group active in the retailing industry).

Those cooperatives are based on soft citizen control over the project, which itself seems to be in contradiction with two cooperative principles of the ICA. First, the principle of democratic member control is at stake. According to this principle, cooperative members have equal voting rights (one member, one vote) and control the cooperative and actively participate in setting the policies and in making decisions (ICA, 2018). This principle could be further detailed, especially when it comes to define what is 'active participation', but what matters in this case is that members of industrial cooperatives cannot decide whether they want soft control or not. They have a voting power that could be defined as "secondary" as all primary decisions remain in the hands of the energy incumbent. Secondly, soft citizen control in industrial cooperatives is in contradiction with the autonomy principle (dropped from the definition of the E-Directive). In the case of industrial cooperatives, this principle is not respected in the sense that the organization is not fully controlled by their members but by energy incumbents. Those observations show that, in Belgium, it is possible to use the cooperative terminology without respecting the principles of the ICA, which is not only confusing but also questions the substance of the term "cooperative".

To refer back to the differentiation proposed by Walker and Devine-Wright (2008), these cooperative companies are more open, offer more participation, they are more local and collective than an utility wind farm. But still less than a citizen cooperative. They are less distant and private, less closed and institutional than utility wind farm. But still more than a citizen cooperative (Table 1).

Table 1: Main differences between a citizen and an industrial renewable energy cooperative in Belgium.

Citizen renewable energy cooperative	Renewable energy cooperative company	
Owned by citizens Bottom-up logic Signed the Rescoop charter Local and collective; open and participatory Autonomy based on citizen participation and control Advocated for a detailed REC definition Fit in E-and-RE-Directives definitions	Owned by energy incumbents Top-down logic In contradiction with some of the cooperative principles of the ICA More open and participatory; more local & collective than an utility wind farm Soft citizen participation and control Advocated for a wide REC definition Will try to fit in E-and-RE-Directives definitions	

Source: constructed by the author

In the case of Belgium, this flexibility around the use of the term cooperative represents a banalization of this terminology and leads to confusion (Defourny et al., 2002). This situation is confusing as it is difficult to know which cooperative has the label and which one does not, as they both present themselves as "cooperatives".

Ultimately, it also remains unclear which cooperative could actually benefit from the EU enabling framework for RECs. The Belgian case underlines that every Member State might carry its own REC model(s) away from the two definitions of "communities" from the CEP. Other EU Member States could also see energy incumbents creating projects that benefit from the EU enabling framework. This situation reveals a questioning manner from the EU to concretize its narrative about citizens empowerment. Is the goal of the EU to empower them via RECs or to favour the increase of renewable energy sources, no matter where they come from? This question, again, reveals that the social dimension of the renewable energy policy of the EU needs to be more precise and explicit.

4. DISCUSSION AND RECOMMENDATIONS

In the introduction of this policy paper, two concepts were presented to look at the rising interest of the EU towards RECs. Working with empowerment and polycentric governance has put in perspective the ideas that the EU would try to connect with its citizens and that the post-Paris Agreement governance framework would take on board numerous non-state actors. Having in mind the perspectives from the Belgian case, the following point connects back to polycentric governance, explores articulations with empowerment and provides with recommendations for the current transposition and a future revision of the the E-and-RE-Directives.

Looking at the development of the EU energy policy shows that EU institutions have enshrined the liberalization and unbundling processes in EU secondary law and have claimed to empower citizens and RECs in the energy transition. To this day, the liberalization and unbundling processes have allowed for more openness towards new actors through the unbundling and liberalisation processes. As a result of these processes, the EU energy sector has arguably become more polycentric. Although those processes have reached different levels of implementation from one Member State to the other, and future implementation of the enabling framework for RECs need to broaden the "inclusion of non-state actors" gap between Member States. As for now, the E-and-RE-Directives do not yet identify more concrete support mechanisms to support the emergence and development of RECs. As a result, the ability of RECs to be competitive in markets and the remaining questions associated with facilitating their emergence are left to Member States to address (Savaresi, 2019). Along with the EU, RECs are also expected to incentivize Member States to fully develop this framework. RECs related provisions in EU law may be linked to polycentric governance in the way that they assume polycentricity. They therefore appear if there is polycentricity and they reinforce it.

A **first recommendation** is that a future revision of these Directives should identify facilitating mechanisms, based on existing experiences as those in place in Wales and Scotland. Concretely, such mechanisms may be start-up grants, legal or technical support. They could be managed by local authorities. The EU Covenant of Mayors for Climate and Energy, an existing tool of the EU that aims to foster transition processes in municipalities across the EU could be a vehicle of this recommendation. An advantage is that the network of the Covenant of Mayors is already robust. It could help to spread such mechanisms without heavy additional administrative support.

