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PRIVATE LAW IN THE ENERGY COMMONS – A MULTIDISCIPLINARY CHALLENGE

CAMPUS LUIGI EINAUDI, TURIN, 27-28 MARCH 2024

ABSTRACTS & BIOGRAPHIES



This is the final conference of the project 'Private Law and the Energy Commons'. This project has received funding from the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No. 101024836.

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Normative Resilient Property Theory - Property Responses to Crises

In the past decades, society has been confronted with various crises relating to finance, housing, health, and energy. To tackle these crises, new paradigms of property play an important role. The role of the State is no longer one of regulation only, but shifts to facilitate a plethora of initiatives at various hierarchical levels. Energy Commons for heat and electricity form a very interesting case study. Within a single system of law, stakeholders become active in several different manners: (1) state initiatives stimulate the creation of local communities, (2) local communities seek to arrange their own affairs, and (3) public-private-partnerships (PPP) arise in which connection is found in a similar purpose, such as relieving an overburdened electricity network.

When provided with a normative aim, such as an imaginary of planetary flourishing, a resilient property analysis of these communities and stakeholders, provides a new direction for development. Commons become not just a means of collective governance for a shared purpose, but take their place in a complex functional alternative system. Some of that alternative system requires new property law, but a reinterpretation and revaluation of existing frameworks can go a long way. This paper explores the application of resilient property theory to the objective of the creation of such an alternative system in which Energy Commons serve as a primary case study.

Bram Akkermans is Professor of Property Law at Maastricht University and an expert in sustainable property law. His research focuses on the incorporation of notions of sustainable development in property theory and constitutional property law. He has widely published on comparative and European property law, both in the area of European economic integration, human rights and - more recently - property theory incorporating sustainability. He is co-editor of the Ius Commune Casebook on Property Law (2012, Hart Publishing), author of The Principle of Numerus Clausus in European Property Law (2008, Intersentia) and Sustainable Property Law. Reckoning - Resilience - Reform (2022, Eleven International Publishing). In 2024 the edited volume Research Agenda on Property Law will appear with Edward Elgar Publishing.

Mobilizing the Commons: Upscaling Adaptable Sustainable Transitions Using Resilient Property Theory

This paper explores the challenge of successfully adopting alternative models for just transitions, particularly the promotion of commons-based approaches, across diverse geographic and socio-political contexts. A central focus of the paper is the concept of ‘mobile power’, emphasizing the cultural adaptability of ideological practices and policies. It delves into how initiatives like ‘Energy Commons’ can be mobilized in various settings characterized by distinct regulatory, political, and cultural environments. The paper introduces the concept of ‘commonization’ alongside ‘commoning’, emphasizing its flexibility in being introduced and shaped by different sectors, governance levels, and places. Additionally, it references resilient property theory to highlight the importance of creating formalized and informal deliberative spaces for stakeholders to discuss implementation, optimization, and safeguarding of commons-based approaches. Ultimately, this approach aims to transform regulations from constraints into democratic and inclusive forces for ongoing ‘commonization processes’.

Peter Bloom is a Professor of Management at the University of Essex. His research critically explores the radical possibilities of technology for redefining and transforming contemporary work and society. It focuses on better understanding the human aspects of organizational existence and the potential for constructing more empowering cultural paradigms for organizing the economy and politics. Specifically, his research originally reveals the strong relationship between economic marketization and political authoritarianism, the ‘dark side’ of workplace empowerment discourses and the role of technology for changing organizations and processes of organizing. He received his PhD from the University of Essex in 2009 in Government (Ideology and Discourse Analysis). Prior to coming to the EBS, he was a Senior Lecturer and Head of the Department of People and Organisations at the Open University as well as the Co-Founder of the research group REEF (Research into Employment, Empowerment, and Futures). He currently is Head of the Management and Marketing Group at the University of Essex Business School and co-founder of the Research Centre for ‘Commons Organising, Values, Equalities, and Resilience’ (COVER).

*He is the author of 10 books including *Authoritarian Capitalism in the Age of Globalization* (Edward Elgar Press, 2023 - 2nd edition), *Beyond Power and Resistance: Politics at the Radical Limits* (Rowman and Littlefield International, 2016), *The Ethics of Neoliberalism: The Business of Making Capitalism Moral* (Routledge, 2017), *The Bad Faith in the Free Market: The Radical Promise of Existential Freedom* (Palgrave Macmillan, 2018), *The CEO Society: How the Cult of Corporate Leadership Transform Our World*, co-written with Carl Rhodes, (Zed Books), *Identity, Institutions, and Governance in an AI World: Transhuman Relations* (Palgrave Macmillan, 2020), and *Disruptive Democracy: The Clash Between Techno-Populism and Techno-Democracy* (SAGE, 2021). His scholarly work has also been published in leading international journals and his writing has been additionally featured in top international and national media outlets, such as *The Washington Post*, *The Guardian*, *The Independent*, *The New Statesmen*, *The Week*, *The Conversation*, and *Open Democracy*. He has also served as the lead academic on a range of BBC programmes including ‘*The Bottom Line*’ on Radio 4, the ‘*Can Britain Have a Pay Raise*’ aired on BBC2, and most recently the two-part television documentary ‘*The Secrets of Silicon Valley*’.*

As a leader in funded impact projects, Professor Peter Bloom has played a pivotal role in leveraging technology to advance the social economy within communities. Notably, he led the creation of ‘Shared

Futures', an innovative online community project platform. This groundbreaking initiative empowers residents and decision-makers to collaboratively propose, plan, and implement transformative social economy initiatives. Through Professor Bloom's guidance, these projects have secured funding and facilitated inclusive participation, fostering tangible positive change toward a more just and sustainable society and world.

Matteo Caldera (Italian Agency for New Technologies, Energy and Sustainable Economic Development, ENEA)

The Search for the Right Balance in the Italian Transposition

The presentation deals with the Italian transposition of the RED II Directive as regards energy communities. After the transitional regime, set out in Art. 42 bis of the Legislative Decree No. 8/2020, which allowed the start-up of the first RECs with significant limitations, Legislative Decrees 199 and 210 in 2021 have transposed RED II and Electrical Market Directives in Italy. With the publication of Resolution No. 727/2022 on widespread self-consumption by the National Energy Authority ARERA (recently amended by Resolution No. 15/2024) and the entry into force of the Ministerial Decree No. 414 of 7 December 2023, the legislative and regulatory framework is almost complete. The presentation will focus on the impact of these measures on the RECs initiatives promoted by citizens, local authorities and private companies in the Italian context.

Dr Matteo Caldera is a mechanical engineer (PE). He earned his PhD at the Politecnico di Torino and was a visiting Ph.D. candidate at Massachusetts Institute of Technology. Dr Caldera is senior researcher in the Smart Cities and Communities Lab of the Energy Technologies and Renewable Sources Department of the Italian National Agency ENEA. His research currently focuses on renewable energy communities (RECs) and smart cities projects. He has 20 years' experience in numerical modelling and the development of software tools on energy and economic analyses of integrated energy systems. He is coordinator of ENEA's RECON project (<https://recon.smartenergycommunity.enea.it/>) on technical and economic analyses of RECs, scientific manager of the ENEA Observatory on Energy communities, and responsible for several cooperation agreements between ENEA and local authorities, associations and private companies focused on the development of replicable models of RECs.

Daniel Crunkleton (University of Tulsa)

Using Artificial Intelligence to Optimize Energy Commons

Artificial Intelligence (AI) is well on its way to become ubiquitous in society. The use of computers to perform calculations quickly and accurately is nothing new; however, AI-based tools offer the promise of drawing conclusions from complex sets of data. In this presentation, a background on AI will be presented, with emphasis on its implications for analyzing Energy Commons. The ways in which AI can be used to confront outstanding problems in Energy Commons will be presented, along with suggested synergies that could be formed between researchers in the legal, mathematical, and engineering fields.

Daniel Crunkleton is the Sarkeys Professor of Environmental Engineering and Professor of Chemical Engineering at the University of Tulsa, where he currently serves as Associate Dean of the College of Engineering and Computer Science. He also has a J.D. in law, specializing in American Indian and Indigenous Law. His research area is in mathematical modeling, especially regarding renewable and sustainable energy. He is the holder of 3 patents in the field of algae biofuels and regularly teaches in the fields of renewable and sustainable energy and in energy sciences.

Renewable energy communities in Italy: the challenges of the public governance

Early experiences of energy communities have shown that public administrations can play a decisive role in the development of this model in terms of participation, welfare and citizens' involvement in the process of decarbonization. In particular, the legal framework currently in force in Italy allows the public administration to be a member of the associative (ETS) or corporate (e.g. cooperative society, social enterprise) community contract. The Renewable Energy Directive (RED II) and its transposition into Italian law by means of the Legislative Decree No. 199/2021 have given rise to many local initiatives, but some critical issues emerged and some practical questions still remain open concerning both private and public law.

The aim of this presentation is to provide a general overview of renewable energy communities in the Italian legal framework and analyze, by reference to case law of the national Courts of Auditors, how public administrations can participate in energy communities and enter into contracts with private partners.

From the perspective of this conference, the debate around Private Law and the Energy Commons should then consider how public governance may guarantee the right of citizens and communities to produce, consume and manage their own energy.

Avv. Francesco Dal Piaz runs his own law firm DAL PIAZ, which was founded in 1956 by his father. He has gathered many years of legal experience in all fields of administrative law (in connection with private law and criminal law). As a lawyer, he provides legal assistance to clients such as public administrations, private individuals as well as companies with the aim of helping them solve their most complex and challenging legal problems.

At the same time, as he is passionate about emerging sectors in renewable energies, he has personally conducted many conferences and initiatives concerning renewable energy communities from the very beginning of their diffusion in Italy.

He currently provides integrated consultancy to public administrations, businesses and private individuals for the establishment of energy communities throughout Italy and has personally experienced how much their constitution requires qualified legal, economic and technical skills, as well as constant scientific research.

Obstacles to the realization of a Renewable Energy Community due to the (unnecessary?) complexity of European and national regulations

The main reason for setting up a REC is currently the possibility of obtaining the premium tariff. The regulation of RECs (with regard to their organization in order to obtain the premium tariff) is implemented by Italian law and by three different bodies: the Ministry of the Environment, ARERA (the Italian Regulatory Authority for Energy, Networks and the Environment), and GSE s.p.a. (a company wholly owned by the Ministry of Finance and entrusted with the promotion of renewable energies and energy efficiency). The combination of formal and informal rules issued by these three bodies may lead to contradictions and inconsistencies. In addition, some concepts of the EU Directive have been implemented in a way that may create doubts and difficulties (i) in the choice of the type of entity, (ii) in the content of the statutes and the rules for the distribution of the amount of the premium tariff received, and (iii) in the content of the contracts with final consumers and producers. In particular, the following difficulties have arisen:

- a) the notion of ‘proximity to renewable energy projects owned and developed by this legal entity’ is different for the purposes of (i) control of the RECs, (ii) obtaining the premium tariff, and (iii) the social project that the REC can support with the premium tariff paid in excess of the financing gap;
- b) the notion of control by members has been subject to different approaches (control as the ability to appoint the managers of the REC *versus* control as supervision of the proper management of the REC);
- c) the identification of controlling members of the RECs has been done through a list of specific entities, excluding possible entities not explicitly mentioned;
- d) the concept of ‘renewable energy projects owned and developed by this legal entity’ has been extended to renewable energy installations that are ‘fully available’ to the RECs, with problems concerning the concept of full availability;
- e) the possible restrictions (also arising from European state aid rules) on cooperation with energy producers, energy sellers, and large companies that are excluded as members but may cooperate with RECs on the basis of private law contracts;
- f) the complexity of the criteria for the distribution of the premium tariff to members and local communities when undertakings are involved (due to European state aid rules).