Working with empowerment and polycentric governance also allows to highlight a shared normativity, that grassroot non-state actions such as RECs bring innovation and experimentation. However, one critic of polycentric governance is that it "says little about the complexity of social processes that are involved in [...] carrying out [...]

experiments. This leads to a highly reductionist conception of governance" (Voss and Schroth, 2018, 99). Those authors have underlined that "the possibility that experimentation may be captured by dominant interests and used for them to realise their own particular visions of collective is ignored in current discourses of polycentric [...] governance" (Voss and Schroth, 2018, 102-103) and that "a greater role for experimentation in the shaping of collective [...] would allow a few already powerful actors to realise their particular visions of governance at the expense of others [...]." (Voss and Schroth, 2018, 111). While polycentric governance spotlights smaller actors, it contains a blind spot when it comes to underscore relation of dominance and power asymmetries. Using polycentric governance does not directly allow one to perceive how legislative results may be captured by energy incumbents. However, looking at experimentation processes allows to observe that dominant actors try to fit themselves in all provisions that could lead them to become active in a decentralised energy system. This shows how power may be transferred across levels while staying in the same hands. Consequently, the EU renewable energy policy might have evolved towards more polycentricity and maintain the status quo at the same time.

Clearly, energy incumbents and RECs have had their voice heard during the CEP legislative process. The EU could argue that it sought to manage trade-offs between stakeholders although the final balance of interests is at least blurry, if not in favour of energy incumbents. What the CEP missed might be a more balanced outcome for these old and new actors, one that would overcome empowerment paradoxes and include provisions that could facilitate the building of electricity governance at decentralized levels by new energy actors. This move could "facilitate a reorganisation of who owns, operates and benefits – fiscally and socially – from the electricity system" (Brisbois, 2020, 19).

Accordingly, a **second recommendation** is that a future revision of the EU renewable energy policy needs to find a balance between ensuring RECs' access to market resources while avoiding that related rights and obligations clash with self-organisation and self-responsibility aspects of the cooperative model.

More concretely, the definitions of renewable and citizen energy communities should not be set in stone. Those two definitions clash with one another and could antagonise 100% citizen-led RECs as shown with the Belgian case. The definition of renewable energy communities, that integrates the concept of autonomy, should remain for RECs entirely led by citizens. Then, a regime for RECs that decide to work with energy incumbents, SMEs or municipalities could be further defined on the basis of the citizen energy communities definition. However, it should be kept in mind that it is likely that integrating these actors will probably not foster social empowerment as they usually either already have a certain amount of power or a an access to it. Ultimately, in order to foster social empowerment, it is useful that those two definitions are not attached to the same facilitating mechanisms as it is likely

that such different actors will have different resources. In short, care should be taken to respect equity.

Before to conclude, and for completeness, another important policy change needs to be mentioned as it also shows the ambiguity of the EU's approach towards actors such as RECs. It happened in 2014 when the European Commission adapted its state aid guidelines. The latter now prescribes a competitive approach through an auctionbased system (Leiren and Reimer, 2018). Unlike other renewable energy support mechanisms, such as some tradable green certificates or some form of feed-in tariff systems, the auction system appears to disadvantage small energy actors (Fuchs, forthcoming) and rather supports large-scale renewable electricity generation (Fitch-Roy, Benson and Woodman, 2019) and large mainstream actors with capital from financial markets (Hall, Foxon and Bolton, 2016). More recently, it is interesting to spot the reaction of Rescoop.eu to the Communication on the European Green Deal. Their position is that while they recognize the will of the Commission to ensure a "socially fair and inclusive energy transition", they regret that the Commission does not "provide more concrete details and support for citizens and community empowerment" (Rescoop.eu, 2020). In December 2020, the Commission released a Communication that emanates from the Green Deal and is called "European Climate Pact". It provides insight on how the von der Leven Commission intends to follow-up to the work carried out with the CEP. It includes several encouraging elements for the emergence of new RECs and the development of existing ones. For instance, RECs may register their climate pledges and inspire future RECs elsewhere in Europe (European Commission, 2020). The tools presented in this Communication offer a continuity to the analysis proposed in this paper. Indeed, it shows that the EU energy and climate governance further uses a rhetoric that reminds polycentric governance's features. The Pact rather calls for citizen participation than citizen empowerment. Whether the paradoxes of empowerment are similar to those of participation is an interesting question for future research. Nevertheless, a first analysis of the document shows that participation mechanisms such as citizen dialogues and assemblies are encouraged. It is also encouraged that people in all their diversity are a part of such processes. Indeed, if not well designed, participation mechanisms do not necessarily lead to decrease social inequalities, in some case it may even increase them (Blondiaux, 2008). With this in mind, one may regret that the Commission only encourages such a diversity instead of organising it more concretely. Implicitly, this task is left to national, subnational and non-state actors. Finally, the form of participation presented in this communication seems to be consultative rather than deliberative. There is no doubt that the outcome of this Pact will have to be closely monitor in the future weeks to reflect on its opportunities and limits.