Avv. Francesca Dealessi advises in the field of administrative law, with particular reference to the following sectors: town planning, environmental protection, soil and land protection and sanctioning procedures; public administration contracts (procedures for choosing the contractor and management of the execution phase of contracts and concessions); energy law; governance of local public services, choice of management models and modalities of awarding; protection of cultural heritage; fulfilments regarding the prevention of corruption, conflict of interest, transparency; administrative and accounting responsibilities of directors of public bodies; administrative proceeding; local taxes and concessionary fees; expropriations.

Avv. Andrea Lanciani advises in the field of commercial law, with particular reference to the banking, financial and corporate sectors. He advises banks and listed companies and has represented major clients in the financial, industrial and insurance sectors in mergers and acquisitions. He also advises not-for-profit organizations on both their establishment and operation. He has acted as a director of listed companies and companies operating in the banking sector. Andrea is the author of a number of publications on commercial and corporate law and on the philosophy of law.

Exploring Legal Frameworks for Communal Benefits of Energy Communities

A key element of energy communities (ECs) is their purpose – to create ‘*environmental, social, or economic community benefits*’ according to EU energy law. It is, however, not established how these benefits are defined and assessed. Knowledge about the local impact of ECs is at least fragmented (Berka & Creamer, 2018), which is specifically the case concerning the social impact of ECs (Bielig et al., 2022) and further confirmed by findings that ECs across EU countries facilitate energy justice to a very limited extent (Hanke et al., 2021; Hanke & Guyet, 2023). This is problematic, as the EU policy and legal expectation is that ECs contribute to a just energy transition while we know little about *who* benefits from ECs, *who* decides and *how* the generated benefits are distributed. This contribution thus focuses on the qualitative impact of ECs in terms of ‘community benefits’, from a legal perspective. Departing from the EU legal requirement that ECs need to create ‘community benefits’, selected national transpositions of this provision are compared. This mapping exercise is only a first step, and it is argued that follow-up research needs include empirical insights on the understanding of ‘community benefits’ from ECs, local public authorities, and persons who are not related to ECs, but who are potentially affected by the activities of ECs. This contribution thereby adds to the methodological discussion about how to design legal frameworks of ECs with the aim to ensure their positive impact on the community.

Lea Diestelmeier is an Assistant Professor at the Groningen Centre of Energy Law and Sustainability of the Faculty of Law of the University of Groningen. She is also funded by the Sectorplan ‘The Public-Private Challenge’, which is carried out together with the Erasmus School of Law, University of Rotterdam. Her research focuses on EU energy law, in particular electricity sector regulation and decentral solutions for the energy transition, and in particular the changing role of energy consumers and the stake of citizens in the energy sector, and alternative communal organizations, i.e., ‘Energy Communities’. She is involved in various European and Dutch research projects in the context of which she acts as the (daily) supervisor of several PhD students. She also teaches in the LLM programme ‘Energy and Climate Law’, the Bachelor-level minor programme ‘Energy Essentials’, and she supervises various student assistantships and junior researchers. Lea obtained her PhD in 2019 at the University of Groningen on the topic of smart electricity grid regulation.

Lorna Fox O'Mahony (University of Essex)

Understanding Energy Commons through Resilient Property Theory

This paper analyses the findings of the 'Private Law and the Energy Commons' project through the lens of Resilient Property Theory. The paper introduces and applies RPT methodology to construct a whole problem/single-system framework for analysing the study's findings. The analytical framework addresses four key domains: 1. Sources of law – EU/national/community; regulatory/public/private; formal/informal; 2. Sources of power – energy industry/EU/state/local communities; 3. Sources of resilience for different stakeholders – political/pragmatic; economic/social; and 4. Sources of expertise and innovation - what insights does project give on the role of (social/legal/technical) expertise in enabling outcomes; where does expertise sit (e.g., EU/networked nation states/energy industry/communities)? The RPT framework provides a structured methodology for addressing critical questions, including the role of law in shaping energy networks according to stakeholder goals, through a focus on the resilience needs of differently situated (scaled) stakeholders (commons community members, neighbourhoods, markets, energy industry, and local / national / EU states).

*Professor Lorna Fox O'Mahony of Essex Law School has published widely on property, housing and home including articles in leading peer-reviewed journals. She is author or editor of eleven books, including the award-winning *Conceptualising Home: Theories, Laws and Policies* (2006, Hart Publishing), *Squatting and the State: Resilient Property in an Age of Crisis* (Cambridge University Press, 2022) and *Great Debates in Land Law* (3rd Edn, 2023, Bloomsbury).*

The First Italian Transposition: Very Small-Scale Sharing

The EU framework on energy communities (EC) laid down by the EU Directives 2018/2001 (RED II) and 2019/944 (IEM) has left Member States free to shape the meaning of ‘energy sharing’ and fix the limits of the proximity requirement. Both are key features that characterize the design of ECs, especially as regards their legal structure and governance. Italy has anticipated the transposition of the RED II provisions on energy communities by the implementation of a transitory regime established by Art. 42-bis of Legislative Decree No. 162/2019.

According to this regime, energy communities can be built under specific thresholds that limit their range and power. The first one is a proximity requirement corresponding to the secondary electric substation area, a geographical area that can potentially only include a few hundreds of citizens, no more than 300-400. The second relates to the amount of generation capacity that the energy community can acquire to produce renewable energy, share it with its members, and to sell the surplus to the grid. Individual renewable energy installations must have a generation capacity of no more than 200 kWp. This framework is completed by the regulatory regime of the Italian NRA (ARERA), whereby Italy has adopted a virtual scheme for sharing electricity. This scheme allows citizens to cooperate under the umbrella of the ECs and use the public grid to share renewable electricity between them, leaving rights and duties with their suppliers untouched.

This regime has sparked the interest of municipalities, citizens and small enterprises in this innovative self-consumption scheme, but has only given birth to about ten Italian pilot-projects. This presentation summarizes the obstacles in the Italian context preventing ECs from complying with EU legislation, by addressing how this framework is nowadays influencing the functioning of the ECs in a way that increases the risk of missing the goal the RED II wants to achieve.

Enrico Giarmanà is a Ph.D. student at the Department of Law of the University of Catania. His research develops a private-law approach to ‘Distributed energy resources and energy communities’. He holds a level II Master’s degree in Environmental Law at the Department of Law of the University of Catania, completed with a thesis on ‘The right to produce electricity and the rising of prosumers and RECs-Renewable Energy Communities’. Before starting the Ph.D., he was involved in a research project on ‘Energy Transition and new participatory and local development models’ (TREPESL) at the University of Catania, which gave birth to one of the first energy communities in Italy. He has worked as an advocate on a variety of cases in environmental, energy and civil law, developing a specific expertise on renewable energy, permitting procedures, due diligence, project development, and distributed electricity generation. He currently provides legal advice and services to municipalities and local energy enterprises.

The Role of the Public Administration in the Implementation of the Just Energy Transition

As stated by both European and Italian legislation, the local public administration is one of the entities that can become a member of a Renewable Energy Community (REC). However, the public administration cannot be regarded merely as yet another subject within an energy community because its economic resources, expertise, and infrastructures are considerably superior.

In addition to the issue concerning the legal form that RECs could adopt when a public entity is among its members, attention must be paid to the role of the public administration in the implementation of the Just Energy Transition as defined by the EU Commission. Therefore, the aim of this talk, given a definition of the Just Energy Transition principles, is to illustrate whether and how the participation of the public administration in a REC could facilitate citizens' access to energy justice. Furthermore, since it is closely related to the theme of the Just Energy Transition, Grignani will set out the role of the public administration in creating and implementing measures to reduce energy poverty, a condition affecting more than 9% of the European population.

Anna Grignani, after graduating in law at the University of Turin defending a thesis on the remediation of polluted sites, began a Ph.D. in 'Sustainable and Solidary Democracy: Rights, Duties and Institutions' at the University of Eastern Piedmont. In 2022 she passed the bar exam at the Tribunal of Turin. For a few years now, she has been studying energy communities, working in national and international projects and collaborating with both public and private entities.

Upscaling and Evolution of Energy Democracy Initiatives in Italy: Sharing Energy and Experiences

The presentation will retrace the main steps of the creation and evolution of ènostra cooperative, highlighting the inspiring principles, the challenges that had to be tackled to scale up the initiative and the corresponding evolution of the business model, up to the support currently offered to local initiatives for the setup of RECs, in line with the RED II's definition but also adherent to the cooperative and energy democracy principles. The presentation finally explores a hypothesis of the cooperative's future role within a federation or web of RECs.

Graduated in Environmental Science at the University of Milano Bicocca (2002), Sara Gollessi started her experience in the energy sector at Regione Lombardia - Energy Department, where she worked on the implementation of the Regional Energy Plan in cooperation with local administrations, associations, and citizens. From 2005 to 2015 she worked for APER (now Elettricità Futura), a national industrial association representing producers of energy from renewable sources, where she was project manager for some EU projects and acquired specific skills to monitor and analyse legislative and regulatory frameworks, the integration of renewable energy sources in the liberalized energy market, and evaluation of production costs and subsidies schemes for renewable energy plants and capacity building. She is currently self-employed and since 2018 she collaborates with ènostra cooperative for EU and national projects mainly focused on Renewable Energy Communities and Energy Democracy. In 2022 she was elected a member of the cooperative board.

Notions of Community in Energy Democracy and Legal Forms

The term ‘Community’ and the hopes and expectations associated with it are at the heart of the legal recognition of energy communities under EU law. Energy communities are not only supposed to contribute to the energy transition, but EU Directives on energy communities also intend them to activate citizen engagement and support vulnerable households. In the literature on Energy Democracy, recurring expectations are broad-based active participation, an equitable distribution of benefits as well as an alleviation of energy poverty, and the promotion of local cohesion and development. While other literature, for example in property theory, also defines communities through shared values or interests, the emphasis in the definitions of energy communities lies on common activities, a common place, and externally determined outcomes.

After the review of those EU Directives and the literature on Energy Democracy, this contribution examines selected forms of legal persons in Germany and Italy to assess the extent to which they facilitate the different notions of community. Based on doctrinal-legal research and empirical research on German and Italian energy communities, it finds that the most common legal form, the cooperative, first and foremost reflects the common interests of the cooperative’s members. Common activities in the form of broad-based active participation are possible, but discouraged by the cooperative’s layered governance structure. Cooperatives are not but can be dependent on a place. They determine the outcome of their activities autonomously, with or without regard to raging energy poverty. Other legal forms, such as civil partnerships in Germany and unrecognized associations in Italy force members to actively participate in the management of the energy community, but are not bound to a place or a certain outcome either.

The review shows that it is eventually for the legislature of each Member State to enforce the notions of community that are considered desirable by Energy Democracy scholars and the EU Directives. However, an analysis of the Italian transposition of the Directives demonstrates that while the transposition encourages place-based notions of community, it fails to compel communities to ensure broad-based participation or the alleviation of energy poverty.

Björn Hoops is Full Professor of Private Law and Sustainability at the University of Groningen. He read German and Dutch law as well as economics at the universities of Bremen, Groningen, Hagen, and Oldenburg, and obtained a PhD with distinction from the University of Groningen in 2017. His research focuses on land law and governance in the energy transition. From April 2022 to March 2024 Björn is an EU-funded Marie Curie Fellow at the University of Turin.