In conclusion, this policy paper shows that RECs can be considered a new dimension of the EU energy policy as EU Directives now include those actors in their scope. While the European Commission has played a key role in recognizing RECs in the CEP,

other EU external stakeholders such as Rescoop.eu have also played an important role in representing their interest. This network has participated to the recognition of the social dimension of (EU) energy policies, a sector usually declared as technical and absent of public debates. Recognizing its social dimension has given it a chance to be discussed in (EU) political arenas (Callon, Lascoumes and Barthe, 2001).

This paper opens the way for future analysis about why and how the EU, on the one hand, empowers its citizens through decentralised RECs, and on the other, favours energy incumbents. The decentralised governance of electricity that is partially initiated with the CEP shows that it is required to keep designing adequate policies to support all kinds of actors and to further define the roles and responsibilities of these actors. If the objective of the EU is to pave the way for further citizen participation in the energy sector, so to increase social and local benefits from the energy transition, its strategy needs to be more explicit and more precise. One of its forthcoming challenge is to overcome the empowerment paradox. Another one is to find the right balance between orchestrating the emergence of RECs in their diversity while making sure to ensure their independence and autonomy.

5. ACKNOWLEDGMENTS

The author is grateful to Maxime Gaborit, Kristian Krieger, Amandine Orsini, Enzo Pezzini and Annalisa Savaresi for comments on earlier drafts of this paper.

6. BIBLIOGRAPHY

- Abbott, K. W., Genschel, P., Snidal, D. and Zangl, B. (2015) *International Organizations as Orchestrators*. Cambridge: Cambridge University Press, 450.
- Avelino, F. (2009) 'Empowerment and the challenge of applying transition management to ongoing projects'. *Policy Sciences*, 42, 369–390. https://doi.org/10.1007/s11077-009-9102-6
- Avelino, F. (2017) 'Power in Sustainability Transitions: Analysing power and (dis)empowerment in transformative change towards sustainability'. *Environmental Policy and Governance*, *27*, 505–520. https://doi.org/10.1002/eet.1777
- Baratta, R. (2014) Complexity of EU lax in the domestic implementing process. 19th quality of legislation seminar "EU Legislative Drafting: Views from those applying EU law in the Member State", European Commission service juridique quality of legislation team. Brussels.

- Bauwens, T., Gotchev, B., & Holstenkamp, L. (2016) 'What drives the development of community energy in Europe? The case of wind power cooperatives'. *Energy Research & Social Science* 13, 136–147. https://doi.org/10.1016/j.erss.2015.12.016
- Biermann, F., Betsill, M. M., Gupta, J., Kanie, N., Lebel, L., Liverman, D., Siebenhüner, B. (2009) *Earth System Governance. People, places, and the Planet. Science and Implementation Plan of Earth System Governance Project*, Bonne, IHDP Report, No. 20; 148.
- Blondiaux, L. (2008) *Le nouvel esprit de la démocratie.* Actualité de la démocratie participative. Seuil, La république des idées, 110.
- Boje, D., & Rosile, G. A. (2001) 'Where's the power in empowerment?? Answers from Follett and Clegg'. *The Journal of Applied Behavrioral Science* 37, 90–117.
- Brisbois, M. C. (2019) 'Powershifts?: A framework for assessing the growing impact of decentralized ownership of energy transitions on political decision-making'. *Energy Research & Social Science* 50, 151–161. https://doi.org/10.1016/j.erss.2018.12.003
- Brisbois, M. C. (2020) 'Decentralised energy, decentralised accountability? Lessons on how to govern decentralised electricity transitions from multi-level natural resource governance'. *Global Transitions* 2, 16–25. https://doi.org/10.1016/j.glt.2020.01.001
- Butenko, A. (2017) 'User-centered Innovation in EU Energy Law?: Market Access for Electricity Prosumers in the Winter Package'. *European Journal of Risk Regulation*, 1–19.
- Callon, M., Lascoumes, P., & Barthe, Y. (2001) *Agir dans un monde incertain. Essai sur la démocratie technique*. (Edition révisée en 2014). Points, Essais, 437.
- Chan, S., Van Asselt, H., Hale, T., Abbott, K., Beisheim, M., Hoffmann, M., Brendan, G., Höhne, N., Angel, H., Pattberg, P. Pauw, P., Ramsetein, C., Widerberg, O. (2015) 'Reinvigorating International Climate Policy: A Comprehensive Framework for Effective Nonstate Action'. *Global Policy*, 13. https://doi.org/10.1111/1758-5899.12294
- Charbonnier, P. (2020) *Abondance et liberté. Une histoire environnementale des idées politiques.* La Découverte, 425.
- Conger, J. A., & Kanungo, R. N. (1988) 'The empowerment process: Integrating theory and practice'. *Academy of Management Review* 13(3), 471–482.
- Council of European Energy Regulators. (2017) *Renewable Self-Consumers and Energy Communities*. Ceer, (8), 2. Available at: https://www.ceer.eu/documents/104400/5937686/Renewable+Self-Consumers+and+Energy+Communities-2/2f7ffa53-9b81-dbad-d49a-a6331d6d5150 [Accessed 18 Aug. 2018].
- Creamer, E., Taylor, G., Veelen, B. Van, Walker, G., & Devine-wright, P. (2019) 'Community renewable energy?: What does it do?? Walker and Devine-Wright (2008) ten years on'. *Energy Research & Social Science* 57. https://doi.org/10.1016/j.erss.2019.101223
- Defourny, J., Simon, M., Adam, S. (2002) *Les coopératives en Belgique: un mouvement d'avenir ?*. Bruxelles, Editions Luc Pire.
- Dorsch, M. J., Flachsland, C. (2017) 'A Polycentric Approach to Global Climate Governance'. *Global Environmental Politics* 17:2: 45-64.

- Dupont, C. (2016) Climate Policy Integreation into EU Energy Policy: Progress and Prospects. London and New York: Routledge, 193.
- EURELECTRIC. (2017a) European Commission's legislative proposal on common rules for the internal market in electricity. Available at: https://www3.eurelectric.org/media/318372/eurelectric_positionpaper_electricity_directive_final-2017-030-0242-01-e.pdf [Accessed 20 August 2018].
- EURELECTRIC. (2017b) *Local Energy Communities*. Available at: https://www.eurelectric.org/media/2458/local-energy-communities-final.pdf [Accessed 20 August 2018].
- EURELECTRIC. (2019) Citizens Energy Communities?: Recommendations for a successful contribution to decarbonisation. Available at: https://cdn.eurelectric.org/media/3804/citizens_energy_communities_final-2019-030-0282-01-e-h-A79923F7.pdf [Accessed 10 April 2020].
- European Commission. (2016) *Clean Energy for All Europeans*. Press release. Available at: http://europa.eu/rapid/press-release IP-18-3374 en.htm [Accessed 20 Aug. 2018].
- European Commission. (2020) Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of Regions [on the] European Climate Pact. COM(2020) 788 final. Available at: https://ec.europa.eu/commission/presscorner/detail/en/ip_20_2323 [Accessed 8 January 2021].
- European Union. (1996) Directive 96/93/EC of The European Parliament and The European Council of 19 December 1996 Concerning Common Rules for the Internal Market in Electricity. Official Journal of the European Union (L 27/20).
- European Union. (2018) Directive (EU) 2018/2001 of the European Parliament and of the Council on the promotion of the use of energy from renewable sources. Official Journal of the European Union. Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32018L2001&from=EN
- European Union. (2019) Directive (EU) 2019/944 on Common Rules for the Internal Market for Electricity and Amending Directive 2012/27/EU. Official Journal of the European Union. Available at: https://doi.org/http://eur-lex.europa.eu/pri/en/oj/dat/2003/l_285/l_28520031101en00330037.pdf
- Fitch-Roy, O., Benson, D., & Woodman, B. (2019) 'Policy instrument supply and demand: How the renewable electricity auction took over the world'. *Politics and Governance* 7(1), 81–91. https://doi.org/10.17645/pag.v7i1.1581
- Friedmann, J. (1992) Empowerment: The Politics of Alternative Development. Cambridge, MA: Blackwell.
- Fuchs, G. Energy Transitions as Local Projects: the German Experience. Forthcoming.
- Haf, S., Parkhill, K., Macdonald, M., Griffiths, G. (2018) 'Distributing power? Community energy projects' experience of planning, policy and incumbents in the devolved nations of Scotland and Wale'. *Journal of Environmental Planning and Management*. https://doi.org/10.1080/09640568.2018.1453490