Success Factors of Sustainable Citizen Participation in Pfaffenhofen

As members of the Citizens' Energy Cooperative in the district of Pfaffenhofen (BEG), all citizens can participate in the supply of sustainable energy supply and earn a return at the same time - these are core elements of citizen energy in Pfaffenhofen. Collaborating with municipalities, companies, and institutions, the BEG has become an indispensable player in the energy transition and has provided support to other energy communities and policy initiatives. This contribution provides insights into the history, organization and work of the BEG, citizens and stakeholders. The contribution also presents the Interreg project LEEWAY with the initial 'lessons learnt' in the context of the BEG's experience (LEading coopEration toWARDS energy communities policies tackling energy povertY; <https://www.interregeurope.eu/leeway>).

Dr Holger Bernd Klos has been the representative of the Bürgerenergiegenossenschaft (BEG) in the district of Pfaffenhofen a. d. Ilm (Germany) in EU Interreg projects since 2019. The current project LEEWAY aims to foster the adoption of energy policies for the creation of REC (Renewable Energy Communities) through the sharing and exchange of experiences between public authorities and regions. The BEG is acting as an advisory partner in this project.

Holding a PhD in Physics, Dr Klos is currently also project manager for a PowerToGas (PtG) demonstration project, designing and planning the construction of a PtG demo/research plant at the site of the wastewater treatment plant in Pfaffenhofen.

Dr Klos has been managing director and owner of denvo GmbH since 2011, working in the field of renewable energies. In particular, he has extensive experience in the following fields of work: technology-based business field development, pilot development, task force management, project management, strategic marketing as well as in the planning and implementation of innovative renewable energy projects. This experience is currently also being applied to the above-mentioned activities in the LEEWAY and PowerToGas projects.

Energy Poverty and the Commons

This contribution outlines the institution of the commons and its possible deployment in facilitating access and management of energy. Describing some possible alternative schemes, it advocates the use of generative commons institutions rather than extractive neoliberal ones.

Professor Ugo Mattei attended Law School of the University of Torino, J.D. (1983); UC Berkeley School of Law, LL.M., Fulbright Fellow (1989); the London School of Economics; and the Faculté Internationale de Droit Comparé, Strasbourg. He has been a visiting scholar at Yale Law School and the University of Cambridge (Trinity College and Wolfson College), and a visiting professor at Oslo, Berkeley, Montpellier, and Macau.

In 1985 he joined the law school of the University of Trento as an assistant professor and he received tenure as a full professor in 1990. In 1992 he was appointed as a professor in the Faculté Internationale de Droit Comparé (Strasbourg), where he served for four years. In 1994 he was appointed to the Hastings faculty as the first holder of the Fromm Chair in International and Comparative Law, succeeding R.B. Schlesinger in teaching Comparative Law. He also teaches Political Economy of Law. In 1997 he accepted a call from the University of Turin, Faculty of Law to succeed the famous Italian scholar Rodolfo Sacco as the Chair of Civil Law.

He is a full member of the International Academy of Comparative Law, a Fellow at the European Law Institute, served as a member of the Executive Editorial Board of the American Journal of Comparative Law, is a founding editor of Global Jurist, has been a general editor to the Common Core of European Private Law since its beginning in 1993, and serves as the Academic Coordinator of the International University College of Turin. He serves advisory roles in many academic institutions including the Fribourg Institute of Comparative Law, the Austrian and the Romanian Societies of Comparative Law and the Institute of Law, Economics and Finances at Copenhagen Business School.

Professor Mattei's work is highly interdisciplinary. He has published eighteen books and more than one hundred other publications in English, Italian, French, Spanish, Portuguese, Russian, Chinese, Japanese, and Ukrainian.

Meeting the Heterogeneity Challenge - Consumer Stock Ownership Plans as the Prototype Business Model for Energy Communities

Energy Communities (ECs) provide a way for citizens to collectively organize energy action. They are defined in both the RED II as “Renewable Energy Communities” (RECs) and the IEMD as “Citizen Energy Communities” (CECs). RECs and CECs are key actors for achieving the goals of the CEP, as they allow the joint organization of energy projects together, pooling individual investments, and scaling-up initiatives. This, in turn, allows citizens and other actors to access energy markets on an equal footing with existing market players, while also potentially offering benefits to EC participants by promoting energy efficiency (EE) and energy saving actions, ultimately resulting in lower energy bills.

Unlike conventional business models, those for ECs need to respond to a specific challenge, that is, the heterogeneity of their shareholders / members resulting primarily from engineering requirements: with a rising degree of heterogeneity - and thus complexity - the economies of ECs improve as they can tap into the complementarity of load and production profiles to cope with the volatility of renewable energy (RE) production. Thus, while a heterogeneous constituency and a possibly diverse portfolio of different RE sources are positively correlated with the overall profitability of ECs and significantly improve project feasibility, they require heterogeneity in terms of both governance and value sharing within an EC. Additionally, the last round of the tripartite negotiations between European Commission, Council and Parliament on the Electricity Market Design (EMD) of December 2023 introduces - amongst others - new important rules for electricity sharing. Regarding the described heterogeneity challenge, most importantly, the result of the EMD trilogue is to open this market for a new category of actors, i.e., energy sharing organizers who are expected to be either service providers to ECs or ECs that help energy sharing projects not constituted as an EC.

In this light, this paper introduces consumer stock ownership plans (CSOPs) as the prototype business model for ECs. Based on a dataset of 67 best-practice cases of consumer (co-)ownership from 18 countries, it demonstrates the importance of flexibility of business models to include not only heterogeneous shareholders / members but also co-investors for meeting the requirements of RE clusters. CSOPs facilitate co-ownership and co-investments by citizens, municipalities, SMEs, plant engineers, energy suppliers, or energy service companies (ESCOs). As a single source and low-threshold financing method, they at the same time enable individuals, in particular low-income households, to invest in RE projects. Employing one bank loan instead of many micro loans, CSOPs reduce transaction costs and enable consumers to acquire productive capital, providing them with an additional source of income. Stressing the importance of a holistic approach including the governance and the technical side for the acceptance of ECs on the energy markets, recommendations for the transposition of the EMD are formulated.

Finally, CSOPs can also be employed to facilitate sustainability investments in non-marketable goods with significant equity held by local populations while providing an exit strategy for institutional investors. Its constituency embracing municipalities, SMEs and the local citizenry and its governance model provide opportunities to create revenue streams for investments in non-marketable goods. As the example of the [Berlin Water CSOP](#) shows, these can stem from as different sources as: (i) saved cost of

past pollution clean-up, (ii) renting out surfaces of storm water tanks, (iii) fees for the clean rivers commercial use like fishing, boat rental, or beach licenses, (iv) increased attractiveness for tourism and investments, and (v) levies reflecting land value increase. Additionally, as a CSOPs constituency is local and its investments purpose-driven, it does not require the return-on-equity rates of predominantly commercial projects making it an exit strategy for institutional investors when divesting from infrastructure investments at the end of the depreciation period.

Dr Jens Lowitzsch is Kelso Professor of Comparative Law, East European Business Law and European Legal Policy at the Europa-Universität Viadrina Frankfurt (Oder) and Director of the Kelso Institute Europe in Berlin. Dr Lowitzsch's main fields of expertise are employee and consumer financial participation, energy law, privatization and transformation, insolvency law, European Law and legal policy, distributive justice and the renewal of the German and European welfare state. He has designed and supervised a variety of projects related to research, policy advice and strategy consulting as well as to knowledge transfer and communication. In these mostly complex inter-disciplinary projects and transnational co-operations with partner organizations and experts from the EU-27 and other regions of the world, Dr Lowitzsch has provided political advice to European, national and local decision makers on a variety of legal and economic-related issues. Dr Lowitzsch directed the HORIZON 2020 project "SCORE – Supporting Consumer Co-Ownership in Renewable Energies" as coordinator (CSA 2018-2021, see <https://www.score-h2020.eu/>). He edited the book 'Energy Transition – Financing Consumer Ownership in Renewables – 18 country studies and a comparative analysis', published in January 2019 with Palgrave/McMillan. The Morphological Box for Energy Communities (<https://kelso-institute-europe.de/tools/energy-communities/>) and the Horizon Europe project "WIMBY - Wind In My Backyard" (2023-2025) are two key undertakings with regard to energy communities. Dr Lowitzsch publishes on a wide variety of subjects concerning a just and sustainable transition to circular society.

Legal Forms of Energy Commons under the Codice Civile and Beyond

Organized self-consumption within Renewable Energy Communities requires the constitution of an autonomous legal subject, with or without legal personality, called upon to self-produce renewable energy. Its members share produced energy, sell the surplus, and accrue incentives on the shared and self-consumed quantities.

Unlike other Member States, the Italian lawmaker has not embraced the option of specifically identifying the legal form that the energy community must assume, thus preferring not to introduce a new type of business organization. Therefore, the question arises as to which are the most suitable organizational schemes to choose from, among those already regulated by Italian law.

This paper develops the guiding criteria to screen the organizational types that are potentially suitable for the legal status of energy communities, dwelling on the organizational structure of RECs, starting with the identification of the numerous variables that may have an impact on the models of realization. It is necessary to systematize the main physiognomic traits of each scheme (purpose, participation and governance) to verify specifically which of the various organizational types offered by the Italian legal system appear compatible with the legal model of energy communities and which negotiating models may be useful to operate an energy production plant successfully.

Ivan Libero Nocera is an Associate Professor of Private Law at the Department of Law of the University of Bergamo, after having been a researcher and adjunct professor at the University of Palermo, the University of Valle d'Aosta and the University of Brescia. At the same time, he is also a lawyer at Weigmann Studio Legale.

He has also been a lecturer for postgraduate and specialization courses at several universities and has held lectures and seminars at various universities in South America and has been a speaker at national and international seminars and conferences.

He is the author of two monographs (La tutela dei creditori del legittimario, Giappichelli, 2020; and Analisi civilistica degli accordi di ristrutturazione dei debiti, Giappichelli, 2017), as well as numerous scientific publications in journals and collective works mainly on the subjects of contract law, succession law and business crisis law.

Franz Nieper (enercity Erneuerbare GmbH, Leer)

Legal Forms of Renewable Energy Communities in Germany

This contribution first describes the landscape of Energy Commons in Germany with different forms of self-consumption, sharing, and the sale of energy. It then reviews the legal persons used in German practice for Energy Commons. It thoroughly analyses the suitability of civil-law partnerships, limited partnerships with limited liability companies as general partners, and cooperatives. Against the backdrop of the need to implement the EU Directives, this contribution discusses new legal developments such as the citizens' energy company (*Bürgerenergiegesellschaft*), and obstacles in capital markets law. It finally reflects on how growing complexity kills community and on possible forms of emotional, financial, and virtual participation can be reconciled with this fact.

Franz Nieper is currently head of legal affairs at a wind and solar farm developer and operator in Leer (Germany). He is an advocate and certified mediator. Franz read law at the Universities of Osnabrück and Leiden, completed his legal traineeship, and holds a post-graduate diploma in Wind Energy Systems and Management from the University of Oldenburg. He served as an assistant to Prof Christian von Bar (Osnabrück) for twelve years. In his spare time, Franz is heavily involved in the renewable energy sector - he is member of three energy cooperatives and owner of a 28 kWp roof-top solar system sharing power with tenants.