- Hall, S., Foxon, T. J., & Bolton, R. (2016) 'Financing the civic energy sector: How financial institutions affect ownership models in Germany and the United Kingdom'. *Energy Research and Social Science* 12, 5–15. https://doi.org/10.1016/j.erss.2015.11.004
- Hardy, C., Leiba-O'Sullivan, S. (1980) 'The power behind empowerment: Implications for research and practice'. *Human relations* 51(4), 451-483.
- Holstenkamp, L. and Ulbrich, S. (2010) 'Citizens participation through photovoltaic cooperatives'. *Business and Law*, No. 8.
- Holstenkamp, L., & Kahla, F. (2016) 'What are community energy companies trying to accomplish?' An empirical investigation of investment motives in the German case'. Energy Policy 97, 112–122. https://doi.org/10.1016/j.enpol.2016.07.010
- International Cooperative Alliance. *Cooperative identity, values and principles*. Available at: https://www.ica.coop/en/whats-co-op/co-operative-identity-values-principles [Accessed 20 May 2018].
- Jacques, R. (1996) Manufacturing the employee: Management knowledge from the 9th to the 21st centuries. London, Sage.
- Johnstone, P., Stirling, A., & Sovacool, B. (2017) 'Policy mixes for incumbency: Exploring the destructive recreation of renewable energy, shale gas 'fracking,' and nuclear power in the United Kingdom'. *Energy Research and Social Science* 33,147–162. https://doi.org/10.1016/j.erss.2017.09.005
- Jordan, A., Huitema, D., Schoenefeld, J., Van Asselt, H., Forster, J. (2018) 'Governing Climate Change Polycentrically: Setting the Scene'. In: Jordan, A., Huitema, D., Van Asselt, H., Forster, J. (eds). *Governing Climate Change. Polycentricity in Action?*. Cambridge: Cambridge University Press.
- Jordan, A., Huitema, D., Van Asselt, H., Forster, J. (2018) 'Governing Climate Change. The promise and limits of polycentric governance'. In: Jordan, A., Huitema, D., Van Asselt, H., Forster, J. (eds). *Governing Climate Change. Polycentricity in Action?*. Cambridge: Cambridge University Press.
- Kim, R. E. (2019) 'Is Global Governance Fragmented, Polycentric, or Complex? The State of the Art of the Network Approach'. *International Studies Review*. https://doi.org/10.1093/ISR/VIZ052
- Krieger, K., Kropp, M., Kulke, R. (2017). 'Fighting Populism with Energy Politics Energy Cooperatives in Europe'. Global Policy, GP Opinion. Available at: https://www.globalpolicyjournal.com/blog/05/05/2017/fighting-populism-energy-politics-%E2%80%93-energy-cooperatives-europe [Accessed 20 Dec. 2019].
- Kooij, H., Oteman, M., Veenman, S., Sperling, K., Magnusson, D., Palm, J., & Hvelplund, F. (2018) 'Between grassroots and treetops?: Community power and institutional dependence in the renewable energy sector in Denmark, Sweden and the Netherlands'. Energy Research & Social Science 37, 52–64. https://doi.org/10.1016/j.erss.2017.09.019

- Leiren, M. D., & Reimer, I. (2018). 'Historical institutionalist perspective on the shift from feed-in tariffs towards auctioning in German renewable energy policy'. *Energy Research and Social Science* 43, pp. 33–40. https://doi.org/10.1016/j.erss.2018.05.022
- Meeus, L., Nouicer, A. (2018) *The EU Clean Energy Package*. Florence, Florence School of Regulation.
- Orsini, A., Morin, J. F., & Young, O. (2013) 'Regime complexes: A buzz, a boom, or a boost for global governance?' *Global Governance 19*(1), 27–39. https://doi.org/10.1163/19426720-01901003
- Orsini, A., Le Prestre, P., Brosig, M., Pattberg, P., Gomez-Mera, L., Morin, J-F., Harrison, N., Geyer, R. and Chandler, D. (2019) 'Forum: Complex Systems and International Governance'. *International Studies Review*, Advanced online publication. doi:10.1093/isr/viz005
- Ostrom, E. (2009) A polycentric Approach for Coping with Climate Change. World Bank WP 5095.
- Ostrom, E. (2010), 'Polycentric systems for coping with collective action and global environmental change'. *Global Environmental Change 20*(4), 550–557.
- Pigg, K. E. (2002) 'Three Faces of Empowerment?: Expanding the Theory of Empowerment in Community Development'. *Community Development* 33:1, 107–123. https://doi.org/10.1080/15575330209490145
- Randolph, W. A. (2000) 'Re-thinking empowerment: Why is it so hard to achieve?'. *Organizational Dynamics* 29(2), 94–107.
- Rescoop.eu. (2013) *Charter of Rescoop.eu*. Berchem (Belgium). Available at: https://www.rescoop.eu/federation [Accessed 20 May 2017].
- Rescoop.eu. (2016) *December 2016 Newsletter*. Berchem (Belgium). Available at: http://us5.campaign-archive1.com/?u=ab414822be321923ab544d8ca&id=85bc1ddfe2&e=[UNIQID [Accessed 20 Dec. 2017].
- Rescoop.eu. (2017) Rescoop.eu intervention at CitYnvest final conference. The power of innovative financing. Implementing the citizen cooperative model. Brussels.
- Rescoop.eu. (2019) *Presentation during the REScoop PLUS Policy Breakfast hosted by MEP Theresa Griffin*. European Parliament, 26 February 2019.
- Rescoop.eu (2020) *Rescoops*. Berchem. Available at: https://www.rescoop.eu/rescoops [Accessed 29 May 2020].
- Rescoop.eu. (2020) Europe's Green New Deal. What's in it for energy citizens?. Brussels. Available at: https://www.rescoop.eu/toolbox/europes-green-new-deal-whats-in-it-for-energy-citizens [Accessed 16 December 2020].
- Sahovic, N., Pereira Da Silva, P. (2016) 'Community Renewable Energy research perspectives'. Elsevier, Energy Procedia 106.
- Savaresi, A. (2019) 'The rise of community energy from grassroots to mainstream: The role of law and policy'. *Journal of Environmental Law* 31(3), 487–510. https://doi.org/10.1093/jel/eqz006

- Smith, A., Hargreaves, T., Hielscher, S., Martiskainen, M. and Seyfang, G. (2016) 'Making the most of community energies: three perspectives on grassroots innovation'. *Environment and Planning* 48 (2). 407-432. ISSN 0308-518X
- Thomas, K. W., & Velthouse, B. A. (1990) 'Cognitive elements of empowerment: An "interpretative" model of intrinsic task motivation'. *Academy of Management Review* 15(4), 666–681.
- Van Asselt, H., Zelli, F. (2018) 'International Governance: Polycentric Governing by and beyond the UNFCCC'. In: Jordan, A., Huitema, D., Van Asselt, H., Forster, J. (eds). *Governing Climate Change. Polycentricity in Action?*. Cambridge: Cambridge University Press.
- Voß, J.-P., & Schroth, F. (2018) 'Experimentation: The Politics of Innovation and Learning in Polycentric Governance'. In: Jordan, A., Huitema, D., Van Asselt, H., Forster, J. (eds). *Governing Climate Change. Polycentricity in Action?*. Cambridge: Cambridge University Press.
- Vansintjan, D. (2017) *Intervention. How citizen cooperatives can finance Sustainable Energy and Climate Action Plans.* Covenant of Mayors Webinar.
- Vanwelde, M. (2018) Les coopératives éoliennes industrielles: c'est du vent?. Solidarité des Alternatives Wallones et Bruxelloises.
- Walker, G., & Devine-Wright, P. (2008) 'Community renewable energy: What should it mean?' *Energy Policy* 36(2), 497–500. https://doi.org/10.1016/j.enpol.2007.10.019
- Wurzel, R. K. W., Connely, J., Liefferink, D. (2017) 'Introduction: European Union climate leadership'. In: Wurzel, R. K. W., Connely, J., Liefferink, D., Ed, *The European Union in International Climate Change Politics. Still taking a lead?*. 1st ed. Routledge Studies in European Foreign Policy.

Interview:

Cobut, L. and Rescoop.eu (2018). Interview.

Egmont – Royal Institute for International Relations Rue des Petits Carmes 15, 1000 Brussels, Belgium www.egmontinstitute.be

Lay-out: punctilio.be

ISBN 979-10-96843-25-1

- © Egmont Institute, January 2021
- © Author, January 2021

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise without the permission of the publishers.