Scale, Property Resources, and Resilience

The ‘politics of scale’ is a phrase that has come to mean the socially constructed landscape where a broad range of social, political and economic activities, including capital accumulation, state regulation and more occur. Scale itself is a concept of measurement and comparison where values increase or decrease based on other factors. Property is an apt area to deploy the concept around the politics of scale as property has been the subject of much academic discussion. This chapter offers a backdrop to those intersections by providing a lens for thinking across the distinctive registers of scale that property conflicts occur within. This chapter advances property methods in two distinct ways. First, we identify the three registers of scale in the property context and how they shape property disputes. Property conflicts operate in the hierarchical scale (competencies) both in the ways that states empower individuals to control resources in land but also in the way states themselves regulate interests in property resources. Property can also be measured on a material register (capabilities) – or the extent, value, or length of claims in property. Finally, property operates on a rhetorical or discursive scale, where values are imposed on property claims to support individual or communal expectations of resource use. In distinctive settings, like energy delivery, the way these values are combined to validate either action or inaction on property resources tells us something about how states experience pressure to innovate or limit innovation of resources that the state relies on for its own resilience.

Marc Roark is Professor of Law at the University of Tulsa and Affiliated Research Professor at the University of Pretoria. His research primarily considers how narratives and norms are scaled in property conflicts around housing. Together with Lorna Fox O’Mahony (University of Essex), he is the author of ‘Squatting and the State: Resilient Property Theory in an Age of Crisis’. His primary areas of work are in the study of housing and homelessness through the lens of property norms. Roark has published 27 articles in U.S. law journals, including: ‘Homelessness at the Cathedral’ (2015) 80 Missouri L. Rev. 53; ‘Human Impact Statements’ (2015) 54 Washburn L. J. 649; ‘Under-propriated Persons’ (2017) 26 Cornell Journal of Law and Public Policy 1; and ‘Scaling Commercial Law in Indian Country’ (2020) 8 Texas A&M L. Rev. 89. In ‘Scaling Commercial Law in Indian Country’, Roark describes how resources, tribal structures, and uniform legal processes influence adoption of secured finance legislation on Indian tribes. His work was the basis of the first economic impact study of secured transactions laws on Indian tribes (See Dippel, Frye, Feir, and Roark, ‘Secured Transactions Laws and Economic Development on American Indian Reservations’, (2021) 111 AEA Papers and Proceedings 1). He is currently working on several projects focused on applying vulnerability theory in the context of resilience gaps and resilient property theory across numerous areas including housing, ruralism, Indian law, and commercial law.

How Administrative Rules [dis]incentivize Small Scale Energy Production

U.S. Energy production is incentivized through regulatory processes at both the Federal and State level. Much of the federal incentives for producing energy are oriented towards large scale issues of production, security, or safety, state incentives influence small scale decisions around energy, such as location, pricing, or environmental sensitivity. As a result, the incentives for small scale energy production through sustainable approaches like solar panel production, finance, and deployment vary state by state. In this paper, we use resilient property theory and concepts of scaled resilience to consider how scales of administrative rules either incentivize or disincentivize investment in small scale energy production.

Gwendolyn Savitz specializes in administrative law and has written extensively on issues related to both rulemaking and adjudication, examining both the theoretical aspects and practical applications. She is an Associate Professor of Law at the University of Tulsa College of Law. She received her BA from Dartmouth College, her JD from American University's Washington College of Law, and her LLM from Yale Law School.

The Role of REC in the Just Energy Transition Pathway

Energy Transitions is a complex socio-technical transformation of the energy system that involves not only changes to energy technologies but also to the broader social and economic aspects of energy production and consumption. This transformation could negatively affect the people it pursues to serve, exacerbating current vulnerabilities and creating new ones. Therefore, both in the policy and scientific fields, increasing attention is paid to a more equitable distribution of benefits and costs and to ensuring that vulnerable groups are not disproportionately harmed. These two perspectives converge in the perspective widely recognized as Just Energy Transition (JET). A well-established conceptualization of JET identifies three pillars of energy justice: distributional, procedural, and recognition justice. *Distributional justice* concerns equity in the distribution of goods and is tied to the concept of substantial equality. It should refer not only to financial aspects and the individual dimension but include community assets, e.g., environmental quality. *Procedural justice* concerns the right of all citizens to participate in an open and inclusive process of decision-making, linked to the concept of formal equality. Finally, *recognition justice* deals with the necessity of recognizing and giving voice to vulnerable groups, making special arrangements to include them fairly at distributional and procedural levels.

RECs show a great potential to answer to all these three perspectives of justice. Although wide and robust empirical evidence is not yet available to assess the magnitude, direction, and dynamics of their impact, a few hypotheses can be reasonably formulated on the basis of the current regulatory provisions and on experience of similar collective actions established in the past 20 years (e.g., energy cooperatives). Their strong inclusive approach combined with their 'localness' (i.e., geographical proximity) can actually make RECs an engine of energy justice. However, some of the obstacles to their development, namely lack of adequate financial and competences assets, might fuel a strong dependence on the incumbents resulting in a high risk of representing just a tool for 'justice washing'.

Alessandro Sciullo is a researcher in Environmental Sociology at the Department of Culture, Politics and Society of the University of Turin. He holds a Master's degree in Public Policy Analysis and a PhD in Sociology. His main research interests are in public policy analysis and evaluation, social innovation, technology and society, sustainability and the energy transition. On these topics, he has been involved in a number of international research projects funded in the Horizon 2020 and Horizon Europe framework. Since 2022, he has been coordinator of the Joint Programme 'Clean Energy Society for a Sustainable Transition - e3s' of the European Energy Research Alliance.

Energy Communities: A Problem or a Solution for the Energy System in Transition? Regulatory Riddle

Are energy cooperatives a problem for the energy system, or a solution to its challenges? Do they have a vital role in the energy transition, or quite the opposite, is their role marginal? What makes the energy system interested in utilizing these structures, and what makes these structures a burden to it? Is their development fast, or too slow? These seemingly simple questions are not as obvious as they may appear at first glance. Although controversial in nature, they are intended to provoke a discussion regarding the utilization of different forms of energy cooperation at the local level in an attempt to find the best available model for their regulation. In this context, the proposed deliberation on the legal framework of energy communities, with reference to examples of different jurisdictions, including European, will aim to provide arguments for creating an environment in which energy communities can grow without causing problems to the energy system, while being able to contribute to the energy transition at their full potential.

Maciej M. Sokołowski, holds a PhD in law (summa cum laude) and a habilitation (Doctor of Science, DSc). He is a Specially Appointed Associate Professor at Keio University, Japan, associated with the Faculty of Law and Administration at the University of Warsaw, Poland. His specialization is energy law, and he has published around ninety publications on public law regulation and climate-energy policy, including three solo-authored books 'Regulation in the European Electricity Sector' (Routledge, 2016), 'European Law on Combined Heat and Power' (Routledge, 2020), and 'Energy Transition of the Electricity Sectors in the European Union and Japan: Regulatory Models and Legislative Solutions' (Palgrave Macmillan, 2022). In 2022, he received the Prime Minister of Poland's Research Award. In addition to doing karate kumite and practicing nunchaku, he plays the shamisen.

Anti-Oligarchic Energy Networks: On Public, Common, and Inappropriate Goods

Energy is necessary to sustain life; we need electricity to grow food, distribute water, and power all aspects of modern life. And, as all other basic goods, energy has become a commodity subject to property regulations that have consistently favoured large companies that produce and distribute energy for profit. This paper presents three alternative legal frameworks to the private law regime that has dominated the field of energy: public, common, and inappropriate goods. These alternative regimes imply not only different forms of collective property and management, but also the fact that some things must not be conceived as property at all if we are to achieve ecological sustainable living. Moreover, these regimes need to be articulated and combined to form an energy network enabling community control of resources as well as provisions to guard against the extractivist tendencies of oligarchic management.

*Dr Camila Vergara is a critical legal theorist, historian, and journalist from Chile writing on the relation between inequality and the law, and the possible institutional solutions to systemic corruption. She is Senior Lecturer at the University of Essex Business School, Editor of *Theoria: A Journal of Social and Political Theory*, Associate Editor of *Critical Sociology*, and author of *Systemic Corruption: Constitutional Ideas for an Anti-Oligarchic Republic* (Princeton University Press 2020). Her work on constitutional theory, republicanism, corruption, and populism has been featured in leading international journals such as the *Journal of Political Philosophy*, *History of Political Thought*, and *REVUS: Journal for Constitutional Theory and Philosophy of Law*. She is also a global public intellectual—with her articles and interviews featured in outlets in the U.S., U.K., Portugal, Italy, Chile, and Mexico—and an activist advising and collaborating with grassroots organizations on rights, deliberative democracy, and community-based forms of governance.*

PARTICIPANTS OF THE FINAL ROUNDTABLE

Marija Bartl (University of Amsterdam)

Marija Bartl is a Professor of Transnational Private Law at the Amsterdam Law School and the Director of the Amsterdam Centre for Transformative Private Law. She is a managing editor of the European Law Open and a board member of the UvA's Research Priority Area ENLENS: 'Energy transition through the lens of Sustainable Developments Goals'. Marija teaches several courses, including 'Private Law in European and International Perspective' and 'Law as a Change-Maker'.

Marija's current research revolves around two main research lines. First takes place within her ERC project 'Law as a vehicle for social change: Mainstreaming Non-Extractive Economic Practices (N-EXTLAW)'. The project adopts a broad perspective on private law as a vehicle of social change, exploring the ways in which rethinking (private) law's role in facilitating and mainstreaming 'non-extractive economic practices' may open up possibilities for a wider socio-ecological transformation. Second, N-EXTLAW draws and builds on the ideas stemming from Marija's book project 'Towards a New Imaginary of Collective Prosperity' (on contract with CUP). In this project, Marija asks how we can interpret the transformation that the EU is currently undergoing, under the influence of several ongoing crises. She argues that we are witnessing a slow shift towards a more collective imaginary of prosperity in the EU, where public and collective actors – rather than 'markets' and private actors – are seen as the main drivers of progress and prosperity.

Marat Karatayev (University of Turin)

Dr Marat Karatayev is a Marie Curie Research Fellow at the School of Law at Università degli Studi di Torino. He is also a Research Associate with the Institute of System Sciences, Innovation and Sustainability Research at Karl-Franzens University of Graz. With postgraduate and doctorate degrees in Urban, Energy and Environmental Planning from University Nottingham and Politecnico di Torino, his research interests include energy security, resource use, energy economics, post-carbon transition, clean fuel and energy technologies, climate change, Energy- Water-Food Nexus, scenario generation tools: LEAP (Long-range Energy Alternatives Planning), WEAP (Water Evaluation Planning System), Foreseer (Land-Water-Energy-Food). His contribution to recent grants include Multidimensional impact of the low carbon European strategy on energy security, and socioeconomic dimension up to 2050 perspective (MILESECURE 2050, €6.2M, EC funding); Post-Carbon Cities of Tomorrow 2050 (POCACITO, €4.5M, EC funding); Climate change impacts on land degradation and society in Kazakhstan (INSPIRE, £80K, British Council); The potential application of renewable energy for rural energy services and electrification in Kazakhstan (£125K, Newton International Fund).

Andrea Lanzini (Politecnico di Torino)

Andrea Lanzini, a full professor of Industrial Energy Systems at the Politecnico di Torino (Technical University of Turin), is a dedicated researcher in advanced energy technologies for a sustainable, net-zero society. His expertise spans the design, simulation, and optimization of integrated energy systems, delving into the intricate interactions between the energy and digital transitions.

Alessandra Quarta (University of Turin)

Alessandra Quarta is Associate Professor of Private Law at the University of Turin and coordinator of the H2020 Project Generative European Commons Living Lab. Her main research interests lie within property law, the commons, contract law, and law and technology.

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